IEOM Global Engineering Education (IEOM-GEE)

PROGRAM

1. 2014 IEOM GEE Bali
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16. 2019 IEOM GEE Riyadh
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18. 2020 IEOM GEE Detroit
Global Engineering Education Distinguished Speakers

“Readiness and Competence of Engineering Graduates”

Tuesday, January 7, 2014

Session I Chair: Dr. Cecilia Nembou, VP, Divine Word University, Port Moresby Campus, Papua New Guinea

09:45 – 10:15, Tuesday, January 7, 2014

Dr. Ezendu Ariwa
Professor, Dept. of Computer Science and Technology, University of Bedfordshire, UK

“Engineering Education in Great Britain: Engineering Education for Sustainability”

Ezendu holds the position of Professor at University of Bedfordshire, United Kingdom, Faculty of Computer Science & Technology, with speciality in Practice in Computing. He is also a Visiting Professor at Gulf University, Bahrain, Visiting Professor, University of Lagos, Nigeria and Visiting Professor, Kano State Polytechnics, Nigeria as well as Visiting Affiliate of the Green IT Observatory, RIMT University, Australia and Visiting Affiliate of ICT University, USA. He also holds the position of Director - Technical and Non-Executive Director and Research Professor for Enterprise Projects at Sun Bio IT Solutions Pvt. Ltd, India. He is also the Chair for the IEEE Consumer Electronics Chapter, United Kingdom & Republic of Ireland (UKRI) and Chair for the IEEE Broadcast Technology Chapter, UKRI. He is a Senior Member of Institute of Electrical & Electronic Engineers (SMIEEE); Chartered FELLOW of the British Computer Society (CITP, FBBCS); Fellow of the Institute of Information Technology Training (FIITT), Fellow of the Higher Education Academy (FHEA) and Fellow of the Royal Society of Arts (FRSA). He is also a member of the Elite Group of The British Computer Society (BCS), member of British Institute of Facilities Management and Fellow of Global Strategic Management, Inc., Michigan, USA and Member of the UK Council for Health Informatics. He is the Coordinator of the Digital Enterprise Research Group (DERG), African Research in Business Group (ARBG) and working with the team to achieve African Business and Enterprise Research Observatory (ABERO) at the London Metropolitan Business School. The ABERO achieved good collaboration with multicultural SMEs in the United Kingdom, with respect to mentoring and working on joint professional development enterprise programmes. He has experience of doctoral research supervision as well as doctoral external examiner for various Universities both in the UK and internationally. He has a good research profile and the Founding Editor-in-Chief of the International Journal of Green Computing (IJGC), Editor-in-Chief of the International Journal of Computing and Digital Systems (IJCD), Journal of E-Technology, and the Associate Editor of the International Journal of E-Politics and the Associate Editor of International Journal of Distributed Systems and Technologies (IJDST). He is a member of Policy Co-ordination Committee of the International Research Foundation for Development (A Corporation of NGO in consultative status with the Economic and Social Council of the United Nations).

10:15 – 10:45, Tuesday, January 7, 2014

Dr. Damodar Acharya
Professor, Indian Institute of Technology Kharagpur and Past Director (2007-2012), IITK

“Industrial Engineering Profession and Education in India”

Professor Damodar Acharya received his Ph.D. (in 1975) and M. Tech. in IE & OR (in 1972) degrees from IIT, Kharagpur, and B.Sc. (Engineering) degree in Mechanical Engineering with distinction (in 1970) from NIT, Rourkela. Professor Acharya has thirty seven years of diversified experience - twenty seven years of teaching and research experience at IIT, Kharagpur including Director of Indian Institute of Technology Kharagpur from 2007 to 2012, five years of experience in academic administration as Vice-Chancellor, Biju Patnaik University of Technology, Rourkela, and Chairman, All India Council of Technical Education (AICTE), New Delhi. At IIT Kharagpur, he held also several important positions, such as Head of the Department of Industrial Engineering and Management, Chairman of JEE, Dean of Sponsored Research and Industrial Consultancy, and Chairman of Vinod Gupta School of Management. As Director of IIT Kharagpur he is taking several path breaking initiatives both in academics and administrative front to propel his Institute to newer heights. Under his leadership, the Institute has brought remarkable changes in the academic front giving quantum fillip to number of research publications, number of Ph.Ds, number of Patents and Sponsored research earnings. He has proved himself as an individual possessing exceptional academic leadership and administrative skills. As an academician, Professor Acharya has the distinction of supervising more than thirty Ph.D. students, and publishing more than 85 papers in journals of repute. He is a consultant to many world-class companies, such as Tata Steel, General Motors, Hindustan Lever, and Tata Chemicals, and handled projects worth more than Rs.15 crore. His research interest includes operation research, production planning and control, supply chain, and maintenance management. He is a fellow of both Indian National Academy of Engineering and National Academy of Sciences (India), and professional member of ORSI, IE(India), and IIIE.

10:45 – 11:15, Tuesday, January 7, 2014

Dr. Khalid Hafeez, Fellow NCQE; SSMBB, EFQM Assessor, CPM; Cert Process Mgr; Cert NLP.
Professor, College of Business Administration
Management, Marketing and Public Administration
University of Sharjah, Sharjah, UAE

“Theory of Core Competence: A Melting Pot for Engineering and Management Education”

Professor Khalid Hafeez is Professor in Operations Management at the University of Sharjah United Arab Emirates. Before coming to the UAE Professor Hafeez was a tenure track professor and Head of Management system group at the York Management School, University of York UK. Prior to that he has been teaching at the Bradford Management School UK Executive MBA, which has been frequently ranked amongst the top ten in Europe, where
he was also the founding Director for Centre for Entrepreneurship. He has also taught on the Masters, PhD and DBA programs at the Sheffield Business school and Cardiff University UK. In terms of management responsibilities he has served as the Dean of the e-School of Business and Quality Management at the Hamdan Bin Mohammed e University Dubai, Program Director for Executive MBA, Program Director for the MSc Organizational Development and Knowledge Management, and Project Management at the Sheffield Business School. He has served as technology transfer champion for the Yorkshire Universities for 7 years and in recognition of his services for education and community he was awarded Certificate of Merit from the House of Lord UK. Professor Hafeez has completed Executive Education Training programme at the Harvard Business School USA and is also a Certified Six Sigma Master Black Belt, and Certified Project Manager and EFQM European Assessor certified from Brussels and certified NLP trainer. Over the years he has supervised more than 12 PhD students to completion has published widely in key journals such as JORS, IJPE, IJPR and IEEE Engineering Management. Professor Hafeez is an internationally acclaimed researcher with over 800 worldwide citations. His publications in the area of “core competence” which he is going to speak about in this conference (IEOM 2014) have already attracted more than 600 citations.

Session II Chair: Dr. Kripa Shanker, Professor, India, IIT Kanpur, India

11:30 – 12:00, Tuesday, January 7, 2014

Dr. Gulnara Abitova
Professor, Department of System Analyses and Control
Eurasian National University, Astana City, Republic of Kazakhstan

“Engineering Education in Kazakhstan”

Dr. Abitova holds Master’s degree in Cybernetics of Technological Processes from Moscow State University of Steel and Alloys at Moscow (Russian Federation), Ph.D. degree in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science at Almaty (Kazakhstan) and she graduated Postdoctoral Program in Automation and Control from Eurasian National University at Astana (Kazakhstan). She has been invited to the Computer and Electrical Engineering Department in State University of New York (SUNY) at Binghamton (NY, USA) for studying her research work.

Dr. Abitova is Professor and Researcher in the Department of System Analyses and Control at the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Prior to this current position, she was General Director of the Kazakhstan Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center; Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Dr. Abitova was awarded the International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad at the USA (2011-2012) and the prestigious Diploma from the Administration of President of the Republic of Kazakhstan (OCSE, December 2010), as well as Awards and Diplomas from Minister of Education and Science of Kazakhstan for the Professionalism (2005-2009).

Dr. Abitova was also the National Coordinator of UNESCO’s Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan, 2008-2009), where she worked on the Project of National Report of the Kazakhstan for UNESCO (within the UN Decade of Education for Sustainable Development). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been an invited speaker at the International conferences (IEEE, SPIE, CSDM, ICUMT) and published more than 30 research articles in the reputed international proceedings on mathematical and engineering sciences at the USA, Canada, France, Turkey, Malaysia, Bulgaria, and Hungary. Her papers became a basis for a chapter of a book published by Springer. She served as the Track Chair in the IEOM 2012 conference at Istanbul (Turkey, 2012).

Dr. Abitova’s current research interest includes education and science; management and administration in education, science and ITC; substantial development and ecology; human research; automation and control; control systems and engineering; cybernetics; mathematical modeling; sensors and control devices; designing automation lines; robust control and robust system; cloud technology; development of ITC; cyber security; open source and intelligent system; non-destructive testing technology.

12:00 – 12:30, Tuesday, January 7, 2014

Dr. Abdul Hakim Halim
Professor, Manufacturing Systems Research Group
Department of Industrial Engineering, Faculty of Industrial Technology
Bandung Institute of Technology
Bandung, Indonesia

“Industrial Engineering Education in Indonesia”

Dr. Abdul Hakim Halim is a Professor at the Department of Industrial Engineering, Faculty of Industrial Technology, Bandung Institute of Technology, Indonesia. Currently he has been appointed as Head of Coordinating Office for Private Higher Education Institutions located in West Java and Banten Provinces which is directly under Director General of Higher Education, Ministry of Education and Culture, Indonesia. Dr. Halim received Ph.D. in Industrial Engineering / Manufacturing Systems from University of Osaka Prefecture, Osaka, Japan. He has published numerous journal and conference papers. His research interests are manufacturing systems, scheduling, inventory, quality control, and reliability.
Dr. Amine Bermak
Professor, Department of Electronic and Computer Engineering
Hong Kong University of Science and Technology
Clear Water Bay, Kowloon, Hong Kong

"Active and Collaborative Learning in the Engineering context"

Professor Amine Bermak received the Masters and PhD degrees, both in electrical and electronic engineering (microelectronics and Microsystems), from Paul Sabatier University, Toulouse, France in 1994 and 1998, respectively. Over the last decade, Prof. Bermak has acquired a significant academic and industrial experience. He has taught over 20 different courses at the undergraduate and post-graduate levels. He is the recipient of the 2011 University Michael G. Gale Medal for distinguished teaching. Prof. Bermak is also a two-time recipient of the “Engineering School Teaching Excellence Award” in HKUST for 2004 and 2009, respectively. He was also nominated for the 2013 Hong Kong UGC best teacher award. Together with his students, Prof. Bermak has received five distinguished awards, including the “Best student paper award” at IEEE International Symposium on Circuits and systems ISCAS 2010 (the conference featured 1081 papers and the paper received the first prize); the 2004 “IEEE Chester Sall Award”; the IEEE Service Award from IEEE Computer Society and the “Best Paper Award” at the 2005 International Workshop on System-On-Chip for Real-Time Applications. He has published over 250 articles in journals, book chapters and conference proceedings and designed over 30 chips. He has served on the editorial board of IEEE Transactions on Very Large Scale Integration (VLSI) Systems and the Sensors Journal. He is also currently serving on the editorial board of IEEE Transactions on Biomedical Circuits and Systems and IEEE Transactions on Circuits and Systems II. Prof. Bermak is an IEEE Fellow and IEEE distinguished Lecturer.

Session III Chair: Dr. Irina Livshits, National Research University of Informational Technologies, Mechanics and optics, Russia

Dr. Erik Sundin
Associate Professor in Sustainable Manufacturing
Division of Manufacturing Engineering, Department of Management and Engineering
Linköping University, Sweden

"Industrial Engineering Education in Europe"

Dr. Erik Sundin is an associate professor in manufacturing engineering at the Department of Management and Engineering of Linköping University, Sweden. He received Ph.D. in the area of Product and Process Design for Successful Remanufacturing and MS in Applied Physics and Electrical Engineering from Linköping University. Most of his research has been focusing around remanufacturing. Recently he is focusing on Sustainable Production and the development of Product/Service Systems (PSS). In remanufacturing Dr. Sundin is a part of a European Union project called CAN-Reman with participating researchers and companies in Germany, Spain and Sweden. The project focuses on find out how remanufacturer could start performing remanufacturing on valuable components used in the CAN-bus system in cars. In parallel he is also working in research focusing on the development of reuse and recycle flat panel displays to develop equipment for disassembly of used flat panel displays in order to recover valuable components and/or materials. During his Ph.D. research, Dr. Sundin has been analyzing several kinds of remanufacturing facilities in Sweden, Canada and Japan. The companies that have been studied are remanufacturing products such as; toner cartridges, gasoline engines, single-use cameras, brake calipers, and forklift trucks. Also, in the remanufacturing research area he has been involved in starting up the new Journal of Remanufacturing (Springer) in which Dr. Sundin is regional editor for European Union together with Professor Daniel Briissaad, University of Grenoble, France. Within the research area of PSS he has started up the international research network called The International PSS Design Research Community which includes researchers from Japan, Germany, Denmark, UK, France and Sweden. More locally Dr. Sundin is a part of ManuServ – Centre for service research in manufacturing industry at Linköping University. He has published numerous journal and conference papers.

Dr. Eugene Rex L. Jalao
Assistant Professor, Dept. of Industrial Engineering and Operations Research
University of the Philippines Diliman, Diliman Quezon City, Philippines

"Industrial Engineering Education in Philippines"

Dr. Jalao is an assistant professor of Industrial Engineering at the University of the Philippines Diliman, Department of Industrial Engineering and Operations Research. He obtained his Ph.D. in Industrial Engineering from Arizona State University in 2013. His research interests are in the fields of Decision Support Systems, Business Intelligence, Data Mining and Systems Simulation. Furthermore, he obtained his Masters of Science in Industrial Engineering degree as well as his Bachelor of Science in Industrial Engineering from the University of the Philippines Diliman in 2009 and 2007 respectively. He has five years of work experience of business analytics both here in the Philippines and in the United States of America, specifically in the Banking, Real Estate, Healthcare, and Information Technology industries. He is also a certified SAP ERP materials management consultant as well as a Matlab certified associate. He was also inducted into the Alpha Phi Mu, Industrial Engineering Honor Society.
15:00 – 15:30, Tuesday, January 7, 2014

**Dr. James C. Chen**
Professor, National Tsing Hua University, Taiwan
Adjunct Professor, National Taiwan University, Taiwan
Adjunct Professor, Peking University, China
Consultant, Pou Chen International Group

"Industrial Engineering Education and Application in Taiwan"

James C. Chen is Professor in the Department of Industrial Engineering and Engineering Management at National Tsing-Hua University (NTHU), Taiwan. Prior to his current position, he was Chair Professor in the Department of Industrial Management at National Taiwan University of Science and Technology (NTUST), Professor in the Department of Industrial and Systems Engineering at Chung Yuan Christian University (CYCU), and a researcher at Industrial Technology Research Institute (ITRI), Taiwan. He received a B.S. in Industrial Engineering from NTHU, Taiwan, an M.S. in Manufacturing Systems Engineering, and a Ph.D. in Industrial Engineering, both from the University of Wisconsin-Madison, USA.

Dr. Chen’s current research interests include lean production and management, business process reengineering, advanced planning and scheduling, system simulation, and project management. He has been working on university-industry collaboration projects with high tech industries such as semiconductor wafer fabs and Thin Film Transistor Liquid Crystal Display (TFT-LCD) fabs in Taiwan as well as traditional industries such as footwear factories and apparel factories in Taiwan, China, India, Indonesia, Vietnam, Cambodia, and Fiji. He has published academic articles in European Journal of Operational Research, European Journal of Industrial Engineering, International Journal of Management Science (Omega), International Journal of Production Research, Computers and Industrial Engineering, Robotics and Computer-Integrated Manufacturing, Journal of the Society for Information Display, Displays, Applied Mathematical Modeling, and Production Planning and Control. Dr. Chen was awarded IBM Manufacturing Research Graduate Fellowship, Outstanding Teaching Awards at CYCU, Distinguished University-Industry Collaborative Research Award at Chung Hua Picture Tubes, Distinguished Industrial Engineer Award from Chinese Institute and Control. Dr. Chen was awarded IBM Manufacturing Research Graduate Fellowship, Outstanding Teaching Awards at CYCU, Distinguished University-Industry Collaborative Research Award at Chung Hua Picture Tubes, Distinguished Industrial Engineer Award from Chinese Institute and Control.

15:45 – 16:30, Tuesday, January 7, 2014

**Session IV Chair: Dr. Chui-Yu Chiu**, National Taipei University of Technology, Taipei, Taiwan

**Plenary I**

**Dr. Andrew Gung**
Managing Director, Leave a Nest Singapore Pte. Ltd.

Andrew Gung is the Managing Director of Science venture company Leave a Nest Singapore Pte. Ltd. The parent company, Leave a Nest Co. Ltd. was founded by a group of Japanese Postgraduate Students 12 yrs ago and is now one of the leading companies for Science and Technology venture businesses. Leave a Nest has also established network with more than 3,500 small industrial companies in Japan in a project to revive manufacturing industry in Tokyo. Dr. Andrew Gung graduated from National University of Singapore with 2nd Upper Class Honours and received a scholarship to do his PhD in Japan. In 2010, after graduating from Tokyo University of Marine Science and Technology in Marine Biotechnology, he joined this innovative company and established the first South East Asia (SEA) Branch. Since then, besides developing business for Leave a Nest, he had been involved in marketing research and product promotion for leading Japanese company (including medical and electronics devices) in SEA. Recently, he is involved in a project to establish a research base in Singapore for major IT Company. Dr Andrew Gung is also a Lecturer for Advance Course Robotics at the Electronics Street (Akihabara) in Tokyo - a 4-year course catered for the children, to inspire the next generation of Engineers. He is currently involved in a project to bring new innovations via technology and research products linking up small industrial companies with overseas partners. Overall, Dr Andrew Gung, specializes in Science Bridge Communication Skills applied to facilitate the advance of Science and Technology via varied means (From education, technology transfer, global business development).

16:30 – 17:15, Tuesday, January 7, 2014

**Plenary II**

**Dr. Abdur Rahim**
Professor, Faculty of Business Administration, University of New Brunswick, Fredericton, NB, Canada
Visiting Faculty, Dept. of Systems Engineering, King Fahd Univ. of Petroleum and Minerals, Saudi Arabia

“Industrial Engineering Education in Middle East”

Dr. Abdur Rahim is a Professor at the Faculty of Business Administration, University of New Brunswick (UNB), Fredericton, Canada. He joined UNB in 1983 and is a member of the Quantitative Methods area. He received his B.Sc. (Hons.), M.Sc in Statistics from the University of Dhaka, D.S. in Operations Research from the University of Rome, M.Sc. in Systems Theory from the University of Ottawa, and Ph.D. in Industrial Engineering from the University of Windsor. He teaches Management Science, Operations Management and TQM in the BBA and MBA programs. Dr. Rahim is a recognized world expert in Quality Control and Quality Management. He has taught a wide range of courses in Universities in Canada, Bangladesh, Malaysia, and Saudi Arabia. He has served as an Associate Editor of the International Journal of Systems Science, Quality Engineering, and Engineering Optimization. He is a member of the Advisory or Editorial boards for Economic Quality Control, the Journal of Quality in Maintenance Engineering, the Journal of Quality Engineering and Technology, and the International Journal of Production Research. Dr. Rahim received the UNB Merit Award in 1992, 1999, 2000, and 2009 for his excellence performance in research, service, and teaching.
Global Engineering Education Distinguished Speakers
Wednesday, January 8, 2014

Session V Chair: Dr. Grace Kanakana, Tshwane University of Technology, South Africa

09:45 – 10:15, Wednesday, January 8, 2014

Dr. Ilham Kissani
Engineering & Management Science, School of Science & Engineering
Al Akhawayn University, Morocco

"Industrial Engineering Education in North and Sub-Saharan Africa"

Professor Ilham Kissani holds an engineer degree in Operations Research from INSEA (Rabat, Morocco); she received a Master in Logistics and Ph.D. in Industrial Engineering from the Faculty of Engineering, Laval University, Quebec City, Canada. Later on, she joined the company of Modellium in Quebec, Canada as consultant in Supply chain management. Professor Kissani has been an active consultant to many private companies like Domtar in Canada and Aixa, Natura in Brazil. She subsequently joined the Engineering School at Al Akhawayn University. She also held short term academic positions as a visiting scholar at ESITH (Morocco) She teaches courses in the areas of supply chain management, engineering economics, modeling, optimization, probability and statistics. Her research interests fall in the areas of production processes, Lean and Green manufacturing processes, and engineering management. She has published articles in Engineering Management Journal and Int. Journal of Supply Chain Management.

10:15 – 10:45, Wednesday, January 8, 2014

Dr. Jinwoo Park
Professor, Department of Industrial Engineering
Seoul National University, South Korea

"IE / Management Science in Korea"

Prof. Park’s field of interest is in operations management with special interest in job design and the application of information and communication technology. More specifically he has been teaching and doing research in the field of Flexible Manufacturing Systems, Computer Integrated Manufacturing Systems, Enterprise Research Planning Systems, and Supply Chain Planning Systems. Recently he is also interested in the application of RFID and the productivity measurement and management of software development process. Prof. Park graduated Seoul National University in 1974, and KAIST in 1976. After then he had worked for 4 years as project engineer and production planner in Hyundai International, Inc., currently the Doosan Heavy Industries, Inc. He studied in the Department of IEOR, University of California at Berkeley during 1980~1985 and earned Doctoral degree (D.Eng.) there. Then beginning from 1985 he has been teaching in the Department of Industrial Engineering at the Seoul National University and is a former director and vice president of the Korea Institute of Industrial Engineers (www.kiie.org), and president of the Korea Operations Research and Management Science Society (www.korms.org) and the Korea Simulation Society (www.simulation.or.kr). He has taught, consulted and performed projects with such group of companies like Samsung, Hyundai and LG.

10:45 – 11:15, Wednesday, January 8, 2014

Dr. Edward Chikuni
Professor, Department of Electrical Power Engineering
Cape Peninsula University of Technology, Cape Town, South Africa

Professor Chikuni has been an engineering educator for over twenty years in 3 different countries (Zimbabwe, Namibia and South Africa) and 4 Universities (University of Zimbabwe, Namibia University of Science and Technology, University of KwaZulu Natal and Cape Peninsula University of Technology). His industrial experience has spanned over 10 years. He holds a First Class degree in Engineering from the University of Sierra Leone, an MSc from the University of Manchester (UMIST) and a PhD from the University of Wales. He is a Chartered Engineer registered with the Engineering Council of the United Kingdom. He has over 40 scientific articles in peer reviewed international conference proceedings and journals as well as two books and two book chapters. He has been very active in the engineering education fraternity and has been a regular participant at the International Conference for Engineering Education, and was a convener for one of the conference themes: University Industry collaboration. Almost 10 of his publications are in Engineering Education. He believes very much in capacity building and developing of the youth and the encouragement of women in Engineering. He helped found the IEEE Women In Engineering (WIE) branch at the Namibia University of Science and Technology. He has particular interest in making Engineering more attractive to disadvantaged communities in Africa and his present research is in designing laboratory sets that make practical experience more accessible. Although he has spent most of his working life in Africa he has travelled widely in Europe, USA and parts of Asia and his interactions with his peers during his travels have enhanced his understanding of Education and its importance in National Development.

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Session VI Chair: Dr. Shahrin Mohamed, University Technology Malaysia, Johor, Malaysia

11:30 – 12:00, Wednesday, January 8, 2014

Dr. Hongyi SUN
Associate Professor, Dept. of Systems Engineering & Engineering Management
City University of Hong Kong, China

“Culture and Innovation Education for Engineering Students: The PIPE Model at City University of Hong Kong”

Dr. SUN Hongyi holds a BS in Computer Science from Harbin University of Science and Technology, a Master’s degree in Management Engineering from the Harbin Institute of Technology (HIT), both in China, and a Ph.D. in Technology Management from Aalborg University in Denmark. Dr. SUN received a Certificate of Pedagogy in Higher Education from Bergen University in Norway in 1997. He has taught at the Harbin Institute of Technology in China (1986-1990) and the University of Stavanger in Norway (1994-1998). Currently Dr. SUN is an Associate Professor in the Department of Systems Engineering and Engineering Management, City University of Hong Kong, where he also serves as programme leader and founding deputy programme leader of the Engineering Doctorate programme in Engineering Management, EngD (EM). His teaching and research areas include the management of technological innovation, manufacturing/operations strategy, quality management, and innovation education. Dr. SUN resides on the editorial board of the International Journal of Technological Innovation, Entrepreneurship and Technology Management, the International Journal of Learning and Changes and International Journal of Quality and Reliability Management. Dr. SUN has twice been the winner of the Teaching Excellence Award at the City Univ. of Hong Kong and has won several other awards in innovation education. His cross-disciplinary PIPE model and his learner-centered approach motivate students to actively acquire a broad range of new knowledge along the innovation process. Dr. SUN’s teaching methods, reported in academic conferences and journals, are widely recognized. He is a regular speaker on innovation education and innovation management.

12:00 – 12:30, Wednesday, January 8, 2014

Dr. Franz-Josef Kahlen, AFAIAA, AIAA SciTech14 GEP Tech Chair
Associate Professor, Department of Mechanical Engineering
University of Cape Town, Upper Campus, Rondebosch, South Africa

Prof. Franz-Josef Kahlen is an associate professor in mechanical engineering at the University of Cape Town, South Africa. He received Dipl-Ing from RWTH Aachen, Germany, MSc from University of Tennessee, USA and Ph.D. from University of Central Florida, USA. His research areas are manufacturing and operational excellence, systems thinking/problem solving and lasers and photonics. Dr. Kahlen focuses on operational excellence using the principles of lean manufacturing for engineering competency development. Research is underway to understand the human and engineering factors in complex systems and complex system failures, and to identify the lessons learned from such research. He has published about 35 papers in journals and conferences and holds 2 US-patents for a Rapid Manufacturing process together with co-inventors and provisional South African patents.

12:30 – 13:00, Wednesday, January 8, 2014

Prof. Dr. Shahrin Mohamed
Chairman of the Society of Engineering Education of Malaysia
Universiti Teknologi Malaysia, Johor, Malaysia

“Engineering Education in the 21st Century: Malaysian Perspectives”

Prof. Shahrin is the Dean of Civil Engineering Faculty, Universiti Teknologi Malaysia and currently the President, Society of Engineering Education Malaysia. With over 29 years of academic experiences, deeply involved in the planning, managing and assuring the quality academic programmes nationally he is also the Associate Director at the Engineering Accreditation Department, Board of Engineers, Malaysia and involved extensively as an auditor for Malaysian Qualification Agency. He holds B.Eng. (Hons) Civil Engineering, Department of Civil Engineering, University of Liverpool, UK, M. Phil in Structural Engineering, Department of Civil Engineering, University of Newcastle Upon Tyne, UK and PhD in Civil Engineering, Department of Civil Engineering, University of Sheffield, UK. To date he had written four books and more than 60 journals, seminars and conferences papers both at the national and international level. These papers addressed his research findings as well as sharing experiences on the teaching and learning practices. He has been conducting more than 100 lectures/workshops related to Outcome Based Education (OBE), ISO 9000, and Academic Quality Assurance.
Session Chair: Dr. Tasho Angelov Tashev, Technical University of Sofia, Sofia, Bulgaria

14:00 – 14:30, Wednesday, January 8, 2014

Dr. Ajay K Garg, PE
Professor, TUT Business School, Faculty of Management Sciences
Tshwane University of Technology, Pretoria, South Africa

Dr. Ajay Garg obtained Bachelor’s and Master’s qualifications in first class with distinction from Indian school of Mines Dhanbad, India during the year 1987 (Mining Engineering) and 1990 (Longwall Mine Mechanisation) respectively. He further graduated from FMS, New Delhi with MBA qualification in 1994 and was awarded Doctorate of Business Leadership from SBL, University of South Africa during 2003. He has 25 years of industry, academic and administrative experience. Dr. Garg is currently employed at TUT business school, where he is responsible for teaching Research methodology course and responsible for all Masters and Doctoral research coordination work. The Business School is the largest in terms of post graduate student enrolment at the university. Prior to joining TUT, he set up Mining Engineering department at University of Botswana and also worked for Botswana Government for more than a decade. He has taught several Engineering and management courses at graduate programs and supervised a number of Masters students successfully. Dr. Garg has widely published in Engineering and management fields in reputable journals, his publications are spread around the world. He is an Established Researcher, a Rating that he received from NRF (National Research Foundation) of South Africa based on his quality of publications and contributions made. Dr. Garg also advises mineral industry in Africa. Currently he is special advisor to a Canadian based NGO and provides advice to several Central African Governments (DRC, Rwanda, Burundi, Tanzania, etc.) in the mineral sector in the implementation of mineral certification scheme. He was instrumental in the implementation of Kimberley process Certificate Scheme (KPCS) in Botswana and also represents NGOs in committees of KPCS.

14:30 – 15:00, Wednesday, January 8, 2014

Dr. Riyanarto Sarno
Professor & Head of Research Laboratory, Informatics Department
Faculty of Information Technology
Institut Teknologi Sepuluh Nopember, Surabaya Indonesia 60111

Riyanarto Sarno is Professor and Head of Research Laboratory at the Department of Informatics, Institut Teknologi Sepuluh Nopember, Indonesia. Currently he leads research collaboration with Kumamoto University Japan, Research Center of Indonesia Agriculture Ministry and Higher Education Directorate of Indonesia Education Ministry. He was an Adjunct Professor at the University of New Brunswick Canada, Visiting Professor at University of Toronto, Visiting Professor at Ryerson University, Visiting Professor at University Technology Malaysia and Visiting Professor at Seneca College Toronto.He received Ir. degree in Electrical Engineering from Bandung Institute of Technology in 1983 and Drs. degree in Economics from Padjajaran University in 1985. He earned MSc and PhD in Computer Science from the University of Brunswick Canada in 1988 and 1992, respectively. He is currently the head of the Lab-based Education Enterprise Intelligent Systems. His research and teaching interests include Enterprise Computing, Business-IT Alignment, Business Process Modeling, Process Aware Information Systems and Process Mining.

15:00 – 15:30, Wednesday, January 8, 2014

Dr. Kurt Junshean Espinosa
Chair, Department of Computer Science
University of the Philippines Cebu

Prof. Espinosa is an assistant professor and currently the chairperson of the Department of Computer Science at the University of the Philippines (UP) Cebu. He obtained his Masters in Computer Science from the University of the Philippines Diliman where he was a recipient of the Engineering Research and Development for Technology (ERDT) scholarship. His research interests are intelligent tutoring, sentiment analysis, social network analysis, health informatics, SMS platforms, and ICT for education. He has published and reviewed a number of journals and conference proceedings in those fields. He developed a framework and implementation model for ICT integration in basic education using Delphi methodology. He was part also of a multidisciplinary research on algorithms for emotion recognition in call centers. Currently, he has ongoing researches on dengue epidemic simulation, crime modelling and prediction, sentiment analysis in social networks, emotion diffusion models, and e-learning. He has taught Machine Learning, Data Structures, and Web Engineering. He is a training consultant of some IT companies in Cebu. Moreover, he has an experience working in banking, finance, and insurance industries of multinational companies. He is also active in the startup community and has previously served the Incubator Manager of UP Cebu Technology Business Incubator - among the Philippines’ most successful startup incubators. He is an active member of the Cebu Educational Development Foundation for Information Technology (CEDF-IT).
Session Chair: Dr. James C. Chen, Professor, National Tsing Hua University, Taiwan

15:45 – 16:30: Wednesday, January 8, 2014

Plenary III

Dr. Bala Bharadvaj  
Leader of Engineering, Operations & Technology for Boeing India  
Managing Director of Boeing Research & Technology-India

Dr. Bala Bharadvaj is currently Boeing’s leader of Engineering, Operations & Technology in India. He is also the MD of the Boeing Research & Technology Center in Bangalore. In these roles, he provides leadership to Boeing’s Research, Technology and Engineering activities in India, to develop new technologies and develop mutually beneficial partnerships with Academia, Government organizations, and industry.

Bala has been with Boeing since 1987, and worked in Southern California for over twenty years before relocating to India in 2009. He has held various leadership positions in Technology Development, Technology Integration, Engineering, Program Management and Strategic Planning. Prior to joining Boeing, he was a member of the faculty of the Aerospace & Mechanical Engineering at Boston University, Boston.

During his long career in academia and industry, Bala has contributed to a variety of projects spanning analysis, design, lab testing and flight testing. He has (A) developed computational codes for aerodynamic analysis of airplanes and helicopters; (B) held key leadership positions in major NASA-Industry aeronautical initiatives; (C) led teams to integrate new technologies into the C-17 strategic airlifter; and (D) led the development of long-range technology plans for Boeing Defense, Space & Security Systems.

During this journey, Bala has been recognized with several awards, from such organizations as the Sigma Xi Scientific Research Society; National Aeronautics and Space Administration (NASA); Boeing in Long Beach; and the American Society of Engineers of Indian Origin. Bala holds multiple degrees in Engineering and Management: B. Tech. with Distinction in Aeronautical Engineering, from IIT Madras, India; M.S. and Ph.D. degrees in Aerospace Engineering from the Georgia Institute of Technology in the US; and MBA from the University of California at Irvine, California.

Bala is an Associate Fellow of the American Institute of Aeronautics & Astronautics, and a member of Beta-Gamma-Sigma Business Honor Society. He is also an active member of SAEINDIA (where he chairs the Aerospace Board) and NASSCOM Engineering Council.

16:30 – 17:15: Wednesday, January 8, 2014

Plenary IV

Dr. Gisele Ragusa  
Associate Professor, Division of Engineering Education  
Viterbi School of Engineering  
Chair, USC STEM Consortium  
University of Southern California, Los Angeles, California, USA

Dr. Ragusa serves as the Associate Director of Education at CREATE. She is an associate professor and the Director of the Center for Outcomes Research and Evaluation. She is jointly appointed in the Rossier School of Education and the Viterbi School of Engineering's Division of Engineering Education. Her research interests and areas of expertise include: teacher education and retention, literacy education, teacher education supervision, content literacy, early childhood special education, deaf education, engineering education as well as assessment and measurement in STEM education. She teaches courses in literacy and language development, courses in learning theory, human development courses, and teacher education research courses. Prior to joining USC Rossier,

Dr. Ragusa held an appointment as an assistant professor in special education and bilingual education at California State University, Northridge in addition to a faculty position at Pacific Oaks College. She has taught in distance learning for more than ten years. She is active in many professional associations in the early childhood, distance learning, engineering education, program evaluation and special and deaf education fields. She has been the principal investigator on several federal grants through the US Department of Education and the National Science Foundation.
Global Engineering Education
Thursday, January 9, 2014

Session IX Chair: Dr. Muhammad Abid, Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Pakistan

10:15 – 10:40: Thursday, January 9, 2014
Dr. Tasho Angelov Tashev
Professor and Dean of the English Language Faculty of Engineering
Technical University of Sofia, Bulgaria

Dr. Tasho Tashev is professor and dean of the English Language Faculty of Engineering at the Technical University of Sofia, Bulgaria. He structured the Faculty into three Departments: Industrial Engineering, Business Computing, and E-Management. The Faculty provides higher engineering education, recognized in the RU countries. Dr. Tashev is Chair of the annual International Conference “Challenges to the Higher Education and Research in the 21st Century”. His research areas are industrial engineering, program assurance of the measuring instruments, intelligent measuring systems. Over the years he has supervised more than 10 Ph.D. students. Dr. Tashev has published in numerous journals and conference papers.

10:40 – 11:05: Thursday, January 9, 2014
Dr. C. B. Gupta
Professor, Department of Mathematics
Birla Institute of Technology & Science (BITS)
Pilani, India

A recipient of Shiksha Rattan Puraskar 2011, Best Citizens of India award 2011, Glory of India award 2013, listed in Marquis who is who in Science and Technology in the world 2010 and 2013 and listed in top 100 scientists of world in 2012, Dr. C. B. Gupta who is presently working as a Professor in the Department of Mathematics, Birla Institute of Technology and Science, Pilani (India) obtained his Master’s degree in Mathematical Statistics and Ph. D. in Operations Research from Kurukshetra University, Kurukshetra. His field of specialization is Applied Statistics, Optimization and Operations Research. A number of students have submitted their thesis/dissertation on these topics under his supervision. He has published a large number of research papers on these topics in peer reviewed national and international journals of repute. He has authored/co-authored 12 books on the topics Probability and Statistics, Quantitative Methods, Optimization in Operations Research, Advance Discrete Mathematics, Engineering Mathematics I, II, III, Advance Mathematics etc. Dr. Gupta is a member on various academic and management committees of many Institutes/Universities. He has participated in more than 30 national and International conferences in which he has delivered invited talks and chaired technical sessions. He has been member of Rajasthan board of school education and also member of various committees of RPSC Ajmer, UPSC, New Delhi and AICTE, New Delhi etc.

11:05 – 11:30: Thursday, January 9, 2014
Professor Donald M. Reimer
Director of Entrepreneurial Programs in College of Engineering
Lawrence Tech in Southfield, Michigan

“Entrepreneurship in Engineering Education”

Donald M. Reimer is currently a fulltime senior lecturer on entrepreneurship and serves as the Director of Entrepreneurial Programs in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs’ Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs’ Organization Faculty Advisory Council and is a member of the American Society of Engineering Education.
Dr. Abdurazzag Ali Aburas
Faculty of Architecture and Natural Sciences
International University of Sarajevo, Ilidza, Sarajevo, Bosnia and Herzegovina

Abdurazzag Ali Aburas received his Bachelor’s degree in Computer Sciences Tripoli University, Tripoli-Libya in 1987. He obtained his Master degree in Computer & Information Technology and PhD in Digital Image Processing from Dundee University and DeMontfort University, UK in 1993 and 1997 respectively. He worked in Jordan and UAE universities for five years and Electrical and Computer Engineering Department, Kullahiyah of Engineering, International Islamic University Malaysia. Present time, he is working as Assist. Prof. International University of Sarajevo. He has more than 50 publications in different international conferences and several papers in international journals. He has got two research patents in Image processing filed. Recently, he gives consultation for IT Company as senior software developer. His areas of research interest are Curriculum development, Digital Signal / image / video processing, Coding and Compression, Wavelets, Fractal and Image / Voice Pattern Recognition, Human Computer Interaction, E and M Learning, wireless Communications, Algorithms, Web-applications. He is a member in IEEE, HCI-UK, ARISE and IMA Societies. He was a Member Board of Studies of Engineering Curriculum development (Review and Improvement). Dept of Electrical and Computer Engineering, Faculty of Engineering, International Islamic University Malaysia. He introduced two new course curriculums for HCI (2001) and Programming for Engineering (2008). He is Coordinator of Cloud Computing and Mobile Research Group – CCMRG at IUSB present time and Coordinator of Software Engineering Research Group – SERS (2006-2009), IIUM. He has published new book based Engineering Education.

Dr. Muhammad H. Zaman
Associate Professor, Department of Biomedical Engineering
Associate Chair for Undergraduate Affairs
Associate Director, Kilachand Honors College
Boston University, USA

"Engineering Education in Africa: Impact for Development and Sustainability"

Dr. Muhammad H. Zaman is Director of Laboratory of Engineering Education and Development. Associate Professor and Associate Chair of Biomedical Engineering and Associate Director of Kilachand Honors College at Boston University. Prof. Zaman is actively involved in engineering education and curriculum development in resource limited countries. As the co-Director of UN Economic Commission for Africa’s Biomedical Engineering Initiative, he is actively involved in creating and sustaining biomedical engineering programs across various institutions in Africa including universities in Kenya, Zambia, South Africa, Ethiopia and Uganda. He has won numerous awards in teaching and educational research, these include awards from IEEE Education Society, IEEE EMBS Young Investigator Award, American Society for Engineering Education and The University of Texas Board of Regents. His work has been profiled by BBC, The New York Times, National Public Radio, Popular Science, Scientific American and others. His research is funded by USAID, UN Economic Commission, NIH, National Science Foundation, Gates Foundation and other international private and public organizations.

Dr. Abdel Magid Hamouda
Professor and Chairman, Mechanical and Industrial Engineering Department
Qatar University, Qatar

"Innovation and Entrepreneurship in Higher Education: Status; Challenges and Future Trends"

Dr. Hamouda joined Qatar University as Professor and Chairman of Mechanical and Industrial Engineering Department in 2006. Prior to this appointment, Dr. Hamouda was holding joint appointments in University Putra Malaysia, at the Faculty of Engineering as well as the Institute of Advanced Technology where he was the founding program manager in computational Science and Engineering. He was also a research manager at the Road Safety Research Centre (RSRC), University Putra Malaysia. Dr. Hamouda is corresponding member for the American Academy of Mechanics (AAM), member of ASME, IEEE, IIE, I MechE; and the Institute of Highway Transportation, UK.

Dr. Hamouda has supervised more than 15 Ph.D. and more than 50 Master degree students (By Research Thesis). Furthermore, he has published over 300 papers of which 120 Journal Publications. He has often been invited as keynote and invited speaker for various conferences, seminars and workshops. He has several US and Malaysian patents, and has edited several conference proceedings. He is editor-in-chief of international journal of virtual technology and multimedia, Deputy Editor in-Chief of Journal Achievements in Materials and Manufacturing Engineering and Editor of Engineering and Applied Sciences Journal. He set in the editorial board of many international journals. His research focuses on advanced design tools, development of novel materials and structures with enhanced performance, lean management and AI.

He and his co-workers have received a number of prestigious awards; Gold Medal at the British Invention Show Alexandra Palace, UK, in 2004 and 2006, Silver Medal and Bronze at the 32nd International Exhibitions on Inventions, New Techniques and Products, Geneva, Switzerland, and another Silver Medal at the 63rd IENA, Nuremberg, Germany. In December 2007, he won the 2nd place at the Arab Business Plan competition in Amman, Jordan. Dr. Hamouda was selected by the Organization of Islamic Countries (OIC) as one of the 200 Top scientists within the OIC countries. He Chaired and organized a good number (about 50) of symposium and international conferences in the areas of composite materials and computational mechanics within the world namely, Ireland, Japan, USA and Malaysia. He is assessor/ examiner to academic programs and faculty academic promotion to many universities. Dr. Hamouda is approached regularly by the members of the media for clarification of engineering issues concerning the public safety and invention; to name few Reader’s Digest magazine and Women’s Weekly manganese.
14:00 – 14:30: Thursday, January 9, 2014

Dr. Bidyut Kumar Bhattacharya
Professor, Mechanical Engineering Department
Director, School of Safety & Occupational Health Engineering
Bengal Engineering & Science University, Shibpur, Howrah, West Bengal, India

Bidyut Kumar Bhattacharya received B.Sc from Calcutta University, Kolkata, India, B.E. in Mechanical Engineering from SVR NIT, Surat, MS in Production Engineering from Faculty of Technology, M.S University, Baroda, Gujarat, and Ph.D. from Jadavpur University, Kolkata, India. He has certificate of Training on TQM - Japan Union of Scientist & Engineers (JUSE), Tokyo, Japan. Dr. Bhattacharya has 8 years industrial experience in M.N.Dastur, Hindustan Motors and TTK Group in Quality Assurance Department. He was visiting faculty at Jadavpur University, Institute of Engineers – India, and Academic Staff College, IOLC, Haldia. Dr. Bhattacharya co-chaired, 16th International Conference On Industrial Engineering & Engineering Management, China and member of National Sectoral Innovation Council on Occupational Safety and Health (OSH) by the Ministry of Labour and Employment, Government of India. He has provided many keynote speeches. His research areas are Advanced Manufacturing System, Industrial Engineering, Quality & Production Management, Human Resource Management, Operation Research, and Safety & Occupational Health. Dr. Bhattacharya has supervised many doctoral students and published many conference and journal papers. He is a Member of Academic Council, School of Management Science, Bengal Engineering and Science University, India.

14:30 – 15:00: Thursday, January 9, 2014

Dr. Ali R. Kaylan
Professor, Department of Industrial Engineering
Chair of the Graduate Program in Engineering and Technology Management
Bogazici University, Istanbul, Turkey

"Industrial Engineering Education in Turkey"

Ali R. Kaylan is a professor of Industrial Engineering and the Chair of the Engineering and Technology Management graduate program at Bogazici University in Istanbul. After completing his undergraduate studies in 1973 in the Mechanical Engineering Department of Bogazici University, he pursued his graduate studies in the Department of Industrial Engineering and Operations Research at Syracuse University in the U.S.A. He has received his M.S. degree in 1975 and Ph.D. in 1979 both from the same University. He joined the Industrial Engineering Department of Bogazici University in 1979. He was promoted to full professorship in 1990. He has served as the Industrial Engineering Department Chair and the Information Technology Director of the Bogazici University. He was elected as the Engineering Dean for two terms during 2000-2006. During that period, he was a member of the Steering Committee of the Turkish Engineering Deans Council. He was elected as the General Secretary of this Council for the period December 2003 – May 2006. Being a founder member of the Turkish Association for Evaluation and Accreditation of Engineering Programs, he participates as an evaluator in the accreditation process of Industrial Engineering Programs in Turkey. Prof. Kaylan has also been active in KailDer, the Turkish Quality Society. He was the President of this Society during 2008-2010. Besides, during his membership in the Executive Committee for 12 years, he has served as the Chairman of the National Quality Award Steering Committee, the Head of the Advisory Board of the Turkish Customer Satisfaction Index and the Head of the Editorial Board for the Turkish quality journal entitled as Quality First. He is a founder board member of R&D Engineers and Managers Association.

15:00 – 15:30: Thursday, January 9, 2014

Dr. Yun-Hae Kim
Professor, Korea Maritime and Ocean University, Korea
Vice-President, Korean Society for Engineering Education, Korea

Yun-Hae Kim is a founder of Asian Conference for Engineering Education (ACEE) and Chair of the 3rd ACEEE2013. He holds the position of Professor at the Division of Marine Equipment Engineering, Korea Maritime and Ocean University, Korea, with major in Composite Materials. He is also the Vice-president of the Korean Society for Engineering Education (KSEE). He was a Visiting Professor at National Institute of Standards and Technology (NIST, 1997-1998), U.S.A. and a Visiting Professor, The University of Tokushima (2004-2005), Japan. He was the Coordinator of The First International On-Board Seminar for the Development of Environment-friendly Technology and Secretariat General of International Conference on Marine Engineering funded by Busan Metropolitan City.

He was a Vice-Director of Marine Equipment Research Institute (KMOU), Director of Busan Techno-Park Branch(KMOU), Division Chief (Marine Equipment Engineering)(KMOU), Director of the Innovation Center for Engineering Education, Director of Center of the Teaching and Learning, Chair of the 1st Asian Conference of Engineering Education 2009, Chairmen of the ISMST 2010, Chairmen of the 2nd International On-board Symposium, Editor of the Korean Society of Composite Materials, Vice-president, The Korea Society for Engineering Education (KSEE). He is the Editor-in-Chiefs, International Journal of Ocean Science Engineering (IJOSE), Nano Hybrids, Advanced Engineering Forum, The Korean Society of Ocean Engineering. He is the Editor of Composite Research, Awards Busan Mayor Prize from Busan Metropolitan City, Prize of The University of Tokushima, Japan, Best Paper Prize, Korean Society of Marine Engineers, Jang, Young-Sil Prize, Best Ministry Award in Korea, Nominated in Marquis Who’s who, 2008-2013, Nominated in IBC, UK, Appointed as the 100 Scientist in 2008, IBC, UK, and Innovation Award for Engineering Education, Ministry of Education in 2011.

Session XII Chair: Dr. Bernardo Villarreal, Universidad de Monterrey, Mexico

15:45 – 16:30: Thursday, January 9, 2014

Plenary V
Dr. Paulo Augusto Cauchick Miguel
Adjunct Professor, Department of Industrial and Systems Engineering
Federal University of Santa Catarina – UFSC, Brazil

“Industrial Engineering Education in Brazil: Fast Growing and Future Perspectives”

Paulo Augusto Cauchick Miguel obtained his PhD in Manufacturing Engineering from the School of Manufacturing and Mechanical Engineering at the University of Birmingham, UK. His industrial experience in Brazil includes working as a manufacturing engineer for Varga/TRW and Bendix/Allied automotive brake system companies. He is an Adjunct Professor at the Department of Industrial and Systems Engineering of the Federal University of Santa Catarina (UFSC) in Florianópolis, Brazil as well as contributes to the Post-graduate Program in Industrial Engineering at the University of São Paulo (USP). He is currently an Associate Editor of Revista Produção. His primary research interests are in the areas of product development management, project management, quality and environmental systems, and engineering education.

16:30 – 17:15: Thursday, January 9, 2014

Plenary VI
Ing. Oscar Gamboa
Director of the M.Sc. Program in Manufacturing Modern Systems
Technological Institute of Costa Rica

“Engineering Education in Latin America”

Oscar Gamboa is a Full Professor (Cathedraticus) at the Technological Institute of Costa Rica, and Director of the M.Sc. Program in Manufacturing Modern Systems. He earned his Bachelor and Master of Science degree in Production Engineering at Tech Institute of Costa Rica and his experience is supported in more than 20 years as a researcher, trainer and consultant in operations planning and scheduling in factories located in North and Latin America.
IEOM Global Engineering Education

PROGRAM

March 3, 2015 (Tuesday)

07:00 – 17:00 Registration
08:00 – 08:30 Welcome
08:30 – 09:30 Opening Keynote: Dr. G. Don Taylor, Charles O. Gordon Professor & Department Head, Grado Dept. of ISE, Virginia Tech, USA and Past IIE President
09:30 – 09:45 Break
09:45 – 11:15 Session I: ENGINEERING CURRICULUM
Dr. Funso Falade, University of Lagos, Nigeria and President, African Engineering Education Association
Dr. Raid Al-Aomar, Professor of Industrial Engineering, Abu Dhabi University, UAE
Dr. Soumaya Yacout, École Polytechnique de Montréal, Canada
11:15 – 11:30 Break
11:30 – 13:00 Session II: INDUSTRIAL ENGINEERING AND MANAGEMENT EDUCATION
Dr. Khalid Hafeez, University of Sharjah, UAE
Dr. Hakan Butuner, IE Turkey Professional Chapter, President
Dr. Jose Antonio Heredia Alvarez, University Jaume I, Spain
13:00 – 14:00 Lunch Keynote: Moraya S. AlGahtani, Division Head, Operational Excellence Department, Saudi Aramco
14:00 – 15:30 Session III: GLOBALIZATION OF ENGINEERING EDUCATION
Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEES)
Dr. Borna Dengiz, Dean, Engineering Faculty, Baskent University – Baglica Campus, Ankara, Turkey
Dr. Muhammad H. Zaman, Boston University, USA
15:30 – 15:45 Break
15:45 – 17:15 Session IV: ENGINEERING TEACHING AND LEARNING
Dr. Hongyu Sun, Dept. of Systems Engineering and Engineering Management (SEEM), City University of Hong Kong
Dr. Amy Zeng, Professor, Director of Industrial Engineering, Worcester Polytechnic Institute, Massachusetts, USA
Dr. Ana Luisa Ferreira Andrade Ramos, University of Aveiro, Portugal
17:30 – 19:00 POSTER SESSION

March 4, 2015 (Wednesday)

07:00 – 17:00 Registration
08:30 – 09:30 Morning Keynote: Chris J. Smith, Vice President & Managing Director of Boeing Saudi Arabia
09:30 – 09:45 Break
09:45 – 11:15 Session V: ENGINEERING CURRICULUM
Dr. Gulnara Abitova, Eurasian National University, Astana City, Republic of Kazakhstan
Dr. Kailash Bafna, Western Michigan University, USA
Dr. Abdurazzag Ali Abruas, Tripoli University, Tripoli, Libya
11:15 – 11:30 Break
11:30 – 13:00 Session VI: ASSESSMENT AND ACCREDITATION
Dr. Pamela McAuley Bush, University of Central Florida, USA
Dr. S. C. Naik, Bhubaneswar, Odisha State, India
Dr. Ezendu Aririwa, University of Bedfordshire, UK
13:00 – 14:00 Lunch Keynote: Dr. Chris Backhouse, Professor of Product Innovation, Loughborough University, Leicestershire, UK
14:00 – 15:30 Session VII: ENGINEERING EDUCATION
Dr. Ala K. Ashmaawy, Dean of the School of Engineering, American University in Dubai
Dr. Abdur Rahim, University of New Brunswick, Fredericton, NB, Canada and Visiting Faculty, King Fahd Univ. of Petroleum and Minerals
Dr. Ho Thanh Phong, Rector, International University – VNUHCM, Ho Chi Minh City, Vietnam
15:30 – 15:45 Break
15:45 – 17:15 Session VIII: PANEL SESSION ON ENGINEERING EDUCATION
Dr. Funso Falade, University of Lagos, Nigeria and President, African Engineering Education Association
Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEES)
Dr. Abu Masud, Wichita State University, Wichita, Kansas, USA
Dr. Ibrahim Mohammed Al-Harkan, Dean of Graduate Studies, King Saud University, Riyadh, Saudi Arabia
19:00 – 22:00 CONFERENCE AWARD DINNER, AND CULTURAL PROGRAMS
Award Keynote: Hulas King, Director GO PLM & Global Community Relations, SIEMENS PLM Software

March 5, 2015 (Thursday)

07:00 – 15:00 Registration
08:30 – 09:30 Morning Keynote: Syed Mohammed Aumir, Senior Executive Vice President, Digital Factory, Siemens Middle East
09:30 – 09:45 Break
09:45 – 11:15 Session IX: ENGINEERING EDUCATION
Dr. Eng. Eldon Caldwell, Director, Industrial Engineering Department, University of Costa Rica
Dr. C. B. Gupta, Birla Institute of Technology & Science (BITS)
Dr. Anil Brahmanandan, Government College of Engineering, Barton Hill, Trivandrum, Kerala, India
11:15 – 11:30 Break
11:30 – 13:00 Session X: HIGHER EDUCATION IN ENGINEERING
Dr. Abdel Magid Hamouda, Qatar University, Qatar
Dr. Ibrahim Mohammed Al-Harkan, King Saud University, Riyadh, Saudi Arabia
Dr. Kudret Demirli, Khalifa University, Abu Dhabi, UAE
13:00 – 14:00 Lunch Keynote: Dr. Leland Blank, Professor and Dean of Engineering, American University of Sharjah, UAE and Past IIE President
14:00 – 15:30 Session XI: STUDENT CENTERED ENGINEERING EDUCATION
Dr. Chee-Ming Chan, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia
Edward Williams, University of Michigan - Dearborn, USA
Stibodan Urdarevik, Western Michigan University, USA
15:30 – 15:45 Break
15:45 – 17:15 Session XII: ENGINEERING EDUCATION
Dr. Peter Toth, Obuda University, Budapest, Hungary
Dr. Seifedine Kadry, American University of the Middle East, Kuwait
Dr. David Koonce, Ohio University, Athens, Ohio, USA
17:15 – 18:00 Closing Keynote
IEOM Global Engineering Education

Global Engineering Education Chairs
Dr. Funso Falade, Professor at University of Lagos, Nigeria and President, African Engineering Education Association
Dr. Abu Masud, Interim Dean of Graduate School and Boeing Global Engineering Professor, Wichita State University, Wichita, Kansas, USA

DISTINGUISHED SPEAKERS

Tuesday (March 3, 2015)

Session I: ENGINEERING CURRICULUM
Session Chair: Dr. Funso Falade, University of Lagos, Akoka, Lagos, Nigeria

09:45 – 10:15 (Tuesday)

Dr. Funso Falade
Department of Civil & Environmental Engineering
University of Lagos, Akoka, Lagos, Nigeria
and President, African Engineering Education Association

Engineering Research: A Tool for Development of Manufacturing Industry in Developing Countries – A Case Study in Nigeria

Bio: Falade Funso Alphonsus is a Nigerian and a Professor of civil engineering at University of Lagos, Nigeria. He earned Diploma in Quantity Surveying at Yaba College of Technology, Nigeria, in 1978. He completed his M.Sc (Civil Engineering) at the Moscow Institute of Civil Engineering in the USSR in 1984 and obtained PhD in Civil Engineering, from University of Lagos in 1998. Prof. Falade has authored over 70 articles on innovative construction materials and engineering education published in locally and internationally reputable journals as well as in proceedings of learned conferences. He has also made contributions to two (2) textbooks. In February, 2014, he made public presentation of a book titled ‘Strengthening of Distressed Buildings’. He has researched into the structural properties of bamboo and developed the technology for its successful incorporation as replacement of steel reinforcement in some structural elements. He has also researched extensively on Foamed Aerated Concrete. Prof. Falade has presented over 45 papers at workshops and seminars on such topics as Project Management, Quality Control, Maintenance of Facilities, and Contract Procurement Processes etc. Prof. Falade is a member of some professional bodies both locally and internationally, including Fellow, The Nigerian Academy of Engineering, Fellow, Nigerian Society of Engineers, Fellow, African Engineering Education Association, Registered Engineers, Council for the Regulation of Engineering in Nigeria etc. He is a promoter of engineering education. He was the initiator of African Regional Conference on Engineering Education and the Chairman, Organizing Committee and the Editor of the Proceedings of the 1st, 2nd and 5th African Regional Conference on Engineering Education that were held at University of Lagos in 23rd – 25th September, 2002, 20th – 22nd September, 2004 and 9th -12th September, 2013 respectively. He is the President of the African Engineering Education Association (AEEA) and former Vice-President, international Federation of Engineering Education Societies (2009-2012). He was appointed UNESCO Consultant in 2005.

10:15 – 10:45 (Tuesday)

Dr. Raid Al-Aomar
Professor of Industrial Engineering
Director of Master of Engineering Management (MEM) program
Abu Dhabi University, UAE

Bio: Dr. Raid Al-Aomar is a professor of Industrial Engineering and the director of Master of Engineering Management (MEM) program at Abu Dhabi University in the UAE. He holds a PhD in Industrial Engineering/Operations Research from Wayne State University in Detroit, USA. He has over 15 years of experience at companies and universities in Jordan, USA, and UAE with about 50 publications in the field of Industrial Engineering. He is also a professional trainer and a consultant on deploying Lean Six Sigma systems, Supply Chain, & Quality Management. He worked on many projects with the Auto Industry in Detroit and the industrial estates in Jordan and delivered many training courses to professionals in private and public companies in KSA, Bahrain, and the UAE. He is a co-author of “Simulation-based Lean Six Sigma and Design for Six Sigma” book from John Wiley. Dr. Al-Aomar’s research interests include Simulation-based Optimization, Operations Management, and Lean Six Sigma Systems.
Dr. Soumaya Yacout  
**Professor of Industrial Engineering and Operations Research**  
Department of Mathematics and Industrial Engineering  
École Polytechnique de Montréal, Canada  

**Bio:** Soumaya Yacout is Professor of Industrial Engineering and Operations Research in the Department of Mathematics and Industrial Engineering at École Polytechnique de Montréal, Canada. She received a D.Sc. in Operations Research from the Georges Washington University, U.S.A. in 1995, a B.Sc. in Mechanical Engineering in 1975 and a M.Sc. in Industrial Engineering in 1979 from Cairo University in Egypt, and also received Executive Training in Six Sigma, ISO9000 and in industrial auditing. She held the position of Dean of Engineering at the University of Moncton until 1999 and became the first woman to hold the position of Dean of Engineering for a Francophone University in Canada. She was appointed Academic Dean at École Polytechnique. From 2001 to 2004 she acted as member of the Higher Education and Research Committee of the Superior Council of Education of Québec. Since 1995, she has been a regular member of visiting teams for the accreditation of engineering programs by the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers, and in 2010, she was nominated as member of the Strategic Projects Selection Panel for Competitive Manufacturing and Value-Added Products and Processes of the National Sciences and Engineering Research council of Canada. Dr. Yacout has been recipient of the Natural Science and Engineering Research grants since 1991. She designed and taught courses on quality engineering, reliability and maintenance for undergraduate, graduate, and professional engineers in Canada and internationally. She supervised more than 40 masters and doctoral students. Her research interests include Condition Based Maintenance and optimization of decision making for product quality. She has more than 60 publications in journals including Quality Engineering, International Journal of Production Research, Computers and Industrial Engineering, IEEE Transactions, and more than 40 papers presented in international conferences, some of which received the best paper award. She is the co-editor and the co-writer of a book. She received provisional patent of the software cbmLAD. She has been member of organizing committees of many international conferences such as the Canadian Operations Research Society Conference, the Industrial Engineering Conference, and the international Conference on industrial Engineering and Systems Management. She is a senior member of the American Society for Quality, and a member of the Institute of Industrial Engineering, and the Canadian Operational Research Society.

### Session II: INDUSTRIAL ENGINEERING AND MANAGEMENT EDUCATION

**Session Chair:** Dr. Khalid Hafeez, University of Sharjah, UAE

11:30 – 12:00(Tuesday)

**Dr. Khalid Hafeez**  
Professor, College of Business Administration  
Management, Marketing and Public Administration  
University of Sharjah, UAE  

**Theory of Core Competence: A Melting Pot for Engineering and Management Education**

**Bio:** Professor Khalid Hafeez is Professor in Operations Management at the University of Sharjah United Arab Emirates. Before coming to the UAE Professor Hafeez was a tenure track professor and Head of Management system group at the York Management School, University of York UK. Prior to that he has been teaching at the Bradford Management School UK Executive MBA, which has been frequently ranked amongst the top ten in Europe, where he was also the founding Director for Centre for Entreprenurship. He has also taught on the Masters, PhD and DBA programs at the Sheffield Business school and Cardiff University UK. In terms of management responsibilities he has served as the Dean of the e-School of Business and Quality Management at the Hamdan Bin Mohammed e University Dubai, Program Director for Executive MBA, Program Director for the MSc Organizational Development and Knowledge Management, and Project Management at the Sheffield Business School. He has served as technology transfer champion for the Yorkshire Universities for 7 years and in recognition of his services for education and community he was awarded Certificate of Merit from the House of Lord UK. Professor Hafeez has completed Executive Education Training programme at the Harvard Business School USA and is also a Certified Six Sigma Master Black Belt, and Certified Project Manager and EFQM European Assessor certified from Brussels and certified NLP trainer. Over the years he has supervised more than 12 PhD students to completion has published widely in key journals such as JORS, IJPE, IJPR and IEEE Engineering Management. Professor Hafeez is an internationally acclaimed researcher with over 900 worldwide citations. His publications in the area of “core competence” which he is going to speak about in this conference (IEOM 2014) have already attracted more than 600 citations.

12:00 – 12:30 (Tuesday)

**Dr. Hakan Butuner**  
IIE Turkey Professional Chapter, President  
IMECO, President

**Bio:** Dr. Hakan Bütün is a graduate of TED Ankara College. He received his B.Sc. in Industrial Engineering from Middle East Technical and MBA from Bilkent Universities; and Ph.D. in Engineering Management from the University of Missouri-Rolla. Dr. Bütün has been active both in academic and professional lives for several years as a planning and programming manager and as a project manager in overseas, and started up and acted as a chairman of a new venture for bringing different and strong international franchising concepts to Turkey. Later he worked as a strategic planning and business development director of Bayındır Holding; as a SPEED (operations & profit improvement program) country manager of Siemens Business Services; and then as a general coordinator of Bell Holding. During the same periods, he was also lecturing in the Business Schools and/or Industrial Engineering Departments of Bilkent, Bhosphorus, Bahcesehir and Yeditepe Universities. Currently, he is lecturing in Business Schools of Bahcesehir and Ozyegin Universities. Dr. Bütün, currently, is
Dr. José Antonio Heredia Álvaro  
**Industrial Systems Engineering and Design**  
University Jaume I, Spain

**Teaching Manufacturing Management to Engineers**

**Bio:** José Antonio Heredia Álvaro, Industrial Engineer by University of Seville, PhD in Industrial Engineering and Professor of Manufacturing Systems at Universitat Jaume I. He has been visiting scholar at Cranfield University, UCLA and Tennessee Tech. His experience as professor includes teaching courses at undergraduate and graduated levels on manufacturing systems, quality engineering, stochastic modeling, process management and simulation. He has written several teaching books on the topic of production systems modeling and analysis. As researcher he has been continuously working in collaboration with European industry (ceramics, automotive, and ICT mainly) through research and consulting projects. He has led several large research projects at national and European level on manufacturing and information systems.

14:00 – 14:30 (Tuesday)

**Dr. Hans-Juergen Hoyer**

**Secretary General of the International Federation for Engineering Education Societies (IFiEES)**  
**Executive Secretary of the Global Engineering Deans Council (GEDC)**  
**Resident Scholar in Global Engineering at Marquette University, USA**

**Bio:** Hans J. Hoyer is the Secretary General of the International Federation for Engineering Education Societies (IFiEES), Executive Secretary of the Global Engineering Deans Council (GEDC), and Resident Scholar in Global Engineering at Marquette University. Former Director of International Programs and Strategy for the American Society for Engineering Education (ASEE) and co-founder of the Indo-US Collaborative for Engineering Education (IUCEE). Prior to 2006, Hans J. Hoyer was CEO of World Links, a spin-off of the World Bank. In this capacity, he worked globally on issues related to secondary education, teachers' education, and on-line collaborative learning focusing on science and social studies among high school students across the globe.

Dr. Hoyer has been a Visiting Scholar at the Center for International Studies at MIT, a Fellow at Harvard's School of Education and Visitor at the Kennedy School of Government. He was dean of the graduate program at the School for International Training, World Learning and Executive Director of the Executive Training Program for global governmental and NGO leaders in Brattleboro, Vermont. Prior to this, he taught cultural anthropology and Latin American Studies at George Mason University in Fairfax, VA, and Montgomery College, Takoma Park, MD. He earned his Ph.D. at American University in Washington, D.C. and was a post-doctoral fellow at the Organization of American States, carrying out research in the Río de la Plata region of South America. He is Honorary Professor in universities in India, Peru and Kazakhstan. He started his career as a Peace Corps Volunteer and high school teacher in Linares and Talca, Chile and has lived in over twenty countries including India, Sri Lanka, Chile, Peru, Brazil, Ecuador, Paraguay, Argentina, Mexico, South Asia, Belgium, and Sub-Saharan Africa (Kenya and Zimbabwe). Over his extensive career he has visited more than 133 countries, is fluent in four languages and conversant in an additional five languages. Dr. Hoyer has led several international development programs, including CARE, Plan International, and Helfer International. In these latter roles, he held executive leadership positions such as Senior Vice-President/Chief Operating Officer, and Regional Executive. He was also on the staff of the Inter American Foundation, created by the U.S. Congress to support socio-economic development throughout Latin America/Caribbean. He was on the advisory board of Hewlett Packard’s e-Inclusion Global Advisory Board related to their work in South Africa and Founding member of the Board of the Engineering for the Americas (EftA) initiative under the umbrella of the OAS.

14:30 – 15:00 (Tuesday)

**Dr. Berna Dengiz**

Dean and Professor  
Engineering Faculty  
Baskent University – Baglica Campus  
Ankara, Turkey

**Women in Engineering in Turkey, Other Countries and Why Turkish Girls Want to be Engineers**

**Bio:** Dr. Dengiz is a Professor in Industrial Engineering and Dean of College of Engineering at Baskent University, Turkey. She has numerous journal publication. Dr. Dengiz was awarded by Gazi University by her research activities, and high quality publications during her professional life. Her Paper is as best paper “A Hybrid Approach of Heuristic and Exact Method for Crew Pairing Problem” in The 40th International Conference on Computers and Industrial Engineering (CIE40) July 27, 2010. Dr. Dengiz was awarded the 2011 Women in OR/MS Award for the advancement of women in OR/MS, USA as well as Leader Women in Science Award 2012” from Turkish Association of University Women.
Dr. Muhammad H. Zaman
Associate Professor and Associate Chair for Undergraduate Affairs
Department of Biomedical Engineering
Associate Director, Kilachand Honors College
Boston University, USA

“Engineering Education in Africa: Impact for Development and Sustainability”

Bio: Dr. Muhammad H. Zaman is Director of Laboratory of Engineering Education and Development, Associate Professor and Associate Chair of Biomedical Engineering and Associate Director of Kilachand Honors College at Boston University. Prof. Zaman is actively involved in engineering education and curriculum development in resource limited countries. As the co-Director of UN Economic Commission for Africa’s Biomedical Engineering Initiative, he is actively involved in creating and sustaining biomedical engineering programs across various institutions in Africa including universities in Kenya, Zambia, South Africa, Ethiopia and Uganda. He has won numerous awards in teaching and educational research, these include awards from IEEE Education Society, IEEE EMBS Young Investigator Award, American Society for Engineering Education and The University of Texas Board of Regents. His work has been profiled by BBC, The New York Times, National Public Radio, Popular Science, Scientific American and others. His research is funded by USAID, UN Economic Commission, NIH, National Science Foundation, Gates Foundation and other international private and public organizations.

Session IV: ENGINEERING TEACHING AND LEARNING
Session Chair: Dr. Hongyi Sun, City University of Hong Kong

15:45 – 16:15 (Tuesday)

Dr. Hongyi Sun
Coordinator, Community of Practice for Discovery and Innovation
Program leader, Engineering Doctorate in Engineering Management (International, Provisional)
Associate Professor, Dept. of Systems Engineering and Engineering Management (SEEM)
City University of Hong Kong

National Culture and Innovation education for engineering students

Bio: Dr. Sun Hongyi holds a Bachelor degree in Computer Science from Harbin University of Science and Technology, a Master’s degree in Management Engineering from the Harbin Institute of Technology (HIT), both in China, and a Ph.D. in Technology Management from Aalborg University in Denmark. Dr. Sun received a Certificate of Pedagogy in Higher Education from Bergen University in Norway in 1997. He has taught at the Harbin Institute of Technology in China (1986-1990) and the University of Stavanger in Norway (1994-1998). Currently Dr. SUN is an Associate Professor in the Department of Systems Engineering and Engineering Management, City University of Hong Kong, where he also serves as programme leader and founding deputy programme leader of the Engineering Doctorate programme in Engineering Management, EngD (EM). His teaching and research areas include the management of technological innovation, manufacturing/operations strategy, quality management, and innovation education. Dr. SUN resides on the editorial board of the International Journal of Technological Innovation, Entrepreneurship and Technology Management, the International Journal of Learning and Changes and International Journal of Quality and Reliability Management. Dr. Sun has twice been the winner of the Teaching Excellence Award at the City University of Hong Kong and has won several other awards in innovation education. His cross-disciplinary PIPE model and his learner-centered approach motivate students to actively acquire a broad range of new knowledge along the innovation process. Dr. Sun’s teaching methods, reported in academic conferences and journals, have become widely recognized. He has become a regular speaker on innovation education and innovation management.

16:15 – 16:45 (Tuesday)

Dr. Amy Z. Zeng
Professor, Director of Industrial Engineering
Assistant Dean of School of Business
Worcester Polytechnic Institute
Worcester, Massachusetts, USA

Cultivating Global Competency and Entrepreneurial Mindset for Engineering Students

Bio: Dr. Amy Z. Zeng is currently Full Professor of Operations Management, Assistant Dean and Director of Industrial Engineering Program at the School of Business of Worcester Polytechnic Institute in (WPI) Worcester, Massachusetts, USA. She is also the Co-Director of WPI's China Senior Project Center and the co-founder and inaugural director of the China Hub at WPI. She holds a Ph.D. in Business Administration with concentration area in operations management from Pennsylvania State University, an M.S. in Industrial Engineering from University of Washington, and a B.S. in Industrial Management Engineering from Beijing University of Aeronautics and Astronautics. Her research efforts center on supply chain and logistics management and cover four aspects: theory, practice, pedagogy and teaching cases, and her research interests include supply disruption risk management, sustainable/green supply chain design, and global supply chain process evaluation in various industry sectors. Dr. Zeng has published over ninety articles in academic journals, books and conference proceedings, and delivered nearly a hundred speeches at a wide range of occasions, six of which are keynote speeches at international conferences. Dr. Zeng is a recipient of numerous awards and recognitions for her teaching, research and service. In addition to teaching and research, Dr. Zeng has consulted companies with respect to global supply chain and logistics management, lean principles implementation, quality control, inventory and materials management, and process analysis and capacity planning. She has also provided training workshops for executives and senior managers in the areas of lean enterprise architecting, supply chain management, and leadership and management skills.
Dr. Ana Luisa Ferreira Andrade Ramos
Assistant Professor and member of the Executive Board of the Department of Economics, Management and Industrial Engineering of University of Aveiro, Portugal

Teaching Modern Industrial Engineers: Bridging the Gap between Academia and Industry through Experiential Learning

Bio: Ana Luisa Ferreira Andrade Ramos received the M.Sc. degree in Computers Engineering from the University of Coimbra, Portugal, in 2002 and the Ph.D. degree in Industrial Management from the University of Aveiro, Portugal, in 2011. She is currently an Assistant Professor of Management and Industrial Engineering (MIE) with the Department of Economics, Management and Industrial Engineering (DEGEI) of University of Aveiro, where she teaches since 1997 (Simulation, Operations Management and Logistics). Dr. Ramos is member of the Executive Board of the Department and member of the Department Council. She was vice-director of the MIE undergraduate and graduate programs and coordinator of the Socrates/Erasmus program for the MIE area. Dr. Ramos is an integrated member of the Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP) of the University of Aveiro being the research work focused on systems engineering and modeling & simulation of complex systems, with applications in the industrial and transportation sectors. She has participated in several scientific research projects and industry-based projects. She co-authored book chapters and numerous scientific papers published in peer reviewed international journals and international conferences proceedings. Dr. Ramos received, in 2009, the international award “INCOSE Foundation/Stevens Institute Doctoral Awards for Promising Research in Systems Engineering and Integration”. Dr. Ramos served as reviewer for many scientific journals such as Computers and Industrial Engineering, IEEE Transactions, and Research in Engineering Design. She is a member of the IEEE Society, the IEEE Systems, Man, and Cybernetics Society, the International Association of Computer Science and Information Technology, the Systems Engineering & Architecting Network for Research (SEANET), and the Portuguese Association for the Development of Operational Research (APDIO).

Wednesday (March 4, 2015)

Session V: ENGINEERING CURRICULUM
Session Chair: Dr. Gulnara Abitova, Eurasian National University, Kazakhstan

09:45 – 10:15 (Wednesday)

Dr. Gulnara Abitova
Professor, Department of System Analyses and Control
Eurasian National University, Astana City, Republic of Kazakhstan

Bio: Dr. Abitova holds Master’s degree in Cybernetics of Technological Processes from Moscow State Univ. of Steel and Alloys at Moscow (Russian Federation), Ph.D degree in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science at Almaty (Kazakhstan) and she graduated Postdoctoral Program in Automation and Control from Eurasian National University at Astana (Kazakhstan). She has been an invited to the Computer and Electrical Engineering Department in State University of New York (SUNY) at Binghamton (NY, USA) for studying her research work. Dr. Abitova is Professor and Researcher in the Department of System Analyses and Control at the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Prior to this current position, she was General Director of the Kazakhstan Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center, Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Dr. Abitova was awarded the International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad at the USA (2011-2012) and the prestigious Diploma from the Administration of President of the Republic of Kazakhstan (OCSE, December 2010), as well as Awards and Diplomas from Minister of Education and Science of Kazakhstan for the Professionalism (2005-2009). Dr. Abitova was also the National Coordinator of UNESCO’s Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan, 2008-2009), where she worked on the Project of National Report of the Kazakhstan for UNESCO (within the UN Decade of Education for Sustainable Development). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been an invited speaker at the international conferences (IEEE, SPIE, CSDM, (ICUMT) and published more than 30 research articles in the reputed international proceedings on mathematical and engineering sciences at the USA, Canada, France, Turkey, Malaysia, Bulgaria, and Hungary. Her papers became a basis for a chapter of a book published by Springer. She served as the Track Chair in the IEOM 2012 conference at Istanbul.

10:15 – 10:45 (Wednesday)

Dr. Kailash Bafna
Professor
Department of Industrial & Entrepreneurial Engineering and Engineering Management
Western Michigan University
Kalamazoo, Michigan. U.S.A.

Educating 21st Century Engineers

Bio: Dr. Kailash Bafna is a professor in Industrial and Entrepreneurial Engineering and Engineering Management at Western Michigan University. In the past, he has also served as an Assistant Dean in the College of Engineering and Applied Sciences and as a Chair of the Department of Industrial Engineering. He received his B.Sc. (Hons.) in Mechanical Engineering from Banaras Hindu University in India (now IIT-BHU), M.S. in Production Management from the University of Mississippi, and a Ph.D. in Industrial Engineering from Purdue University. He has also taught at the Georgia Institute of Technology and the University of Wisconsin. He is a Fellow of the Institute of Industrial Engineers and is a Registered Professional Engineer in the State of Wisconsin. Over the past ten
years, Dr. Bafna has focused on improving undergraduate education through the gradual implementation of technology into his classes. As a result, today he can offer his courses in an online format, in a flipped classroom format, or as a hybrid class. One of his courses is even offered as a paperless class. Through all of these changes, he has been successful in improving the overall performance of the students in his class. In the past few years, he has made several presentations at national and international conferences on his developments. His innovative work was recently recognized by the Institute of Industrial Engineers (IIE) and he received two awards from them for excellence and innovations in teaching. Dr. Bafna has served several professional societies. He served IIE for 20 years in various capacities at the national, regional, local, and the university levels. He has also served the National Council of Examiners for Engineering and Surveying on their committee to prepare questions in Engineering Economy and the Michigan Society of Professional engineers on their Educational Credentials Review Committee, and has been a member of the College-Industry Council on Material Handling Education.

10:45 – 11:15 (Wednesday)

Dr. Abdurazzag Ali Aburas
Faculty of Information and Technology
Tripoli University, Tripoli, Libya

Challenges in Engineering Curriculum

Bio: Dr. Abdurazzag Ali Aburas received his Bachelor’s degree in Computer Sciences from Tripoli University, Libya in 1987. He obtained his Master degree in Computer & Information Technology and Ph.D. in Digital Image Processing from Dundee University and DeMontfort University, UK in 1993 and 1997 respectively. He worked in Jordan and UAE universities for five years and Electrical and Computer Engineering Department, Kulliyah of Engineering, International Islamic University Malaysia. Currently he is working as Assistant Professor at the International University of Sarajevo. He has more than 50 publications in different international conferences and several papers in international journals. He has got two research patents in Image processing filed. Recently, he gives consultation for IT Company as senior software developer. His areas of research interest are Curriculum development, Digital Signal / image / video processing, Coding and Compression, Wavelets, Fractal and Image / Voice Pattern Recognition, Human Computer Interaction, E and M Learning, wireless Communications, Algorithms, Web-applications. He is a member in IEE, HCI-UK, ARISE and IMA Societies. He was a Member Board of Studies of Engineering Curriculum development (Review and Improvement). Dept. of Electrical and Computer Engineering, Faculty of Engineering, International Islamic University Malaysia. He introduced two new course curriculums for HCI (2001) and Programming for Engineering (2008). He is Coordinator of Cloud Computing and Mobile Research Group – CCMRG at IUS present time and Coordinator of Software Engineering Research Group – SERG (2006-2009). IIUM. He has published new book based Engineering Education.

11:30 – 12:00 (Wednesday)

Dr. Pamela McCauley Bush, C.P.E.
Professor, Department of Industrial Engineering and Management Systems
Director, Human Factors in Disaster Management Research Team
University of Central Florida
Orlando, FL 32816, USA

Bio: Dr. Pamela McCauley Bush is a nationally recognized speaker, entrepreneur, author and Full Professor in the Department of Industrial Engineering and Management Systems at the University of Central Florida where she leads the Human Factors in Disaster Management Research Team. She previously held the position of Martin Luther King, Jr. Visiting Associate Professor of Aeronautics and Astronautics at the Massachusetts Institute of Technology (MIT). Through incredible determination and vision, Dr. Bush overcame immense life hurdles to be hailed today as an award-winning innovational leader, respected engineering expert and a globally renowned motivational speaker in the Women’s Leadership and STEM Education communities. She is the author of over 80 technical papers, book chapters and conference proceedings. Dr. Bush has the distinction of being a 2012 U.S. Fulbright Scholar Specialist Program Awardee for her US-New Zealand Human Engineering and Mobile Technology in High Consequence Emergency Management Research Program. Dr. Bush is also a highly sought Certified Professional Ergonomist (C.P.E.) and expert witness, due to her extensive expertise and experience in biomechanics, human factors and ergonomic design. She received the Distinguished Alumni Award from the University of Oklahoma. In 2007, she received the Engineer of the Year Award from the Florida Engineering Society and in 2006, was recognized by the Society of Women Engineers as Engineering Educator of the year. She also received the Woman of Distinction in Technology Award from the Central Florida Girl Scout Council in 2006. She has been recognized as one of the Ten Small Business Women of the Year in Central Florida; and the Millennium Woman of the Year 2001 by the Millennium Woman Foundation, Los Angeles California. Other honors include the Saturn/Glamour Magazine “Women Making a Difference Award” 2000 and the Outstanding Woman of Color in Technology Award for Educational Leadership in 1999. She was elected member of the Board of Directors for the National Center for Simulation. In 2001, she was appointed to serve on the Florida Research Consortium by Governor Jeb Bush. Additionally, she served on the National Board of Directors for the Women in Engineering Program Advocates Network (WEPAN) from 1998-2000. She presently maintains board membership in a number of agencies including the Beta Parent Program, the University of Oklahoma Industrial Engineering Advisory Board and the University of Oklahoma, College of Engineering Minority Engineering Advisory Board. Dr. Bush also serves as the Chief Technology Officer (CTO) of Bush Enterprises. She held the position of CEO of Tech Solutions, Inc., a former division of Bush Enterprises. A native of Oklahoma, Dr. Bush obtained her Bachelors, Masters, and Doctor of Philosophy degrees in Industrial Engineering from the University of Oklahoma. In 1993, Dr. Bush became the first African-American female to be granted a Ph.D. in the field of Engineering in the state of Oklahoma. In 2009, Dr. Bush was inducted into the University of Oklahoma, College of Engineering, and Distinguished Graduate Society.
Dr. S. C. Naik  
Professor  
Bhubaneswar-751019, Odisha State, India  

Engineering Education in India, Its Assessment & Accreditation  

Bio: Professor S C Naik obtained his BTech, MS & PhD degrees-all in Chemical Engineering from the Universities of Madras, Ottawa and UK (Swansea, Wales) respectively. He taught at the National Institute of Technology, Odisha State, India where Dr. Naik was Head of the Department and Dean. He guided many Research Fellows, some medium scale Industries and helped in establishment of an Engineering College. Dr. Naik authored/co-authored some books, published many papers in International and National Journals and presented papers in several countries. He was a Keynote Speaker at the Technical Events in Sri Lanka, South Korea, some Gulf countries, Naples, Tokyo and San Francisco in 2006. Dr. Naik was a Consultant to a prestigious Journal. Dr. Naik was a President of The Indian Institution of Engineers, one of the largest professional bodies in the world, a Vice President of The Federation of Engineering Institutions of South & Central Asia and a Council Member of The Indian Institute of Chemical Engineers. He is a well-known writer in his own mother tongue, Odiya and has published several social novels, a book with one hundred poems and several articles for which he has been felicitated by his State Literature Academy and his name has found place in Central Literature Academy. Dr. Naik is associated with many Committees at the State and Central levels. Professor Naik has a deep involvement in social service for which he has been even appreciated by a world-based organization. For his achievements, he has been awarded and appreciated by Regional, State, Central and Global organizations.

Dr. Ezendu Ariwa  
Professor, Dept. of Computer Science and Technology  
University of Bedfordshire, UK  

Engineering Education in Great Britain: Engineering Education for Sustainability  

Bio: Ezendu holds the position of Professor at University of Bedfordshire, United Kingdom, Faculty of Computer Science & Technology, with speciality in Practice in Computing. He is also a Visiting Professor at Gulf University, Bahrain, Visiting Professor, University of Lagos, Nigeria and Visiting Professor, Kano State Polytechnics, Nigeria as well as Visiting Affiliate of the Green IT Observatory, RIMT University, Australia and Visiting Affiliate of ICT University, USA. He also holds the position of Director – Technical and Non-Executive Director and Research Professor for Enterprise Projects at Sun Bio IT Solutions Pvt. Ltd, India. He is also the Chair for the IEEE Consumer Electronics Chapter, United Kingdom & Republic of Ireland (UKRI) and Chair for the IEEE Broadcast Technology Chapter, UKRI. He is a Senior Member of Institute of Electrical & Electronic Engineers (SMIEEE); Chartered FELLOW of the British Computer Society (CITP, FBCS), Fellow of the Institute of Information Technology Training (FIITT), Fellow of the Higher Education Academy (FHEA) and Fellow of the Royal Society of Arts (FRSA).

He is also a member of the Elite Group of The British Computer Society (BCS), member of British Institute of Facilities Management and Fellow of Global Strategic Management, Inc., Michigan, USA and Member of the UK Council for Health Informatics. He is the Coordinator of the Digital Enterprise Research Group (DERG), African Research in Business Group (ARBG) and working with the team to achieve African Business and Enterprise Research Observatory (ABERO) at the London Metropolitan Business School. The ABERO achieved good collaboration with multicultural SMEs in the United Kingdom, with respect to mentoring and working on joint professional development enterprise programmes. He has experience of doctoral research supervision as well as doctoral external examiner for various Universities both in the UK and internationally. He has a good research profile and the Founding Editor-in-Chief of the International Journal of Green Computing (IJGC), Editor-in-Chief of the International Journal of Computing and Digital Systems (IJCD), Journal of E-Technology, and the Associate Editor of the International Journal of E-Politics and the Associate Editor of International Journal of Distributed Systems and Technologies (JDST). He is a member of Policy Coordination Committee of the International Research Foundation for Development (A Corporation of NGO in special Consultative status with the Economic and Social Council of the United Nations).

Session VII: ENGINEERING EDUCATION  
Session Chair: Dr. Alaa K. Ashmawy, American University in Dubai, UAE  

Dr. Alaa K. Ashmawy  
Dean of the School of Engineering  
Professor of Civil Engineering  
American University in Dubai  

Bio: Dr. Alaa K. Ashmawy is Professor of Civil Engineering and Dean of the School of Engineering at the American University in Dubai (AUD). Prior to joining AUD, he had held teaching and research appointments at the University of South Florida in Tampa, Florida, and the Georgia Institute of Technology in Atlanta, Georgia. His technical expertise is in geotechnical engineering, with interests in foundations and earth structures, environmental geotechnics, and earthquake engineering. Dr. Ashmawy’s research has been funded by the US National Science Foundation, the US Department of State, and the Florida Department of Transportation. His professional experience also includes consulting on several engineering projects in the USA and the UAE, and a visiting professorship at the Universidad de las Americas in Puebla, Mexico. He is a licensed Professional Engineer (PE) in the State of Florida, USA. Dr. Ashmawy earned his Master’s and Ph.D. degrees from Purdue University in West Lafayette, Indiana, USA, and his Bachelor’s degree with Distinction from Alexandria University in Egypt. He has been a member of the Global Engineering Deans Council (GEDC) Executive Committee since 2009, and was elected in 2011 as GEDC Secretary/Treasurer. He is a Program Evaluator (PEV) for ABET’s Engineering Accreditation Commission, and an active member on numerous regional and international committees on engineering accreditation, curriculum, and professional licensure. He is also a member of the American Society of Civil Engineers, the American Society for Engineering Education, the
Dr. Abdur Rahim
Professor, Faculty of Business Administration
University of New Brunswick, Fredericton, NB, Canada

Bio: Dr. Abdur Rahim is a Professor at the Faculty of Business Administration, University of New Brunswick (UNB), Fredericton, Canada. He joined UNB in 1983 and is a member of the Quantitative Methods area. He received his B.Sc. (Hons.), M.Sc in Statistics from the University of Dhaka, D.S. in Operations Research from the University of Rome, M.Sc. in Systems Theory from the University of Ottawa, and Ph.D. in Industrial Engineering from the University of Windsor. He teaches Management Science, Operations Management and TQM in the BBA and MBA programs. Dr. Rahim is a recognized world expert in Quality Control and Quality Management. He has taught a wide range of courses in Universities in Canada, Bangladesh, Malaysia, and Saudi Arabia. He has served as an Associate Editor of the International Journal of Systems Science, Quality Engineering, and Engineering Optimization. He is a member of the Advisory or Editorial boards for Economic Quality Control, the Journal of Quality in Maintenance Engineering, the Journal of Quality Engineering and Technology, and the International Journal of Production Research. Dr. Rahim received the UNB Merit Award in 1992, 1999, 2000, and 2009 for his excellence performance in research, service, and teaching.

Dr. Ho Thanh Phong
Associate Professor
Rector
International University - VNUHCM
Ho Chi Minh City, Vietnam

Bio: Dr. Ho Thanh Phong is the Rector of International University, Vietnam National University – HCMC, Ho Chi Minh City, Vietnam. He received Doctor of Engineering degree in Industrial Systems Engineering Program, School of Advanced Technologies (SAT), Asian Institute of Technology (AIT) in 1997 and be promoted the title Associate Professor by HCM University of Technology in 2001. Main academic interests are Multiple criteria decision making (MCDM) in industry, Stochastic Processes in Industry, Project Management, Multiple criteria optimization techniques, Simulation modeling in manufacturing systems; Business Simulation for Re-engineering, Optimization-simulation integration, Decision Support System and Expert system for Industrial application and Management application, CAD/CAM and CIM, Quantitative Method for Management. Be the author and co-author of 11 publications of economics and technology.

Session VIII: PANEL SESSION
Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA
15:45 – 17:15 (Wednesday)

Panelists

Dr. Funso Falade
Professor of Civil Engineering
University of Lagos, Nigeria and
President, African Engineering Education Association

Dr. Abu Masud, P.E.
Interim Dean of Graduate School
Boeing Global Engineering Professor
Professor of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

Bio: Dr. Abu Masud is interim dean of the graduate school and professor of industrial and manufacturing engineering at Wichita State University. He has been named the Boeing Global Engineering Professor at Wichita State University. In this new post, Dr. Masud is expected to advance the College of Engineering’s strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering, previously he was held various positions at Wichita State including associate dean, graduate school (2008-2013), coordinator, college ABET affairs (2006-2008), associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various
Dr. C. B. Gupta  
Professor, Department of Mathematics  
Birla Institute of Technology & Science (BITS)  
Pilani, India  

Bio: A recipient of Shiksha Rattan Puraskar 2011, Best Citizens of India award 2011, Glory of India award 2013, listed in Marquis who is who in Science and Technology in the world 2010 and 2013 and listed in top 100 scientists of world in 2012. Dr. C. B. Gupta who is presently working as a Professor in the Department of Mathematics, Birla Institute of Technology and Science, Pilani (India) obtained his Master’s degree in Mathematical Statistics and Ph. D. in Operations Research from Kurukshetra University, Kurukshetra. His field of specialization is Applied Statistics, Optimization and Operations Research. A number of students have submitted their thesis/ dissertation on these topics under his supervision. He has published a large number of research papers on these topics in peer reviewed national and international journals of repute. He has authored/ co-authored 12 books on the topics Probability and Statistics, quantitative Methods, Optimization in Operations Research, Advance Discrete Mathematics, Engineering Mathematics I, II III, Advance Mathematics etc. He is also on the editorial board of a number of national and international journals and also reviewer of many national and international journals. Dr. Gupta is a member on various academic and management committees of many Institutes/ Universities. He has participated in more than 30 national and International conferences in which he has delivered invited talks and chaired technical sessions. He has been member of Rajasthan board of school education and also member of various committees of RPSC Ajmer, UPSC, New Delhi and AICTE, New Delhi etc.
11:05 – 11:30 (Thursday)

Prof. Dr. Anil Brahmanandan
Principal, Government College of Engineering
Barton Hill, Trivandrum, Kerala, India
and
Fellow of Indian Institution of Industrial Engineers

Bio: Dr. Anil is the Principal of Govt. Engineering College (Barton Hill, Trivandrum, Kerala) in India. He is a fellow of Indian Institution of Industrial Engineers and Aeronautical Society of India. Dr. Anil was awarded the VKM John National Award for Best Engineering College Teacher in 2009 as well as CET-ISTE Best Researcher Award 2009. He was Dean of Faculty of Engineering & Technology, University of Kerala, 2011 – 2013.

11:30 – 12:00 (Thursday)

Dr. Abdel Magid Hamouda
Professor and Chairman
Mechanical and Industrial Engineering Department
Qatar University, Qatar

“Implication of Entrepreneurship in Higher Education: Status; Challenges and Future Trends”

Bio: Dr. Hamouda joined Qatar University as Professor and Chairman of Mechanical and Industrial Engineering Department in 2006. Prior to this appointment, Dr. Hamouda was holding joint appointments in University Putra Malaysia, at the Faculty of Engineering as well as the Institute of Advanced Technology where he was the founding program manager in computational Science and Engineering. He was also a research manager at the Road Safety Research Centre (RSRC), University Putra Malaysia. Dr. Hamouda is corresponding member for the American Academy of Mechanics (AAM), member of the American Society of Mechanical Engineering (ASME), and member of the Institute of Electrical and Electronic Engineers (IEEE). He is also a senior member of Institute of Industrial Engineering (IIE), USA, Member of the Institute of Mechanical Engineers (IMechE), UK; and Member of the Institute of Highway Transportation, UK. Dr. Hamouda has supervised/supervising more than 15 Ph.D. and more than 50 Master degree students (By Research Thesis). Furthermore, he has published over 300 papers of which 120 Journal Publications. He has often been invited as keynote and invited speaker for various conferences, seminars and workshops. He has several US and Malaysian patents, and has edited several conference proceedings. He is editor-in-chief of international journal of virtual technology and multimedia, Deputy Editor in-Chief of Journal Achievements in Materials and Manufacturing Engineering and Editor of Engineering and Applied Sciences Journal. He set in the editorial board of many international journals. His research focuses on advanced design tools, development of novel materials and structures with enhanced performance. Key focus areas of his research are characterization of advanced materials, developing new design concepts, multifunctional and smart structures, design evaluation, crashworthiness, robotics, Lean management as well as Artificial intelligence and adaptive control. He and his co-workers have received a number of prestigious awards; Gold Medal at the British Invention Show Alexandra Palace, UK, in 2004 and 2006, Silver Medal and Bronze at the 32nd International Exhibitions on Inventions, New Techniques and Products, Geneva, Switzerland, and another Silver Medal at the 63rd IENA, Nuremberg, Germany. In December 2007, he won the 2nd place at the Arab Business Plan competition in Amman, Jordan. Dr. Hamouda was selected by the Organization of Islamic Countries (OIC) as one of the 200 Top scientists within the OIC courtiers. He Chaired and organized a good number (about 50) of symposium and international conferences in the areas of composite materials and computational mechanics in different parts of the world namely, Ireland, Japan, USA and Malaysia. He is assessing examiner to academic programs and faculty academic promotion to many universities. Dr. Hamouda is approached regularly by the members of the media for clarification of engineering issues concerning the public safety and invention; to name few Reader’s Digest magazine and Women’s Weekly magazine.

12:00 – 12:30 (Thursday)

Dr. Ibrahim Mohammed Al-Harkan
Associate Professor of Industrial Engineering
Director of Applied Engineering Management Program
General Director of External Joint Supervision Program
Dean of Graduate Studies
King Saud University
Riyadh, Saudi Arabia

Master of Science in Engineering Management at King Saud University – A Global Engineering Education

Bio: Ibrahim Mohammed Alharkan, is an Associate Professor of Industrial Engineering, Director of Applied Engineering Management Program, General Director of External Joint Supervision Program, and Dean of Graduate Studies at King Saud University, Saudi Arabia. He is also a Missouri S&T Adjunct Faculty under the collaborative MSEM program between KSU and Missouri S&T. He holds a B.S. in Industrial Engineering from King Saud University, M.S. and PhD. in Industrial Engineering from The University of Oklahoma, USA. His research interests include Production Planning and Control, Production Sequencing and Scheduling and Simulation Modeling and Analysis, Total Quality Management, Maintenance Planning and Scheduling, and Project Management. He is a member of IIE, INFORMS, NSPE, and Alpha Pi Mu, also, the Chairman of Managing Board of Saudi Chapter (Chapter 246) of IIE at Riyadh, Saudi Arabia.
Dr. Chee-Ming Chan
Associate Professor and Deputy Dean (Academic and Research)
Centre for Graduate Studies
Universiti Tun Hussein Onn Malaysia
Batu Pahat, Johor, Malaysia

Bio: Chee-Ming Chan is an Associate Professor with the Civil Engineering Technology Department, Faculty of Engineering Technology, Universiti Tun Hussein Onn Malaysia. She is presently holding the office of Deputy Dean in Academic and Research at the Centre for Graduate Studies in the University. Her area of expertise includes geo-materials, engineering education and higher education improvement. More recently, Dr. Chan’s current work on dredged materials from Malaysian waters has gained momentum and support from the Ministry of Science, Technology and Innovation and Department of Marine, Malaysia. She is also involved in professional bodies, including the Society for Engineering Education Malaysia (SEEM), Malaysian Geosynthetics Society (MyGSS), Institution of Engineers Malaysia (IEM), Board of Engineers Malaysia (BEM), and is an education quality auditor for the Malaysian Qualification Agency (MQA). From 2009-11, Dr. Chan served as a Postdoctoral Research Fellow at the Port and Airport Research Institute (PARI), Japan.

Edward Williams
Adjunct Professor
University of Michigan - Dearborn, USA

Bio: Edward J. Williams holds bachelor’s and master’s degrees in mathematics (Michigan State University, 1967; University of Wisconsin, 1968). From 1969 to 1971, he did statistical programming and analysis of biomedical data at Walter Reed Army Hospital, Washington, D.C. He joined Ford Motor Company in 1972, where he worked until retirement in December 2001 as a computer software analyst supporting statistical and simulation software. After retirement from Ford, he joined PMC, Dearborn, Michigan, as a senior simulation analyst. Also, since 1980, he has taught classes at the University of Michigan, including both undergraduate and graduate simulation classes using GPSS/HÔ, SLAM IIÔ, SIMANÔ, ProModel, SIMUL8Ò, Arena®, and Simio®. He is a member of the Institute of Industrial Engineers [IIE], the Society for Computer Simulation International [SCS], and the Michigan Simulation Users Group [MSUG]. He serves on the editorial board of the International Journal of Industrial Engineering – Applications and Practice. During the last several years, he has given invited plenary addresses on simulation and statistics at conferences in Monterrey, México; Istanbul, Turkey; Genova, Italy; Riga, Latvia; and Jyväskylä, Finland. He served as a co-editor of Proceedings of the International Workshop on Harbour, Maritime and Multimodal Logistics Modelling & Simulation 2003, a conference held in Riga, Latvia. Likewise, he served the Summer Computer Simulation Conferences of 2004, 2005, and 2006 as Proceedings co-editor. He was the Simulation Applications track coordinator for the 2011 Winter Simulation Conference and the 2014 Institute of Industrial Engineers Conference.
Slobodan Urdarevik
Master Faculty Specialist, Industrial and Manufacturing Engineering
Western Michigan University
Kalamazoo, Michigan, USA

Bio: Slobodan Urdarevik is a Professor in the Department of Industrial and Manufacturing Engineering, College of Engineering, Western Michigan University (WMU). He has received his Bachelors and Masters from the University Kiril and Metodij in Skopje, Macedonia. His area of specialization is Engineering Graphics and Design. He is a member of Society of Manufacturing Engineers (ESM) and a Key Professor for Engineering Graphics at WMU. He was a recipient of the Outstanding New Educator Award, and Innovation Award. He has published several technical papers and has been awarded six patents. Slobodan has taught overseas and at Humber College in Toronto and University of Windsor in Canada. His area of research is developing a strategy for solving Visualization problems in teaching Engineering Graphics.

Session XI: ENGINEERING EDUCATION
Session Chair: Dr. Peter Toth, Obuda University, Budapest, Hungary

15:45 – 16:15 (Thursday)

Dr. Peter Toth
Principle Director of Trefort Ágoston
Centre for Engineering Education
Obuda University
Budapest, Hungary

ID 154: New Possibilities for Adaptive Online Learning in Engineering Education

Bio: Peter Toth is a professor at Trefort Agoston Centre for Engineering Education at Obuda University, Hungary where he is participating in technical initial teacher training and in-service training courses. Currently he is a principle director of the Centre. He earned his MSc in Engineering Education at the Budapest University of Technology and Economics, and Peter Toth has Ph.D and habil degree in Educational Research from Eotvos Lorand University. He plays leading role in planning, development and managing traditional and virtual engineering programs. Dr. Toth is doing research on pedagogy of virtual learning environment, improvement of problem-solving thinking and analyzing of spatial abilities in engineering education. He is member of Committee for Teacher Training of Hungarian Rectors’ Conference and secretary of Informatics Section of Pedagogical Committee of Hungarian Academy of Sciences.

16:15 – 16:45 (Thursday)

Dr. Seifedine Kadry
Associate professor of computing and department head
American University of the Middle East
Kuwait

ID 741: Modeling and Simulation of Dynamic Bungee Jumping Using Matlab - An Engineering Educational Case Study

Bio: Seifedine Kadry is an Associate professor of computing and department head at the American University of the Middle East, Kuwait. Dr. Seifedine Kadry received his B.Sc. in Computer Science and Applied Math in 2000 at Lebanese University, Lebanon. He got M.Sc. in Computer Science and Applied Math in 2002 from Agence universitaire de la troncophonie, Lebanon. Dr. Seifedine Kadry obtained Ph.D. from Blaise Pascal University, France in 2007 in Applied Mathematics. Dr. Seifedine Kadry's current research interests are physical science engineering, xml technology, system prognostic, stochastic differential equation, and reliability analysis.

16:45 – 17:15 (Thursday)

Dr. David Koonce
Associate Dean, Graduate College and Associate Professor, ISE Department
Department of Industrial and Systems Engineering
Russ College of Engineering and Technology
Ohio University, Athens, Ohio, USA

ID 431: Important Soft Skills for Engineers to Succeed in a Working Environment

Bio: David A. Koonce is the Program Director of the Ohio University online Master of Engineering Management degree program, and he led the proposal effort to create this degree program. He holds three degrees from Louisiana State University, including a Doctorate of Philosophy in Engineering Science, a Master of Science in Industrial Engineering, and a Bachelor of Science in Industrial Engineering. His dissertation focused on: "An Integrated Multiple Manufacturing Data Source Blackboard Control Architecture". In addition to his teaching, Dr. Koonce applied his engineering skills as a software engineer for swissinfo / Swiss Radio International in Bern, Switzerland. He has also represented the Institute of Industrial Engineers as the regional vice president, and he is also a member of the American Society for Engineering Education, Alpha Phi Mu – Industrial Engineering Honor Society and Tau Beta Pi – Engineering Honor Society. Dr. Koonce currently teaches courses focusing in engineering statistics, data analysis and integration, design of experiments, information systems engineering, database information systems, and system modeling. He focuses on the processes of software integration, computer integrated manufacturing and data mining, which ultimately lead engineers to build better systems resulting in more cost-effective and more reliable results.
IEOM Global Engineering Education

ENGINEERING EDUCATION IN AMERICAS

IEOM Society addresses the issues of Global Engineering Education. There are different levels of readiness of engineering graduates from various parts of the world. One of the main themes of this series is how to reduce the readiness gap around the world. The special focus is given to Industrial Engineering, Service Engineering, Manufacturing Engineering, Systems Engineering, Operations Research, Engineering Management and Technology Management. Are the engineering graduates ready to take on the challenges of the current global economy? With the great success of Global Engineering Education Series of last IEOM conferences, 2015 IEOM Orlando Conference will have a dedicated session for the Global Engineering Education where distinguished speakers will discuss the readiness of engineering graduates for workforce around the world. A special focus will be given for the Engineering Education in Americas.

DISTINGUISHED SPEAKERS

September 10, 2015 (Thursday)

08:00 – 09:15 Global Engineering Education I (Thursday) - Salon 5

Session Chair: Dr. Laura M. Stanley, Montana State University

8:00 – 8:25 am

Laura M. Stanley, PhD, CPE
Associate Professor
Mechanical & Industrial Engineering Department
Montana State University
Bozeman, MT, USA

Addressing the Need for Effective Communications across the Engineering Curricula – A Case Study

Abstract: The development of written and oral communication skills is of growing importance for undergraduate engineers of all disciplines. These are skills that cannot be learned in a single technical writing course; rather they must be reinforced throughout an entire curriculum. One engineering department at Montana State University has proposed the Engineering Communications Toolkit to aid in the development of communications skills among its students. This Toolkit was distributed to freshman through senior-level students in four different courses. Following a semester of use, students and faculty member were asked to assess the Toolkit’s effectiveness. Overall, the Toolkit was well received as a communications resource. Both students and faculty indicated that they would use the resource in future courses. With continued support, the Toolkit is to be integrated throughout the school’s engineering curricula to help produce graduates who are better communicators and, thus, more competitive in the workforce.

Bio: Dr. Laura Stanley is an Associate Professor in the Mechanical & Industrial Engineering Department at Montana State University and a Research Scientist at the Western Transportation Institute, where she is the Director of the Human Factors Driving Laboratory. Dr. Stanley has a B.S. in Industrial & Systems Engineering from Virginia Tech, M.S. and PhD in Industrial Engineering from Montana State University. Dr. Laura Stanley was recently selected as Program Director in the Directorate for Computer & Information Science & Engineering (CISE) at the National Science Foundation. Dr. Stanley will begin her NSF service beginning fall of 2015.

Dr. Stanley's research interests include Human Factors, Transportation Safety, Learning in Virtual Environments, Human Computer Interaction, and Engineering Education. Her projects while at MSU have included the validation of virtual reality environments, human computer interaction applications, naturalistic driving evaluations in the emergency medicine service environment, improving novice and older driver safety, and the evaluation of the safety benefits of driver based public health interventions. She has collaborated with several outside partners, some of which include: the National Science Foundation, National Highway Traffic Safety Administrations, Montana Department of Transportation, Bozeman Deaconess Hospital, Montana's Office of Public Instruction, Virginia Tech Industrial & Systems Engineering Department, Engineering Information Foundation, Murdock Charitable Trust Foundation, Critical Illness & Trauma Foundation, American Medical Response, and the Texas...
Dr. Nadia Bhuiyan is Professor at the Department of Mechanical and Industrial Engineering, Concordia University, Montreal, Quebec, Canada. He is an Associate Director, Concordia Institute of Aerospace Design and Innovation (CIADI). Dr. Bhuiyan received her B.Eng. in Industrial Engineering at Concordia University, and her M.A. Sc. and Ph.D. both at McGill University in Mechanical Engineering. She was an Assistant Professor at Queen’s School of Business and a lecturer at McGill University in Management Science. She became the Associate Director of CIADI in 2003. Dr. Bhuiyan has a number of industrial collaborations with aerospace companies such as Pratt & Whitney Canada, Bombardier Aerospace, Bell Helicopter, and CMC Electronics, and is involved in several CRIAQ (Consortium for Research and Innovation in Aerospace in Quebec) projects, most recently in Lean Engineering. She works closely with the aerospace industry in Montreal to research and develop tools and techniques in lean and to study their application across the enterprise. Dr. Bhuiyan’s research interests focus on product development processes, dealing with the design, development, production, and distribution of goods and services, with a focus on emerging tools and techniques for integrating design and manufacturing to improve process performance. She is currently conducting research on the application of lean manufacturing principles in product development.

Dr. Shahram Taj is Professor and Chair of the Department of Management and Marketing at Lawrence Technological University in Michigan. He is an accomplished academician, executive consultant, and with an expertise in business model innovation, lean and sustainable operations, strategic management, production systems design, systems optimization/simulation, and supply chain management.

Dr. Shahram Taj was the Cameron Endowed Chair of Management and Marketing at the University of St. Thomas in Houston from 2008 to 2013. He previously taught at the University of Detroit Mercy from 1987 to 2008 and earned the University of Detroit Mercy President’s Award for Faculty Excellence. He also taught in the Global Entrepreneurial MBA Program at Fu Jen Catholic University in Taiwan from 2004 to 2006 and was a visiting professor at Peking University in China teaching in the Beijing International MBA Program in 2004. Dr. Taj also taught at Baruch College, The City University of New York (the largest business school in the United States) from 1984 to 1987.

Dr. Taj has developed several world-class graduate programs such as the MS in Product Development in collaboration with Massachusetts Institute of Technology (MIT), Ford, Xerox, and the National Science Foundation. He also developed graduate degree programs in Software Engineering, EMBA, and Supply Chain/Transportation Efficiency Systems (funded by the U.S. Dept. of Transportation) at the University of Detroit Mercy.

Dr. Taj has conducted over 100 projects at Ford, Visteon, New Venture Gear (formerly joint venture of GM and DaimlerChrysler), GM-Holden, Baker Hughes, and Schlumberger in the United States, Germany, Australia, and Japan. The projects have covered productivity improvements, implementing lean manufacturing, and optimizing process design. In 1999, he earned the Franz Edelman Finalist Award for Achievement in Operations Research/Management Science. The award was based on projects that resulted in $15.5 million capital savings and a profit increase of over $2 billion for Ford Motor Company. From 1998 to 2000, Shahram worked directly with the executive Vice President of Worldwide Operations of the New Venture Gear Company in designing a new lean automotive manufacturing plant in Germany to supply powertrain to
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Porsche Cayenne and Volkswagen Touareg that resulted in savings of $21 million. From 2009 to 2010, Dr. Taj served as an Executive Technical Advisor to executives in the new worldwide Supply Chain and Manufacturing Division at Baker Hughes in Houston.

Shahram also collaborated with the Production System Design Laboratory at MIT conducting research in the design and the implementation of "lean production systems" in the automotive industry in the U.S. and Europe from 1996 to 2000. Dr. Taj has served as Thesis Advisor/Reader of over 100 graduate students at UDM including a doctoral thesis committee at MIT. He served as the track chair of the "Lean Manufacturing, Manufacturing Information Management, Supply Chain, and Product Development" for the SAE International in Ireland, Spain, and France. He has published over 60 refereed articles in journals and proceedings of many international conferences. Recently, he published several articles on the adaptation of lean production in China and Bank Efficiency in Turkey.

Shahram earned his Ph.D. in Industrial Engineering and Operations Research from the University of Massachusetts (1984). He has a MS degree in Industrial Engineering from the University of Rhode Island (1980) and a BS in Applied Mathematics/Operations Research from the School of Planning and Computer Applications in Tehran (1977).

09:30 – 10:00 Welcome Address

10:00 – 11:00 Opening Keynote: Dr. Pamela McCauley, Professor, Department of Industrial Engineering and Management Systems and Director, Human Factors in Disaster Management Research Team, University of Central Florida, USA

11:00 – 11:30 Networking Break

11:30 – 12:45 Global Engineering Education II (Thursday) – Salon 5
Session Chair: Dr. Kit Fai Pun, University of the West Indies

11:30 – 11:55 am, Thursday

Dr. Kit Fai Pun
Professor of Industrial Engineering
Campus Coordinator and Chair, Graduate Studies & Research
School for Graduate Studies & Research
Department of Mechanical and Manufacturing Engineering
Faculty of Engineering
The University of the West Indies
St Augustine Campus, Trinidad and Tobago

Exploring Industrial Engineering and Education: From Illustrated Cases to Best Practice of Graduate Research Supervision

Abstract: Industrial Engineering (IE) is a people-oriented, customer-oriented engineering discipline. It emerged as a profession that comprehends knowledge and skills in applying scientific analysis, technical design, management techniques, financial appraisal and human relations principles in order to improve quality, productivity, investment and human development in operations. This presentation is of two-folds. It will firstly explore the versatility of IE in building competence in firms and industries with illustrated cases. It then discusses the challenges of graduate research in IE as well as the best practice of graduate student supervision in universities.

Bio: Dr. Kit Fai Pun joined The University of the West Indies (UWI), Trinidad and Tobago as a Senior Lecturer in 2001 and became a Professor of Industrial Engineering (IE) in 2004. He has been serving as the coordinator of IE research group and programmes in the Department of Mechanical and Manufacturing Engineering since 2001, and is presently the Deputy Dean of Research and Postgraduate Student Affairs of the Faculty of Engineering.

Before joining UWI, he held several academic positions at City University of Hong Kong, and worked in industry as operations executive, researcher, engineer and consultant in Hong Kong and the UK. Professor Pun is a Chartered Engineer and a Chartered Marketer in the UK, as well as a Registered Professional Engineer in Europe, Australia, Hong Kong, and The Republic of Trinidad and Tobago. He is a member of Caribbean Academy of Science and many professional bodies and learned societies (such as IEEE, IIE, ASME, ASQ, IET, BCS, CIM, IEAust, HKIE, HKSQ, and APE). Professor Pun is currently the Chairperson of the Technology and Engineering Management Society (TEMS) Chapter of the IEEE Trinidad and Tobago Section. He was a Fast Chair the Mechanical & Industrial Engineering Division of the Association of Professional Engineers of Trinidad and Tobago (2004-2009).

Professor Pun is a member of the Editorial Board of The West Indian Journal of Engineering, The Asian Journal on Quality, and International Journal of Quality and Standards. He is also an ad hoc reviewer of several journals such as the International Journal of Quality and Reliability Management, R&D Management, International Journal of Production Research, and International Journal of Technology Management.

He had completed several research projects funded by UWI and other overseas universities and governments. Presently, Professor Pun has five MPhil/PhD students. He published more than 200 journal articles, research and technical papers. His current research interests are in the areas of industrial engineering, engineering management, quality management, performance measurement and information technology/systems. His research work has been cited widely by researchers and scholars. As at April 2015, there were some 2,843 citations of his publications, and the 'h-index' was 32 and the 'i10-index' was 54 (source: https://scholar.google.com/). Dr. Pun has received several recognitions of my research accomplishments, including the 2008 Vice-Chancellor's Award for Excellence (Teaching and Research) and the 2012 'Most Outstanding Researcher Award' (Engineering) recognized by the University. His biography has been selected for The Marquis Who's Who in the World (since 2005) and The Marquis Who’s Who in Science and Engineering (since 2006).
**11:55 am – 12:20 pm, Thursday**

**Dr K.C. Vora**  
Vice President SAEINDIA  
Member, SAE International Engineering Meetings Board  
Sr. Dy. Director & Head, ARAI Academy  
The Automotive Research Association of India  
Research Institution of the Automotive Industry  
Pune, India

**Excellence in Skill Development through Engineering Education**

**ABSTRACT:** Engineering Education has to come out of the four walls of classroom and create an appropriate balance between ‘fundamentals’ and ‘applications’. The students should learn from fundamentals to applications in the classroom and from application to fundamentals outside the four walls of the classroom. The engineering students are finally expected to think critically, understand constraints, solve problems, make concepts, design products, make prototypes and validate them for the progress of mankind. This is possible through Project Based Learning (PBL) with the help of Industry Academia Partnership leading to first year corner-stone mini-projects and last year cap-stone design-projects.

With shrinking world and more use of Information and Communications Technologies (ICT), it is proposed to reengineer engineering education, not only in the field of manufacturing but also in R&D and innovation. In such a scenario, STEM (Science, Technology, Engineering and Maths) based dedicated global engineering education Programmes will enable students to use conceptual knowledge to develop solutions to real world problems in a practical manner. They must also have domain knowledge, soft skills like passion, confidence, leadership, teamwork, learning skills, communication skills and attitude. This will provide the perfect impetus for the next generation of industry professionals who will fuel the economic growth.

The engineering students require overall skill development to enable them to keep abreast of the latest technology & testing methods and to take a systems view of the industry & its processes, while developing their technical & managerial capabilities in global scenario. The teaching faculty is required to accept continuous change and achieve & sustain excellence in education quality, service and co-ordination. A university may prefer a mathematical derivation structure, but what is important is the practical approach for surviving in the Academia. This paper elucidates long term and short term programmes in Engineering developed globally to meet these needs. This program has been evolved jointly by The Automotive Research Association of India (ARAI), Academia and the Industry through Global Collaborations.

**BIOGRAPHY:** Dr. Kamalkishore Vora has done his Bachelors in Mechanical Engineering (1983) from BVM-Vallabh Vidyanagar, Masters in Automobile Engineering (1985) from VJTI-Mumbai University and his Ph.D. (2000) from IIT-Bombay on the subject of Automotive Air Pollution Control. He has a vast industrial & academic experience of 28 years and has been associated with Walchand Nagar Industries – Satara, Emitec Emission Controls – Pune, Mahindra & Mahindra – Nashik and The Automotive Research Association of India (ARAI) – Pune. He has specialized in the field of Education & Technology Development, Soft Skills, Engine R&D and Emission Controls. He is instrumental in starting ARAI Academy, which conducts B. Tech, M. Tech. & Ph.D. Courses in Automotive Engineering in Collaboration with VIT University-Vellore, VelTech University-Chennai, College of Engineering-Pune, University of Alabama-Birmingham & Tennessee Tech University-USA. He also conducts short term courses popularly known as Proficiency Improvement Programmes (PIPs) & Domain Training Programmes (DTPs). Presently Dr. Vora is Sr Deputy Director and Head of ARAI Academy and looks after Learning Centre, Training Centre and Knowledge Centre at ARAI, Pune. He is the recipient of the ‘Best Learning Centre Award 2011’ for ARAI Academy & Knowledge Centre from the Indian Society for Training & Development at Pune. Recently, he received GURU Award from SAEINDIA Foundation New at Delhi for his contributions to the students of India. Dr. Vora is trained at Ford Motors, General Motors, Coming, United States EPA and Emitec-Germany. He was conferred the position of Chairman, Board of Advisors (Academic) by VelTech University, Chennai and “Adjunct Professor” by VIT University-Vellore and has been Visiting Faculty in various Engineering Colleges. He was the Secretary (now Vice President) of the Society of Automotive Engineers (SAEINDIA) and conducts series of Conferences, Seminars, Workshops, Courses and various students’ activities like AWIM, BAJA & SUPRA SAEINDIA. He is also coordinator of SAEINDIA Western Section, Member of SAE International Engineering Meetings Board, Member of Education Board of FISITA and SAEINDIA Off-Highway Board. He was Co-Chairman of Technical Committee of APAC 2012, Chairman of Technical Committee of SIMCOMVEC 2013 and recently Convenor of SIAT 2015 SAE Conference held in January 2015. Dr. Vora has 2 patents, 2 books, 2 reports, 16 international papers & 30 national papers to his credit.

12:20 – 12:45 pm, Thursday

**Rumi Tobita**  
Ashikaga Institute of Technology  
Ashikaga, Tochigi, Japan

**Developing an Effective ESP Course for Engineering Students**

**Integrating Analysis with NIRS**

Rumi Tobita is an associate professor of department of Innovative Engineering, Ashikaga Institute of Technology in Japan. Ms. Tobita holds a Bachelor of Liberal Arts degree in Language Education, a Master of Education degree in Audio-Visual Education, and certification of Doctoral Candidate in Audio-Visual Education from International Christian University, Tokyo, Japan. Her research topics are Computer Assisted Language Learning (CALL), Educational Technology, Curriculum Development, English Program Development, English for Specific Purposes, Extracurricular activity and International Exchange Program Development, and Brain Science. She has taught several fields of courses such as Educational Technology, Social Information, Brain Science besides English courses for engineering students for more than 10 years. She is committee member of The Japan Association for Language Education and Technology (LET) and also local organizing committee of World CALL 2008.
**Global Engineering Education**

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13:00 – 14:00 **Lunch Keynote:** Thomas Seubert, North American Delivery Lead for Manufacturing Execution Systems (MES), Tata Technologies, Novi, Michigan, USA

14:00 – 14:30 Networking Break

14:30 – 15:45 **Global Engineering Education III (Thursday) – Salon 5**

Session Chair: Dr. Jose Deliz, Universidad Turabo, Puerto Rico

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2:30 – 2:55 pm, Thursday

**Dr. Charles Mbohwa**

Professor and Vice-Dean Postgraduate Studies, Research and Innovation
Faculty of Engineering and the Built Environment (FEBE)
University of Johannesburg’s (UJ)
South Africa

**Bio:** Professor Charles Mbohwa is the Vice-Dean Postgraduate Studies, Research and Innovation at University of Johannesburg’s (UJ) Faculty of Engineering and the Built Environment (FEBE). As an established researcher and professor in the field of sustainability engineering and energy, his specializations include sustainable engineering, energy systems, life cycle assessment and bio-energy/fuel feasibility and sustainability with general research interests in renewable energies and sustainability issues. Professor Mbohwa has presented at numerous conferences and published more than 150 papers in peer-reviewed journals and conferences, 6 book chapters and one book. Upon graduating with his B.Sc. Honors in Mechanical Engineering from the University of Zimbabwe in 1986, he was employed as a mechanical engineer by the National Railways of Zimbabwe. He holds a Masters in Operations Management and Manufacturing Systems from University of Nottingham and completed his doctoral studies at Tokyo Metropolitan Institute of Technology in Japan. Prof Mbohwa was a Fulbright Scholar visiting the Supply Chain and Logistics Institute at the School of Industrial and Systems Engineering, Georgia Institute of Technology, is a fellow of the Zimbabwean Institution of Engineers and is a registered mechanical engineer with the Engineering Council of Zimbabwe. He has also visited many countries on research and training engagements including the United Kingdom, Japan, German, France, the USA, Brazil, Sweden, Ghana, Kenya, Tanzania, Malawi, Mauritius, Austria, the Netherlands, Uganda, Namibia and Australia.

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2:55 – 3:20 pm, Thursday

**Dr. Shannon Flumerfelt**

Associate Professor
Educational Leadership
Director of Lean Thinking for Schools
Pawley Learning Institute
Oakland University
Rochester, MI 48309, USA

**The New DNA of Engineering Education**

Shannon Flumerfelt, Ph.D., is an Associate Professor in the Department of Organizational Leadership, an Endowed Professor of Lean, and the coordinator of the online Education Specialist degree program at Oakland University, Rochester, MI, USA. She has authored over 100 scholarly publications and books. Dr. Flumerfelt is interested in organizational improvement, leadership development and educational change. As a qualitative educational researcher, she works on many interdisciplinary projects, especially in engineering, systems and complexity. Her research focuses on lean performance management, instructional technology, content/competency designs for educational delivery and systems-based organizational leadership.

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3:20 – 3:45 pm, Thursday

**Dr. Jose R. Deliz**

Associate Dean, School of Engineering
Professor and Director of Industrial and Management Engineering
Universidad Turabo
Puerto Rico

**How to achieve academic excellence through assessment in IE Education**

**Bio:** Dr. Jose Deliz is an Associate Dean of School of Engineering, Professor and Director of Industrial and Management Engineering, at University of Turabo, Puerto Rico. He was Professor of Industrial Engineering at University of Puerto Rico Mayagüez during 1981-2003. Dr. Deliz held various positions at UPRM including: Director, Office of Planning and Development, Institutional Research, Interim Director of IE Department,
Interim Dean of Administration, and Associate Director Information Systems, Office of Planning and Development, UPR System. He was an Associate Professor, School of Business Administration, and Director Office of Planning and Development, UPR Rio Piedras Campus (1974-1976). Dr. Deliz has published numerous papers. He is a member of IIE.

Jacqueline Mullen  
Vice-chancellor Sponsored Research and Programs  
Universidad del Turabo  
Ana G. Mendez University System, Inc.  
Puerto Rico  

Bio: Jacqueline Mullen is Vice-Chancellor Sponsored Research and Projects Universidad Turabo. She holds an MS Community Economic Development Southern New Hampshire University, BA Latin American Studies and Spanish, Hartwick College. Member of Honor society, editor of School newspaper. She was consultant at Falcon Sanchez Consulting Group. Community Economic Development Director at Progressa. Community Economic Development for the Gateway to San Juan project in public housing of Manuel A. Perez and Ramos Antonini and surrounding areas. Executive Director of P. R. Farm Bureau.

15:45 – 16:00 Break

16:00 – 17:15 Global Engineering Education IV (Thursday) – Salon 5  
Session Chair: Dr. Hamid Parsaei, Texas A&M University (College Station)

4:00 – 4:30 pm  
Dr. Hamid Parsaei, PE  
Professor of Industrial and Systems Engineering  
Texas A&M University (College Station)  
and  
Professor of Mechanical Engineering and  
Director of Academic Outreach  
Texas A&M University Qatar  

Bio: Hamid R. Parsaei is Professor of Industrial and Systems Engineering at Texas A&M University (College Station) and also Professor of Mechanical Engineering and Associate Dean for Academic Affairs at Texas A&M University at Qatar. He is a registered professional engineer (PE) in Texas, a Fellow of the Institute of Industrial Engineers (IIE), and a Fellow of the American Society for Engineering Education (ASEE). He has published over 200 articles in peer-reviewed archival journals and conference proceedings. He has also served as editor/co-editor in chief for four academic journals and five book series. His research, in excess of $22 million, has been funded by numerous government and private institutions.

4:30 – 5:00 pm  
Dr. Christoph Wunck  
Professor  
Business Computing Systems, Industrial Engineering  
College of Management, Information, Technology  
Jade University  
Wilhelmshaven, Germany  

Raising intercultural awareness of engineering students – Strategies, challenges and lessons learned from six years of German- American Engineering Summer Programs

The talk is about a successful international undergraduate exchange program between Texas Tech University and Jade University in the area of industrial engineering, serving the different needs of students from both institutions for mutual benefit.
Dr. Bidyut Kumar Bhattacharyya
Professor, Mechanical Engineering Department
Director, School of Safety & Occupational Health Engineering
Indian Institute of Engineering Science & Technology
Shibpur, West Bengal, India

Globalizing Engineering and Management Education in India

Bio: Bidyut Kumar Bhattacharyya received B.Sc. in Mechanical Engineering from University of Calcutta, MS in Production Engineering from Faculty of Technology, M.S University, Baroda, Gujarat, and Ph.D. from Jadavpur University, Kolkata, India. He has certificate of Training on TQM – Japan Union of Scientist & Engineers (JUSE), Tokyo, Japan. Dr. Bhattacharyya has 8 years industrial experience in M.N. Dastur, Hindustan Motors and TTK Group in Quality Assurance Department. He was visiting faculty at Jadavpur University, Institute of Engineers – India, and Academic Staff College, IOLC, Haldia. Dr. Bhattacharyya co-chaired, several International Conference on Industrial Engineering & Engineering Management, China and is a member of National Sectoral Innovation Council on Occupational Safety and Health (OSH) by the Ministry of Labor and Employment, Government of India. He has provided many keynote speeches. His research areas are Advanced Manufacturing System, Industrial Engineering, Quality & Production Management, Human Resource Management, Operation Research, and Safety & Occupational Health. Dr. Bhattacharyya has supervised many doctoral students and published many international conference and journal papers and is on the board of editors of quite a few reputed journals. He is a Member of Academic Council, School of Management Science, Indian Institute of Engineering Science & Technology, Shibpur. He has been actively involved in collaboration of industry and academia and in development of research laboratories. Dr. Bhattacharyya has also been a distinguished speaker on Global Engineering Education at IEOM Conference at Bali, 2014. He has been member of various committees of NBA, UPSC and AICTE, New Delhi.

September 11, 2015 (Friday)

08:00 – 10:00 Global Engineering Education V (Friday) – Salon 4
Session Chair: Dr. D. K. Banwet, Indian Institute of Technology (IIT) – Delhi

Jairo Alfonso Vargas, IE, BBSS
Department Head, Department of Industrial Engineering
Fundación Universitaria Konrad Lorenz, Bogotá Colombia
Regional VP of IIE, Central and South America

Professor Vargas is Head of the Department of Industrial Engineering at Fundación Universitaria Konrad Lorenz, Bogotá, Colombia since 2008. He was and Associate Professor of Industrial Engineering at Escuela Colombiana de Ingeniería, (Bogotá) from 2003 to 2007. Professor Vargas was Dean, Faculty of Industrial Engineering at Escuela Colombiana de Ingeniería. He also worked at Universidad del Norte (Barranquilla), Pontificia Universidad Javeriana, (Bogotá), Universidad de America, (Bogotá), and Universidad Santo Tomas, (Bogotá).

Dr. Vargas serves as a Faculty Advisor for IIE Chapter at Escuela Colombiana de Ingeniería. He has been an International Consultant and Coach for over 20 years on different issues regarding Industrial Engineering such as Six Sigma, Lean Manufacturing, Work Measurement, MPS, MRP, JIT, CONWIP, etc. Dr. Vargas is an associate Consultant for “TBL” in Guayaquil Ecuador, 2000-present. He is serving as a REGION VICE PRESIDENT of IIE, CENTRAL AND SOUTH AMERICA. Professor Varags is also involved with other professional organizations including: ACOFI Member (Asociación Colombiana de Facultades de Ingeniería) 2007-present, member of Asociacion de Ingenieros Javerianos (1991-present), member of the Academic Council of the Pontificia Universidad Javeriana, 1998 and member of the Board of Directors at Fundación Universitaria Konrad Lorenz, 2011-present. He graduated from Pontificia Universidad Javeriana, in Industrial Engineering in 1987 and received Black Belt, Six Sigma from Escuela Colombiana de Ingeniería in 2003.

8:30 – 9:00 am, Friday
Carlos Ernani Fries and Guilherme Luz Tortorella
Federal University of Santa Catarina
Florianópolis, SC, Brazil

Application of Focus Groups and Learning Cycles on the A3 Thinking Methodology: The case of increasing machinery capacity at a steel plant

Guilherme Luz Tortorella is Adjunct Professor at the Department of Production and Systems Engineering of the Federal University of Santa Catarina (UFSC), Florianópolis, Santa Catarina State, Brazil. He earned his Bachelor degree in Mechanical Engineering from the Federal University of Rio Grande do Sul (UFRGS). His Master in Production Systems and PhD in Production Engineering were also earned from UFRGS.
Mr. Tortorella has experience in Production and Quality Systems, having taught in the graduate programs at UFRGS, ULBRA, PUCRS, UNOESC, FSG and ESADE as a guest professor. He also has 12 years of experience in the automotive industry with international activities in Mexico, England, USA and Uruguay.

Carlos Ernani Fries is Assistant Professor of the Department of Production and Systems Engineering at the Federal University of Santa Catarina (UFSC), Florianópolis, Santa Catarina State, Brazil. Mr. Fries holds a Bachelor degree in Civil Engineering as well as a Master and PhD in Production Engineering from UFSC. He has taught courses in Operations Research applied to Manufacturing and Logistics, Decision Theory, Statistics and Forecasting Models among others. His research interests include manufacturing, simulation, optimization, management games, data analysis applied to logistics, and application of big data tools. He is member of POMS.

Vladimir Robles Bykbaev
Coordinator of the Research Group on Artificial Intelligence and Assistive Technologies
Universidad Politécnica Salesiana
Cuenca, Ecuador

Dr. D. K. Banwet
Emeritus Professor
Department of Management Studies
Indian Institute of Technology (IIT) – Delhi
India
President of Indian Institute of Industrial Engineers – Delhi Chapter

Dr. Devinder Kumar Banwet is an Emeritus Professor (Operations & SCM) at the Department of Management Studies IIT Delhi. He received Eminent Engineer Award 2011 - Institution of Engineers (India) Delhi Chapter. Dr. Banwet is a FIE Fellow of the Institution of Engineers (India), Former National President of Indian Society for Training & Development (ISTD), National Treasurer, Chairman T&D Diploma Board, and Fellow & Life Member ISTD. He was President of Decision Sciences Institute India Chapter, former Head of the Department of Management Studies (DMS) at IIT, Delhi, Dalmia Chair Professor & Coordinator of Applied Systems Research Programme & Entrepreneurship Programme at IITD. Prof. Banwet is elected currently as Chairman IIIE Delhi Chapter. He has 40+ years of professional experience as a professor, Researcher, Trainer, Administrator and Consultant. Dr. Banwet has 140+ publications and 29+ PhDs supervised. He had foreign assignments at Kuwait Institute for Scientific Research & in International Management Programme University of Sorbonne at Paris & 3 India Government deputation of 90 days each as Visiting Expert Faculty at Asian Institute of Technology at Bangkok. He received Pioneer Excellence Award as a doyen in SCM (2009), 16TH Dewang Mehta Business School Excellence Award Best Teacher Operations, Life time achievement awards of DMS SOM IIT Delhi, Nagaland Open University & Knowledge Management Society. Dr. Banwet also received conferred Emerald (UK) Literati Award for a Technical Paper in International Journal of Productivity & Performance Management, highly commended Paper Journal of Enterprise Information Management & Modelling & Systems (2011). Recently one joint paper presented at an International Transportation Conference at France was awarded a special PC Award. He has conducted a large number of MDPs for government, public sector, private sector and Defense. & E-learning programmes by E-Macmillan & IITD & Hughes Satellite Communication based Programmes on Project Management, Supply Chain Management. Dr. Banwet was a Member high level committees of the Government of India, Ministry of HRD etc., National Board of Accreditation, Distance Education Approval Committee and a Board Member in some reputed Management & Engineering Institutions.

10:00 – 11:00 Morning Keynote: Alastair Orchard, Director Digital Enterprise Projects, Siemens PLM Software, Genoa, Italy

11:00 – 11:30 Networking Break

11:30 – 13:00 Global Engineering Education VI (Friday) – Salon 4

“Outcome-Based Education (OBE) Workshop:
The Essence of OBE and Implementation Experiences in Malaysia”

Abstract: There is a growing concern among practitioners on the competencies of fresh graduates in Malaysia. Some of the organizations have developed ‘special’ trainings to equip our graduates who are perceived as lack of soft skills and not ready to join the workforce. The Education Ministry has even developed a BLUEPRINT on our graduates attributes that needed by the industries. Outcome Based Education (OBE) has been introduced and implemented for more than 5 years in Malaysia. However, the program learning outcomes (PLOs) that supposedly converted into competencies and attributes of graduates have failed to satisfy the industries. Hence, this paper explores the issues and challenges in implementing OBE in a course in a management of Technology (MoT) program in UTHM. It adopts the qualitative methodology.
The research strategy is a case study. The case study protocol is based on the stages in OBE implementation. The findings discovered that there are three critical issues that hinder the success of the implementation of the OBE concepts; which are at least the human capital factor (lecturers and students), the system (management) and the infrastructure (e.g. library, classroom, etc.) that related to OBE implementation.

**Dr. Chan Chee-Ming**  
Associate Professor and Deputy Dean (Academic and Research)  
Centre for Graduate Studies  
Universiti Tun Hussein Onn Malaysia  
Batu Pahat, Johor, Malaysia

*Bio:* Chee-Ming Chan is an Associate Professor with the Civil Engineering Technology Department, Faculty of Engineering Technology, Universiti Tun Hussein Onn Malaysia. She is presently holding the office of Deputy Dean in Academic and Research at the Centre for Graduate Studies in the University. Her area of expertise includes geo-materials, engineering education and higher education improvement. More recently, Dr. Chan’s current work on dredged materials from Malaysian waters has gained momentum and support from the Ministry of Science, Technology and Innovation and Department of Marine, Malaysia. She is also involved in professional bodies, including the Society for Engineering Education Malaysia (SEEM), Malaysian Geosynthetics Society (MyIGS), Institution of Engineers Malaysia (IEM), Board of Engineers Malaysia (BEM), and an education quality auditor for the Malaysian Qualification Agency (MQA). From 2009-11, Dr. Chan served as a Postdoctoral Research Fellow at the Port and Airport Research Institute (PARI), Japan.

**Dr. Alina Shamsudin**  
Associate Professor  
Deputy Dean (Teaching, Learning and Academic Training)  
Centre for Academic Development and Training  
Universiti Tun Hussein Onn Malaysia  
Johor, Malaysia

*Bio:* Alina Shamsuddin is currently an Associate Professor (Technology Management) with the Faculty of Technology Management and Business of Universiti Tun Hussein Onn Malaysia. Being a founding member of her faculty, Dr. Alina is not only knowledgeable on the immediate related fields of performance measurement, production and management, she is also an expert on educational quality assessment and assurance, with 5-year experience as an auditor for the Malaysian Quality Agency (MQA). Her research concerns are myriad but inter-related, encompassing higher education quality assurance and reforms, effective teaching and learning, as well as innovative technology adoption for SMEs. Currently heading the Unit of New Programmes Development, Dr. Alina is consolidating her effort to make a difference in the quality of programme design and delivery in the overall higher educational arena, institutionally and nationally.

**Dr. Azeanita Suratkon**  
Senior Lecturer at the Faculty of Civil & Environmental Engineering  
Lead – Department of Building and Construction Engineering  
Universiti Tun Hussein Onn Malaysia  
Johor, Malaysia

Azeanita Suratkon is currently a Senior Lecturer at the Faculty of Civil and Environmental Engineering, and leads the Department of Building and Construction Engineering. Dr. Azeanita had a multi-national education background: bachelor’s at UTM (Malaysia), Master’s at Herriot-Watt University (Scotland) and PhD at Chiba University (Japan). Her international exposure has given her the leverage for a multi-facet approach in her chosen field of study, which primarily revolves around construction management, risk assessment and procurement issues. Dr. Azeanita also aims to improve the current engineering education practice, in line with the nation’s Outcome-based Education philosophy, by drawing on her rich multi-discipline background. Her continuous effort in enriching construction management and higher educational reforms are driven forward in collaboration with Japanese counterparts too.

1:00 – 1:45 *Friday Lunch Keynote:* Dr. Miguel Gastón Cedillo-Campos, Professor in Logistics Systems Dynamics, Senior Researcher, Mexican Institute of Transportation and Founding President, Mexican Logistics and Supply Chain Association (AML)
1:45 – 2:30 Friday Lunch Keynote: Uriel R. Cukierman, Professor, Facultad Regional Buenos Aires, Universidad Tecnológica Nacional, Buenos Aires, Argentina and President, International Federation of Engineering Education Societies (IFoEE)

2:30 – 3:30 Competition Awards and Recognitions

3:30 – 4:45 pm Global Engineering Education VII (Friday) – Salon 4
Session Chair: Dr.-Eng. Eldon Caldwell, University of Costa Rica

3:30 – 3:55 pm

Dr. Srinivas R. Chakravarthy
Professor and Department Head
Industrial and Manufacturing Engineering
Kettering University
Flint, Michigan, USA

Modeling and Simulation in Undergraduate Education in Industrial Engineering Program: Opportunities and Challenges

ABSTRACT: Industrial Engineering (IE), as we all know, is centered on people and processes. First, the industrial engineers interact with people to get a better understanding of the problems the businesses and industries face. Secondly, using the skills and techniques learned in the classroom settings, they offer implementable solutions in practice. Further, the Industrial Engineers always look for ways to continuously improve the process and the products. In this talk, we will present the opportunities and challenges that undergraduate IE students as well as the educators face in dealing with two key skill sets: Modeling and Simulation, which are essential (among other skill sets) in providing solutions to a variety of problems in real-life applications.

BIO: Dr. Chakravarthy is Professor and Head of the Department of Industrial and Manufacturing Engineering at Kettering University (formerly known as GMI Engineering & Management Institute), Flint, Michigan. He received his BS (Mathematics) and MS (Statistics) degrees from the University of Madras, India, and Ph.D (Operations Research) from the University of Delaware, Newark, USA.

Dr. Chakravarthy’s research interests are in the areas of algorithmic probability, queuing, reliability, inventory, and simulation. He has published more than 100 papers in leading journals and made more than 85 presentations at national and international conferences. Recognizing the impact of Neuts’ Matrix-analytic methods in stochastic models, he initiated the organization of International Conference Series on Matrix-Analytic Methods (MAMs) in Stochastic Models. He co-organized the First International Conference on MAMs in Stochastic Models in 1995 held in Flint. Following the success of this conference and interests shown in the MAMs research community, the next seven conferences were held in Winnipeg, Canada (1998), Leuven, Belgium (2000), Adelaide, Australia (2002), Pisa, Italy (2005), Beijing, China (2008), New York, USA (2011), and Calicut, India (2014). The ninth one is slated to be held in Budapest, Hungary (2016).

Dr. Chakravarthy has been a visiting faculty at the Department of Statistics and Operations Research, Complutense University of Madrid, Madrid, Spain, the Department of Mathematics, Cochin University of Science and Technology, Cochin, India, and the Department of Mathematics and Statistics, Victoria University of Wellington, Wellington, New Zealand.

Dr. Chakravarthy’s recognitions and awards include (a) NSF Conference Award – Co PI (DMS-1360865), 2014-2015; (b) Rodes Professor, Kettering University, 2010-2012; (c) Kettering University Distinguished Research Award, 2003; (d) Kettering University/GMI Alumni Outstanding Teaching Award, 2001; (e) Sloan Grant for developing ALN courses at Kettering University, 2000; (f) GMI Outstanding Research Award, 1996; (g) Sloan Faculty/Industry Exchange Fellowship, 1996; (h) GMI Research Initiation/Improvement Grant, 1995; (i) NSF Conference award (DM-9424312), 1995; (j) NSF Research award (DDM-9313283), 1993-1997; (k)GMI Alumni Outstanding Teaching Award, 1990; GMI Research Initiation/Improvement Grant, 1990; (l) Lilly Faculty/Industry Exchange Fellowship, 1988.

Dr. Chakravarthy has significant industrial experience by consulting with GM, FORD, PCE, and UPS. He has also served as Engineering Group Manager for Operations Research Division in General Motors.

Dr. Chakravarthy’s professional activities include serving as (a) Area Editor for the journal, Simulation Modelling Theory and Practice; (b) Associate Editor for the journal IAPQR TRANSACTIONS – Indian Association for Productivity, Quality & Reliability; (c) Advisory Board Member for several other journals and International Conferences; (d) Reviewer for many professional journals; and (e) External Examiner for a doctoral thesis from abroad.
3:55 – 4:20 pm

Dr. Sabah Abro
Professor
Program Director, Master of Science in Engineering Technology
Department of Engineering Technology
Lawrence Technological University
Southfield, Michigan, USA

**Bio:** Dr. Abro is an internationally-educated person with a bachelor degree from Baghdad University, a Master’s Degree from the United Nations institute in the Middle East, a Master’s degree from Britain and a Ph.D. from Belgium. His education helped him to learn four languages, Arabic, English, French and Chaldean. Dr. Abro taught in Iraq, Jordan and also as a visiting lecturer in Kuwait and Morocco. He assumed different positions such as faculty, regional consultant, chair of department and acting Dean. Before joining LTU he was a Program Director at Focus: HOPE where he worked with the curriculum committee of the Greenfield Coalition. This committee designed a complete paradigm in manufacturing engineering education. Courses were developed and delivered at Focus: HOPE by three university partners. Sabah joined LTU as an adjunct faculty in 1997, then as a full time faculty in 2000. He served two departments, Math& Computer Science and the Engineering Technology. As a full time faculty at LTU, he teaches a variety of classes, advises students, works on curriculum improvement, course development, writes professional papers and presents in conferences. His passion in Education led him to be the winner of several Doctorate Committees in the College of Engineering. Dr. Abro serves as Director of the University Assessment Committee and the Vice Chair of the Engineering Faculty Council.

4:20 – 4:45 pm

Dr.-Eng. Eldon Caldwell
Director, Industrial Engineering Department
Engineering School
University of Costa Rica

**Bio:** Eldon Caldwell, is full professor/ Cathedraticus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Summa Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/ University of Nevada, USA. Currently, he is doctoral researcher at the (Dr. Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013.

Dr. Caldwell is "Lean Systems Certificated Specialist", MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prized. Also, Dr. Caldwell has been recognized by the IEOM Society with the "Outstanding Service Award" for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering, Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at ITESM, México. He is author of many scientific articles and two books: "Marketing of Social Products and Services", UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Institute Press, USA.

Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quiros & Cia-Bandag Inc. and General Manager at Lean Systems Intl.. USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panamá, Costa Rican Institute for Electricity, RTC-Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others.

Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.
5:00 – 6:15 pm **Global Engineering Education VIII** (Friday) – Salon 4
Session Chair: Dr. Muhammad H. Zaman, Boston University, USA

5:00 – 5:30 pm, Friday

**Dr. Muhammad H. Zaman**
Associate Professor & Associate Chair for Undergraduate Affairs
Department of Biomedical Engineering
Associate Director, Kilachand Honors College
Boston University, USA

**Engineering Education in Africa: Impact for Development and Sustainability**

*Bio:* Dr. Muhammad H. Zaman is Director of Laboratory of Engineering Education and Development, Associate Professor and Associate Chair of Biomedical Engineering and Associate Director of Kilachand Honors College at Boston University. Prof. Zaman is actively involved in engineering education and curriculum development in resource limited countries. As the co-Director of UN Economic Commission for Africa’s Biomedical Engineering Initiative, he is actively involved in creating and sustaining biomedical engineering programs across various institutions in Africa, including universities in Kenya, Zambia, South Africa, Ethiopia and Uganda. He has won numerous awards in teaching and educational research, these include awards from IEEE Education Society, IEEE EMBS Young Investigator Award, American Society for Engineering Education and The University of Texas Board of Regents. His work has been profiled by BBC, The New York Times, National Public Radio, Popular Science, Scientific American and others. His research is funded by USAID, UN Economic Commission, NIH, National Science Foundation, Gates Foundation and other international private and public organizations.

5:30 – 6:00 pm, Friday

**Mrs. Ghamande Manasi Vyankatesh**
Vishwakarma Institute of Technology
666 Upper Indira Nagar, Bibwewadi
Pune 411037, Maharashtra, India

**Challenges of Self-Financing Engineering Institutes for Better Survival in Future**

*Abstract:* Due to privatization of Technical Education in 1983 in the state of Maharashtra, not only opportunities for higher education in Technical Stream were created but also a lot of challenges came on surface. Large no. of Institutions which are essentially self-financing, offered education in unconventional faculties, which was no doubt need of the hour. However the mere no. gave rise to getting good quality students and faculty attracted to these Institutions a real challenge. The socio-economical dimension played vital role in getting placements and preparing engineers which are fit for future. The financial constraints further made it mandatory to look for alternate sources of income, over and above fees collected from students. The fierce competition further worsened the scenario. Time has come to evolve sustainability and maturity model for higher technical education. Income generation through customized MDPs for industry professionals, extending testing and calibration facilities are some options that are readily available with some investment. Implementation of green concepts like through solar campus, STP, ETP are need of the hour. Waste reduction is the key factor. Research has to be strengthened, which traditionally has been overlooked. Systems like ISO QMS, TQM and accreditation by agencies of national/ international repute are now necessary, EDP cell and supporting entrepreneurship on the campus can bring down the placement burdens. Resource sharing is another initiative that can be taken up. All such and many more innovative steps can lead to survival and growth of self-financing institutions in near future.

*Biography:* Mrs. M.V. Ghamande, working as an Assistant Professor at Vishwakarma Institute of Technology, Pune, Maharashtra, India. I have done B.Sc. in Chemistry in 1988 from Savitribai Phule University and M.Sc. in 1990 from same University. I have presented about seven papers in National Conference on technical/my subject. And one technical paper at International Conference at Mauritius in 2010. I have also presented four papers on management topic in National Conference.

6:00 – 6:30 am, Friday

**Dr. Hansa Lysander Manohar**
Associate Professor
Department of Management Studies
Anna University
Chennai, India

**A Roadmap to Integrate Sustainability and Innovation in Engineering Education**

*Abstract:* Engineering education should cater to an innovation process to develop a sustainable product-service which should include need-finding, design, implementation and through various other activities till remanufacturing if it is required. The course should encourage research results to be continuously developed in close collaboration with the global industry to develop a relevant product-service through the theoretical understanding of the future engineers. New ideas should be able to frequently flow from consumers, suppliers, partners, research institutions or even from regulators. This presentation
Global Engineering Education September 10-11, 2015 IEOM Orlando Conference

gives a Roadmap to efficiently use the optimum resources available to lead to a significant cost saving model through extensive impact analysis across the value chain.

**BIO:** Dr. Hansa is an Associate Professor in the Department of Management Studies, College of Engineering, Guindy, Anna University, Chennai, India. She is the Coordinator for Distance Education MBA, M.Sc (Computer Science) and MCA. Dr. Hansa has a B.Tech in Textile Technology, M.B.A in Systems and Marketing and a Ph.D in Operations and Technology Management from Anna University, Chennai, M.C.A from the Institute of Distance Education, University of Madras, Chennai and FDPM from Indian Institute of Management -Ahmedabad. She was the 4th University Rank holder in MBA at Anna University and has received the Best Teacher Award in 1996-97 and 1999-2000. Dr. Hansa was involved with Academic Institutions like All India Council for Technical Education (AICTE) and University Grants Commission (UGC) in conducting Induction Training Programmes and Capacity Building Workshops. She has coordinated with Industrial Institutions like CII (Confederation of Indian Industries) to conduct Technical Seminars. Dr. Hansa has prepared Training & Development CD’s, given guest lectures through VSAT on Motivational Skills, Behavioral Patterns, Environmental Awareness and Career Counseling. Dr. Hansa has authored books on “Technology Transfer” and “Strategic Technology Planning” for Centre for Distance Education, Anna University, Chennai and “Entrepreneurship & Management of Small Business” for Distance Education, University of Madras. Dr. Hansa has collaborated with All India Council for Technical Education (AICTE) in a development project on Total Quality Management. She has collaborated with ITCOT and KVIC in consultancy activities on feasibility of setting up a processing plant, technology economics for the introduction of a new appropriate technology. She has prepared a Manual for ISO 9000 certification for knitted wear units. She has over 25 years of Teaching and Research experience specializing in Optimization of Supply Chains, Healthcare Management, Knowledge Management Systems and Innovative Sustainable Operations. She has guided 9 doctoral research scholars. She has over 15 International and 35 National publications and has presented over 20 International and 35 National papers. She teaches courses on Supply Chain Management, Product Design, Total Quality Management, Knowledge Management Systems, Software Project Quality Management, Cloud Computing and Data Analysis & Business Modeling.

**Sixth IEOM Conference - Kuala Lumpur, Malaysia**

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IEOM Symposium on Global Engineering Education

Dhaka, Bangladesh, December 19, 2015

Venue: Institute of Engineers, Bangladesh (IEB), Ramana, Dhaka

http://iieom.org/ieom/gee-symposium-dhaka/

Theme: Engineering Education in Bangladesh vs. World and How IE can contribute to Bangladesh Development

Organized by: IEOM Society and Bangladeshi IEOM Society

IEOM Society is organizing a Symposium on Global Engineering Education to be held at the Institute of Engineers, Bangladesh (IEB), Dhaka on December 19, 2015. It addresses challenges and opportunities for engineering education in Bangladesh. Speakers will deliver talk on Bangladeshi engineering education curriculum vs. global engineering curriculum. A focus will be given on accreditation, assessment and student learning. Students and professors engagement in teaching and learning is a critical component of the engineering education to bridge theory and practice. Team work, design work, entrepreneurship and innovation in engineering curriculum will be addressed. How could we prepare engineering students with global competence? Symposium topics include but not limited to:

- Teaching and learning
- Assessment and accreditation
- Entrepreneurship minded engineer
- Industry involvement (IAB - Industry Advisory Board))
- Engineering curriculum content
- Career development
- Student - professor engagement (office hours, fear of professor, asking questions, etc.)
- Internships/Co-Op
- Student preparation for global challenges
- Readiness gap
- Professional involvement opportunities
- Engineering ways of thinking, knowing, and doing
- Design thinking and engineering decision-making
- Thinking and working in multi-, inter-, and transdisciplinary ways
- Teaming and collaborative learning
- Leadership in engineering
- Creative problem solving
- Theory and Practices

Program

8:00 am – 3:00 pm Registration
9:00 - 9:30 Opening Remarks
9:30 – 9:40 Engineering Education Curriculum: Prof. Dr. Md. Ashraful Hoque, Head, REASP, IUT
9:40 – 9:50 Quality Assurance in Engineering Education: Dr. M Anayet Ullah Patwari, Professor, MCE, IUT
9:50 – 10:10 Engineering Education: Dr. A.S.M. Mojahidul Hoque, Department of Industrial and Production Engineering, Jessore University of Science and Technology, Jessore
10:30 - 11:00 Assessment and Accreditation – Dr. MRK Khadem, Sultan Qaboos University (Oman)
11:00 – 11:30 Tea Break: How to Prepare for Higher Study for USA - Dr. Ahad Ali (Lawrence Tech - USA)
11:30 – 12:00 Challenges and Opportunities for Engineering Education in Bangladesh, Professor Dr. M.M. Shahidul Hassan, Vice Chancellor, East West University, Aftabnagar, Dhaka
12:00 - 12:30 The role of Industrial Engineers in BD RMG sector: The Challenges and Opportunities: Md Kawser Ali, Chief Operating Officer, Comfit Composite Knit LTD, Tangail, Dhaka
12:30 - 1:00 Engineering Education - Global vs. Bangladesh: Dr. Alamgir Choudhury, Associate Professor, Industrial and Manufacturing Engineering, Western Michigan University, Kalamazoo, MI, USA
1:00 – 1:40 Lunch Break (Boxed Lunch will be provided)

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1:00 - 1:15, Lunch Break Presentation: **How to Prepare for GRE and TOEFL** - Engr Md. Akibul Islam

1:15 - 1:30, Presentation from AUST - **Presentations from Students**

1:30 – 1:45 Bangladesh I EOM Society Meeting

1:45 – 2:00 **Textile Education in Bangladesh**: Prof Syed Fakhrul Hassan, Chairman, Department of Textile Eng, South East University, Dhaka.

2:00 – 2:20 Dr. Mohammad Iqbal, Professor, Department of Industrial and Production Engineering, Shahjalal University of Science and Technology, Sylhet

2:20 - 2:45 **Engineering Education in USA, Problem based Learning (PBL), Project Based Learning, and Entrepreneurship** - Dr. Ahad Ali, Associate Professor, Lawrence Tech, USA

2:45 – 3:45 **Panel Session**: Engineering Education in Bangladesh - Challenges and Opportunities

**PANEL SPEAKERS**

**Prof. Dr. A. F. M. Anwarul Haque**, Dean and Head of MPE, Ahsanullah University of Science & Technology, Bangladesh - **MODERATOR**

Mr. Fateh Ul Amin, General Manager, Engineering Technical Services, BEXIMCO, Dhaka, Bangladesh

Engr. Mazharul Islam, Head, AC R&D Dept, Walton

Engr. Md Kawsar Ali, Chief Operating Officer, Comfit Composite Knit LTD

Prof. M.A. Hannan, Rector - Engineering Staff College, Bangladesh

Prof. Dr. Abdur Rahim Mollah, Professor & Head, EEE, Ahsanullah University of Science & Technology

Dr. Maj Md. Faisal Kader, Associate Professor, Department of Mechanical Engineering, Military Institute of Science & Technology (MIST), Dhaka

Dr. Ahad Ali, Lawrence Technological University, Michigan, USA

3:45 – 4:00 **Awards and Recognitions**

4:00 – Thank you notes by newly elected President of Bangladeshi IEOM Society

**REGISTRATION**: Professional and Faculty - Taka 500; Student - Taka 300

Symposium registration includes lunch, tea breaks, attendance certificate and t-shirt.

Register via eventbrite and pay onsite: [http://ieom-dhaka-symposium.eventbrite.com](http://ieom-dhaka-symposium.eventbrite.com)

**Symposium Honorary Chair:**
**Prof. Dr. A. F. M. Anwarul Haque**, Dean & Head of MPE, Ahsanullah Univ. of Sci. & Tech.

**Technical Committee**

Dr. Shamsuddin Ahmed, Visiting Professor, Islamic University of Technology (IUT)

Dr. Ahad Ali, Lawrence Technological University, Michigan, USA

Dr. Md. Haider Ali Biswas, Mathematics Discipline, Science Engineering and Technology School, Khulna University

Dr. Md. Nurul Absar Chowdhury, MCE, Islamic University of Technology (IUT)

Dr. A.S.M. Mojahidul Hoque, Dept. of Industrial and Production Engineering, Jessore University of Science and Tech

Dr. Md. Mosharraf Hossain, Dept. of Industrial and Production Engineering, Rajshahi Univ. of Eng. and Technology

Dr. Md. Kamruzzaman, Dept. of Industrial & Production Engineering, Dhaka University of Engineering and Technology

Dr. Mohammed Khadem, Sultan Qaboos University, Muscat, Oman

Dr. Abu Masud, Boeing Global Engineering Professor, Wichita State University, Kansas, USA

Dr. Abdur Rahim, University of New Brunswick at Fredericton, Canada

Dr. A.R.M. Harunur Rashid, Islamic University of Technology (IUT), Bangladesh

Dr. Mohammad Sarwar Morshed, Ahsanullah University of Science & Technology (AUST)

Dr. Abu Mukid Mohammad Mukaddes, Industrial & Production Engineering, Shahjalal University of Science and Tech.

Dr. Sultana Parveen, Dept. of Industrial and Production Engineering, Bangladesh University of Engineering and Tech.

Dr. Md. Abdul Wazed, Chittagong University of Engineering & Technology (CUET), Chittagong, Bangladesh

**Support Committee Chair**: Eng. Sk Masum Kamal, President – SK Machinery International, Dhaka, Bangladesh

**Sponsors**: International Federation of Engineering Education Societies (IFFES), SK Machinery International

**Contact**: Dr. A.R.M. Harunur Rashid (IUT), E-mail: a_rashid@iut-dhaka.edu, Phone: +880-2-9291254 ext 3334
PROGRAM (Global Engineering Education)

March 8, 2016 (Tuesday)

07:00 – 17:00 Registration

08:00 – 09:15 Session I:
- Dr. C. Chinmoyraj, Professor of Mechanical Engineering and State Project Coordinator (TEQIP), Directorate of Technical Education, Chennai, INDIA
- S. Indra Devi, Senior Lecturer, Department of Languages, Centre for Languages and Human Development, Universiti Teknologi Malaysia Melaka
- Ahmed E. Haroun and Salih O. Duffuaa, Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, KSA

09:30 – 10:00 Welcome Address – VC UTHM

10:00 – 11:00 Opening Keynote: Dr. Ronald G. Askin, Professor and Director, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, Tempe, AZ, USA

11:00 – 11:30 Break

11:30 – 12:45 Session II:
- Dr. Amar Partap Singh Pharwaha, Professor, Sant Longowal Institute of Engineering & Technology (SLIET) -Deemed University, Punjab, India
- Dr. Adagbonyin Moses Obiazi, Dean, School of Engineering, Taylor’s University, Selangor Darul Ehsan, Malaysia
- Dr. Khairiyah Mohd Yusof, Director, Centre for Engineering Education (CEE), Universiti Teknologi Malaysia, Johor Bahru, Malaysia
- Dr. S. Indra Devi, Senior Lecturer, Department of Languages, Centre for Languages and Human Development, Universiti Teknologi Malaysia Melaka
- Dr. Christoph Wuncck, Professor, Business Computing Systems, Industrial Engineering, Jade University, Wilhemshaven, Germany

13:00 – 14:00 Industry Keynote: Dr. Anwar Ali Mohamed, O.R. Freelance Consultant, Penang, Malaysia and Former Principal Engineer at Intel Malaysia

14:00 – 14:30 Break

14:30 – 15:45 Session III:
- Dr. Alok Verma, Ray Ferrar Professor and Chair, Department of Engineering Technology, Old Dominion University, Norfolk, Virginia, USA
- Dr. Ramiro Jordan, Professor and Associate Dean of Engineering for International Programs, Univ. of New Mexico, USA and ISTEC founder, IFEES ExCom
- Dr. Mohammad Yeakub Ali, Professor and Head, Department of Manufacturing and Materials Engineering, International Islamic University Malaysia

16:00 – 17:15 Session IV:
- Dr. Chan Chee-Ming, Associate Professor and Deputy Dean (Academic and Research), Centre for Graduate Studies, Universiti Tun Hussein Onn Malaysia
- Dr. Ayham Jaaron, Assistant Prof. in IE, Director of Quality Assurance Unit, Director of ABET Centre, An-Najah National Univ., Nablus, West Bank, Palestine

19:00 – 22:00 CONFERENCE AWARD DINNER, AND CULTURAL PROGRAMS

March 9, 2016 (Wednesday)

07:00 – 17:00 Registration

08:00 – 09:15 Session V:
- Dr. Adagbonyin Moses Obiazi, Dean, Faculty of Engineering and Technology, Ambrose Alli Univ., Nigeria and President, African Engineering Deans Council
- Dr. C. B. Gupta, Professor, Department of Mathematics, Birla Institute of Technology and Science, Pilani (Raj.), India
- Dr. Jahn Mohd Rohani, Head - Industrial Engineering Programme, Dept. of Materials, Industrial & Manufacturing Engineering, Universiti Teknologi Malaysia

09:30 – 10:15 Keynote: Dr. Zuhairi Abd. Hamid, Executive Director, Construction Research Institute of Malaysia (CREAM), Kuala Lumpur, Malaysia

10:15 – 11:00 Keynote: Speaker from Proton Automobile

11:00 – 11:30 Break

11:30 – 12:45 Session VI:
- Dr. Alfredo Soeiro, Associate Professor, University of Porto, Portugal and Past President - European Society of Engineering Education
- Dr. Rosemary Seva, Dean of Gokongwei College of Engineering, De La Salle University (DLSU), Manila, Philippines
- Dr. Asela K. Kulatunga, Senior Lecturer, Department of Production Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka

13:00 – 14:00 Keynote: Dr. Rupiy Sawhney, Heath Fellow in Business and Engineering, Professor of Industrial and Systems Eng., Univ. of Tennessee, Knoxville, USA

14:00 – 14:30 Break

14:30 – 15:45 Session VII:
- Dr. Md. Mizanur Rahman, Professor, Faculty of Mechanical Engineering, University Technology Malaysia (UTM), Skudai, Johor Bahru, Malaysia
- Dr. Pal Pandi Ammavasi, Associate Professor, Bharath Niketan Engineering College, Aundipatty, Taminadu, India
- Dr. Eldon Caldwell, Director, Industrial Engineering Department, Engineering School, University of Costa Rica

15:45 – 16:00 Break

16:00 – 17:45 Session VIII: Panel Session
- Dr. Abu Masud, Boeing Global Engineering Professor, Professor of Industrial and Manufacturing Engineering, Wichita State University, Kansas, USA
- Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies and Resident Scholar - Marquette University
- Dr. Funso Falade, Department of Civil & Environmental Engineering, University of Lagos, Nigeria and President, African Eng. Education Association
- Hulas King, Director, Diversity, Professional Affiliations & Global Community Relations, Siemens PLM Software, St. Louis, Missouri, USA

19:00 – 22:00 CONFERENCE AWARD DINNER, AND CULTURAL PROGRAMS

Award Keynote: Hulas King, Director, Diversity, Professional Affiliations & Global Community Relations, Siemens PLM Software, St. Louis, Missouri, USA

March 10, 2016 (Thursday)

07:00 – 17:00 Registration

08:00 – 09:15 Session IX:
- Dr. Khairiyah Mohd Yusof, Professor, Centre for Engineering Education (CEE), Universiti Teknologi Malaysia, Johor Bahru, Malaysia
- Dr. Amar Partap Singh Pharwaha, Professor, Sant Longowal Institute of Engineering & Technology (SLIET) -Deemed University, Punjab, India
- Dr. Funso Falade, Department of Civil & Environmental Engineering, University of Lagos, Nigeria and President, African Engineering Education Association

09:30 – 10:15 Keynote: Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFIES)

10:15 – 11:00 Keynote: Prof. Dr. Noraini Kaprawi, Dean-Centre for Graduate Studies, Faculty of Technical and Vocational Education, Univ. Tun Hussein Onn Malaysia

11:00 – 11:30 Break

11:30 – 12:45 Session X:
- Dr. Karmel Hawwash, Professor in the School of Civil Engineering, University of Birmingham, UK and Immediate Past President of SEFI
- Dr. Charles Mbohwa, Professor and Vice-Dean Postgraduate Studies, Research and Innovation, University of Johannesburg’s (UJ), South Africa
- Dr. S. C. Naik, Professor, Former Head of Chem Engg and Dean, National Institute of Tech., Rourkela, India and Past President, The Ins. of Engineers

13:00 – 14:00 Keynote: Rajiv Ghatikar, Vice President and General Manager, Siemens PLM, ASEAN/Australasia

14:00 – 14:30 Break

14:30 – 15:45 Session XI:
- Professor Khaled Elulla, Research Laboratory of Science in Industrial Process Engineering (LSGPI), USTHB - FGMP, Bâb-Ezzouar, Algiers- Algeria
- Shri. Mahesh Anant Kakade, Controller of Examinations, Shivaji Univ., Kolhapur and Chairman, Indian Society for Technical Education, Maharashtra- Goa
- Dr. Hamid Parsaei, Prof. of Industrial and Systems Eng., Texas A&M Univ. (College Station) and Director of Academic Outreach - Texas A&M Univ. Qatar

15:45 – 16:00 Break

16:00 – 17:45 Session XII:
- Nithi M B, A/HoD Mechanical Engineering Department, MarBaselios College of Engineering & Technology (MBCET), Thrivunanthapuram, Kerala, India
- Dr. P. Muredzi, Dean – School of Engineering & Technology, Harare Institute of Technology, Zimbabwe

17:30 – 19:00 Closing Mixer
DISTINGUISHED SPEAKERS – Global Engineering Education
Tuesday (March 8, 2016)

Session I: Global Engineering Education
Room Starhill 4

Session Chair: S. Indra Devi, Universiti Teknikal Malaysia Melaka

08:00 – 08:25 (Tuesday)
Dr. C. Chinnaraj
Professor of Mechanical Engineering and State Project Coordinator (TEQIP)
Directorate of Technical Education, Chennai, Tamil Nadu, INDIA

Global Engineering Education Challenges and Opportunities

Prof. Dr. C. Chinnaraj is a Professor of Mechanical Engineering, Government College of Engineering, Salem, Tamil Nadu, India. He is now a State Project Coordinator (TEQIP), Directorate of Technical Education, Chennai-25, Tamil Nadu, India. Dr. Chinnaraj has received Ph.D. and master from ANNA University, Guindy, Chennai and B.E (Mechanical) from Madras University, Chennai, India. He has 32 years as a Teacher in various State Government Engineering Colleges, acted as Examiner, Question paper setter and Chairman for various University examinations. Governing and Academic Council Member for many Engineering Colleges and Polytechnic Colleges and guided many undergraduate and post graduate student Projects. He also received certificate for Guiding the State level Student best Project (Solar Wind ventilated Drier) and assisted the head of Institution in development of department, starting of new Post Graduate degree course in thermal engineering and Institution. Dr. Chinnaraj has 8 years in administrative line at Directorate of Technical Education, Chennai-25, Tamil Nadu initially as Assistant Director (planning) and then as Project Coordinator for the World Bank assisted Technical Education Quality Improvement Programme (TEQIP). He assisted the Commissioner of Technical Education in execution of State’s various Schemes, starting of new Government Polytechnic and Engineering Colleges, curriculum validation revision for Polytechnic Colleges, formation of skill development centre, Quality Circle and Teaching Learning Centre at Engineering Colleges and also for conducting Faculty Development Programmes. He visited leading Technical Universities in GERMANY, Peking University in CHINA and University of Buffalo, USA. Dr. Chinnaraj has served two times as State Secretary and Treasurer for Tamil Nadu and Puducherry State Indian Society for Technical Education (ISTE) Section and two times received the best section National Award for the drive in the ISTE membership, starting of ISTE chapters, encouraging the institutions to conduct the State level and National level Programmes for faculty and students. Two times National Executive Council Member of ISTE and helped the Institutions to conduct the Faculty Development Programmes, National Seminar, Conference and workshop for Faculty and Students. He represented and Lead the Anna University Volley Ball Team.

08:25 – 08:50 (Tuesday)
S. Indra Devi
Senior Lecturer, Department of Languages, Centre for Languages and Human Development
Universiti Teknikal Malaysia Melaka


S. Indra Devi who serves as a senior lecturer at the Department of Languages in the Technical University of Malaysia Melaka currently teaches Technical Communication and English for Professional Communication. She holds a Diploma in ESL from University Malaya, Bachelor Degree in Education (TESL) from Putra University Malaysia, Master in Arts (TESL) from The National University of Malaysia and presently she is about to complete her PhD in English Language Studies. With 30 years of teaching experience and as a consultant in the field of TESL and ESP, she conducts various courses for undergraduate engineers, teaching engineers and professionals in government and statutory bodies besides being a trainer for the IELTS examination. Her research interest include Engineering Education, TESL, ESP as well as Multimodal and Computer Mediated Communication. As an instructor in a technical university, she has gained vast practical experiences in relation to communication skills and competencies among engineers as well as its implication towards global engineering practice. She has authored various scientific journal articles on topics related to oral communication apprehension, communication competencies, strategic competence and oral presentations of undergraduate engineers besides designing assessments, needs surveys and language related courses for engineers. Her other research publications include topics related to university-industry strategic alliances, employer engagement in teaching and learning, and her most recent research is related to Multimodal and multiliteracies approach as well as neuroscience intervention in ESP instruction for engineers. She has authored several books and her recent book is Grammar for Technical Writing which was specifically written for engineers and was published by Pearson Publishers. She is also active in various community projects and leadership posts. Due to her excellent achievements, she has received the award for Excellence in Service from UTem in 2014.

08:50 – 09:15 (Tuesday)
Ahmed E. Haroun and Salih O. Duffua
Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, KSA

An Effective Organizational Structure to Implement Strategic Plans In Higher Education Institutions

Session II: Global Engineering Education
Room Starhill 4

Session Chair: Dr. Christoph Wunck, Jade University, Wilhelmshaven, Germany

11:30 – 11:55 (Tuesday)
Professor Dr. Mushtaq Al-Atabi
Dean, School of Engineering, Taylor’s University, Selangor Darul Ehsan, Malaysia

Bio: Professor Mushtaq Al-Atabi is currently the Dean of School of Engineering at Taylor’s University, Malaysia. His research interests include engineering, entrepreneurship, education and leadership. He is an Honorary Chair at the School of Mechanical Engineering of the University of Birmingham (UK) and the Editor-in-Chief of Journal of Engineering Science & Technology. Professor Al-Atabi published two books, “Think Like an Engineer” and “Driving Performance” and he has numerous research publications, awards and honours. He is a Co-Founder of the Global Challenges Alliance, Fellow of the Institution of Mechanical Engineers (FIMechE) and an ExCo of the Global Engineering Deans Council, Professor Al-Atabi is an innovative educator; he pioneered the CDIO (Conceive, Design, Implement, Operate) and delivered the first MOOC (Massive Open Online Course) in Malaysia. He trains executives from Multinational Corporations including banks and energy companies.
Dr. Ramiro Jordan
Professor and Associate Dean of Engineering for International Programs
Department of Electrical and Computer Engineering, University of New Mexico
ISTEC founder, IFEES ExCom

Dr. Jordan is a scientist, innovator, educator and entrepreneur. He is a faculty member of the Electrical and Computer Engineering (ECE) department at the University of New Mexico, and is currently the Associate Dean of Engineering for International Programs. His research activities include sustainability, Smart Grid, cognitive radio, multi-dimensional signal processing, and software development. He is a dedicated educator, actively creating educational infrastructure in academic institutions worldwide with emphasis on the “culture of quality” in educational programs for accreditation and certification. He is driving innovative curricula development programs such as Peace Engineering, is establishing International Graduate Double Degree programs and is creating opportunities for student engagement and leadership development. He was actively involved with the University Faculty Senate and served on the Operational Committee that, with the Faculty President, ensures shared governance of the University. Dr. Jordan holds a faculty position at the Universidad Nacional de La Plata, Argentina, and has served as visiting and resident professor at universities in Brazil, Costa Rica, Chile, Mexico, Peru, Bolivia, Argentina, Uruguay, Colombia, Ecuador, Paraguay, Spain, and Venezuela, among others.

Dr. Ramiro Jordan is a scientist, innovator, educator and entrepreneur. He is a faculty member of the Electrical and Computer Engineering (ECE) department at the University of New Mexico, and is currently the Associate Dean of Engineering for International Programs. His research activities include sustainability, Smart Grid, cognitive radio, multi-dimensional signal processing, and software development. He is a dedicated educator, actively creating educational infrastructure in academic institutions worldwide with emphasis on the “culture of quality” in educational programs for accreditation and certification. He is driving innovative curricula development programs such as Peace Engineering, is establishing International Graduate Double Degree programs and is creating opportunities for student engagement and leadership development. He was actively involved with the University Faculty Senate and served on the Operational Committee that, with the Faculty President, ensures shared governance of the University. Dr. Jordan holds a faculty position at the Universidad Nacional de La Plata, Argentina, and has served as visiting and resident professor at universities in Brazil, Costa Rica, Chile, Mexico, Peru, Bolivia, Argentina, Uruguay, Colombia, Ecuador, Paraguay, Spain, and Venezuela, among others.
Parks and has fostered entrepreneurial activities worldwide. He was the Executive Vice-president and Chief Development Officer for Gridline Communications Holdings, Inc. a startup company.

An active member of scientific and professional societies including ASEE and IEEE, Dr. Jordan has published extensively in books, journals, magazines and on the Web. He serves on the editorial board of Computers and Software Engineering, is editor of Journal of Computer Science and Technology, and is editor and advisor to The Ibero American Journal on Technology in Education and Education in Technology. In addition to conference presentations, he has given over 80 invited Keynote presentations. He has received many national and international Honors and Awards including two Silver Quilt Awards, Motorola; International Excellence Award, University of New Mexico; Growing with Technology Award,Cisco Systems; Professional Progress Award, Kansas State University; Award for Contributions in Higher Education and Science and Technology, Organization of American States; Achievement Award for Innovations and Accomplishments in Multilingual IT Infrastructure in Engineering Education, INEE-ICEE; and Award for Meritorious Work in Engineering and Computer Education, International Conference on Engineering and Computer Education. He is bestowed with the Order of Rio Branco, by the Brazilian Government. Dr. Jordan obtained his MS and Ph.D. in Electrical and Computer Engineering from Kansas State University in 1984 and 1987 respectively, and the degree of Telecommunications Engineer at the Universidad Nacional de La Plata in 1981.

### Session IV: Global Engineering Education - Room Starhill 4
#### Session Chair: Dr. Gunduz Ulusoy, Sabancı University, Istanbul, Turkey

#### 3:20 – 3:45 (Tuesday) Dr. Mohammad Yeakub Ali
Professor and Head, Department of Manufacturing and Materials Engineering  
Faculty of Engineering, International Islamic University Malaysia, Kuala Lumpur, Malaysia

**Malaysian Engineering Education and Accreditation**

Dr. Mohammad Yeakub Ali is a Professor in Manufacturing Engineering. Currently he is the Head of the Department of Manufacturing and Materials Engineering at Kulliyah of Engineering, International Islamic University Malaysia (IIUM). Upon completion of his PhD in 2002, he started his career as a Research Fellow in Precision Engineering and Nanotechnology Centre at Nanyang Technological University, Singapore. He then joined IIUM as an Assistant Professor in 2004 in the Department of Manufacturing and Materials Engineering. Since then, he engaged actively in teaching, research, supervision, administration, securing research grants, and publishing research findings in reputed journals and proceedings. He has published more than 200 technical papers in different reputed journals and conference proceedings at national and international level. He is also reviewer of many reputed international journals and funding projects. He is actively involved in professional societies and institutions including IMechE (UK), ASME (USA), euspen (Europe), IEM (Malaysia), IEB (Bangladesh), and BSME (Bangladesh). He holds various positions in organizing international conferences such as Technical Chair for ICAMME 2012, Chairman for ICAMME 2014, and Technical Committee for AMPT 2009.

#### 4:00 – 4:25 (Tuesday) Dr. Chan Chee-Ming
Associate Professor and Deputy Dean (Academic and Research), Centre for Graduate Studies  
Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

**Chee-Ming Chan** is an Associate Professor with the Civil Engineering Technology Department, Faculty of Engineering Technology, Universiti Tun Hussein Onn Malaysia. She is presently holding the office of Deputy Dean in Academic and Research at the Centre for Graduate Studies in the University. Her area of expertise includes geo-materials, engineering education and higher education improvement. More recently, Dr. Chan’s current work on dredged materials from Malaysian waters has gained momentum and support from the Ministry of Science, Technology and Innovation and Department of Marine, Malaysia. She is also involved in professional bodies, including the Society for Engineering Education Malaysia (SEEM), Malaysian Geosynthetics Society (MyIGS), Institution of Engineers Malaysia (IEM), Board of Engineers Malaysia (BEM), and is an education quality auditor for the Malaysian Qualification Agency (MQA). From 2009-11, Dr. Chan served as a Postdoctoral Research Fellow at the Port and Airport Research Institute (PARI), Japan.

#### 4:25 – 4:50 (Tuesday) Dr. Ayham Jaaron
Asst. Prof. in Industrial Engineering and Director of Quality Assurance Unit, Director of ABET Centre  
An-Najah National University, Nablus, West Bank, Palestine

**Ayham Jaaron** is Director of Quality Assurance Unit at An-Najah National University, Nablus, Palestine. He is also Director of ABET Centre at the Faculty of Engineering and Information Technology, and assistant professor at the Industrial Engineering Department. He received his PhD degree (full time) in Manufacturing Engineering and Operations Management from the Wolfson School of Mechanical and Manufacturing Engineering, Loughborough University, England, UK in 2010. He was a full-time instructor at the Industrial Engineering Department of An-Najah National University, Nablus, Palestine from 2005-2007. Dr. Jaaron is recognized for his expertise and contributions to the quality of education in Palestine. He led the largest ABET Accreditation project in the region for seven engineering programs simultaneously at An-Najah National University, that resulted in a successful ABET Accreditation process. He is extensively involved in drawing and planning quality assurance policies for academic programs. His research activities have focused on service operations, service quality, resource utilization, organizational resilience, and human aspects of motivation in the manufacturing and service sectors. He was an Academic Visitor to the University of Strathclyde, Glasgow, UK in 2006. He is also academic visitor to the Wolfson School of Mechanical and Manufacturing Engineering of Loughborough University, England, UK.

#### 4:50 – 5:15 (Tuesday) Prof. Dr. Gunduz Ulusoy
Professor, Faculty of Engineering and Natural Sciences  
Sabancı University, Orhanlı, Tuzla, Istanbul, Turkey

**Güdüüz Ulusoy** received his BS in mechanical engineering from Robert College, Istanbul in 1970; MS in mechanical engineering from University of Rochester in 1972 and PhD in operations research from Virginia Tech in 1975. He worked as a researcher in Marmara Research Center in 1976. From 1976 to 1999 he was a faculty member in the Industrial Engineering Department of Boğaziçi University, Istanbul. He was a postdoctoral fellow at Lancaster University in 1982. During the years (1984-1985), he was on leave from Boğaziçi University and worked as a manufacturing systems engineer at a white goods manufacturer in Istanbul. He served as the Chairman of the Industrial Engineering Department (1985-1993) and Vice Rector of Boğaziçi University (1992-1994). He was a member of the Executive Committee of the Turkish Scientific and Technical Research Council (1993-1997) and Chairman of the Marmara Research Center (1995-1997). In 1999, he joined the Faculty of Engineering and Natural Sciences at Sabancı University in Istanbul as the Founding Coordinator of the Manufacturing
Systems Engineering Program. In 2001, he initiated the Leaders for Industry Program – a double degree joint program between the Faculty of Engineering and Natural Sciences and the Graduate School of Management and was the Co-Director till 2004. In 2003, he founded the TUSİAD – Sabancı University Competitiveness Forum and has served as the Co-Chair of the Forum till 2008. Between 2007-2010 he was a member of the Standing Committee on Sustainable Competitiveness of the Manufacturing industry established by the Office of the Prime Minister of Turkey.


Wednesday (March 9, 2016)

Session V: Global Engineering Education - Room Starhill 4
Session Chair: Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia

Engr. Prof. Adagbonyn Moses O. Obiazi
Dean, Faculty of Engineering and Technology
Ambrose Alli University, Nigeria
President, African Engineering Deans Council, AEDC

Engr. Prof. Adagbonyn Moses O. Obiazi was born at Agbor in Delta state. He attended the prestigious Ika Grammar School, Agbor from 1974 to 1979 obtaining the West African School Certificate with Distinction. He proceeded immediately to the University of Benin to study Electrical/Electronics Engineering, graduating in 1984 with 2nd Class Honors, Upper Division. He had his Masters Degree in Electrical Engineering from the University of Lagos in 1991 and capped it with a PhD in Electrical Power and Machines from Ambrose Alli University, Ekpoma, supervised by the renowned Engr. Prof. Philip Kua. Engr. Obiazi started his working career in the Federal Polytechnic University, Uuchi in 1985 after his NYSC in Sokoto State. In the quest for higher levels of engagement, Engr. Obiazi joined the services of then Bendel State University, Ekpoma (now, Ambrose Alli University) in 1987 where he has risen through the ranks from Graduate Assistant to his current status as a Professor of Electrical Engineering and Dean of the Faculty of Engineering and Technology. He was the Head of Department of Electrical/Electronics Engineering [1997-1999]. Sub-Dean of the Faculty of Engineering and Technology, Member of the University Senate and Member/Chairman of over 40 University committees/panels. He is currently serving as the Chairman of the Central Bank intervention Projects in Ambrose Alli University.

At the professional level, Engr Prof Obiazi was elected a corporate member of the Nigerian Society of Engineers [NSE] in 1993. As an active member of NSE, he was made Secretary, NSE, Ekpoma Branch from 1994-1997 and Chairman of the Branch for five years (1997-2002). During his Chairmanship, the branch won a national merit award as the Most Improved Branch in Nigeria. In 1999, he was made a life member of NSE. He has been a member of the National Executive Council of NSE from 1997 to 2002 and from 2012 to date. He has served in several committees of NSE at both national and local levels. NSE national committees such as Finance and General purpose Committee, Education and Training Committee, Awards and Endowment Committee, Conference Planning Committee, Codes and Standards Committee among others. As a registered Engineer with COREN (Council for the Regulation of Engineering in Nigeria), COREN in 2006 made him a member of Engineering Regulation and Monitoring (ERM) Committee. He has also served as a member of COREN accreditation team to some eight universities and two polytechnics. For eleven years (2001-2012), he was an External Examiner to the Petroleum Training Institute (PTI), Ekurun, and since 2011, External Examiner to Delta State University, Abraka. In 1991, Engr. Obiazi was sponsored by UNESCO to Kumasi, Ghana to present a research paper at an International Engineering Conference, while in 2013, he was sponsored to the Conference of the Global Engineering Deans Council (GEDC) held in Chicago, USA. In 1994, the Delta State Government appointed him as a Member of the Delta State Public Utilities Board (PUB). In May 2013, Engr. Prof. Obiazi was appointed Secretary of the Committee set up by COREN (Council for the Regulation of Engineering in Nigeria) to develop COREN Minimum Benchmarks for the training of Engineers in Nigerian Universities. In 2006, Shell Petroleum Development Company (SPDC) appointed Engr Obiazi as a research advisor on sabbatical to help with the construction and installation work on the new Afam VI power station in Rivers State. In March, 2010, the Edo State Government appointed Engr. Obiazi as a member of the Governing council of Edo State Institute of Technology and Management, Usen (a polytechnic), a position he held till Sept, 2012. Engr. Prof. Obiazi has received several awards from students, staff, religious and professional bodies and groups for outstanding contributions to engineering, education, national development and socio-cultural advancement. Engr. Prof. Obiazi is well published in both local and foreign journals and has presented papers in several local and international conferences. In Sept, 2012, Eng Prof .Obiazi was elected the Chairman, Committee of Deans of Engineering and Technology of Nigerian Universities.

8:25 – 8:50 (Wednesday)
Dr. C. B. Gupta
Professor, Department of Mathematics
Birla Institute of Technology and Science
Pilani(Raj.), India

A recipient of Shiksha Shakti Puraskar 2011, Best Citizens of India award 2011, listed in Marquis who is who in Science and Technology in the world December 2010, 2013 and listed in top 100 scientists of world in 2012, glory of India Award 2013. Dr. Gupta who is presently working as a Professor in the Department of Mathematics, obtained his Master’s degree in Mathematical Statistics and Ph.D. in Operations Research from Kurukshetra University, Kurukshetra. His field of specialization is Applied Statistics, Optimization and Operations Research. A number of students have submitted their thesis/ dissertation on these topics under his supervision. He has published a large number of research papers on these topics in peer reviewed national and international journals of repute. He has authored/ co-authored 14 books on the topics Probability and Statistics, quantitative Methods, Optimization in Operations Research, Engineering Mathematics, Advance Mathematics etc. He is also on the editorial board and reviewer of a number of national and International journals. Dr. Gupta is a member on various academic and management committees of many Institutes/ Universities. He has participated in large number of national and International conferences in which he has delivered invited talks and chaired technical sessions. Dr. Gupta has been member of Rajasthan board of school education and also member of various committees of RPSC Ajmer, UPSIC, New Delhi and AICTE, New Delhi. He was awarded best paper award at the annual conference of National Academy of Science India held at Calcutta University, Kolkata from 15-17 December 2009.
Dr. Alfredo Soeiro

Dr. Soeiro has been the representative of Universidade do Porto in Continuing Education and founder of EUCEN (European Universities Continuing Education Network) since November 1991. He was vice president of EUCEN for seven years, a member of the Management Committee and was also founder of RECLA (Latin American Continuing Education Network). Dr. Soeiro was founder of the Continuing Engineering Education office of the College of Engineering of the University of Porto in 1995; was Pro-Rector of Universidade do Porto in charge of Continuing Education between 1998 and 2003; was founder and President of AUPEC – Portuguese Association of Universities for Continuing Education between 2001 and 2005; from 2001 until 2004 was president of IACCEE, International Association of Continuing Engineering Education, Washington DC, USA; between 2003 and 2005 was president of SEFI Societe Europeenne pour la Formation des Ingenieurs; between 2004 and 2008. He was the academic director and vice-director of Civil Engineering of the University of Porto.

Dr. Soeiro was a Fulbright scholar between 1985 until 1989 in the University of Florida to obtain his doctoral degree; between 1996 and 1999 was the President of the Scientific Commission of the Thematic Network THENUCE (Thematic Network on University Continuing Education); from 1999 and 2005 was a member of European ODL Liaison Committee, representing EUCEN; in 2000 was the co-chair of the conference of the Portuguese Presidency of the European Union, Higher Education and New Publics, Porto; from 2002 to 2013 he was member of the Municipal Education Council of the city of Porto, representing the University of Porto and the Higher Education sector; since 1997 until 2004 he has been an invited expert of the European Commission to evaluate projects in adult education and in thematic networks; was an invited expert of Group G of the European Commission within the framework of the Lisboa Objectives between 2002 and 2005. He was an invited speaker at the 80th Anniversary of the University of the Sorbonnie in the closing session coordinated by the French minister of education, Claude Allègre, entitled the University without Walls, 1998.

Dr. Soeiro published and edited the first ten editions of the newsletter of EUCEN between 1993 and 1997. He was a member of the editorial board of the Journal of Higher Education and Outreach between 2001 and 2006; has published and presented several articles in newspapers and magazines about lifelong learning, continuing education and quality of continuing education; has created and maintained the web pages of EUCEN (between 1994 and 1998) and of AUPEC since 2001; has led several lobbying activities at the European level, like the response to the Memorandum of Higher Education in 1994 and the Response to the European Quality Framework, and at the national level participating in the national meetings of AUPEC; has edited for AUPEC the management manual of centers of continuing education and the survey of industry needs of continuing education. Dr. Soeiro has coordinated, besides participating in others, several European projects sponsored by the European Commission in the areas of adult learning and continuing education and the most important ones are the Tempus project to create the continuing education center at Tallinn Technical University, the Grundtvig project to create individualized pathways Equipped and the project DAETE to develop accreditation methods for continuing education. He was invited professor of Loughborough University, UK in 1997 and 1998, University of Barcelona, Spain in 1994, 1995 and 1996, Polytechnic University of Cataluna, Spain in 2001, Technical University of Vienna, Austria in 2006, 2007 and 2009 in Innovation in Elearning and Visiting Scholar at the Institute of Higher Education, University of Georgia, Athens, USA in 2006 for three months.

Dr. Soeiro has been vice-president and president of the European Society of Engineering Education; he is a member of the board of the European Journal of Engineering Education since 2001; he is one of the two guest editors of the joint edition of EJEE and the Journal of Engineering Education in 2007. Dr. Soeiro has helped the creation of the center of elearning in the University of Porto between 1999 and 2002 including the edition of continuing education courses in cooperation with other European universities; has coordinated and participated in several European projects in the areas of distance learning and elearning; has authored the second ebook in engineering of the University of Porto with the support of a portal; has authored and coordinated an ebook on construction safety that has been supported by the International Labour Organization. He is the representative of Ordem dos Engenheiros, vice-chair of the European Monitoring Committee of FEANI and chair of the OMP. He was awarded the International Hall of Fame in Adult and Continuing Education title in 2006 and received the award of EDEN Fellow in 2008. Dr. Soeiro received the IACCEE Fellow award in 2014. He coordinated some European funded projects Atelcoma (1998), Equipe (2004), Daete (2006), Virqual (2009) and TALOE. He is also member of the reviewers of Campbell Award (2010/2012/2014). He was also a partner in several European funded projects like DIALOGUE, Community Service Engineer and VMCOLAB.
Dr. Eldon Caldwell
Director, Industrial Engineering Department, Engineering School, University of Costa Rica

Using Robotics as Educational Framework Strategy in Industrial Engineering

Eldon Caldwell, is a full professor/Cathedraticus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Summa Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/ University of Nevada, USA. Currently, he is doctoral researcher at the (Dr. Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013. Dr. Caldwell is “Lean Systems Certified Specialist”, MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prized. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering. Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at ITESM, Mexico. He is author of many scientific articles and two books: “Marketing of Social Products and Services”, UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Institute Press, USA.

Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quiros & CIA-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panamá, Costa Rican Institute for Electricity, RTC-Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at School of Engineering at University of Costa Rica.

Dr. Pal Pandi Ammavasi, M.E., Ph.D (Engg.), MBA., Ph.D (Mgmt)
Associate Professor, Bharath Niketan Engineering College, Aundipatty, Tamilnadu, India

Dr. A. Pal Pandi is working as an Associate Professor in Bharath Niketan Engineering College, Aundipatty, Tamilnadu, India. He has seventeen years of experience in both academic and industry streams. He has published more than 26 papers in International and National journals including Inderscience, Elsevier and Taylor and Francis. He has published 45 papers in proceedings of international and national conferences held across India. He has a wide range of expertise and knowledge in Mechanical Engineering as well as Management sciences. He holds doctorate degree in both Faculty of Management Sciences and Mechanical Engineering. He also reviewer for some reputed international journals. His area of research is total quality management, quality engineering and manufacturing management. Seven scholars are pursuing research programme under his guidance.
Session V: Panel Session - Global Engineering Education
4:00 – 5:15 pm (Wednesday) - Room Starhill 4
Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA

Dr. Abu Masud, P.E.
Boeing Global Engineering Professor and Professor of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

Dr. Abu Masud is a professor of industrial and manufacturing engineering at Wichita State University. He has been named the Boeing Global Engineering Professor at Wichita State University. In this new post, Dr. Masud is expected to advance the College of Engineering’s strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering. Previously he was held various positions at Wichita State including associate dean, graduate school (2008-2013), coordinator, college ABET affairs (2006-2008), associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IIE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.

Dr. Hans-Juergen Hoyer
Secretary General of the International Federation for Engineering Education Societies (IFSEES)
Executive Secretary of the Global Engineering Deans Council (GEDC)
Resident Scholar in Global Engineering at Marquette University

Hans J. Hoyer is the Secretary General of the International Federation for Engineering Education Societies (IFSEES), Executive Secretary of the Global Engineering Deans Council (GEDC), and Resident Scholar in Global Engineering at Marquette University. Former Director of International Programs and Strategy for the American Society for Engineering Education (ASEE) and co-founder of the Indo-US Collaborative for Engineering Education (IUCEE). Prior to 2006, Hans J. Hoyer was CEO of World Links, a spin-off of the World Bank. In this capacity, he worked globally on issues related to secondary education, teachers’ education, and on-line collaborative learning focusing on science and social studies among high school students across the globe.

Dr. Funso Falade
Department of Civil & Environmental Engineering, University of Lagos, Akoka, Lagos, Nigeria
and President, African Engineering Education Association

Falade Funso Alphonsus is a Nigerian and a Professor of civil engineering at University of Lagos, Nigeria. He earned Diploma in Quantity Surveying at Yaba College of Technology, Nigeria, in 1978. He completed his M.Sc (Civil Engineering) at the Moscow Institute of Civil Engineering in the USSR in 1984 and obtained PhD in Civil Engineering, from University of Lagos in 1998. Prof. Falade has authored over 70 articles on innovative construction materials and engineering education published in locally and internationally reputable journals as well as in proceedings of learned conferences. He has also made contributions to two (2) textbooks. In February, 2014, he made public presentation of a book titled ‘Strengthening of Dressed Bamboo’. He has researched into the structural properties of bamboo and developed the technology for its successful incorporation as replacement of steel reinforcement in some structural elements. He has also researched extensively on Foamed Aerated Concrete. Prof. Falade has presented over 45 papers at workshops and seminars on such topics as Project Management, Quality Control, Maintenance of Facilities, and Contract Procurement etc. Prof. Falade is a member of some professional bodies both locally and internationally, including Fellow, The Nigerian Academy of Engineering, Fellow, Nigerian Society of Engineers, Fellow, African Engineering Education Association, Registered Engineers, Council for the Regulation of Engineering in Nigeria etc. He is a promoter of engineering education. He was the initiator of African Regional Conference on Engineering Education and the Chairman, Organizing Committee and the Editor of the Proceedings of the 1st, 2nd and 5th African Regional Conference on Engineering Education that were held at University of Lagos in 23rd – 25th September, 2002, 20th – 22nd September, 2004 and 9th –12th September, 2013 respectively. He is the President of the African Engineering Education Association (AEEA) and former Vice-President, International Federation of Engineering Education Societies (2009-20012). He was appointed UNESCO Consultant in 2005.

Hulas King
Director, Diversity, Professional Affiliations & Global Community Relations
Siemens PLM Software, St. Louis, Missouri, USA

Hulas is responsible for the strategy and operational leadership of Siemens PLM Global Diversity Council. He also leads Professional Affiliations & Global Community Relations Teams, driving innovation and digitalization value for youth, displaced workers, strategic customers and business partners. Mr. King is a decorated Vietnam veteran, a Certified Manufacturing Engineer and a Certified NC Manager. He was inducted into the African-American Biographies Hall of Fame for outstanding contributions in Business and Engineering. He represents SIEMENS on several professional boards including the Institute of Industrial Engineers, the Society of Manufacturing Engineers, Advancing Minorities’ Interest in Engineering, the Stone Soup Foundation, the Accreditation Board for Engineering & Technology (ABET), the International Federation of Engineering Education Societies (IFSEES) and the Professional Business Leadership Council. He travels extensively within the Americas, Europe, the Middle East and Asia Pacific, speaking at various technical seminars in support of Global Opportunities in PLM.

Hulas managed the GO PLM (Global Opportunities in Product Lifecycle Management) program, nurturing strategic partnerships that provide significant added value for academic institutions, youth development programs and our global communities. These partnerships exemplify SIEMENS as the PLM Industry Leader and are successful in developing technology environments where underutilized citizens of the world can work together to improve their economic conditions and promote peace. He served as McDonnell-Douglas’ Program Manager for Enterprise Cycle Processes for Team Columbus Engineering / Manufacturing in support of C-17 Production in Columbus, OH. His Education:
* Belleville Area College, 1970: AS, Data Processing
* Southern Illinois University, Edwardsville, 1972: BS, Management Science/Data Processing
* Southern Illinois University, Edwardsville, 1974: MBA, Marketing and Business Administration
* Southern Illinois University, Edwardsville, 1975: MS, Government/International Relations
* Southern Illinois University, Edwardsville, 1978: MS, Management Science and Systems
* Southern Illinois University, Edwardsville, 1979: SPC, Health Care Management Systems
* University of Missouri - Columbia, 1983: MS, Industrial Engineering
Thursday (March 10, 2016)

**Session IX: Global Engineering Education - Room Starhill 4**

**Session Chair:** Dr. Khairiyah Mohd Yusof, Universiti Teknologi Malaysia

8:00 – 8:25 (Thursday)

**Khairiyah Mohd Yusof, PhD**

Director, Centre for Engineering Education (CEE)
Universiti Teknologi Malaysia, Johor Bahru, Malaysia

Dr. Khairiyah Mohd Yusof is the Director of Universiti Teknologi Malaysia (UTM) Centre of Engineering Education (CEE), promoting meaningful research and scholarly practices in engineering education and managing the PhD in Engineering Education program. She obtained her PhD in Chemical Engineering for the University of Waterloo, Canada. Prior to becoming the Director of CEE, she was the Deputy Director at the Centre for Teaching & Learning (2008 – 2011), and Head of the Chemical Engineering Department (2006-2008). An Associate Professor in the Department of Chemical Engineering, Dr. Khairiyah is regularly invited as a speaker in various conferences and workshops in Asia, Europe and North America. She conducts research and receives funding for her work in engineering education, and dynamic process modeling and control. Dr. Khairiyah has also won several awards, including the Diamond Award for Best Paper at the 2005 UNESCO International Centre of Engineering Education Asia Pacific Conference on Engineering Education in Bangkok, Thailand, the Best Paper Award at the 2011 IEEE Global Engineering Education Conference in Amman, Jordan, and the 2013 Institution of Chemical Engineers Malaysia Award for Education and Training and the Best of the Best Award at the 2014 Innovative Practices in Higher Education Exposition in Johor Bahru, Malaysia. Currently, Dr. Khairiyah is an Editor for the ASEAN Journal of Engineering Education, an Associate Editor for the Journal of Engineering Education, and in the Editorial Board for the Leadership Academy (AKEPT) under the Malaysian Ministry of Education, the Secretary for the Society of Engineering Education Malaysia (SEEM), and board member representing Asia for the Research in Engineering Education Network (REEN). Dr. Khairiyah had chaired and organized various Engineering Education Conferences in Malaysia, including the 2013 International Research Symposium on PBL in collaboration with the Aalborg University UNESCO Chair on PBL in Engineering Education and AKEPT, and the 2013 Research in Engineering Education Symposium in collaboration with REEN, AKEPT and SEEM.

8:25 – 8:50 (Thursday)

**Dr. Amar Partap Singh Pharwaha**

Professor, Department of Electronics & Communication Engineering
Sant Longowal Institute of Engineering & Technology (SLIET)-Deemed University
Longowal, Sangrur, Punjab, India

**Virtual Instrument for Monitoring Process Parameters: A Versatile Tool for Engineering Education**

Dr. Amar Partap Singh, was born in Sangrur, Punjab in 1967 & received his B. Tech. (Electronics Engineering) in 1990 from Guru Nanak Dev University, Amritsar, M. Tech. (Instrumentation) in 1994 from Regional Engineering College (now NIT), Kurukshetra & Ph.D. on Intelligent Instrumentation in 2005. Presently, he is Professor (Electronics & Communication Engineering) and Part-time Chief Vigilance Officer (appointed by Govt. of India) at Sant Longowal Institute of Engineering & Technology (SLIET-Deemed University, established by Govt. of India), Longowal. Dr. Singh is credited with a professional experience of more than 24 years including the position of Research & Development Engineer, Dean (Student & Faculty Welfare), Dean (Planning & Development), Head (Department of Electrical & Instrumentation Engineering) and Professor & Joint Director at Yadavindra College of Engineering, Punjabi University Gobindgarh, Talwandi Sabo. He has guided seven Ph. D. Theses and six more are under his supervision for Ph.D. degrees. He preferred to remain active in his passion for research teaching instead of joining to the Post of Director, Punjab University Regional Center, Hoshiarpur, for which he was also selected in 2008. He has published more than 170 Research Papers in various National & International Journals/Conferences and received various awards including IEET Students Journal Award-2006 by Institution of Electronics and Telecommunication Engineers, New Delhi, Certificate of Merit by the Institution of Engineers (India) in 2006, KF Antia Award by the Institution of Engineers (India) in 2009, Sir Thomas Ward Award by the Institution of Engineers (India) in 2010 & again KF Antia Award by the Institution of Engineers (India) in 2014. Dr. Singh has the honour of being elected for the third time as member of the State Committee of Institution of Engineers (India), Punjab & Chandigarh State Centre. He is a Fellow of Institution of Engineers (India) as well as Institution of Electronics & Telecommunication Engineers. He is also the Life Member of Punjab Academy of Sciences, Instrument Society of India, Metrology Society of India, Indian Society for Technical Education & International Association of Engineers (Hong Kong). He has visited a number of countries including US, UK, France, Australia, Singapore & Pakistan.

8:50 – 9:15 (Thursday)

**Dr. Funso Falade**

Department of Civil & Environmental Engineering
University of Lagos, Akoka, Lagos, Nigeria

**and**

President, African Engineering Education Association

**Session X: Global Engineering Education - Room Starhill 4**

**Session Chair:** Dr. S. C. Naik, National Institute of Technology, Rourkela, Odisha, India

11:30 – 11:55 (Thursday)

**Kamel Hawwash, BSc, MSc, MAPM, FHEA**

Professor in the School of Civil Engineering, University of Birmingham, UK

Immediate Past President of SEFI and Member of the European Engineering Deans Council

Kamel Hawwash is Professor in the School of Civil Engineering and Immediate President of the European Society for Engineering Education, SEFI. He is the Convenor of the long-established MSc Construction Management Programme. He was Head of the School of Civil Engineering from 2008 to 2011. Between 2009 and 2012 he was the Regional Director for the Midlands and East Anglia for the National HE STEM Programme. Professor Hawwash is past Chair of the Association of Civil Engineering Departments, and member of the Engineering Education, Employability and Skills sub-committee of the Engineering Professors’ Council and Associate of the Engineering Council, UK. He
11:55 – 12:20 (Thursday)

**Dr. Charles Mbohwa**

Professor and Vice-Dean Postgraduate Studies, Research and Innovation  
Faculty of Engineering and the Built Environment (FEBE)  
University of Johannesburg’s (UJ), South Africa

Professor Charles Mbohwa is the Vice-Dean Postgraduate Studies, Research and Innovation at University of Johannesburg’s (UJ) Faculty of Engineering and the Built Environment (FEBE). As an established researcher and professor in the field of sustainability engineering and energy, his specializations include sustainable engineering, energy systems, life cycle assessment and bio-energy/fuel feasibility and sustainability with general research interests in renewable energies and sustainability issues. Professor Mbohwa has presented at numerous conferences and published more than 150 papers in peer-reviewed journals and conferences, 6 book chapters and one book. Upon graduation with his B Sc. Honors in Mechanical Engineering from the University of Zimbabwe in 1986, he was employed as a mechanical engineer by the National Railways of Zimbabwe. He holds a Masters in Operations Management and Manufacturing Systems from University of Nottingham and completed his doctoral studies at Tokyo Metropolitan Institute of Technology in Japan. Prof Mbohwa was a Fulbright Scholar visiting the Supply Chain and Logistics Institute at the School of Industrial and Systems Engineering, Georgia Institute of Technology, is a fellow of the Zimbabwean Institution of Engineers and is a registered mechanical engineer with the Engineering Council of Zimbabwe. He has been a collaborator to the United Nations Environment Programme, and Visiting Exchange Professor at Universidade Tecnológica Federal do Paraná. He has also visited many countries on research and training engagements including the United Kingdom, Japan, Germany, France, the USA, Brazil, Sweden, Ghana, Nigeria, Kenya, Tanzania, Malawi, Mauritius, Austria, the Netherlands, Uganda, Namibia and Australia.

12:20 – 12:45 (Thursday)

**Dr. S. C. Naik**

Professor, Former Head of Chem Engg and Dean, National Institute of Tech., Rourkela, Odisha, India  
Past President, The Institution of Engineers and  
Past Vice-President, The Federation of Engineering Institutions in South & Central Asia

**Engineering Education and Environment**

Professor S C Naik obtained his BTech, MS & PhD degrees-all in Chemical Engineering from the Universities of Madras, Ottawa and UK (Swansea, Wales) respectively. He taught at the National Institute of Technology, Odisha State, India where Dr. Naik was Head of the Department and Dean. He guided many Research Fellows, some medium scale industries and helped in establishment of an Engineering College. Dr. Naik also authored/co-authored some books, as well as many papers in International and National Journals and presented papers in several countries. He was a Keynote Speaker at the Technical Events in Sri Lanka, South Korea, some Gulf countries, Naples, Tokyo and San Francisco in 2006. Dr. Naik was a Consultant to a prestigious Journal. Dr. Naik was a President of The Indian Institution of Engineers, one of the largest professional bodies in the world, a Vice President of The Federation of Engineering Institutions of South & Central Asia and a Council Member of The Indian Institute of Chemical Engineers. He has a B.Sc. Honors and a Mechanical Engineering degree from the University of Mangalore in 1982, where he was employed as a mechanical engineer by the National Railways of Zimbabwe. He holds a Masters in Operations Management and Manufacturing Systems from University of Nottingham and completed his doctoral studies at Tokyo Metropolitan Institute of Technology in Japan. Prof Mbohwa was a Fulbright Scholar visiting the Supply Chain and Logistics Institute at the School of Industrial and Systems Engineering, Georgia Institute of Technology, is a fellow of the Zimbabwean Institution of Engineers and is a registered mechanical engineer with the Engineering Council of Zimbabwe. He has been a collaborator to the United Nations Environment Programme, and Visiting Exchange Professor at Universidade Tecnológica Federal do Paraná. He has also visited many countries on research and training engagements including the United Kingdom, Japan, Germany, France, the USA, Brazil, Sweden, Ghana, Nigeria, Kenya, Tanzania, Malawi, Mauritius, Austria, the Netherlands, Uganda, Namibia and Australia.

**Session XI: Global Engineering Education - Room Starhill 4**  
**Session Chair: Dr. Hamid Parsaei**, Texas A&M University

2:30 – 2:55 (Thursday)

**Professor Khedidja ALLIA**

Research Laboratory of Science in Industrial Process Engineering (LSGPI)  
USTHB - FGMGP, Bâb-Ezzouar, Algiers- Algeria

Khedidja Allia is a Chemical Engineering Professor and research director at the University of Sciences and Technology (USTHB), Algiers. She holds engineer diploma and Doctorate Es Science in Chemical Engineering at National Polytechnic School, Algiers (ENP) and part at Thames Polytechnic – London-UK. She is engaged in the supervision of students at different levels (Doctorates, Magisters, masters), and lectured at the USTHB (Algiers) and she is member of Scientific committee of the faculty. Pr Khedidja Allia published several scientific works in the fields of chemical and environmental engineering (Multiphase flow, Pneumatic conveying, fluidization, semi fluidization and wastewater treatment, solid wastes, ...), and has been and is involved with a number of research projects and was a Fulbright Researcher at Mechanical department and Aerospace Engineering, Cornell University, Ithaca, New York, USA. She occupied several posts as; Director of Higher Education (MESRS), Director of Industrial chemistry institute USTHB and President of Scientific Committee - Industrial Chemistry institute, Head of Chemical Engineering Department at the National Polytechnic school of Algiers (E.N.P), and Researcher at Research and Development Direction at SONATRACH. She took part at many commissions on the higher education reforms, and she was the National Coordinator of « the higher education Commission (Technology) of "Maghreb Equivalence", and president of PURAQ (Pôle Universitaire et de recherche Algéro-Québécois). For her achievements, she has been awarded and appreciated by State and Global Institutions.

2:55 – 3:20 (Thursday)

**Shri. Mahesh Anant Kakade, MIE, MISTE, MIV, MIEEES**  
Controller of Examinations, Shivaji University, Kolhapur  
Chairman, Indian Society for Technical Education  
Maharashtra- Goa Section, India
Hamid Parsaei is Professor of Industrial and Systems Engineering at Texas A&M University (College Station) and also Professor of Mechanical Engineering and Associate Dean for Academic Affairs at Texas A&M University at Qatar. He is a registered professional engineer (PE) in Texas, a Fellow of the Institute of Industrial Engineers (IIIE), and a Fellow of the American Society for Engineering Education (ASEE). He has published over 200 articles in peer-refereed archival journals and conference proceedings. He has also served as editor/co-editor in chief for four academic journals and five book series. His research, in excess of $22 million, has been funded by numerous government and private institutions.

Session XII: Global Engineering Education - Room Starhill 4

Session Chair: Nidhi M B, MarBaselios College of Engineering & Technology (MBCET), Thiruvananthapuram, Kerala, India

4:00 – 4:25 (Thursday)

Nidhi M B
A/HoD Mechanical Engineering Department
MarBaselios College of Engineering & Technology (MBCET)
Thiruvananthapuram, Kerala, India

National Executive Council Member ISTE

Enhancing outcome Based Education through Self awareness

Prof. Nidhi M B is currently working as Assistant Head of dept. Mechanical Engineering Dept. of Mar Baselios College of Engineering and Technology, Trivandrum, Kerala. She is also in the capacity of National Executive Council Member of ISTE (Indian Society for Technical education) (2015-2018) and joint Secretary to IIIE (Indian Institution of Industrial Engineers, Kerala chapter) (2011-2012, 2014-2015, 2015-2016). She has been serving as State Management Committee Member ISTE Kerala section from 2012-2015. Apart from the above responsibilities she has consistently initiated the release of Kerala Section Newsletter for the last 5 years, in the capacity as Newsletter Editor. She has gained appreciation by the Kerala Section for the efforts to promote ISTE. She has been instrumental in bridging the Industry Academia Gaps, and she is co-ordinating 5 projects with industry apart from current teaching responsibilities on the interest of the Institution. Ms Nidhi MB has been a special invitee to GEDC (Global Engineering Deans Council Summit), Singapore. She has been instrumental in initiating ISTE Faculty and Student Chapters in MBCET and currently the Chairman of ISTE-MBCET Chapter. Under her leadership the ISTE Chapter has organised many events for the benefit of students and Faculty. The Chapter has won 5 awards within the short span of 2.5 years. She has delivered many Keynotes addresses and Invited Lectures at State, National and International forums. She has to her credit 26 papers in National, International Journals and Conferences of which 8 papers are in education research. She is also reviewer of journals and conferences in areas relating to Sustainability in Engineering, Supply Chain Management, Engineering & Technology trends in Mechanical Engineering, etc. Her areas of interest include Pedagogy and Training, Outcome Based Education, Changing roles of Industrial Engineering, Design and Engineering, Green Supply Chain Management etc. She graduated from the SCT College of Engineering in BTech Mechanical Production in the year 2001. She worked in Industry Leela Lace International Ltd, as Industrial Engineer for 3 years. There by developing a passion for Industrial Engineering, she pursued her Master’s Degree in Industrial Engineering from CET, Kerala, (2006-2008). Since then she started her career in Engineering Education as lecturer, Sr Lecturer and as Asst. Prof with Saintgits College and Mar Baselios College of Engineering and Technology. She has also won many Best Paper Awards in various forums of international conferences and National Conventions. She is also serving as mentor to other ISTE chapters in Kerala. She is currently pursuing her research at the National Institute of Technology Calicut on Sustainability.

4:25 – 4:50 (Thursday)

Dr. P. Muredzi
Dean – School of Engineering & Technology
Harare Institute of Technology, Zimbabwe

Perkins Muredzi is currently the Executive Dean of the School of Industrial Sciences and Technology and School of Engineering and Technology at the Harare Institute of Technology, Harare, Zimbabwe and a 2015 Global CIMA Award winner in “education Leadership” conferred at the 2015 World Education Congress, Mumbai, India. He graduated with a BSc, MSc in Food Processing Engineering from Krasnodar Institute in the Russian Federation in 1991 and obtained a Master’s degree in Intellectual Property from Africa University in 2009 before attainment of his PhD qualification. Dr Muredzi teaches Food Engineering in undergraduate, certificate and diploma programmes and also teaches Intellectual Property in the Master of Intellectual Property degree programme being run jointly by Africa University, the World Intellectual Property Organisation (WIPO) and the African Intellectual Property Organisation (ARIPO). He has published 8 books, his first being one published by CBH publishers (USA) entitled “Emerging Non-Thermal Food Processing Technologies” and two of which are text books for “A” Level Food Science and a text book for postgraduate students studying Food Science and Technology. He is a member of ZEC (Zimbabwe Energy Council) UFost, EFFoST, IFT (USA) and sits in various national bodies like the Research Council of Zimbabwe grants committee, symposium organising committee, the Harare Polytechnic B Tech Programme Board of studies, NAMACO sectorial committee on Food Processing, ZIMCHE’s RIE-SET organising committee, Zimbabwe Intellectual Property Development Trust and various SAZ standards development technical committees among others. He is the current chairman of the research board and member of the editorial committee of the Journal of Science, Technology, and Technopreneurship (JSTT) of the Harare Institute of Technology. Dr. Muredzi currently sits on Editorial Boards of the following Journals:

- Journal of Biological, Pharmaceutical and Chemical Research
- Journal of Leadership and Management Studies; Department of Management and Project Management; Cape Peninsula University of Technology
- American Journal of Nutrition and Food Science
DISTINGUISHED SPEAKERS – Global Engineering Education

Friday (September 23, 2016)

Session I: Global Engineering Education
Room Engineering Building E200, 8:00 – 9:15 am (Friday)
Session Chair: Dr. Srikant Raghavan, Lawrence Technological University

8:00 – 8:25 (Friday)

Ms. Tengku Shahraniza Bt Tengku Abdul Jalal
Head of Intensive English Language Programme
Multimedia University, Malaysia

Workplace English: An Analysis of Communication Needs

Tengku Shahraniza graduated from University Kebangsaan Malaysia with a Bachelor of Education (Hons) in TESL and obtained her Master of Business Administration (MBA) from Multimedia University. She possesses more than 20 years of teaching and training experiences that include teaching preschool, primary school, and secondary school students. She designs syllabus, modules and teaching materials. At the same time, she develops, creates and moderates exam questions and assessment. She taught English courses and camps for foundation, pre-diploma and diploma in colleges, matriculation centre and universities like UiTM, UTM, UPM and MMU. Tengku Shahraniza has been teaching international students from Saudi Arabia, Yemen, Oman, Sudan, Nigeria, Botswana, Kazakhstan, Iran, Iraq, Tanzania, Japan, Korea and Thailand.

She is currently the lecturer and advisor for Arabic Culture Society at Multimedia University, Melaka. Her roles in Arabic Culture Society are to examine the important role religion and culture play among the Middle Eastern and how it could shape the Arab students' and other local students of their belief systems and their lifestyles. She exposed the Arab students to the local cultures through charity events and homestay programmes. She is also a trainer training Support Staff, Executives and Head of Departments for multinational companies and government agencies.


She loves doing research with special interest in ESP, Technical and Business Communication, Management and Aviation. She has been the judge for state and national challenges for the well known RHB NST SPELL IT RIGHT CHALLENGE for 7 years. This nationwide spelling competition jointly organised by the New Straits Times and RHB Banking Group as a corporate social responsibility exercise. It was started in 2008 with the objectives to foster English proficiency among young Malaysians and to promote the usage of the newspaper as an educational tool. The competition has received endorsement from the Ministry of Education since 2008. She also published papers in highly reputable peer-reviewed open-access international conferences and journals listed in Scopus, ISI and Copernicus.

8:25 – 8:50 (Friday)

Dr. Annamalai Pandian
Assistant Professor of Mechanical Engineering
Coordinator – Engineering Technology Management Program
Department of Mechanical Engineering
Science Engineering & Technology
Saginaw Valley State University
Saginaw, Michigan, USA

Dr. Annamalai Pandian is an assistant professor at Saginaw Valley State University. He earned his B.Eng. & M. Eng. Degree in Mech. Eng. from the University of Madras, Chennai, India, and M.S Degree in Mech. Eng. from Louisiana State University, Baton Rouge, LA, USA and D. Eng., Degree in Manufacturing Systems from Lawrence Technological University, Southfield, MI, USA. He has wide range of industrial experience in sheet metal stamping, robotic welding, automation, product design, project management, six sigma and lean manufacturing methods. He has very good certification knowledge on ISO 9001 standards and procedures. He taught in the University of Wisconsin-Stout for few years before moving to Saginaw Valley State University.

Dr. Pandian has worked in the Advanced Manufacturing Engineering division in Chrysler LLC, Auburn Hills, MI, USA for 13+ years. He has wealth of experience in automotive tooling design, process and manufacturing. He has taught several mechanical, design and manufacturing engineering courses including Engineering Mechanics, CAD, Jigs & Fixtures, Robotics & Machine Vision, Manufacturing Process Eng., Manufacturing Systems Design and Simulation, and Lean Manufacturing. Dr. Pandian’s research interests include 3D printing, Sheet metal forming, Simulation, DOE, Robotics, ARMA and ANN. He is a member of ASQ, ASEE, IEOM, IIE, and SAE.
Dr. Srikant Raghavan
Associate Professor, College of Management
Lawrence Technological University
Southfield, Michigan, USA

Dr. Srikant Raghavan, currently an associate professor, has been part of the faculty in the College of Management since 1987. Before this position, Dr. Raghavan worked for General Motors as a Senior Research Engineer and Tata Consulting Services as an Associate Consultant. In addition, he has taught at half a dozen academic institutions as a part-time or full-time faculty.

Dr. Raghavan holds a bachelor’s in Physics from the University of Madras, a master’s in Operational Research from the University of Delhi, a master’s in Operations Research from Case Institute of Technology, and a doctorate in Business from the University of Houston. His research interests are primarily directed towards better teaching of the quantitative disciplines and issues in the application of Operations Management. In addition, he is interested in exploring the role and accountability of the Governance entities in business and academic institutions. Dr. Raghavan is included in the 23rd edition of “Who’s Who in the Midwest”, Published in Feb 1992.

He is active in a number of professional organizations like the American Production and Inventory Control Society (APICS), and the Sigma Xi Scientific Research Society. He is also a Professional Life member of the Operations Research Society of India (ORSI). He has revived local chapters of ORSI and INFORMS (The Institute for Operations Research and Management Science) in 1981 and 1985, respectively. Dr. Raghavan was naturalized as a U.S. Citizen in October 1992.

Grades, Assessment & Accreditation

Abstract: This presentation looks at the three common tools used in education in general and higher education in particular, and reflects on their purpose and the extent to which that purpose is achieved. Grades are typically used to assess the performance of individual students in a specific assignment or course. Assessments are usually used to determine if a program of study is meeting the objectives/goals that it was designed for. Finally, accreditation is a tool to ensure Colleges, Institutes and Universities deliver quality education across all fields of study. Each of these tools is designed to assess how well academic programs are meeting their goals. As such, they play an important role in ensuring the quality of education. Because of their importance, and the dramatic changes in student demographics, challenges, and needs, advances in educational technology, and advances in knowledge itself, we must periodically examine our assessment tools to ensure they are aligned with, and are effectively promoting quality education. This presentation explores some possible improvements to our assessment tools.

Session II: Global Engineering Education
Room Engineering Building E200, 2:30 – 3:45 pm
Session Chair: Dr. Adedeji B. Badiru, Air Force Institute of Technology, Wright-Patterson, Dayton, Ohio

Adedeji B. Badiru, Ph.D., PE, PMP, FIIE
Dean, Graduate School of Engineering and Management
Professor of Systems Engineering
AFIT/EN, Air Force Institute of Technology
Wright-Patterson Air Force Base, Dayton, Ohio, USA

Adedeji Badiru is SES-Equivalent Dean of the Graduate School of Engineering and Management at the Air Force Institute of Technology (AFIT) at Wright Patterson Air Force Base, Dayton, Ohio. He was previously Professor and Head of Systems Engineering at AFIT. He was also previously Professor and Head of Industrial & Information Engineering at the University of Tennessee, Knoxville. Prior to that, he was Professor of Industrial Engineering and Dean of University College at the University of Oklahoma, Norman. He is a registered professional engineer (PE), a certified Project Management Professional (PMP), a Fellow of the Institute of Industrial Engineers, and a Fellow of the Nigerian Academy of Engineering. He has BS in Industrial Engineering, MS in Mathematics, and MS in Industrial Engineering from Tennessee Technological University, and Ph.D. in Industrial Engineering from the University of Central Florida. His areas of interest include mathematical modeling, project modeling and analysis, economic analysis, and productivity analysis and improvement. He is the author of several books and technical journal articles. He is the editor of the Handbook of Industrial & Systems Engineering.

He is a member of several professional associations including Institute of Industrial Engineers (IIIE), Institute for Electrical and Electronics Engineers (IEEE), Institute for Operations Research and Management Science (INFORMS), American Society for Engineering Education (ASEE), New York Academy of Science (NYAS), and Project Management Institute (PMI). He has served as a consultant to several organizations around the world including Russia, Mexico, Taiwan, Nigeria, and Ghana. He has conducted customized training workshops for numerous organizations including Sony, AT&T, Seagate Technology, U.S. Air Force, Oklahoma Gas & Electric, Oklahoma Asphalt Pavement Association, Hitachi, Nigeria National Petroleum Corporation, and ExxonMobil. He has won several awards for his teaching, research, publications, administration, and professional accomplishments. He holds a leadership certificate from the University Tennessee Leadership Institute. Prof. Badiru has served as a Technical Project Reviewer, curriculum reviewer, and proposal reviewer for several organizations including The Third-World Network of Scientific Organizations, Italy, National Science Foundation, National Research Council, and the American Council on Education. He is on the editorial and review boards of several technical journals and book publishers. Prof. Badiru has also served as an Industrial Development Consultant to the United Nations Development Program. He was the 2011 Federal Employee of the Year Award in the Managerial Category, International Public Management Association, Wright Patterson Air Force Base. He has also received other national and international awards and recognitions.

EDUCATION
1979 Bachelor of Science, Industrial Engineering, Tennessee Technological University
1981 Master of Science, Mathematics, Tennessee Technological University
1982 Master of Engineering, Industrial Engineering, Tennessee Technological University
1984 PhD, Industrial Engineering, University of Central Florida
Dr. M. Abbot Maginnis  
Lean Systems Program Academic Coordinator &  
Director of Certificate Studies  
University of Kentucky, Lexington, KY  

Dr. Maginnis has more than twenty years of experience in industry and is currently an instructor in the internationally renowned Lean Systems Program at the University of Kentucky and adjunct assistant professor in the College of Engineering.

Before returning to the University of Kentucky in 2005 to pursue a master’s degree in Manufacturing Systems Engineering (2007) and a Ph.D. in Mechanical Engineering (2012), Dr. Maginnis had already earned an M.S. degree in Metallurgical Engineering and Materials Science (1986) from the University of Kentucky. He spent 8 years conducting research on high temperature materials for the U.S. Bureau of Mines followed by 10 years in dental materials manufacturing prior to joining UK’s Lean Systems Program. During that time he experienced a variety of quality initiatives and learned first-hand the operational and cultural challenges associated with performing systematic problem solving and creating an environment of continuous improvement. It was those experiences which led him to return to the University of Kentucky where his focus centered on the Toyota Production System.

Upon joining the Lean Systems Program in 2006, Dr. Maginnis helped redesign and continuously improve Lean Certification program, and led the development and application of the Lean Systems learning laboratory until 2014 when he was appointed the program’s first academic coordinator. Along the way he earned his Ph.D. in Mechanical Engineering in 2012, focusing on the importance of standardization to team member learning and the development of sustainable continuous improvement capabilities within organizations.

Over the years, Dr. Maginnis has worked closely with other members the Lean Systems Program which includes current and retired Toyota leaders and has participated in and has led transformational and problem solving activities in a variety of industries including manufacturing, healthcare and fast food service.

Currently, the majority of Dr. Maginnis time revolves around his roles as both the Academic Coordinator for the Lean Systems Program and the Director of Certificate Studies for the Lean Graduate Certificate program within the College of Engineering. His primary activities include developing and teaching academic courses based on the lean programs’ professional courses, and creating a viable learning development pathway for students interested in the Toyota Production System with the goal of providing workplace-ready students for Toyota and other companies.

Dr. Jayant Trewn, Fellow ASQ  
Adjunct Faculty - A. Leon Linton Department of Mechanical Engineering  
Lawrence Technological University  
Southfield, MI 48075, USA  

Jayant Trewn is an Industrial Engineer specializing in Quality Systems design, development, implementation and management. Jayant has accumulated over a decade of experience working in healthcare organizations such as Beaumont Hospitals, Spectrum Health Medical Group, and service organizations such as Thomson Reuters and Lason Systems, where he built healthcare and service delivery process improvement programs based on lean, Six Sigma and PDCA concepts. He also worked for two years at Thomson Reuters working as Director of Quality Assurance, IP and Science division, managing the quality of acquisition of data for scientific research.

Jayant has been teaching quality engineering and implementing Lean Six Sigma training and certification since 1997 in his roles as Adjunct Professor at Lawrence Technological University, Wayne State University and Oakland University, all in Michigan, in addition to giving quality engineering talks, seminars and workshops at numerous national and international conferences. Jayant has also served as a Research Analyst for Wayne State University, Center for Urban Studies and Office of Strategic Planning from 1993 to 1999. Jayant has written three books, Kaizen Demystified, Practical Lean Sigma for Healthcare and Multivariate Statistical Methods in Quality Engineering and he has been published in international journals. Jayant is a Fellow of ASQ and he holds a Doctorate degree in Industrial Engineering from the College of Engineering, Wayne State University, Detroit, MI, USA. He earned his MBA in Information Systems at Wayne State University and his Bachelor of Engineering degree from Madras University, India.

Dr. Lynn Miller-Wietecha  
eLearning Architect and Program Producer  
Department of eLearning  
Lawrence Technological University  
Southfield, MI 48075, USA  

Dr. Lynn Miller-Wietecha is currently Online Program Producer at Lawrence Technological University, Dearborn Heights Virtual Academy. She has extensive experience Full-time faculty member in Instructional Technology program. Taught graduate level courses in Instructional Design, Evaluation and Technology Integration.  

Designing a Blended Online Lean Six Sigma Training  

Abstract: One of the barriers for implementing training in globally located organizations is the high cost, increased time and complexity presented by stratified business processes that are spread geographically. Bringing teams to one “brick and mortar” training location to train using traditional classroom training techniques is not cost effective, nor practical in these complex conditions of globally spread value streams. This presentation will present a treatise on various models that the presenters have utilized for Lean Six Sigma training over a number of years. These methods span across a wide range of blended learning techniques such as asynchronous training at strategic locations, phone conference based training, online synchronous training, asynchronous online training with location based project reviews and the most effective method of asynchronous training with synchronous online project tollgate based reviews. These methods have been practiced by the presenters since 2001 and have been sequentially...
improved over time to design a cost effective, efficient and proven method which has been implemented in the University and Industry settings. Blackboard and Moodle platforms have been successfully utilized. Data will be presented that shows how student engagement is achieved and trainee projects will be reviewed to show the high quality of projects implemented in this learn, practice and train method of Lean Six Sigma certification.

Session III: Global Engineering Education
Room - Engineering Building E200, 4:00 – 5:15 pm
Session Chair: Paul Nutter, Ohio Northern University

4:00 – 4:25 (Friday)

Srinivas Ganapathyraju, Ph.D
Professor and Coordinator
Electromechanical Engineering Technology
Sheridan College Institute of Technology & Advanced Learning
Brampton, Ontario, Canada

Dr. Srinivas Ganapathyraju is a Professor and program coordinator for the Electromechanical Engineering program at Sheridan Institute of Technology in Ontario, Canada. He has over 15 years of experience in industry and academia. He has worked as an automation design engineer in Singapore, designing pick and place manipulators used in integrated microchip testing and assembly. As an engineering intern at Jaguar Cars in Birmingham, England, he worked on an artificial neural network system to test for spot weld quality, which was part of his master's project work. He was also an industrial engineering intern at Helwig Carbon Products in Milwaukee, Wisconsin, helping to design and implement cellular manufacturing for the brush fabrication facility and ERP implementation. He was a teaching assistant at the University of Wisconsin – Milwaukee, prior to joining Sheridan. At Sheridan Institute of Technology, he was instrumental in developing two new programs. He has taught and continues to teach a number of courses including robotics, programmable logic controllers, CAD/CAM, CIM, advanced manufacturing systems, engineering economics, mechanics of materials, and engineering metrology. He has been active in applied research and awarded NSERC funding for his work.

He received his B.Tech (Honors) degree in Mechanical Engineering from the University of Zimbabwe, an MSc degree in Advanced Manufacturing Systems from the Nottingham Trent University in England and PhD in Industrial and Manufacturing Engineering with a minor in Computer Science from the University of Wisconsin - Milwaukee. His teaching and research interests are in the area industrial robotics and automation, Computer Aided Design and Manufacturing, and Machine Vision. He has presented a number of research papers at international conferences in the area of robotics and machine vision. He is registered as an Engineer in Training (EIT), while working towards his Professional Engineering (P.Eng) designation.

4:25 – 4:50 (Friday)

Dr. Rashmi Jha
Associate Professor and Program Coordinator of Master of Computer Applications
Gitarattan International Business School
Guru Gobind Singh Indraprastha University
New Delhi, India

Dr. Rashmi Jha is currently working as an Associate Professor & HOD in IT department of Gitarattan International Business School (giBS), affiliated to Guru Gobind Singh Indraprastha University) New Delhi. She is PhD, M. Phil, MCA, HSM, DCO & CWDM in Computer Science. She is a Lean Six Sigma Green Belt Certified Computer Professional. She has more than 20 years working experience in computer field; 14 years experience of teaching to MCA and B. Tech. students of GGSIPU, IGNOU, MAHE and Delhi University and 6 years experience in Computer Programming.

She has authored 31 research papers in various peer-reviewed National & International Journals and Conferences, including International Book Review. She has also presented IEEE International Paper at Tianjin University in China on the topic “Implementing Best Practices in ERP for Small & Medium Enterprises” for IEEE Symposium of Advanced Management of Information for Globalized Enterprises (AMIGE’ 08), jointly organized by IEEE, Arizona University (USA), Tsinghua & Tianjin University, UMBC, SAP & CN in September 2008. Her research interests include Natural Language Processing, Software Engineering, ERP, Lean Six Sigma, Sustainable Development of Small and Medium Enterprises Internet and E-Commerce Security etc.

She has organized and attended more than Sixty Conferences/ Seminars / Workshops/ FDPs held at National and International level on various emerging issues in “Information Technology, Management Development and Quality Improvement Programmes” for Teachers and Working Executives in Delhi. She is a Life Member of professional bodies like CSI, IEOM and KINDUZ Consulting Group India.
Manufacturing Simulation Projects for Experiential University Learning and Partnerships

Abstract: Ohio Northern University has used advanced industrial computer simulations for over 16 years to provide manufacturing technology majors with effective experiential projects. Two semesters provide a foundation in high-level CAD and manufacturing simulation applications. Students then work with local companies to create simulations of manufacturing operations to analyze ergonomic, robotic, process flow, throughput and cost reduction opportunities. Teams of students then prepare and present a PowerPoint of analysis and recommendations to company representatives. Example companies include major automotive original equipment manufacturers (OEMs) and suppliers, and a major defense-industry company. This presentation explains the curriculum, applications and process, along with specific projects using manufacturing simulations, which have contributed to excellent industrial partnerships and student placements.

Bio: Paul Nutter is an Associate Professor and dept. chair at Ohio Northern University, teaching manufacturing technology since 2000. He has 26 years’ experience in industrial and manufacturing engineering, primarily with Rockwell Automotive. Professionally Paul is active in the Society of Manufacturing Engineers as faculty advisor for SME Student Chapter S186, and is chair for the national SME Manufacturing Knowledge Base WIKI committee. He has served on many national committees, and received the 2009 national SME Award of Merit.

Saturday (September 24, 2016)

Session IV: Global Engineering Education
Room - Engineering Building E200, 8:00 – 9:15 am
Session Chair: Dr. Quazi K. Hassan, University of Calgary, Alberta, Canada

08:00 – 08:25 (Saturday)

Dr. Md. Mizanur Rahman
Senior Lecturer, Department of Thermo Fluids
Faculty of Mechanical Engineering
University Technology Malaysia (UTM)
Skudai, Johor Bahru, Malaysia

Dr. Md. Mizanur Rahman is currently a Senior Lecturer at Department of Thermo-Fluids, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia UTM, Johor Bahru, Malaysia. Before joining at UTM, he has served as a Postdoctoral Researcher at Aalto University School of Engineering, Finland. Rahman also has more than 12-year working experience in a government statutory body namely Rural Electrification Board (REB), Bangladesh. During his tenure in REB, Dr. Rahman has gathered practical experience in dealing with techno-economic and sociocultural challenges faced by rural electrification programme. He has accumulated deep insights towards the solution pathways for the Global Mega-challenge of having 1.2 billion people without access to electricity yet. Mr. Rahman has sound understanding into the global energy sector challenges and its societal implications. Mr. Rahman received his Ph.D. in Energy Economics and Power plant Engineering from Aalto University, Finland, M.Sc. in Sustainable Energy Engineering from Royal Institute of Technology KTH, Sweden, and B.Sc. in Mechanical Engineering from Khulna University of Engineering and Technology, Bangladesh. His research interests include rural electrification, energy economics, energy management, energy efficiency and system, sustainable and renewable energy, energy system modelling, Life-Cycle Analysis, distributed power generation, multicriteria evaluation etc. Dr. Rahman has several publications in International refereed journals in energy engineering domain.

08:25 – 08:50 (Saturday)

Eui H. Park, Ph.D.
Graduate Program Coordinator
Professor, Department of Industrial and Systems Engineering
North Carolina A&T State University
Greensboro, North Carolina

Dr. Eui H. Park, Professor of the Department of Industrial and Systems Engineering (ISE) at North Carolina A&T (NC A&T) State University, received his Ph.D. from Mississippi State University in 1983. Upon completion of his Ph.D., he joined NC A&T and has since initiated and developed a successful Human-Machine Systems Engineering program and interdisciplinary manufacturing program. He has also conducted STEM outreach programs, the Para-Research Program, Partnership in Education and Research, REU, and RET, for the past sixteen years. He is the founder of teaching factory, Piedmont Triad Center for Advanced Manufacturing. Dr. Park was also the Chairperson of the ISE Department for sixteen years from July 1990. He has been an IIE Fellow since 2000. His research interest include Human-Machine Systems Engineering and Quality Assurance. He has been a principle investigator in 24 awarded funded research projects totaling over $12 million in the past ten years.
08:50 – 09:15 (Saturday)

**Farnaz Ghazi-Nezami, PhD, CSSGB**  
Assistant Professor  
Industrial and Manufacturing Engineering Department  
Kettering University  
Flint, Michigan, USA

Farnaz Ghazi-Nezami is an Assistant Professor in the Industrial and Manufacturing Engineering Department at Kettering University. She received her Ph.D. in Industrial and Manufacturing Engineering from Wichita State University. She also earned her masters and undergraduate degree in Industrial Engineering in Iran, Tehran. Dr. Ghazi-Nezami is a Certified Six Sigma Green Belt (CSSGB) from the American Society for Quality (ASQ), and received the Energy Assessment Certification from the Department of Energy. Her research interests include applied optimization, sustainability, energy efficient manufacturing systems, supply chain and operations management, and engineering education. In educational research, her interests include online education, active learning and entrepreneurial mindset development in engineering classes.

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**Session V: Global Engineering Education**

Room - Engineering Building E200, 11:30 am – 12:45 pm  
Session Chair: Dr. Daw Alwerfalli, Lawrence Technological University, Southfield, Michigan, USA

11:30 – 11:55 (Saturday)

**Dr. Daw Alwerfalli**  
Professor of Mechanical/Manufacturing Engineering  
Director of Master of Engineering Management Program  
College of Engineering  
Lawrence Technological University  
Southfield, Michigan, USA

Prominent professor, senior technical industry consultant and manufacturing engineering educator with a tremendous expertise in program and curriculum development in higher technical education. Highly experienced and dedicated community leader with great ability to work with an array of constituencies and coalitions in developing shared organizational vision to create and implement strategies aimed at advancing common causes to accomplish goals in fulfillment of the organization’s mission. Highly perceived expert and industrial advisor. He is the founder of Manufacturing Engineering Solutions (MES) a consulting firm founded in 2000. He is senior technical consultant and strategist to the US manufacturing industry. MES developed executive training programs to numerous organizations such as Chrysler, Ford, GM, Exxon Mobil, Conco Philips, Marathon and Tier I and II suppliers to the US auto industry and other international companies. Published numerous research papers in many national and international conferences.

Dr. Alwerfalli is a recipient of many prestigious awards including, the 2009 Arab American of the year in education, 1997 Lawrence Tech. Excellence in Teaching Award, 2004 Outstanding Engineering Faculty. He serves on many boards of directors, he also served on the Advisor Council of the Governor of Michigan for the Arab American and Chaldean Affairs Committee. He is currently serving on the steering committee of MAT 2 for dual education where he is a lead assessor to evaluate colleges for readiness in joining MAT 2 coalition of several German US based companies. Dr. Alwerfalli is also serving on the steering committee of “LIFT” Lightweight Innovation for Tomorrow. The committee is to develop innovative educational curriculum and skills for the next generation workforce for the Michigan, Ohio, Indiana and Tennessee under $148 Million, a federal grant for the year 2015-2016. For several years, Dr. Alwerfalli served as the academic advisor of many doctoral students who obtained their doctorate degrees and are currently leaders in the US auto industry.

11:55 – 12:20 (Saturday)

**Dr. Devdas Shetty**  
Dean, School of Engineering and Applied Sciences  
Professor of Mechanical Engineering  
University of the District of Colombia  
Washington DC, USA

Dean Shetty joined University of the District of Columbia in 2012, having previously served as Dean of Engineering at Lawrence Technological Institute and Dean of Research at the University of Hartford.

While with the University of Hartford, Dr. Shetty was first Chair of the Vernon D. Roosa Endowed Professorship. In addition, he was the Director of the Engineering Applications Center, through which he established partnerships with more than 50 Connecticut industries. During 2008 and 2009, Dr. Shetty served as Dean of the College of Engineering for Lawrence Technological University in Michigan. During that time, he initiated several new academic programs, established partnerships and contributed to curricular innovation. Prior to coming to Hartford, Dr. Shetty held academic positions at the Albert Nerkin School of Engineering at the Cooper Union for the Advancement of Science and Art in New York City.

Dr. Shetty is the author of three books and more than 200 scientific articles and six patents. His books on Mechatronics and Product Design are widely used as a textbooks in many universities around the world. Dr. Shetty's research work has been cited for original contribution to the understanding of engineering surface measurement, for significant intellectual achievements in mechatronics and for contributions to product design. He is especially well-known for his contributions in establishing partnerships between the University and industries.
He is the recipient of academic and research grants from organizations like National Science Foundation, Society of Manufacturing Engineers, US Army, Air force etc.

Dr. Shetty had been leading research efforts in a U.S. Army research project on Unmanned Aerial Vehicles. In partnership with Albert Einstein College of Medicine in New York, he invented the patented mechatronics process for supporting patients. Dr. Shetty has chaired several international conferences and presented keynote lectures. Major honors received by Prof. Shetty include James Frances Bent award for Creativity, the Edward S. Roth National Award for Manufacturing from the Society of Manufacturing Engineers, American Society of Mechanical Engineer Faculty Award, and Society of Manufacturing Engineers Honor award. He is an elected member of the Connecticut Academy of Science and Engineering.

12:20 – 12:45:

Dr. Mohammad Miftaur Rahman Khan Khadem  
Assistant Professor  
Department of Mechanical and Industrial Engineering  
Sultan Qaboos University  
Muscat, Oman

Dr. Md. Miftaur Rahman Khan Khadem has been working in the department of MEIE as an assistant professor of Industrial Engineering at Sultan Qaboos University of Oman. He has vast experience in ABET accreditation and curriculum development. His research area is in the field of manufacturing system, OHS, ergonomics and supply chain management. He has published over thirty peer reviewed Scopus indexed Int. Journal and conference articles. He is the Executive director of IEOM society International. He served as a program chair of annual IEOM conference. Dr. Khadem has received PhD in Industrial and Manufacturing Engineering in 2004 from University of Wisconsin Milwaukee. MS in Mechanical Engineering from USA and BS in ME from BTK (KUET) 1997.

Session VI: Global Engineering Education  
Room - Engineering Building E200, 2:30 – 3:45 pm  
Session Chair: Dr. Srinivas R. Chakravarthy, Kettering University, Flint, Michigan, USA

2:30 – 2:55 (Saturday)

Dr. Srinivas R. Chakravarthy  
Professor and Department Head  
Industrial and Manufacturing Engineering  
Kettering University  
Flint, Michigan, USA

Dr. Chakravarthy is Professor and Head of the Department of Industrial and Manufacturing Engineering at Kettering University (formerly known as GMI Engineering & Management Institute), Flint, Michigan. He received his BS (Mathematics) and MS (Statistics) degrees from the University of Madras, India, and Ph.D (Operations Research) from the University of Delaware, Newark, USA.

Dr. Chakravarthy’s research interests are in the areas of algorithmic probability, queuing, reliability, inventory, and simulation. He has published more than 100 papers in leading journals and made more than 85 presentations at national and international conferences. Recognizing the impact of Neuts’ Matrix-analytic methods in stochastic models, he initiated the organization of International Conference Series on Matrix-Analytic Methods (MAMs) in Stochastic Models. He co-organized the First International Conference on MAMs in Stochastic Models in 1995 held in Flint. Following the success of this conference and interests shown in the MAMs research community, the next seven conferences were held in Winnipeg, Canada (1998), Leuven, Belgium (2000), Adelaide, Australia (2002), Pisa, Italy (2005), Beijing, China (2008), New York, USA (2011), Calicut, India (2014). The ninth one is slated to be held in Budapest, Hungary (2016). Dr. Chakravarthy has been a visiting faculty at the Department of Statistics and Operations Research, Complutense University of Madrid, Madrid, Spain, the Department of Mathematics, Cochin University of Science and Technology, Cochin, India, and the Department of Mathematics and Statistics, Victoria University of Wellington, Wellington, New Zealand.

Dr. Chakravarthy’s recognitions and awards include (a) Distinguished Faculty - 2015 (Kettering’s Faculty and Alumni Honor Wall); (b) NSF Conference Award - Co PI (DMS-1360865), 2014-2015; (c) Rodes Professor, Kettering University, 2010-2012; (d) Kettering University Distinguished Research Award, 2003; (e) Kettering University/GMI Alumni Outstanding Teaching Award, 2001; (f) Sloan Grant for developing ALN courses at Kettering University, 2000; (g) GMI Outstanding Research Award, 1996; (h) Sloan Faculty/Industry Exchange Fellowship, 1996; (i) GMI Research Initiation/Improvement Grant, 1995; (j) NSF Conference award (DMI-9424312), 1995; (k) NSF Research award (DM-9313283), 1993-1997; (l) GMI Alumni Outstanding Teaching Award, 1990; (m) GMI Research Initiation/Improvement Grant, 1990; (n) Lilly Faculty/Industry Exchange Fellowship, 1988. Dr. Chakravarthy has significant industrial experience by consulting with GM, FORD, PCE, and UPS. He has also served as Engineering Group Manager for Operations Research Division in General Motors in 2000/2001.

Dr. Chakravarthy’s professional activities include serving as (a) Area Editor for the journal, Simulation Modelling Theory and Practice; (b) Associate Editor for the journal IAPQR TRANSACTIONS - Indian Association for Productivity, Quality & Reliability; (c) Advisory Board Member for several other journals and International Conferences; (d) Reviewer for many professional journals; and (e) External Examiner for a doctoral thesis from abroad.
Robert P. Van Til, Ph.D.
Pawley Professor of Lean Studies and Chair
Industrial and Systems Engineering Department
Oakland University
Rochester, Michigan, USA

Integrating Product Lifecycle Management into an ISE Educational Program

Abstract: The presentation will follow the evolution of the Oakland University Industrial and Systems Engineering Department's integration of Product Lifecycle Management (PLM) concepts and tools into it's educational programs in ISE and Engineering Management. The process began with the integration of PLM tools into several existing ISE courses and the creation of a keystone course which presents PLM as a business concept. The next step involved offering application focused courses where students learn how to use a particular PLM tool while applying the tool on several projects. Application focused courses developed and offered to-date include topics such as product data management, robotics, ergonomics, change management, and integrated materials management.

Biography: Robert Van Til is the Pawley Professor of Lean Studies and Chair of Oakland University’s Industrial and Systems Engineering Department. He earned a B.S. in Mechanical Engineering from Michigan State University as well as M.S. and Ph.D. degrees in Mechanical Engineering from Northwestern University. Dr. Van Til is also associated with Oakland University’s Pawley Lean Institute. Dr. Van Til's educational and research interests focus on the modeling, analysis and control of manufacturing systems, lean and Product Lifecycle Management (PLM). His projects have been supported by the National Science Foundation and the Michigan Economic Development Corp. as well as by companies such as Fiat Chrysler Automobiles, Ford Motor Co., Siemens PLM Inc. and the Crittenton Hospital Medical Center. He has served in visiting positions at universities in Hawaii, the Netherlands and Australia.

Dr. Leslie Monplaisir
Department Chair
Industrial and Systems Engineering
Wayne State University
Detroit, Michigan

Leslie Monplaisir, Associate Professor of Industrial and Systems Engineering, is Chair of the Department of Industrial and Manufacturing Engineering at Wayne State University (WSU). He is a Lead Researcher and Director of the Product Development and Systems Engineering Consortium (PDSEC) at WSU. His research interests include: Lean Product Development, Design for lean Systems and Services and Design reuse, Collaborative PD Decision Making, Product Architecture Optimization, Design for Supply Chain, Global Product Platform Optimization and Healthcare Technology System Design He has authored over 100 publications in these areas with funded research from NSF, Ford, GM, Sun Microsystems, Tardec, VA and PTC.

Monplaisir joined the College of Engineering at Wayne State University in the Department of Industrial and Manufacturing Engineering in 1996 from Florida A & M University where he was a visiting assistant professor. He earned his PhD in Engineering Management from the Missouri University of Science and Technology (MUST), a master's in Computer Integrated Manufacturing from the University of Birmingham in Great Britain, and bachelor's in Mechanical Engineering from the University of the West Indies in Trinidad.

Session VII: Global Engineering Education
Saturday, 4:00 – 5:15 pm
Room - Engineering Building E200

Dr. Matthew Ohland
Professor, School of Engineering Education
Purdue University
West Lafayette, Indiana, USA

CATME SMARTER Teamwork

Dr. Ohland is a Professor of Engineering Education at Purdue University. Along with his collaborators, he has been recognized for his work on longitudinal studies of engineering students with the William Elgin Wickenden Award for the best paper published in the Journal of Engineering Education in 2008 and 2011, the best paper in IEEE Transactions on Education in 2011 and other awards. The CATME Team Tools developed under Dr. Ohland's leadership and related research have been used by more than 550,000 students of over 10,500 faculty at more than 1600 institutions in 72 countries, and were recognized with the 2009 Premier Award for Excellence in Engineering Education Courseware and other awards. He is a Fellow of ASEE and IEEE and has received teaching awards at Clemson and Purdue. Dr. Ohland is an ABET Program Evaluator, an Associate Editor of IEEE Transactions on Education, and Past Chair of the IEEE Curriculum and Pedagogy Committee. He was the 2002–2006 President of Tau Beta Pi and has been a Facilitator for Tau Beta Pi's award-winning Engineering Futures program since 1996 and has delivered 116 seminars to 2409 students around the country.
Session VIII: Global Engineering Education
Room - Engineering Building E200, 8:00 – 9:15 am
Session Chair: Dr. Mukti M. Rana, Delaware State University, Dover, DE, USA

8:00 - 8:25 (Sunday)

Dr. Mukti M. Rana
Associate Professor and Chair
Department of Physics and Engineering &
Optical Science Center for Applied Research
Delaware State University
Dover, DE, USA

Dr. Mukti Rana is an associate professor and chair of the Department of Physics and Engineering and Optical Science Center for Applied Research (OSCAR) at Delaware State University (DSU). Dr. Rana received his B.Sc. in Electrical and Electronics Engineering from the Khulna University of Engineering and Technology, Bangladesh (1992-1997), and his M.S. (2000-2002) and Ph.D. (2003-2007) from The University of Texas at Arlington (UTA) in Electrical Engineering. He also worked as graduate teaching assistant, graduate research assistant and post-doctoral research associate (2007-2008) in the Department of Electrical Engineering during his tenure at UTA. In fall 2008, Dr. Rana joined as an Assistant Professor in the Department of Electrical and Computer Engineering at The University of South Alabama, Mobile. In 2010, he joined in the Department of Physics and Engineering and OSCAR of DSU. Dr. Rana is the principal investigator of two centers at DSU – Center for Research and Education on Optical Sciences and Applications funded by the National Science Foundation, and Optics for Space Technology and Applied Research Center funded by the National Aeronautics and Space Administration. Dr. Rana’s research projects are also supported by the Department of Defense and National Institute of Health. His current research interest includes thin film’s properties for microsensors’ applications, uncooled infrared detectors and microelectro-mechanical (MEMS) devices. Dr. Rana has published more than 24 refereed journal articles and conference proceedings. Dr. Rana is a member of the IEEE and the founding student advisor of IEEE student branch at Delaware State University. Dr. Rana is the recipient of excellence in research award in 2016, vice president’s award for excellence in research in 2015 and excellence in outreach award 2015 for the college of mathematics, natural sciences and technology of DSU.

8:25 - 9:15 (Sunday)

Dr. Harun Rashid
Director of Staff Mentoring and Coaching
Hamadeh Educational Services serving Star International Academy, Universal Learning Academy, Universal Academy, and Noor International Academy &
Adjunct Faculty, College of Education
Wayne State University

Dr. Harun Rashid is the Director of Staff Mentoring and Coaching, Hamadeh Educational Services, Dearborn Heights, MI (Serving Star International, Universal, Universal Learning, and Noor International Academies) since 2011. He was Principal of Frontier International Academy (Grades 6-12) from 2005-2011. Dr. Rashid was an Assistant Principal & Principal, The Dearborn Academy (Grades K-8) from 1997-2005. He was an Assistant Director, MAT Program, Marygrove College, 1995-1997. Dr. Rashid was Principal, Darul Arqam Islamic School, Detroit, 1993-1995 and Educational Assistant, Huda School, 1989-1993. He is an adjunct faculty at WSU College of Education since 1994 and Wayne County Community College since 1995. He was a lecturer in Philosophy, Dhaka & Chittagong University, Bangladesh 1978-1983.

Dr. Rashid has published numerous conference and journal papers. He has served in dissertation committees. Dr. Rashid has served as a panel member for many educational related services. He has offered lecture/professional development training for educators at many private and public educational institutions nationally international including Wayne County Community College, Detroit Public Schools (Davison Elementary, Katherine B. White Elementary School, Cleveland Middle School, Northern High School), Hamtramck Public Schools, Caniff Liberty Academy, Crescent Academy International, Huda School, IAGD Weekend School, Al-Ikhlas Training Academy, Tawheed Center School, Al-Ihsan Academy, Muslim American Youth Academy, Genesse Academy (Flint), American Muslim Diversity Association (AMDA), ICA (Franklin), MDE Social Studies Conference (at WSU Nov. 1988), Michigan Institute of Professional Psychology in Farmington Hills and Michigan Public School Academies (MAPSA). He facilitates in-service professional development training on evaluating and mentoring teachers, Principals, Deans, Instructional Coaches, Department Heads, Curriculum Coordinators, Program Directors, Teacher Mentors, and other professionals at all levels of teaching and learning. Dr. Rashid also provides customized workshops for educators on effective planning and preparation for instruction, highly effective differentiated instructional strategies, and checking for understanding through authentic formative and summative assessment.

Dr. Rashid is a professional member of American Philosophical Association, Philosophy of Education Society, Association of Supervision and Curriculum Development, National Association of Secondary School Principals and Phi Delta Kappan.
Session IX: Global Engineering Education
Room - Engineering Building E200, 2:30 – 3:45 pm
Session Chair: Dr. Mohammad Rahman, Central Connecticut State University

2:30 – 2:55 (Sunday)
Dr. Jamal Bari
Associate Professor
Coordinator of Electronic Engineering Technology
School of Engineering Technology
Eastern Michigan University
Ypsilanti, Michigan

Dr. Bari is a faculty member at Eastern Michigan University, presently implementing and coordinating the undergraduate program in Electronic Engineering Technology. In the fall of 1997 he defended his dissertation and earned his Ph.D. in electrical engineering from the University of Arkansas. The problem he chose for his research is the control of a stochastic, nonlinear and uncertain model using adaptive control systems, including a modified extended Kalman filter and neural networks. One of the results from his dissertation was published in the Proceedings of the IEEE Conference on Decision and Control in December 1997. Dr. Bari has eight years of teaching experience and several years of industrial experience as an electrical engineer. He has taught a broad range of electronics courses and is experienced in curriculum development. He also directed, and successfully completed, a project funded by NSF for establishing an Instrumentation and Calibration lab.

2:55 – 3:20 (Sunday)
Dr. Jacqueline Chestnut
Adjunct Professor
Industrial and Systems Engineering Department
North Carolina A&T State University
Greensboro, NC, USA

Jacqueline Chestnut is an Adjunct Instructor for the Industrial & Systems Engineering in the College of Engineering at North Carolina Agricultural and Technical State University. She earned a Bachelor of Science and Master of Science in Industrial Engineering from North Carolina A&T State University, College of Engineering, Greensboro, North Carolina. Dr. Chestnut received a Ph.D. in Industrial Engineering from Mississippi State University in Starkville, Mississippi. She has published journal and conference papers. Dr. Chestnut has done research projects with General Motors, Jones International University, Lawrence Technological University and North Carolina A&T State University. Her research interests include human error, simulation, engineering and online education, human factors and ergonomics. She is a member of IEOM, ASEE, CUR, ASQ and Sloan.

3:20 – 3:45 (Sunday)
Dr. Mohammad Rahman
Assistant Professor
Manufacturing and Construction Management Department
Central Connecticut State University

Dr. Mohammad Rahman is an assistant professor in the Manufacturing and Construction Management Department at the Central Connecticut State University. His PhD is in Engineering Science, concentration in supply chain management. His Master degrees are in (i) Industrial & Production engineering, (ii) Industrial Manufacturing & Systems Engineering, (iii) Applied Statistics, and B.S. degree is in Mechanical Engineering. He served as an Assistant Professor and post-doctoral research associate at the University of Southern Mississippi and Louisiana State University, respectively. His research and teaching focused on supply chain strategy, decision making under uncertainty, and lean six sigma processes for quality. His research articles, appeared in academic journals, contributed to stochastic supply chain modeling, time series forecasting, emergency inventory management, and business decision under uncertainty. He also published several book chapters and presented topics in national and international conferences and forums.

Rahman served as PI and Co-PI in several research projects sponsored by US Department of Transportation (USDOT) and Mississippi Department of Education (MDE). He is an executive member of Industrial Engineering & Operations Management (IEOM) international forum and IEEE Xplore correspondent chair for IEOM chapter. He also served committees as a professional member with various responsibilities for Industrial & Systems Engineering Research Conference (ISERC), Decision Science Information (DSI) and Lean Six Sigma conferences. He regularly serves as a reviewer for referred journals.
Session X: Global Engineering Education  
Room - Engineering Building E200, 4:00 – 5:15 pm

Session Chair: Dr. Zakaria Mahmud, Lake Superior State University, Sault Sainte Marie, Michigan

4:00 – 4:25 (Sunday)
Quamrul Mazumder, Ph.D., P.E.
Associate Chair and Associate Professor  
Department of Mechanical Engineering  
University of Michigan – Flint

Dr. Quamrul Mazumder is currently an associate professor of mechanical engineering at University of Michigan-Flint. His areas of research include computational fluid dynamics, multiphase flow, quality in higher education, metacognition, motivation, and engagement of students. He is a Fulbright scholar travelled around the world to promote quality and globalization of higher education.

4:25 – 4:50 (Sunday)
Dr. Walton Hancock
Professor Emeritus Industrial and Operations Engineering and  
Professor Emeritus of Health Services, Management and Policy  
University of Michigan, Ann Arbor, MI, USA

Questionnaires can help create high-quality, productive workforces

Walton M. Hancock is professor emeritus of industrial and operations engineering and professor emeritus of health services, management and policy in the School of Public Health at the University of Michigan. He received his bachelor's, master's and doctoral degrees in engineering from Johns Hopkins University. Prior to joining the Michigan faculty in 1960, he was manager of industrial engineering and manager of quality control at the Lord Baltimore Press in Baltimore.

4:50 – 5:15 (Sunday)
Dr. Zakaria Mahmud
Associate Professor, Mechanical Engineering  
Lake Superior State University  
Sault Sainte Marie, Michigan

Dr. Zakaria Mahmud is an associate professor of mechanical engineering at Lake Superior State University (LSSU), Sault Ste. Marie, Michigan. Prior to joining at LSSU, Dr. Mahmud taught at North Dakota State University, Georgia Southern University, and Texas A&M University. He received his bachelor's from Bangladesh University of Engineering and Technology (Bangladesh), masters from the Royal Institute of Technology (Sweden), and doctoral from the University of Alabama (Alabama). His background is in experimental fluid mechanics with specialization in aerodynamic flow control.

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DISTINGUISHED SPEAKERS – Global Engineering Education

Tuesday (April 11, 2017)

Session I: Global Engineering Education
8:00 – 9:15 am (Tuesday) - Room 1
Session Chair: Edward Williams, University of Michigan – Dearborn, Michigan, USA

08:00 – 08:25 (Tuesday)

Professor Zazi Malika
Head of Electrical Engineering Department
L’Ecole Normale Supérieure de L’Enseignement Technique de Rabat (ENSET)
Mohammed V University
Rabat, Morocco

Professor Zazi Malika received the degree of engineer in automatics and industrial informatics in 1984 from School Mohammaedia of Engineering, and the Ph.D. degree in electrical engineering in 2006 from Mohammadia School of engineering, University Mohammed V Rabat. She has specialized in the linear and nonlinear control systems. Presently, she is serving as professor and head of Electrical department at ENSET Rabat. She has over 30years of teaching experience. She is guiding some doctorate students in Renewable Energy, Diagnostic, Robust Control and Electrical Engineering.

08:25 – 08:50 (Tuesday)

Professor Youssef Benadada
Head of Operational Research and Logistics (ROL)
Head of the Department of Informatics and Decision Support (IAD)
Coordinator of the e-Logistics Engineering (iEL)
Ecole Nationale Supérieure d’Informatique et d’Analyse des Systèmes (ENSIAS)
Mohammed V University, Rabat, Morocco

Youssef BENADADA is a Professor and Head of the Department of Informatics and Decision Support (IAD) at the National Higher School of Computer Science and Systems Analysis (ENSIAS) Mohammed V University, Head of Operational Research and Logistics research team (ROL) and Coordinator of the e-Logistics Engineering (iEL). His main research topics are petroleum products distribution, generalized fractional programming, combinatorial optimization, advanced optimization and reverse logistics.

08:50 – 09:15 (Tuesday)

Edward Williams
Educator at University of Michigan – Dearborn
Statistics/Simulation Consultant and Trainer
Production Modeling Corporation (PMC)
Detroit, Michigan, USA

Edward J. Williams holds bachelor's and master's degrees in mathematics (Michigan State University, 1967; University of Wisconsin, 1968). From 1969 to 1971, he did statistical programming and analysis of biomedical data at Walter Reed Army Hospital, Washington, D.C. He joined Ford Motor Company in 1972, where he worked until retirement in December 2001 as a computer software analyst supporting statistical and simulation software. After retirement from Ford, he joined PMC, Dearborn, Michigan, as a senior simulation analyst. Also, since 1980, he has taught classes at the University of Michigan, including both undergraduate and graduate simulation classes using GPSS/HÔ, SLAM IIÔ, SimanÔ, ProModelÔ, Simul8Ô, Arena®, or Simio®. He is a member of the Institute of Industrial Engineers [IIE], the Society for Computer Simulation International [SCS], and the Michigan Simulation Users Group [MSUG]. He serves on the editorial board of the Journal of Computer Engineering. During the last several years, he has given invited plenary addresses on simulation and statistics at conferences in Monterrey, México; İstanbul, Turkey; Genova, Italy; Riga, Latvia; and Jyväskylä, Finland. He served as a co-editor of Proceedings of the International Workshop on Harbour, Maritime and Multimodal Logistics Modelling & Simulation 2003, a conference held in Riga, Latvia. Likewise, he served the Summer Computer Simulation Conferences of 2004, 2005, and 2006 as Proceedings co-editor. He was the Simulation Applications track coordinator for the 2011 Winter Simulation Conference. A paper he co-authored with three of his simulation students won “best paper in track” award at the Fifth International Conference on Industrial Engineering and Operations Management, held in Dubai, United Arab Emirates, in March 2015.

IEOM Society - ESD Affiliate Council Member

The IEOM Society has become an Affiliate Society Member of The Engineering Society of Detroit (ESD). This collaboration provides IEOM with an opportunity to expand its network of professions in the engineering discipline.
Session II: Global Engineering Education
11:30 am – 12:45 pm (Tuesday) - Room 1
Session Chair: Dr. Syed Ahmad Helmi Al Haddad, Universiti Teknologi Malaysia, Johor, Malaysia

11:30 – 11:55 (Tuesday)

Dr. Virgilio Cruz-Machado
Head of Department
Department of Mechanical and Industrial Engineering
New University of Lisbon, Portugal
President – Portuguese Institute of Industrial Engineering (IPEI)

Reconfiguring Industrial Engineering Education in the Digital World

V. Cruz-Machado holds a Ph.D. in Computer Integrated Manufacturing (Cranfield University, UK). He is a full professor of Industrial Engineering at Universidade Nova de Lisboa, Portugal. He is the director of the Industrial Engineering Doctoral Program and other post-graduate programs in industrial engineering, project management, lean & green sustainability and entrepreneurship. He teaches operations and production management and has published more than 300 papers in scientific journals and conferences, in addition to having supervised more than thirty Ph.D. students. His main scientific activities are directed to the design of lean and green supply chain management. He was the CEO of a large consultancy company; coordinator of a major National R&D program directed for SMEs, and; a consultant member of the commission responsible for the implementation of Horizon 2020 – the European framework program for research and innovation (2014-2020). He is the Head of the Department of Mechanical and Industrial Engineering at Universidade Nova de Lisboa, the CEO of UNIDEMI (http://unidemi.com/) and the president of the Portuguese Institute of Industrial Engineers.

11:55 – 12:20 (Tuesday)

Dr. Basel Alsayyed Ahmad
Associate Professor of Mechanical Engineering
College of Engineering
United Arab Emirates University
Al-Ain, United Arab Emirates (UAE)

Dr. Basel Alsayyed is an assistant professor at the department of mechanical engineering in UAEU. With over 16 years of experience in academia, and 12 over years of industrial experience, most of which are in the American automotive industry, Dr. Alsayyed has a passion for education in general and teaching and training in particular. Teaching is an art, a trust, a valuable transformation of students using certain methods and tools, and it is holy, are all part of his belief. Dr. Alsayyed research interests are in the areas of advanced manufacturing, quality & reliability, renewable energy, engineering education and knowledge management. His education background:

- Ph.D., Doctor of Philosophy in Industrial Engineering, Wayne State University, 1998
- MSc in Manufacturing Engineering, Wayne State University, 1995
- Certificate in Maintenance, University of Twente, 1990
- MSc in Industrial Engineering, North Carolina A&T State University, 1987
- BSc in Industrial Engineering, North Carolina A&T State University, 1983

12:20 – 12:45 (Tuesday)

Dr. Syed Ahmad Helmi Al Haddad
Program Coordinator for MSc in Industrial Engineering
Faculty of Mechanical Engineering
Associate Fellow, Center for Engineering Education (CEE)
Universiti Teknologi Malaysia
Johor, Malaysia

Problem Based Learning (PBL)

Dr. Syed Ahmad Helmi is a senior lecturer in the Faculty of Mechanical Engineering, Universiti Teknologi Malaysia (UTM), and is affiliated to the UTM Centre for Engineering Education. He is currently the Graduate Programme Coordinator for the Department of Material, Manufacturing and Industrial Engineering. He has a Bachelor of Science in Mechanical Engineering, Master in Mechanical Engineering, and a PhD in Engineering Education. Prior to joining UTM, he worked as industrial extension officer in Standard and Industrial Research Institute of Malaysia (SIRIM) and as an engineer in various industries, such as INTEL and SIME-DARBY. Syed Helmi was a visiting scholar in University of Waterloo, Canada, and one of a task force member in-charge of propagating active learning in UTM. Over the years, as a practitioner of Problem-Based Learning (PBL), he has conducted several workshops to train academics, especially those in Science, Technology, Engineering, and Mathematics (STEM) education areas, on Outcomes-Based Education (OBE) particularly in effective implementation of Student Centred Learning (SCL) throughout Malaysian higher institutions, and international institutions such as in China, India, Korea, Turkey, and Afghanistan. Dr. Syed Helmi was invited as speaker in several international conferences. He also had published numerous articles related to his area of interest. His recent works include SCL, change management, complex engineering problems, manufacturing systems and optimization, and modelling of complex industrial systems.

Session III: Global Engineering Education

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Dr. Mustapha Nour El Fath, Laval University, Quebec City, Quebec, Canada

Dr. Alfredo Soeiro
Associate Professor, University of Porto, Portugal
Past Pro-Rector of the University of Porto for Continuing Education
Past President – European Society of Engineering Education

Dr. Funso Falade
Department of Civil & Environmental Engineering, University of Lagos, Akoka, Lagos, Nigeria
President, African Engineering Education Association

Falade Funso Alphansus is a Nigerian and a Professor of civil engineering at University of Lagos, Nigeria. He earned Diploma in Quantity Surveying at Yaba College of Technology, Nigeria, in 1978. He completed his M.Sc (Civil Engineering) at the Moscow Institute of Civil Engineering in the USSR in 1984 and obtained PhD in Civil Engineering, from University of Lagos in 1998. Prof. Falade has authored over 70 articles on innovative construction materials and engineering education published in locally and internationally reputable journals as well as in proceedings of learned conferences. He has also made contributions to two (2) textbooks. In February, 2014, he made public presentation of a book titled ‘Strengthening of Distressed Buildings’. He has researched into the structural properties of bamboo and developed the technology for its successful incorporation as replacement of steel reinforcement in some structural elements. He has also researched extensively on Foamed Aerated Concrete. Prof. Falade has presented over 45 papers at workshops and seminars on such topics as Project Management, Quality Control, Maintenance of Facilities, and Contract Procurement Processes etc. Prof. Falade is a member of some professional bodies both locally and internationally, including Fellow, The Nigerian Academy of Engineering, Fellow, Nigerian Society of Engineers, Fellow, African Engineering Education Association, Registered Engineers, Council for the Regulation of Engineering in Nigeria etc. He is a promoter of engineering education. He was the initiator of African Regional Conference on Engineering Education and the Chairman, Organizing Committee and the Editor of the Proceedings of the 1st, 2nd and 5th African Regional Conference on Engineering Education that were held at University of Lagos in 23rd – 25th September, 2002, 20th – 22nd September, 2004 and 9th –12th September, 2013 respectively. He is the President of the African Engineering Education Association (AEEA) and former Vice-President, international Federation of Engineering Education Societies (2009-2012). He was appointed UNESCO Consultant in 2005.

Dr. Soeiro has been the representative of Universidade do Porto in Continuing Education and founder of EUCEN (European Universities Continuing Education Network) since November 1991. He was vice-president of EUCEN for seven years, a member of the Management Committee and was also founder of RECLA (Latin American Continuing Education Network). Dr. Soeiro was founder of the Continuing Engineering Education office of the College of Engineering of the University of Porto in 1995; was Pro-Rector of Universidade do Porto in charge of Continuing Education between 1998 and 2003; was founder and President of AUPEC – Portuguese Association of Universities for Continuing Education between 2001 and 2005; from 2001 until 2004 was president of IACEE, International Association of Continuing Engineering Education, Washington DC, USA; between 2003 and 2005 was president of SEFI Societe Europeenne pour la Formation des Ingenieurs; between 2004 and 2008. He was the academic director and vice-director of Civil Engineering of the University of Porto.

Dr. Soeiro was a Fulbright scholar between 1985 until 1989 in the University of Florida to obtain his doctoral degree; between 1996 and 1999 was the President of the Scientific Commission of the Thematic Network THENUCE (Thematic Network on University Continuing Education); from 1999 and 2005 was a member of European ODL Liaison Committee, representing EUCEN; in 2000 was the co-chair of the conference of the Portuguese Presidency of the European Union, Higher Education and New Publics, Porto; from 2002 to 2013 he was member of the Municipal Education Council of the city of Porto, representing the University of Porto and the Higher Education sector; since 1997 until 2004 he has been an invited expert of the European Commission to evaluate projects in adult education and in thematic networks; was an invited expert of Group G of the European Commission within the framework of the Lisbon Objectives between 2002 and 2005. He was an invited speaker at the 80th Anniversary of the University of the Sorbonne in the closing session coordinated by the French minister of education, Claude Allègre, entitled the University without Walls, 1998.

Dr. Soeiro published and edited the first ten editions of the newsletter of EUCEN between 1993 and 1997. He was a member of the editorial board of the Journal of Higher Education and Outreach between 2001 and 2006; has published and presented several articles in newspapers and magazines about lifelong learning, continuing education and quality of continuing education; has created and maintained the web pages of EUCEN (between 1994 and 1998) and of AUPEC since 2001; has led several lobbying activities at the European level, like the response to the Memorandum of Higher Education in 1994 and the Response to the European Quality Framework, and at the national level participating in the national meetings of AUPEC; has edited for AUPEC the management manual of centers of continuing education and the survey of industry needs of continuing education. Dr. Soeiro has coordinated, besides participating in others, several European projects sponsored by the European Commission in the areas of adult learning and continuing education and the most important ones are the Tempus project to create the continuing education center at Tallinn Technical University, the Grundtvig project to create individualized pathways Equipe and the project DAETE to develop accreditation methods for continuing education. He was invited professor of Loughborough University, UK in 1997 and 1998, University of Barcelona, Spain in 1994, 1995 and 1996, Polytechnic University of Cataluna, Spain in 2001, Technical University of Vienna, Austria in 2006, 2007 and 2009 in Innovation in Elearning and Visiting Scholar at the Institute of Higher Education, University of Georgia, Athens, USA in 2006 for three months.

Dr. Soeirohas been vice-president and president of the European Society of Engineering Education; he is a member of the board of the European Journal of Engineering Education since 2001; he is one of the two guest editors of the joint edition of EJEE and the Journal of Engineering Education in 2007. Dr. Soeiro has helped the creation of the center of elearning in the University of Porto between 1999 and 2002 including the edition of continuing education courses in cooperation with other European universities; has coordinated and participated in several European projects in the areas of distance learning and elearning; has authored the second ebook in engineering of the University of Porto with the support of a portal; has authored and coordinated an ebook on construction safety that has been supported by the International Labour Organization. He is the representative of Ordem dos Engenheiros, vice-chair of the European Monitoring Committee of FEANI and chair of the OMP. He was awarded the International Hall of Fame in Adult and Continuing Education title in 2006 and received the award of EDEN Fellow in 2008. Dr. Soeiro received the IACEE Fellow award in 2014. He coordinated some European funded projects Atelcoma (1998), Equipe (2004), Daete (2006), Virqual (2009) and TALOE. He is

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also member of the reviewers of Campbell Award (2010/2012/2014). He was also a partner in several European funded projects like DIALOGUE, Community Service Engineer and VMCOLAB.

3:20 – 3:45 (Tuesday)

Dr. Mustapha Nour El Fath
Professor of Industrial Engineering, Department of Mechanical Engineering
Laval University, Quebec City, Quebec, Canada

Mustapha Nour El Fath is a professor of Industrial Engineering at the Department of Mechanical Engineering of Laval University (Canada). He received his Ph.D. from the National Institute of Applied Science (INSA) of Lyon (France) in 1997. He is a member of CIRRELT (Interuniversity Research Centre on Enterprise Networks, Logistics and Transportation). His specific topics of interest are operations research and artificial intelligence applications in supply chains, reliability, logistics and manufacturing. He is Associate Editor of INFOR: Information Systems and Operational Research (Area: Queueing Theory, Stochastic modelling and simulation), member of the Editorial Board of Reliability Engineering and Systems Safety, International Journal of Performability Engineering (System Analysis and Computational Intelligence), International Journal of Mathematical, Engineering and Management Sciences, Journal of Applied Mathematics, and Mathematical Problems in Engineering. Prof. Nour El Fath has received several research grants and awards, including the Brockhouse Canada Prize for Interdisciplinary Research in Science and Engineering.

Session IV: Global Engineering Education: PANEL SESSION
4:00 – 5:15 pm (Tuesday) - Room 1

Panelists

Dr. Abu Masud, P.E.
Boeing Global Engineering Professor
Professor of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

Dr. Abu Masud is a professor of industrial and manufacturing engineering at Wichita State University. He has been named the Boeing Global Engineering Professor at Wichita State University. In this new post, Dr. Masud is expected to advance the College of Engineering's strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering. Previously he was held various positions at Wichita State including associate dean, graduate school (2008-2013), coordinator, college ABET affairs (2006-2008), associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IIE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.

Dr. Hamid Parsaei, PE
Professor of Industrial and Systems Engineering, Texas A&M University (College Station)
Professor of Mechanical Engineering and Director of Academic Outreach, Texas A&M Uni. Qatar

Hamid R. Parsaei is Professor of Industrial and Systems Engineering at Texas A&M University (College Station) and also Professor of Mechanical Engineering and Associate Dean for Academic Affairs at Texas A&M University at Qatar. He is a registered professional engineer (PE) in Texas, a Fellow of the Institute of Industrial Engineers (IIE), and a Fellow of the American Society for Engineering Education (ASEE). He has published over 200 articles in peer-refereed archival journals and conference proceedings. He has also served as editor/co-editor in chief for four academic journals and five book series. His research, in excess of $22 million, has been funded by numerous government and private institutions.

Khaled S. El-Kilany, Ph.D.
Professor of Industrial Engineering and Head of Department
Department of Industrial and Management Engineering
College of Engineering and Technology
Arab Academy for Science, Technology and Maritime Transport
Alexandria, Egypt

Khaled S. El-Kilany is a professor of industrial engineering at the department of Industrial and Management Engineering (IME) at the Arab Academy for Science, Technology, and Maritime Transport (AASTMT), which is accredited by the Engineering Accreditation Commission of ABET since 2010. The department offers both B.Sc. and M.Sc. degrees in Industrial and Management Engineering. Prof. El-Kilany has previously been appointed as acting head of department of Industrial and Management Engineering for two years (February 2005 – February 2007) and is currently the head of department since February 2009. Prof. El-Kilany is a senior member of the IIESE and is a reviewer of several journal, conferences, and textbooks.

Prof. El-Kilany has received his Ph.D. in Mechanical and Manufacturing Engineering from Dublin City University, Ireland. Having Intel Ireland as the industry research partner, his research work included modelling and simulation of automated material handling system of Intel’s wafer fabrication
Dr. Othmane Bouhali
Research Professor and Director of Research Computing, Texas A&M University at Qatar
Founder and Director of the Texas A&M Advanced Scientific computing (TASC) center

Othmane Bouhali is a research professor and director of research computing at Texas A&M University at Qatar. He is the founder and director of the Texas A&M Advanced Scientific computing (TASC) center. He was the head of the computing group at the High Energy Physics (HEP) institute of Brussels. He took important computing and simulation responsibilities in HEP experiments, mainly in the area of scientific grid computing. Since 1994 he is a member of the Compact Muon Solenoid (CMS) experiment at the Large Hadron Collider (LHC) at the European Organization for Nuclear Research (CERN). He was also a member of: the HERMES international collaboration at the Deutsche Electron Synchrotron (DESY) in Hamburg and the Amanda/ICECUBE neutrino telescope at the South Pole. His research interests include: high performance computing, radiation detectors development, medical physics and 3D scientific visualization.

Wednesday (April 12, 2017)

Session V: Global Engineering Education
8:00 – 9:15 am (Wednesday) - Room 1

Session Chair: Dr. Antonio Henrique de Araujo Junior, State University of Rio de Janeiro, Rio de Janeiro, Brazil

Ikboljon Kasimov, MBA
External Affairs Specialist, Erasmus+ Project Manager
International Relations Department
Department of Metrology, Standardization and Production Quality Management
Andijan Machine Building Institute, Andijan, Uzbekistan

Inter-Institutional Cooperation to Reduce the Readiness Gap of Engineering Graduates – Case of Uzbekistan

Mr. Ikboljon Kasimov is working at Andijan Machine – Building Institute, Uzbekistan, where over 3500 students are taught and in average 700 Engineering students graduate each year. He is currently involved in teaching and as well as research at the Institute. Mr. Kasimov also assists the International Relations Department in building ties with foreign institutions and enterprises. He finished his Associates in Automated Systems, Bachelor's in Industrial Management and MBA in International Business. Mr. Kasimov has recently wrote an article, “Wider Benefits of Ph.D. beyond pecuniary terms” and it is soon to be published. Besides, he has undertaken several research projects in different production management topics. At present time, the project development team is working on 4 distinguished Erasmus+ projects where he has hold key role as an external affairs specialist including Central Asian Engineering Graduates and the significance of Engineering Education in the region. Mr. Kasimov is well aware of the challenges that HEIs encounter while training engineering specialists.

Dr. Jinwoo Park
Professor, Department of Industrial Engineering
Seoul National University, South Korea

Prof. Park’s field of interest is in operations management with special interest in job design and the application of information and communication technology. More specifically he has been teaching and doing research in the field of Flexible Manufacturing Systems, Computer Integrated Manufacturing Systems, Enterprise Research Planning Systems, and Supply Chain Planning Systems. Recently he is also interested in the application of RFID and the productivity measurement and management of software development process. Prof. Park graduated Seoul National University in 1974, and KAIST in 1976. After then he had worked for 4 years as project engineer and production planner in Hyundai International, Inc., currently the Doosan Heavy Industries, Inc. He studied in the Department of IEOR, University of California at Berkeley during 1980~1985 and earned Doctoral degree (D.Eng.) there. Then beginning from 1985 he has been teaching in the Department of Industrial Engineering at the Seoul National University and is a former director and vice president of the Korea Institute of Industrial Engineers (www.kiie.org), and president of the Korea Operations Research and Management Science Society (www.korms.org) and the Korea Simulation Society (www.simulation.or.kr). He has taught, consulted and performed projects with such group of companies like Samsung, Hyundai and LG.
Dr. Antonio Henriques de Araujo Junior  
Professor, Department of Production Engineering, College of Technology  
State University of Rio de Janeiro  
Rio de Janeiro, RJ, Brazil

Dr. Antonio Araujo is a professor and researcher in the Department of Production Engineering at the State University of Rio de Janeiro, teaching in undergraduate and postgraduate engineering production courses and programs. He graduated in Transport Engineering by a prestigious German University (Bergische Universitaet Wuppertal) and concluded his doctorate at the University of Sao Paulo, Brazil in the Production Engineering area, having published the thesis “Productivity analysis of the Brazilian air transportation”. Dr. Araujo has 20 years of experience in the automotive industry (Mercedes-Benz, Brazil) and 5 years in the strategic planning of the aeronautical industry (EMBRAER, Brazil). He is serving as an area editor of Journal of Aerospace Technology and Management review (JATM). Dr. Araujo had attended the IEOM conferences in Istanbul and Dubai.

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Dr. Mohammad T. Khasawneh  
Professor and Department Chair, Department of Systems Science & Industrial Engineering  
Director, Healthcare Systems Engineering Center  
Graduate Program Director, Executive Master of Science in Health Systems  
Thomas J. Watson School of Engineering & Applied Science  
State University of New York at Binghamton, Binghamton, New York, USA

Dr. Mohammad Khasawneh is a Professor and Chair in the Department of Systems Science & Industrial Engineering (SSIE) at Binghamton University. He received his Ph.D. in Industrial Engineering from Clemson University, South Carolina, in August 2003, and his B.S. and M.S. in Mechanical Engineering from Jordan University of Science and Technology, Jordan, in 1998 and 2000, respectively.

Dr. Khasawneh joined Binghamton University (SUNY) in the Fall of 2003. His research areas of interest are in human factors/ergonomics and modeling of healthcare delivery systems. Before joining the SSIE department, he worked as a graduate teacher of record and research assistant in the Industrial Engineering Department at Clemson University. He also served as manager for the Advanced Technology Systems Laboratory (ATSL) where he was actively involved in various projects funded by the FAA and NASA, with significant focus on improving inspection quality on the hangar floor through the use of advance technology, such as virtual reality and computer-based simulations.

Dr. Khasawneh currently serves as Assistant Director for the Watson Institute for Systems Excellence (WISE), an institute for advanced studies at Binghamton University. He also directs research in the Human Factors and Ergonomics Laboratory (HFEL). In the healthcare delivery systems area, through WISE, he has been actively working on applied health systems research since 2003. Since then, he has been leading or co-leading a wide spectrum of projects with multiple U.S. hospital systems, at their site, that focus on applied research projects that can be broadly classified under (a) workflow and process re-design, (b) productivity assessment and capacity planning, (c) strategic planning and future-state analysis, and (d) digital human modeling for ergonomic assessment. Examples of his research include significant amount of work in optimizing the use of OR suites, outpatient scheduling, pre-admission testing, optimizing the deployment of mobile intensive care units, as well as ergonomic study and evaluation of patient handling activities/procedures, to name a few. These efforts have been supported through partnerships with several U.S. hospitals systems, including United Health Services (Binghamton, NY), Upstate University Hospital (SUNY, Syracuse, NY), Virtua Health (Marlton, NJ), Montefiore Medical Center (Yonkers, NY), the Care Management Organization (Yonkers, NY), and the Mayo Clinic (Rochester, MN).

Dr. Khasawneh’s research activities thus far have led to over 25 scholastic publications in various refereed journals (with over 10 more in review), over 75 conference articles that have been presented at national and international conferences, and one patent application and two new invention disclosures. In addition, his sponsored research efforts thus far have resulted in about US$2,153,520 (external sources), US$375,692 (internal sources), and US$39,145,185 in in-kind software grants. His research group currently consists of 8 doctoral students, 5 MS students, and 1 undergraduate student. Dr. Khasawneh is a member of the Institute of Industrial Engineers (IIE) and the American Society for Quality (ASQ) professional societies, as well as Alpha Pi Mu and Alpha Epsilon Lambda honor societies. He is also currently the faculty advisor for the IIE Student Chapter at Binghamton University.

Dr. Chris Backhouse  
Professor of Product Innovation and Associate Dean of Teaching  
School of Mechanical and Manufacturing Engineering  
Loughborough University, Leicestershire, UK

Dr. Chris Backhouse is Professor of Product Innovation at Loughborough University, UK with extensive knowledge and experience of Higher Education in the Middle East and South East Asia. He is a regular international presenter in his field of innovation and entrepreneurship with extensive links with Universities in Singapore, Hong Kong, Malaysia, Indonesia, China, and Egypt. He advises on research and enterprise strategy and on taught curriculum content. He is a mechanical engineer by background having obtained his PhD whilst employed by Unilever Plc. In 1990 he joined Loughborough University where he has held various senior positions including Dean of the Faculty of Engineering (150 Faculty, 5000 students) and as Director of Internationalization Strategy – responsible for the University’s strategic international partnerships. He has consulted widely in industry and academe, especially in the Asia Pacific region. His research activities have focused on the human aspects of motivation, innovation and entrepreneurship within an industrial context. He has published widely in the academic press and presented at numerous international conferences.
For his achievements, he has been awarded and appreciated by Regional, State, Central and Global organizations. Professor Naik has a deep involvement in social service for which he has been even appreciated by a world-based organization. His name has found place in Central Literature Academy and his name has found place in Central Literature Academy. Dr. Naik is associated with many Committees at the State and Central levels. Professor Naik has a deep involvement in social service for which he has been even appreciated by a world-based organization. For his achievements, he has been awarded and appreciated by Regional, State, Central and Global organizations.

Session VII: Global Engineering Education
2:30 – 3:45 pm (Wednesday) - Room 1
Session Chair: Dr. Rezg Nidhal, University of Lorraine, Metz, France

2:30 – 2:55 (Wednesday)

Dr. N. Vinod Chowdhary
Professor and Head, Department of Mechanical Engineering
SRK Institute of Technology, Vijayawada, Andhra Pradesh, India

Teaching, Learning and Accreditation

This article aims to show how a better understanding of teachers’ workplace learning might lead to increased recognition as a form of professional development and other professional bodies giving credit for such learning. Workplace learning is viewed as a component of overall development of teachers and students. The Article includes case study on how Teacher-Students learning in India in private institutions help the overall development of students. Dr. Vinod Chowdhary is a Professor and Head of Mechanical Engineering Department at SRK Institute of Technology, Vijayawada, Andhra Pradesh, India. He was Principal at G.H. Raisoni College of Engineering and Management, Ahmednagar (Shirdi), Maharashtra, India and Kruti Institute of Technology, Raipur, India. Dr. Chowdhary has 12 years industry experience. He has awarded FIE, LM-ISTE, ASME, and Chartered Engineer. His key achievements are:

- Development and substitution of Indian components with replacement of USA and Canadian parts.
- Improvement in the design to make the test rigs suitable for Ultrasonic inspection of Indian Products.
- Performed Automated Ultrasonic tube/pipe testing systems for customer like nuclear fuel complex, PSL Ltd, Mishra Dhauti Nigam Ltd, BHEL (R&D).
- Interacting with workshops of different industries for supply of the high quality materials in time. 200 /240 students in distinction and first division.
- Labs established. Civil Department started Consultancy and a part in designing civil work for college to a tune of 10 lakhs.
- Students increases from 900 to 1540. 5 courses started for ME, Diploma and increase in UG Mechanical intake.

2:55 – 3:20 (Wednesday)

Allen G. Greenwood, Ph.D., P.E.
Professor, Faculty of Engineering Management
Poznan University of Technology (PUT), Poznan, Poland
Professor Emeritus of Industrial & Systems Engineering
Mississippi State University, USA

Linking Academe and Industry via Simulation

Allen G. Greenwood, Ph.D., P.E. Allen is Professor Emeritus of Industrial and Systems Engineering at Mississippi State University (MSU) and is currently Professor of Engineering Management at Poznan University of Technology (PUT) in Poland. Allen teaches systems simulation, logistics systems design, enterprise systems engineering, and project management. His research interests/expertise include the design and analysis of production and project systems; simulation modeling, analysis, and optimization; and the design and application of decision-support systems. His professional experience spans a wide variety of domains — engineering design and development (military aircraft and aerospace), manufacturing and production systems (military aircraft, shipbuilding, automotive, textile fibers, healthcare, and electrical systems), and project management. His work has been funded by such organizations as the US Air Force Research Laboratory, Office of Naval Research, Naval Sea Systems Command, NASA, Northrop Grumman Ship Systems, Nissan North America, General Electric Aviation, and the Center for Advanced Vehicular Systems (MSU). He has authored or co-authored over 100 creative works, including journal and conference papers, technical reports, software programs, etc. He is co-author of Simulation Modeling and Analysis Using FlexSim.
Allen received his B.S.I.E, M.S.I.E, and Ph.D. (Management Science) degrees from North Carolina State University, University of Tennessee, and Virginia Tech, respectively. In addition to the faculty positions at MSU and PUT, he held positions at American Enka Company, General Dynamics Corporation, Virginia Tech, Northeastern University, the American University of Armenia, and Prince Sultan University.

3:20 – 3:45 (Wednesday)

**Dr. Rezg Nidhal**

Professor of University  
Director of LGIPM Laboratory (Laboratoire de Génie Industriel, de Production et de Maintenance)  
Director of Training and Research Unit (MIM)  
University of Lorraine, Metz, France

*Production and Maintenance Optimization Problem*

Nidhal Rezg is a Doctor of Industrial Automatic from the National Institute of Applied Sciences (INSA) in Lyon in 1996. Accreditation to supervise research at the University of Metz in 2003. he was Professor at the Faculty of Engineering of the University of Moncton, New Brunswick Canada from 1997 to 1999 and Associate professor at the University of Metz until 2004, and currently holds the position of Professor of University. He is director of LGIPM laboratory since October 2006 and scientific responsible of the INRIA CusTom team from 2007 to 2011. His research interests is the optimization of maintenance policies coupled to production, the optimal control SED. He is the author of sixty papers in international journals, directors of 12 theses and 4 Accreditation to supervise research.  

Keywords research are modeling, simulation and optimization of stochastic processes, reliability and maintenance and Petri nets.

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**Session VIII: Global Engineering Education**

4:00 – 5:15 pm (Wednesday) - Room 1

**Session Chair:** Dr. Adedeji B. Badiru, Air Force Institute of Technology, Wright-Patterson Air Force Base, Dayton, Ohio, USA

4:00 – 4:25 (Wednesday)

**Dr. Loubna BENABBOU**

Associate Professor of Industrial Engineering  
Ecole Mohammadia d'Ingénieurs (EMI)  
Mohamed V University  
Rabat, Morocco

Dr. Loubna BENABBOU is an Associate Professor of Industrial Engineering at Ecole Mohammadia d'Ingénieurs (EMI) at Mohamed V University. Her research work lie in the application of decision/ management sciences and machine learning techniques to transform data for making better decisions and improving operational processes. Dr Benabbou has been supervising several undergraduate and graduate students in projects for different Industries related to the areas of Decision sciences, Data valorisation and Operations Management. Several of her research paper related to these fields has been published in international scientific journals and conferences' proceedings. She was also a trader at Casablanca stock-exchange and financial analyst and risk manager at the Caisse Marocaine des retraites the Moroccan largest intuitional fund manager. She is member of INFORMS, IEEE and International society of MCDM. Dr Benabbou is an industrial engineer from EMI, she earned MBA and PhD in Management and Decision sciences from Laval University.

4:25 – 4:50 (Wednesday)

**Professor Christian Amaechi Bolu, FNSE, FAEng**

Dean, College of Engineering  
Covenant University, Ota, Nigeria

*Towards Proactive Agenda for (Mechatronics) Engineering Education in Africa*

Professor Christian Amaechi Bolu, graduated with B,Sc in Mechanical Engineering from University of Nigeria, Nsukka in 1976, M.Eng in Industrial Engineering from University of Toronto, Canada in 1979 and Ph.D in Industrial and Systems Engineering from University of Wales, Swansea , United Kingdom in 1982. Prof Bolu, a professor of Mechatronics Engineering, is a practicing engineer with engineering industry work experience spanning over 27 years. He ran several multi-national engineering companies in Nigeria, Ghana and Kenya at top technical and management levels. He was instrumental to setting up of the first CNC wire-cutting machine in Nigeria, in the late 1980s as well as the first automated powder coating plant in Nigeria. He was the developer of one of the early Enterprise Resource Planning solutions widely used in engineering manufacturing plants in Nigeria, Ghana and Kenya.  

Prof Bolu, a Fellow of the Nigerian Academy of Engineering, Fellow of both the Nigerian Society of Engineers and Nigerian Institution of Industrial Engineers was a one-time Chairman of the Nigerian Society of Engineers (Lagos Branch), National Technical Secretary of the Nigeria Society of Engineers and President of the Nigerian Institution of Industrial Engineers. He is an SAP Certified Solution Consultant. His present special interest area is in Mechatronics System Design for community development, Internet of Things (IoT) and Rapid Prototyping. He is presently the Dean, College of Engineering, Covenant University, Ota, Nigeria, after serving as pioneer Dean, Faculty of Engineering, Federal University Oye-Ekiti, Nigeria from 2012-2015.
Adedeji B. Badiru, Ph.D., PE, PMP, FIIE
Dean, Graduate School of Engineering and Management
Professor of Systems Engineering
AFIT/EN, Air Force Institute of Technology
Wright-Patterson Air Force Base, Dayton, Ohio, USA

“Contributory Impact of Advanced Military Education to the Advancement of General Global Engineering Education: A World Systems Perspective”

Adedeji Badiru is SES-Equivalent Dean of the Graduate School of Engineering and Management at the Air Force Institute of Technology (AFIT) at Wright Patterson Air Force Base, Dayton, Ohio. He was previously Professor and Head of Systems Engineering at AFIT. He was also previously Professor and Head of Industrial & Information Engineering at the University of Tennessee, Knoxville. Prior to that, he was Professor of Industrial Engineering and Dean of University College at the University of Oklahoma, Norman. He is a registered professional engineer (PE), a certified Project Management Professional (PMP), a Fellow of the Institute of Industrial Engineers, and a Fellow of the Nigerian Academy of Engineering. He has BS in Industrial Engineering, MS in Mathematics, and MS in Industrial Engineering from Tennessee Technological University, and Ph.D. in Industrial Engineering from the University of Central Florida. His areas of interest include mathematical modeling, project modeling and analysis, economic analysis, and productivity analysis and improvement. He is the author of several books and technical journal articles. He is the editor of the Handbook of Industrial & Systems Engineering.

He is a member of several professional associations including Institute of Industrial Engineers (IIE), Institute for Electrical and Electronics Engineers (IEEE), Institute for Operations Research and Management Science (INFORMS), American Society for Engineering Education (ASEE), New York Academy of Science (NYAS), and Project Management Institute (PMI). He has served as a consultant to several organizations around the world including Russia, Mexico, Taiwan, Nigeria, and Ghana. He has conducted customized training workshops for numerous organizations including Sony, AT&T, Seagate Technology, U.S. Air Force, Oklahoma Gas & Electric, Oklahoma Asphalt Pavement Association, Hitachi, Nigeria National Petroleum Corporation, and ExxonMobil. He has won several awards for his teaching, research, publications, administration, and professional accomplishments. He holds a leadership certificate from the University Tennessee Leadership Institute. Prof. Badiru has served as a Technical Project Reviewer, curriculum reviewer, and proposal reviewer for several organizations including The Third-World Network of Scientific Organizations, Italy, National Science Foundation, National Research Council, and the American Council on Education. He is on the editorial and review boards of several technical journals and book publishers. Prof. Badiru has also served as an Industrial Development Consultant to the United Nations Development Program. He was the 2011 Federal Employee of the Year Award in the Managerial Category, International Public Management Association, Wright Patterson Air Force Base. He has also received other national and international awards and recognitions.

EDUCATION
1979 Bachelor of Science, Industrial Engineering, Tennessee Technological University
1981 Master of Science, Mathematics, Tennessee Technological University
1982 Master of Engineering, Industrial Engineering, Tennessee Technological University
1984 PhD, Industrial Engineering, University of Central Florida

Thursday (April 13, 2017)

Session IX: Global Engineering Education
Room 2, 8:00 – 9:15 am

Session Chair: Dr. Leslie Monplaisir, Wayne State University, Detroit, Michigan, USA

08:00 – 08:25 (Thursday)

Dr. Leslie Monplaisir
Department Chair, Industrial and Systems Engineering
Wayne State University, Detroit, Michigan

Leslie Monplaisir, Associate Professor of Industrial and Systems Engineering, is Chair of the Department of Industrial and Manufacturing Engineering at Wayne State University (WSU). He is a Lead Researcher and Director of the Product Development and Systems Engineering Consortium (PDSEC) at WSU. His research interests include: Lean Product Development, Design for lean Systems and Services and Design reuse, Collaborative PD Decision Making, Product Architecture Optimization, Design for Supply Chain, Global Product Platform Optimization and Healthcare Technology System Design He has authored over 100 publications in these areas with funded research from NSF, Ford, GM, Sun Microsystems, Tardec, VA and PTC.

Monplaisir joined the College of Engineering at Wayne State University in the Department of Industrial and Manufacturing Engineering in 1996 from Florida A & M University where he was a visiting assistant professor. He earned his PhD in Engineering Management from the Missouri University of Science and Technology (MUST), a master’s in Computer Integrated Manufacturing from the University of Birmingham in Great Britain, and bachelor's in Mechanical Engineering from the University of the West Indies in Trinidad.
Dr. Hesham K. Alfares
Chairman and Professor
Systems Engineering (SE) Department
College of Computer Sciences & Engineering (CCSE)
King Fahd University of Petroleum & Minerals (KFUPM)
Dhahran, Saudi Arabia

Hesham K. Alfares is Chairman and Professor in the Systems Engineering Department at King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia. He obtained a BS in Electrical & Computer Engineering from the University of California, Santa Barbara, an MS in Industrial Engineering from the University of Pittsburgh, and a Ph.D. in Industrial Engineering from Arizona State University. His research interests include project and employee scheduling, production and inventory control, petrochemical industry modelling, and maintenance modelling and simulation. He has 95 publications in these and other areas, including 47 journal papers. He has been a member in the editorial boards of three international journals and in the program committees of 27 international conferences.

Dr. P. Muredzi
Dean – School of Engineering & Technology
Harare Institute of Technology, Zimbabwe

Perkins Muredzi is currently the Executive Dean of the School of Industrial Sciences and Technology and School of Engineering and Technology at the Harare Institute of Technology, Harare, Zimbabwe and a 2015 Global CIMA Award winner in “education Leadership” conferred at the 2015 World Education Congress, Mumbai, India. He graduated with a BSc, MSc in Food Processing Engineering from Krasnodar Institute in the Russian Federation in 1991 and obtained a Master’s degree in Intellectual Property from Africa University in 2009 before attainment of his PhD qualification. Dr Muredzi teaches Food Engineering in undergraduate, certificate and diploma programmes and also teaches Intellectual Property in the Master of Intellectual Property degree programme being run jointly by Africa University, the World Intellectual Property Organisation (WIPO) and the African Intellectual Property Organisation (ARIPO) He has published 8 books , his first being one published by CBH publishers (USA) entitled “Emerging Non-Thermal Food Processing Technologies” and two of which are text books for “A” Level Food Science and a text book for postgraduate students studying Food Science and Technology. He is a member of ZEC (Zimbabwe Energy Council) IUFost, EFFoST, IFT (USA) and sits in various national bodies like the Research Council of Zimbabwe grants committee, symposium organising committee, the Harare Polytechnic B Tech Programme Board of studies, NAMACO sectorial committee on Food Processing, ZIMCHE’s RIE-SET organising committee, Zimbabwe Intellectual Property Development Trust and various SAZ standards development technical committees among others. He is the current chairman of the research board and member of the editorial committee of the Journal of Science, Technology, and Technopreneurship (JSTT) of the Harare Institute of Technology. Dr.Muredzi currently sits on Editorial Boards of the following Journals:

- Journal of Biological, Pharmaceutical and Chemical Research
- Journal of Leadership and Management Studies; Department of Management and Project Management; Cape Peninsula University of Technology
- American Journal of Nutrition and Food Science

Dr. J.S. Gnanasekaran, M.E., Ph.D., FIE
Principal & Professor of Mechanical Engineering
K.L.N. College of Information Technology
Pottapalayam, Madurai city, India

Dr. J.S. Gnanasekaran is the Professor of Mechanical and Industrial Engineering and Principal of K.L.N. College of Information Technology, affiliated to Anna University Chennai located in Madurai- Nedungulam Road near Madurai City in India. He holds B.E. Degree in Mechanical Engineering from Thiagarajar College of Engineering, Madurai under Madurai Kamaraj University and M.E Degree in Industrial Engineering from the same institution and University. He was awarded Doctorate Degree in Mechanical Engineering from Bharathiar University, Coimbatore, through Government College of Technology, Coimbatore, India.

He has taught engineering students at the undergraduate and the postgraduate levels for 25 years and has guided many students of B.E. and ME projects. He has also had some industrial experience in his career. Presently he is guiding many PhD scholars and having produced doctorate candidates. He is a research paper reviewer in many Journals and conferences at National and International levels. His research interests are Manufacturing Optimization, Concurrent Engineering, Logistics Engineering, Product Design, Mathematical Modeling and Algorithm Development. He has published 38 papers in Journals and conferences at National and International levels till date. He has received and associated in receiving research grants from recognized government funding agencies. He has received four awards so far. He is a recognized research supervisor for Anna University Madurai and Coimbatore regions. He is a Research Paper Reviewer and Session Chair in many reputed conferences and journals worldwide. He has written two books so far in the area of Manufacturing Technology and Production Planning optimization techniques.
He has organized and participated in many conferences, seminars and workshops and he is the resource speaker for such programmes. He is the expert member in many interview panels and mock accreditation of institutions. He is the member in Examination board in Institution of Engineers (India), Kolkata, Cochin University of Science and Technology, Cochin, Anna University Chennai, Karunya University, Coimbatore, SASTRA University, Thanjavur etc. He is a Life member of Indian Society for Technical Education, New Delhi, Computer Society of India and International Association of Engineers, Hong Kong. He is a Fellow of Institution of Engineers (India), Kolkatta.

Dr. Abdelaziz Berrado
Associate Professor of Industrial Engineering
The Ecole Mohammadia d’Ingénieurs (EMI)
Mohammed V University, Rabat, Morocco

Industrial Engineering Education in Morocco – Challenges and Opportunities

Bio: Dr. Abdelaziz BERRADO is an Associate Professor of Industrial Engineering at EMI School of Engineering at Mohammed V University. He earned MS/BS in Industrial Engineering from same institution, an MS in Industrial and Systems Engineering from San Jose State University, and a PhD in Decision Systems and Industrial Engineering from Arizona State University. His research interests are in the areas of Data Science, Industrial Statistics, Operations and Supply Chain Management, Data Mining and Quality Engineering for different Industries. He was also a senior engineer at Intel. He is member of INFORMS and IEEE.

Session XI: Global Engineering Education
2:30 – 3:45 pm (Thursday) – Room 1
Session Chair: Abebayehu Abdela, Ethiopia Institute of Technology-Mekelle, Mekelle, Ethiopia

2:30 – 2:55 (Thursday)

Engr. Prof. Adagbonyin Moses O. Obiazi
Dean, Faculty of Engineering and Technology
Ambrose Alli University, Nigeria

Engr. Prof. Adagbonyin Moses O. Obiazi was born at Agbor in Delta state. He attended the prestigious Ika Grammar School, Agbor from 1974 to 1979 obtaining the West African School Certificate with Distinction. He proceeded immediately to the University of Benin to study Electrical/Electronics Engineering, graduating in 1984 with 2nd Class Hons, Upper Division. He had his Masters Degree in Electrical Engineering from the University of Lagos in 1991 and capped it with a PhD in Electrical Power and Machines from Ambrose Alli University, Ekpoma, supervised by the renowned Engr. Prof. Philip Kuale.

Prof. Obiazi started his working career in the Federal Polytechnic University, Auchi in 1985 after his NYSC in Sokoto State. In the quest for higher levels of engagement, Engr. Obiazi joined the services of then Bendel State University, Ekpoma (now, Ambrose Alli University) in 1987 where he has risen through the ranks from Graduate Assistant to his current status as a Professor of Electrical Engineering and Dean of the Faculty of Engineering and Technology. He was the Head of Department of Electrical/Electronics Engineering [1997-1999]. Sub-Dean of the Faculty of Engineering and Technology, Member of the University Senate and Member/Chairman of over 40 University committees/panels. He is currently serving as the Chairman of the Central Bank intervention Projects in Ambrose Alli University.

At the professional level, Engr Prof Obiazi was elected a corporate member of the Nigerian Society of Engineers [NSE] in 1993. As an active member of NSE, he was made Secretary, NSE, Ekpoma Branch from 1994-1997 and Chairman of the Branch for five years (1997-2002). During his Chairmanship, the branch won a national merit award as the Most Improved Branch in Nigeria. In 1999, he was made a life member of NSE. He has been a member of the National Executive Council of NSE from 1997 to 2002 and from 2012 to date. He has served in several committees of NSE at both national and local levels. NSE national committees such as Finance and General purpose Committee, Education and Training Committee, Awards and Endowment Committee, Conference Planning Committee, Codes and Standards Committee among others. As a registered Engineer with COREN (Council for the Regulation of Engineering in Nigeria), COREN in 2006 made him a member of Engineering Regulation and Monitoring (ERM) Committee. He has also served as a member of COREN accreditation team to some eight universities and two polytechnics. For eleven years (2001-2012), he was an External Examiner to the Petroleum Training Institute (PTI), Effurun, and since 2011, External Examiner to Delta State University, Abraka. In 1991, Engr. Obiazi was sponsored by UNESCO to Kumasi, Ghana to present a research paper at an International Engineering Conference, while in 2013, he was sponsored to the Conference of the Global Engineering Deans Council (GEDC) held in Chicago, USA. In 1994, the Delta State Government appointed him as a Member of the Delta State Public Utilities Board (PB).

In May 2013, Engr. Prof OBIAZI was appointed the National Secretary of the Committee set up by COREN [Council for the Regulation of Engineering in Nigeria] to develop COREN Minimum Benchmarks for the training of Engineers in Nigerian Universities. In 2006, Shell Petroleum Development Company (SPDC) appointed Engr. Obiazi as a research advisor on sabatical to help with the construction and installation work on the new Afam VI power station in Rivers State. In March, 2010, the Edo State Government appointed Engr. Prof. Obiazi as a member of the Governing council of Edo State Institute of Technology and Management, Usen (a polytechnic),a position he held till Sept, 2012.

Engr. Prof. Obiazi has received several awards from students, staff, religious and professional bodies and groups for outstanding contributions to engineering, education, national development and socio-cultural advancement. Engr. Prof. Obiazi is well published in both local and foreign journals and has presented papers in several local and international conferences. In Sept, 2012 Eng. Prof .Obiazi was elected the Chairman, Committee of Deans of Engineering and Technology of Nigerian Universities.

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Abebayehu Abdela
Instructor and Researcher, School of Mechanical and Industrial Engineering
Ethiopia Institute of Technology-Mekelle, Mekelle, Ethiopia

Leanness Reading and Rapid Plant Assessment

Abebayehu Abdela is currently working as an instructor and researcher at Ethiopia Institute of Technology-Mekelle, under School of Mechanical and Industrial Engineering. He has mechanical Engineering background followed by postgraduate degree specialization in production and industrial systems engineering. He has been teaching different manufacturing engineering courses and researching in different areas of which Lean manufacturing philosophy, lean principles adaptation to different industries, leanness reading and rapid plant assessment to facilitate best lean principles adaptation are the main one. In line with this he has been transferring the research finding on how to read leanness level on continues basis and how to assess a given plant rapidly to identify critical area to focus on in the form of training and hand on practices. He has also been participating on diverse workshop and presented his work on different international and national conferences. Moreover, he has been conducting a research on different areas including, biomass and allied waste gasification system design and manufacturing, material characterization for different application, design and prototyping of intermediate mode of transportation, Kaizen philosophy. Also, He has been advising final year thesis for engineering students at both bachelor and masters level in different areas.

Mohammad A Rahman, Ph.D.
Manufacturing and Construction Management
Central Connecticut State University, New Britain, CT, USA

Role of Teams to Develop Quality Improvement Framework and Process Understanding

Dr. Mohammad Anwar Rahman is a faculty at the Central Connecticut State University in Manufacturing and Construction Management. He has published papers in referred journals and presented results in conferences. His research focuses on logistics, supply chain management, stochastic process and designing quality procedure. Dr. Rahman conducted several research projects with Mississippi Dept. of Education (MDE) and US Dept. of Transportation (USDOT). He has various certifications including Lean Six Sigma Green Belt (Purdue University), Lean Principles (Purdue University), Demonstrated Master Logistician (The International Society of Logistics), Malcolm Baldrige Quality Award Examiner (Louisiana Quality Foundation), and Certified Transportation & Logistics (American Society of Transport & Logistics). Dr. Rahman is affiliated with ISERC, DSI, AST&L and IEOM.

Dr. Christoph Wunck
Professor, Business Information Systems, Industrial Engineering
College of Management, Information, Technology
Jade University, Wilhelmshaven, Germany

“Computer Science Education for Industrial Engineers – Meeting the Challenges of the Smart Factory Paradigm”

Prof. Dr. Christoph Wunck holds a full professorship for Business Information Systems at Jade University since 1999. He teaches courses on Distributed Applications, Software Engineering, Programming, Electronic Business Systems and Process Management. He holds a doctoral degree from the faculty of Mechanical Engineering and a Master’s degree (Diplom-Ingenieur) in Electrical Engineering, both from RWTH Aachen University. He is the current director of the Institute of Information Processing in Plastics Manufacturing at Jade University.

His research interest include:
– Application of IT and Business Information Systems in Industrial Engineering
– Distributed Manufacturing Execution Systems, Multi-Agent Systems, Data Science, Manufacturing Intelligence
– IT Governance and Security in Operations and Supply Chain Management

Prof. Dr. Wunck is well connected in his field. He serves in the management of conferences and is a reviewer for conference papers and books. He is a member of IEEE Industrial Electronics Society, IEOM, INFORMS, ISCA, ISACA and VDI.
4:25 – 4:50 (Thursday)

Dr. Ho Hwi Chie, M.Sc.
Dean, Binus Aso School of Engineering
Bina Nusantara University (Binus)
Tangerang, Banten, Indonesia

Dr. Hwi Chie Ho is dean of BINUS ASO School of Engineering and an associate professor in Industrial Engineering at BINUS University. Her journal and conference publication are int the area of ergonomics, and industrial psychology. She is a member of the Institute of Industrial and Systems Engineering (IISE), Human Factors and Ergonomics Society (HFES), and American Psychology Association (APA); currently active as the faculty advisor of IISE BINUS University student chapter #716 since its first establishment in 2012. Under her guidance, the IISE BINUS University student chapter has continuously earned Gold Award ever since its establishment. Prior leading BINUS ASO School of Engineering, she was in charge for the College of Engineering in BINUS University and led the three engineering departments (Civil Engineering, Computer Engineering, and Industrial Engineering) achieved its international accreditation: ABET, and highest national accreditation.

Quality Enrichment of Human Capital as Basis of Exponential Growth Development in Indonesia

4:50 – 5:15 (Thursday)

Dr. Kamran Ahmed Siddiqui
Associate Professor and Director of Center for Innovation and Entrepreneurship
College of Business Administration
University of Dammam, Dammam, Saudi Arabia

Entrepreneurship Education in an Engineering Curriculum

Dr. Kamran Ahmad Siddiqui is an Associate Professor in Department of Marketing at College of Business Administration (CBA), University of Dammam, Saudi Arabia. He has earned Ph.D. in Business Administration from University of Manchester, Manchester, UK, MA in Marketing Practice from University of Bradford, Bradford, UK, MBA-MIS from Institute of Business Administration, Karachi, Pakistan and B.Sc. from University of Karachi, Karachi, Pakistan. Dr. Siddique has certifications in Microsoft Certified Systems Engineer (MCSE), Microsoft Certified Trainer (MCT), Certified Novell Engineer (CNE) and Certified Novell Administrator (CNA). He has worked as a faculty member at DHA Suffa University, Karachi, Pakistan, Institute of Business Administration, Karachi, Pakistan, Gift Business School, Gujranwala, Pakistan, University of Management& Technology, Lahore, Pakistan and University of Management& Technology, Lahore, Pakistan. He has numerical journal and conference publications.
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Dr. Abitova holds Master’s degree in Cybernetics of Technological Processes from Moscow State University of Steel and Alloys at Moscow (Russian Federation), Ph.D degree in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science at Almaty (Kazakhstan) and she graduated Postdoctoral Program in Automation and Control from Eurasian National University at Astana (Kazakhstan). She has been an invited to the Computer and Electrical Engineering Department in State University of New York (SUNY) at Binghamton (NY, USA) for studying her research work. Dr. Abitova is Professor and Researcher in the Department of System Analyses and Control at the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Prior to this current position, she was General Director of the Kazakh Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center, Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Dr. Abitova was awarded the International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad at the USA (2011-2012) and the prestigious Diploma from the Administration of President of the Republic of Kazakhstan (OCSE, December 2010), as well as Awards and Diplomas from the Ministry of Education and Science of Kazakhstan for the Professionalism (2005-2009).

Dr. Abitova was also the National Coordinator of UNESCO’s Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan, 2008-2009), where she worked on the Project of National Report of the Kazakhstan for UNESCO (within the UN Decade of Education for Sustainable Development). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been an invited speaker at the International conferences (IEEE, SPIE, CSDM, ICUMT) and published more than 30 research articles in the reputed international proceedings on mathematical and engineering sciences at the USA, Canada, France, Turkey, Malaysia, Bulgaria, and Hungary. Her papers became a basis for a chapter of a book published by Springer. She served as the Track Chair in the IEOM 2012 conference at Istanbul (Turkey, 2012). Dr. Abitova’s current research interest includes education and science; management and administration in science, education and ITC; substantial development and ecology; human research; automation and control; control systems and engineering; cybernetics; mathematical modeling; sensors and control devices; designing automation lines; robust control and robust system; cloud technology; development of ITC; cyber security; open source and intelligent system; non-destructive testing technology.

Dr. Caldwell is full professor/ Cathedraticus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Suma Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/ University of Nevada, USA. Currently, he is doctoral researcher at the (Dr. Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013.

Dr. Caldwell is “Lean Systems Certificated Specialist”, MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prize. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering. Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at IITESM, México. He is author of many scientific articles and two books: “Marketing of Social Products & Services”, UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Ins. Press, USA.

Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quirós & Cia-Bandag Inc. and General Manager at Lean Systems Int., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panamá, Costa Rican Institute for Electricity, RTC- Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.
Session II: Global Engineering Education
2:30 pm – 3:45 pm (Monday) - Room 3X105
Session Chair: Dr. Stuart C Burgess, University of Bristol, UK

2:30 – 2:55 (Monday)

Dr. Klara Kövesi
Associate Professor, Industrial Management and Innovation Marketing
ENSTA Bretagne
French Graduate and Post-Graduate Engineering School and Research Institute
Department of Social and Human Sciences
Brest, France

Graduate Engineers’ Work-Readiness – Bridging the Mismatch between Industry Perception and Expectation

Klara Kövesi holds Bachelor’s degree in computer sciences and Master’s degrees in business engineering and economics. She obtained PhD degree in management and marketing from University of Rennes 1, in 2008. She has nearly ten years industrial experience in telecommunication industry at several multinational companies and eight years teaching experience in academia. Currently, she is associate professor at ENSTA Bretagne in France. She teaches graduate courses in Industrial and Innovation Management, Marketing of New Technology and Entrepreneurship. She is member of the laboratory CRF (Research Laboratory of Education) at CNAM in Paris. Her research interests in engineering education are employability and placement, interdisciplinary collaboration, entrepreneurship learning and teaching.

2:55 – 3:20 (Monday)

Dr. Stuart C Burgess
Professor of Engineering Design
Department of Mechanical Engineering
University of Bristol, UK

Stuart Burgess completed an engineering apprenticeship with Stothert and Pitt Cranes in Bath whilst completing a thin sandwich degree in mechanical engineering. After completing his PhD in the area of machine design he worked for the European Space Agency for 5 years mainly working on the ENVISAT earth observation satellite which is the largest civilian satellite in the world. He designed the solar array deployment mechanism including inventing a new type of gearbox – the double action worm gear set. He spent three years at Cambridge University as an Assistant Director of Research and Fellow of Selywn College. He has been at Bristol University since 1997 mainly working in the area of design optimisation of mechanical systems and biomechanical systems.

3:20 – 3:45 (Monday)

Dr. Zahid Usman (CEng MIMechE)
Researcher and Lecturer
Manufacturing Informatics, Robotics and Automation, and Manufacturing Engineering
Coventry University
United Kingdom

Dr. Usman is a chartered engineer with extensive experience in both industrial and research environments. His research experience expands to over six years within the areas of manufacturing information, machine vision, robotics and automation. He is an active researcher in robotic metrology and assembly, machine vision and manufacturing informatics. He has been involved in several research projects with leading aerospace and automotive industries. He also has experience of working for leading manufacturing organisations such as Rolls Royce and Massey Fergusons Tractors. As a teacher, Dr Usman is focused on training engineering students to be industrially ready by conducting industry based teaching. His areas of expertise are manufacturing knowledge sharing through ontologies, robotics and automation, vision assisted robotic metrology, assembly and joining.

Session III: Global Engineering Education
4:00 pm – 5:15 pm (Monday) - Room 3X105
Session Chair: Dr. Rami Hikmat Fouad Al-Hadeethi, The University of Jordan, Amman, Jordan

4:00 – 4:25 (Monday)

Dr. Aydin Nassehi
Reader in Manufacturing Systems, CIRP Associate Member, FHEA, MIET
& Managing Editor of the International Journal of Computer Integrated Manufacturing
Department of Mechanical Engineering, Queen’s Building
University Walk, Clifton, Bristol, BS8 1TR, UK

Industry 4.0: An industrial engineering and operations management overview

Aydin Nassehi is a Reader in Manufacturing Systems at the University of Bristol. He received his PhD in Mechanical Engineering from the University of Bath. In 2007, Dr Nassehi was appointed to a Research Council UK Research Fellowship and has gained promotions to Lecturer in 2012, and Senior Lecturer in 2013. He also gained an MSc in Software Engineering with distinction from the University of Oxford in 2013. His expertise is in manufacturing interoperability, computational informatics including energy efficiency modelling and analysis of manufacturing
processes and knowledge based CAD/CAM and CAX systems. He has received £3.5m of national and international research funding and taken part in two FP7 projects namely DEMAT and, as the technical leader, STEPMAN. He has published over 90 refereed papers and been on technical & scientific committees of a number of international conferences including the FAIM series of conferences since 2008. He is a CIRP Associate Member, the convener of ISO standards group in charge of developing ISO14649 for cyber physical manufacturing resources (ISO TC184/SC1/wg7) and the Managing Editor of the International Journal of Computer Integrated Manufacturing.

4:25 – 4:50 (Monday)

**Professor Ezendu Ariwa**
Director and Adjunct Professor
Agriculture Mechanization Centre (AMC)
Imo State Polytechnic
Umuagwo, Nigeria

4:50 – 5:15 (Monday)

**Dr. Rami Hikmat Fouad Al-Hadeethi**
Associate Professor
Industrial Technology & Operations Management
The University of Jordan, Amman, Jordan

An international, award winning Associate Professor of Industrial Technology & Operations Management whose solid understanding of business administration in an engineering context, passion for learning, and consultative leadership style are the driving forces behind a progressively successful 25+ year career. Enjoys inspiring students across the EMEA to achieve their full academic and personal potential. Founder of academic departments, colleges and programmes in Iraq and Jordan, and participant in worldwide conferences.
DISTINGUISHED SPEAKERS – Global Engineering Education

Wednesday (July 25, 2017)

Session I: Global Engineering Education
9:00 am – 10:00 pm (WEDNESDAY) - Salon Diamante

Session Chair: Dr. Federico Felipe Durán, Instituto Politécnico Nacional México

9:00 - 9:30 (WEDNESDAY)

Dr. Francisco I. Giocondo César
Professor
Department of Industrial Engineering
Federal Institute of Education, Science and Technology of São Paulo
(IFSP - Campus Piracicaba)
Professor & Researcher Collaborator
Production Engineering Graduate Program
Campinas State University (FCA – UNICAMP – Campus Limeira)
Brazil

Dr. Francisco I. Giocondo César is a Mechanical Engineer (UNESP) with M.Sc. and Ph.D. in Production Engineering at the Methodist University of Piracicaba – UNIMEP. Currently doing my post-doctorate in Production Engineering at FCA - UNICAMP. He has certified qualifications in Project Management (PMI) and Green Belt. Dr. Giocondo has been a Professor at the Industrial Department of Federal Institute of Education, Science and Tecnology of São Paulo (IFSP - Campus Piracicaba) since 2011. He is also a Professor Researcher Collaborator in the Production Engineering Graduate Program at the Campinas State University (FCA – UNICAMP – Campus Limeira) since 2016. Coordinated SB-Lab (Sustainable Business Lab). Dr. Giocondo has 23 years professional experience as an International Project Manager on TRW and Caterpillar Brazil. His current research interests are continuous improvement / lean production / six sigma, industry 4.0 / advanced manufacturing / industrial internet of things, entrepreneurship / business canvas and emergent technologies / disruptive technologies. Dr. Giocondo has collaboration in the following institutions: Collaborative Research Network on Supply Chain 4.0 as Founding member of the SC4, Engineer Association Brazil – Germany (VDI) as a member of the engineering education-working group, National Association of Research and Development of Innovative Companies (ANPEI) as a member of the ICT-Enterprise Interaction Committee (Scientific and Technological Institutions), ASQ – South America – American Society of Quality as Guiding member of the ASQ student branches and Innovation Plant (Usina da Inovação) / AgTechValley) as mentoring startup. He has published numerous research papers in conference proceedings and journals.

9:30 - 10:00 (WEDNESDAY)

Dr. Federico Felipe Durán
Profesor de Tiempo Completo
Instituto Politécnico Nacional México
Escuela Superior de Ingeniería Mecánica y Eléctrica Unidad Zacatenco
Mexico

Engineering Accreditation

Dr. Federico Felipe Durán is professor of computer science at Escuela Superior de Ingeniería Mecánica y Eléctrica (ESIME) of Instituto Politécnico Nacional (IPN) Mexico. His research interests include Artificial Intelligence, Data bases, Natural Language Processing and Engineering Education. Felipe is an electronic and communications engineering for the IPN (1984) and made graduate studies at Centro de Investigación y Estudios Avanzados in electrical engineering, option Computer Science (1987).
Session II: Global Engineering Education
2:00 pm – 3:30 pm (WEDNESDAY) - Salon Diamante

Session Chair: Dr. Augusto Loureiro da Costa, UFBA - Federal University of Bahia, Brazil

2:00 – 2:30 pm (WEDNESDAY)

Dr. Augusto Loureiro da Costa
Associate Professor
Department of Electrical Engineering
Programa de Post-graduate Engenhria Eletrica
UFBA - Federal University of Bahia
Ondina, Salvador - State of Bahia, Brazil
Visiting Scholar - University of Pennsylvania, USA

Prof. Augusto Loureiro da Costa has his PhD in Electrical Engineering in 2001 at Federal University of Santa Catarina (Brazil), was visiting PhD student at Karlsruhe University (Germany). He is an associate professor at the Electrical Engineering Department (DEE) of Federal University of Bahia (UFBA). He leads the research group of the Robotic Laboratory (LaR). He coordinated CEIA, the Special Committee of Artificial Intelligence of the Brazilian Computer Society (SBC) from 2008 until 2010 and Intelligent Systems Technical Commitee of Brazilian Automation Society from 2012 until 2016. He was Visiting Professor at University of Pennsylvania, USA, from July 2012 until June 2013. His main research topics are related to Autonomous Robots and Multi-robots Systems. Currently he is Undergraduate Teaching accessor at Undergraduate Pro-rectory of Federal University of Bahia.

2:30 – 3:00 pm (WEDNESDAY)

Mariana Tafur, PhD
Assistant Professor
School of Education - CIFE
Los Andes University
Bogotá, Colombia

Dr. Mariana Tafur is an assistant professor of School of Education at Los Andes University, Bogotá, Colombia. She received her Ph.D. from School of Engineering Education at Purdue University. She has a M.S., education, Los Andes University, Bogota, Colombia; and a B.S., electrical engineering, Los Andes University, Bogota, Colombia. She is a 2010-2013 Fulbright Fellow. Her research interests include engineering skills development, STEM for non-engineers adults, motivation in STEM to close the technology literacy gap, and STEM formative assessment.

3:00 – 3:30 pm (WEDNESDAY)

Dr. Alberto Un Jan
Dean
Faculty of Engineering
Universidad Wiener in Lima
Peru

Dr. Jan is an engineer in electronics (Universidad Nacional de Ingeniería, UNI, Lima, Peru. He hold an MSc degree in systems engineering (UNI), an MSc degree in information systems in management (Sheffield Hallam University, UK; and a Doctor degree in engineering (Universidad Nacional Federico Villareal, Lima, Peru. Dr. Jan worked ten years in the development of software for petroleum and geology for PetroPerú and PetroMar, the state owned oil companies. He has been Dean of the Faculty of Engineering at Universidad Wiener in Lima, with two careers: Industrial Engineering and Systems and Informatics Engineering. Under his management, the career of Systems and Informatics Engineering was certified with ISO 9001 in education processes. He knows Peruvian markets for education. Dr. Jan has numerous publication.
Session III: Global Engineering Education
4:00 pm – 5:30 pm (WEDNESDAY) - Salon Diamante

Session Chair: Professor Juan José Encina Cabrera, National University of Asuncion of Paraguay

4:00 – 5:30 (WEDNESDAY)

Dr. Julio Santisteban
Associate Researcher
School of Computer Science
San Pablo Catholic University (UCSP)
Arequipa – Peru

4:00 – 5:30 (WEDNESDAY)

Professor Juan José Encina Cabrera
Director of the Department of Electricity
Faculty of Engineering
National University of Asuncion of Paraguay
San Lorenzo – Paraguay

Use of application software vs. Traditional teaching of Engineering

Professor Encina is working as an engineer for 17 years ago at the electricity sector, Power Company, National Electricity Administration (ANDE), Institution of Government. He was Head of Quality Management Section from 2001 – 2007 and Head of Billing Department from 2007- 2010 of the National Electricity Administration (ANDE) of Paraguay. Professor Encina was Head of Large Clients and Head of Metropolitan Commercial Division and Lower Chaco of the commercial management. He was Electromechanical Engineer of the Metropolitan Commercial Division and Lower Chaco of the commercial management. He is graduated in Electromechanical Engineer from the Faculty of Engineering of the National University of Asuncion of Paraguay. He is Director of the Department of Electrical Engineering Faculty of the National University of Asuncion. He is pursuing a Masters in Government and Public Management. He has presented lectures and conferences in different universities in Paraguay. He has published a book on "Energy Policy of Paraguay to 2023" that is registered with the copyright. He received several awards from the National University Best Teacher. He is currently the Chairman of the Southern Cone IEEE and IEEE Section president Paraguay, having been a founding member of the section.

4:00 – 5:30 (WEDNESDAY)

Dr. Fáber D. Giraldo
Assistant Professor
Faculty of Engineering
University of Quindío
Armenia, Circasia, Quindío, Colombia

Taming global challenges in Software Engineering education: learned lessons in the Quindío region of Colombia

Fáber D. Giraldo is a System and Computer Engineer from the University of Quindío, Colombia (with a grant from the Ministry of Education of Colombia). He has a Ms. Eng. degree with emphasis on Informatics from EAFIT University, Colombia (with a grant from EAFIT University). He holds a Ph.D,(C) in Informatics from the Universidad Politècnica de València, Spain (with a grant from the National administrative department of Science, Technology and Innovation of Colombia – COLCIÈNCIAS) and is currently working with the PROS Research Center.

He is a full assistant professor in the Faculty of Engineering at the University of Quindío. He coordinates the Master in Engineering with emphasis on Software Engineering at the University of Quindío. He is a researcher of the Information Systems and Industrial Control research group (SINFOCI) at the University of Quindío, and is recognized as Associate Researcher Type I by COLCIÈNCIAS. His research interests include software engineering, model-driven engineering, software quality, quality in model-driven engineering, software architecture, technical debt, enterprise architecture, enterprise modelling, HCI and innovation. He has supervised more than 100 undergraduate projects, and He has eight master works under his direction to date. He is also invited professor of some Universities of Colombia for master courses in Software Architecture and Software Process Improvement. Currently He has research projects about quality in model-driven engineering projects, telecare systems for older people, information systems to support agricultural production chains, and serious games to support advertising in public health prevention and teaching process in immunology.
Thursday (October 26, 2017)

Session IV: Global Engineering Education
8:00 am – 9:00 am (THURSDAY) - Salon Diamante
Session Chair: Dr. Hernán Nina Hanco, National University of San Antonio Abad, Cusco, Peru

8:00 – 8:20 (THURSDAY)

Dr. Hernán Nina Hanco
Professor, Department of Computer Engineering
Master in Administration and Systems and Computer Engineering
National University of San Antonio Abad
Cusco, Peru

*Diagnostic of Industry 4.0 in the South Region of Perú*

Hernán Nina is currently Professor of the Department of Computer Engineering, Master in Administration and Systems and Computer Engineering at the National University of San Antonio Abad of Cusco, Member and Author of ACM (Computer Machinery Association), Member of Electrical and Electronic Engineers of IEEE), Member of the IEEE Computing Society, Certified Educator of Google Level 1, Director of the Professional Academic School of Systems and Computer Engineering of UAP's subsidiary, Cusco 2011-2012. Exercising the profession of computer engineering and systems 20 years ago, most of my activities were in the field of computer education in universities and institutes in southern Peru. The subject of interest is Computer Graphics, Database Systems and Software Development, Cloud Computing and Higher Education.

8:20 – 8:40 (THURSDAY)

Ignacio Laiton Poveda
Licenciado en Física Universidad Pedagógica Nacional, Bogotá, Colombia
Especialista en Ciencias, Física, Universidad Nacional de Colombia. Magister en Educación, Universidad de la Salle, Bogotá, Colombia
Doctor en Educación, tesis Cum Laude, Universidad de Granada, España

Docente de todos los niveles educativos a lo largo de 28 años de trayectoria. Durante los últimos doce años dedicados a la docencia universitaria y los últimos ocho a la investigación sobre la enseñanza de pensamiento a través de las ciencias básicas en Ingeniería, desarrollando varios proyectos de investigación en esta línea. Investigaciones expuestas en diferentes escenarios y congresos entre los que se destacan congresos sobre educación en Ingeniería en La Habana, Cuba, Orlando y Boston, Estados Unidos, Bilbao, España, Munich, Alemania, Bucaramanga y Bogotá, Colombia. Los resultados de los proyectos investigativos sobre la enseñanza de pensamiento en el contexto de las ciencias básicas en Ingeniería, sustentan una sólida base para la charla sobre este ítem, denominada “El desarrollo de pensamiento crítico en estudiantes de ingeniería a través de las ciencias básicas”. Se pretende debatir como a través de la aplicación de metodologías desarrolladas por diversos grupos de trabajo a nivel mundial, entre las que se destacan los grupos de la Universidad de Harvard, el grupo Eduthink en España, entre otros, es posible generar y potenciar habilidades de pensador crítico en los estudiantes de primeros semestres de ingeniería. El pensamiento crítico aporta no solo en el sentido profesional del ingeniero, sino que aporta en la calidad del egresado como persona y en su papel como ciudadano.

8:40 – 9:00 (THURSDAY)

Dr. Lilian Adriana Borges
Senior Lecturer and Research Coordinator
Pro-vice-chancellor's Office for Research
UNIDAVI - Universidade para o Desenvolvimento do Alto Vale do Itajai
Rio do Sui, Brazil

Dr. Lilian Adriana Borges is a Senior Lecturer and Research Coordinator at the Pro-vice-chancellor’s office for Research at UNIDAVI, in Brazil. Prior to her academic career, Lilian worked for large multinational companies such as Philip Morris, dealing with imports/export and operations management. She has 13 years of experience in teaching and research in Brazil and the United Kingdom, having published books and papers in four-star journals and high-profile conferences. Currently, Dr Borges is involved in four projects related to sustainability, which address food supply logistics (FSL) and the measurement of environmental performance in hospitals in Brazil. Recently, Lilian coordinated with her British counterpart the International Workshop “A Pathway to Global Sustainability - role of local food supply logistics in global sustainability”, which gathered 30 early career researchers from Brazil and the UK to discuss and address sustainability issues related to the Brazilian FSL networks and supply chains. The event took place in May at UNIDAVI and was funded by the British Council and Newton Fund.
Session V: Global Engineering Education
9:00 am – 10:00 am (THURSDAY) - Salon Diamante
Session Chair: Prof. Eduardo Cardoso Moraes, Federal University of Bahia, Brazil

9:00 – 9:30 (THURSDAY)

Prof. Eduardo Cardoso Moraes
Federal Institute of Alagoas
Federal University of Bahia, Salvador, Brazil

*Engineering education challenges with advances of Industrial Revolution - Industry 4.0*

Abstract: The world is assisting to a rapid evaluation of technologies and one of most impacted area due to high competition is the industrial area. In the academic area is common to say there is a fourth industrial revolution, with several domains of science and technology being strongly developed and, specially, being integrated with each other, allowing to build evolvable complex systems. Internet of Things, virtualization, data analytics, big-data, distributed control, Cyber-Physical stems and self-organization, amongst others, are playing an important role in this journey. The new engineer will have to handle and adapt himself with this new context. The universities should be aware and adapt the curriculum and mentality. Enterprise Integration is getting cheaper, real-time, mobile and ubiquitous. Service paradigm is taking an important role. This talk will discuss about these technology challenges and opportunities for educational field.

9:30 – 10:00 (THURSDAY)

Ing./MFN José Gabriel Suárez Delgado
Aguascalientes, Ags. México
IEEE Aguascalientes Section Chair

*Leadership for High Professional Performance*

MFN/Ing. J. Gabriel Suárez D. is an Electronics & Telecommunications Engineer graduated from the Mexico’s National Polytechnic Institute and also holds a Finance and Business Master Degree with Magna Cum Laude from the University of Aguascalientes. Mr. SUÁREZ is an experimented professional in the electronics and electromechanical manufacturing area where he spent 40 years of his life working for the following companies: IBM, Ericson, Magnavox, Xerox and Flextronics. Mr. SUÁREZ worked in many projects especially for Xerox and Flextronics: he sat up the Xerox Mexicana Mfg. Div. Reliability Laboratory, the PCBAs repair area saving the company $10 million dollars on a yearly basis for 10 years, the 1st PCBA line, the CO2 cleaning area to clean copiers to be remanufactured, the scrap recycling area generating multiple benefits for the company and the Aguascalientes State community, etc. With Flextronics, he and his multinational team developed the Flextronics BCP (Business Continuity Plan) and was Flextronics Global Lead for this industry practice, responsible for the implementation of the electronics industry RoHS (Restriction of Certain Hazardous Substances) requirement for the Flextronics sites in the Americas, responsible also to implement the Social and Environmental Program for the Flextronics Americas sites and also with a multinational teams developed the Flextronics Drive Safe Program and the Sustainable Packaging Program. Presently, Mr. SUÁREZ is the IEEE Aguascalientes, Mexico Section Chair, Aguascalientes CONALEP’s (one of the biggest mid technical school systems in Mexico) Liaison President, founder of the Aguascalientes CANIETI (National Electronics, Telecommunications & Information Technology Chamber) and Business Topics Professor at the UTR (El Retoño Technological University) 1st. BIS (Bilingual International and Sustainable) university in Mexico.

Session VI: Global Engineering Education
4:30 pm – 5:30 pm (THURSDAY) - Salon Diamante
Session Chair: Dr. Vitor M. Caldana, IFSP - Instituto Federal de São Paulo - Campus Sorocaba, Brazil

4:30 – 5:00 pm (THURSDAY)

Dr. Vitor M. Caldana
Professor
Depto. de Eletrônica
IFSP - Instituto Federal de São Paulo - Campus Sorocaba
Santana de Parnaíba, SP, Brazil

*An Analysis of Engineering Education impact on Brazil’s Micro Regions*

Vitor Mendes Caldana is a Professor at Instituto Federal de São Paulo at the Sorocaba campus for Electronics. He graduated in Electronic Engineering at Mackenzie University in 2004 and obtained his Master of Science (M.Sc.) in Industrial Engineering in 2017. He worked in the industry for 15 years before entering in the teaching career. He has published articles in international conferences and
journals. His M.Sc. research was based on the understanding of Engineering Education and the impacts in microregions. He is currently in the early stages of developing his Ph.D. project.

5:00 – 5:30 pm (THURSDAY) – INDUSTRY SOLUTIONS

**Antonio J. Jara**  
Adjoint Scientifique  
University of Applied Sciences Western Switzerland (HES-SO)  
Vice-Chair of the IEEE Communications Society Internet of Things Technical Committee

**Digitalization of Cyber Physical Processes with FIWARE**

Antonio J. Jara; Adjoint Scientifique at the University of Applied Sciences Western Switzerland (HES-SO), Founder at HOP Ubiquitous S.L. (www.hopu.eu) and vice-chair of the IEEE Communications Society Internet of Things Technical Committee. He did his PhD (Cum Laude) at the Intelligent Systems and Telematics Research Group of the University of Murcia (UMU) from Spain in 2013. He received two M.S. (Hons. - valedictorian) degrees. Since 2007, he has been working on several projects related to IPv6, Security and WSNs in automation and healthcare. He is especially focused on the design and development of new protocols for security and mobility for Future Internet of things, which was the topic of his Ph.D. He did the transfer of the results from his PhD around Security in the American Company United Technologies. Nowadays, he continues working on IPv6 technologies for the Internet of Things In areas such as security, heterogeneity integration and the application of IoT in sectors such as industry 4.0, energy, and smart cities. He has also carried out a Master in Business Administration (MBA). He has published over 100 international papers (>2000 citations, h: 25), As well he holds several patents in the IoT domain. Finally, he has participated in several European Projects about Internet of Things (networking, security and intelligence distribution – fog computing) and applied Internet of Things (energy, industry 4.0 and Smart Cities).
DISTINGUISHED SPEAKERS – Global Engineering Education

Tuesday (March 6, 2018)

Session I: Global Engineering Education
8:00 – 9:30 am (Tuesday) - Room Kapla
Session Chair: Dr. Syed Ahmad Helmi Al Haddad, Universiti Teknologi Malaysia, Johor, Malaysia

8:00 – 8:30 (Tuesday)

Dr. Syed Ahmad Helmi Al Haddad
Program Coordinator for MSc in Industrial Engineering
Faculty of Mechanical Engineering
Associate Fellow, Center for Engineering Education (CEE)
Universiti Teknologi Malaysia
Johor, Malaysia

Problem Based Learning (PBL)

Dr. Syed Ahmad Helmi is a senior lecturer in the Faculty of Mechanical Engineering, Universiti Teknologi Malaysia (UTM), and is affiliated to the UTM Centre for Engineering Education. He is currently the Graduate Programme Coordinator for the Department of Material, Manufacturing and Industrial Engineering. He has a Bachelor of Science in Mechanical Engineering, Master in Mechanical Engineering, and a PhD in Engineering Education. Prior to joining UTM, he worked as an industrial extension officer in Standard and Industrial Research Institute of Malaysia (SIRIM) and as an engineer in various industries, such as INTEL and SIME-DARBY. Syed Helmi was a visiting scholar in University of Waterloo, Canada, and one of a task force member in-charge of propagating active learning in UTM. Over the years, as a practitioner of Problem-Based Learning (PBL), he has conducted several workshops to train academics, especially those in Science, Technology, Engineering, and Mathematics (STEM) education areas, on Outcomes-Based Educaction (OBE) particularly in effective implementation of Student Centred Learning (SCL) throughout Malaysian higher institutions, and international institutions such as in China, India, Korea, Turkey, and Afghanistan. Dr. Syed Helmi was invited as speaker in several international conferences. He has also won several awards, including the Diamond Award for Best Paper at the 2005 UNESCO International Centre of Engineering Education Asia Pacific Conference on Engineering Education in Bangkok, Thailand, the Best Paper Award at the 2011 IEEE Global Engineering Education Conference in Amman, two gold medals in the International Innovative Practices in Higher Education Exposition (i-PHEX2014) and one gold medal in i-PHEX2105. He also had published numerous articles related to his area of interest. His recent works include SCL, change management, complex engineering problems, manufacturing systems and optimization, and modelling of complex industrial systems.

8:30 – 9:00 (Tuesday)

Professor Rifky Ismail
Head at Center for Biomechanics, Biomaterials, Biomechatronics and BioSignal Processing
UNDIP: Diponegoro University
Semarang, Central Java, Indonesia

A research collaboration model for developing biomedical engineering research in Indonesia

Rifky Ismail is a lecturer and researcher at Department of Mechanical Engineering Diponegoro University (Undip), Semarang, Indonesia. He is Founder and Director of Center for Biomechanics, Biomaterial, Biomechatronics and Biosignal Processing (CBIOM3S). He has published many books, journals, and conference proceedings in the area of biomechanics, biomaterial, and biomechatronics. Dr. Rifky Ismail has encourage the research collaboration between medicine and engineering which can work together to solve problem in the field of medical devices in Indonesia. He has received Ph.D. from in Mechanical Engineering from University of Twente, M.Sc. from Gadjah Mada University and B.Sc. from Diponegoro University, Indonesia.

9:00 – 9:30 (Tuesday)

Dr. Azharul Karim
Senior Lecturer
Mechanical Engineering, Science and Engineering Faculty
Assistant Editor: Drying Technology
Queensland University of Technology
Queensland, Australia

Designing Innovative Project Based Learning (PBL) for post graduate engineering courses

Dr. Azharul Karim is currently working as a Senior Lecturer in Mechanical Engineering and course leader of Master of Engineering Management at Queensland University of Technology, Brisbane, Australia. Through his scholarly and innovative research, he has established a national and international standing. His excellence in research has been demonstrated by development of many innovative new products, 162 high quality refereed publications (including 74 Journal papers, 2 books and 12 book chapters), 16 research grants amounting A$3.2 million, being invited by reputed world universities for invited seminars and his editorial role in top ranked Journals. Dr Karim is...
their career development and progression. Learning environments, final student outcomes were highly satisfactory. Students found that the outcomes of their learning were highly supportive of professional bodies such as Engineers Australia. Due to careful planning, designing and delivery of real-world and authentic unit content and projects, students are able to develop higher level skills and understanding which are increasingly in high demand in industry and highly recommended by employers. To further develop, synthesize and apply their learning in engineering management being realised in their authentic industry based projects. Through this project-based learning, students are able to develop higher level skills and understanding which are increasingly in high demand in industry and highly recommended by professional bodies such as Engineers Australia. Due to careful planning, designing and delivery of real-world and authentic unit content and learning environments, final student outcomes were highly satisfactory. Students found that the outcomes of their learning were highly supportive of their career development and progression.

Session II: Global Engineering Education
11:30 am – 12:45 pm (Tuesday, March 6) - Room Kapla
Session Chair: Dr. Razali Hassan, Universiti Tun Hussein Onn Malaysia

11:30 – 12:00 (Tuesday)

Dr. Matteo Mario Savino
Professor
University of Sannio
Benevento, Italy

Matteo Mario Savino got his Ph.D. Industrial Operations at University of Naples, Italy. Actually he is Professor of Industrial Operations and Production Systems at University of Sannio, Benevento. He is the head of the Centre on Production, Reliability and Industrial Management Engineering. He manages national industry-based and EU funded projects on Operations Management. He has been Guest Editor of Special Issues on International Journal of Product Lifecycle Management, Journal of Operations and Quantitative Management and he is IJOQM Europe Editor. Actually Prof. Savino is in the Editorial Board of several peer reviewed international journal. He manages several research project funded and co-funded by European Commission and he is also in the National Quality Evaluators Panel for Universities and Research Centres. His main research interests are related to quantitative approaches for Quality and Environmental Management, Production and Supply Chain Management. His research works appeared on several peer-reviewed International Journals.

12:00 – 12:30 (Tuesday)

Dr. Md. Mizanur Rahman
Senior Lecturer, Department of Thermo Fluids, Faculty of Mechanical Engineering
University Technology Malaysia (UTM), Skudai, Johor Bahru, Malaysia

Md. Mizanur Rahman is currently a Senior Lecturer at Department of Thermo-Fluids, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia UTM, Johor Bahru, Malaysia. Before joining at UTM, he has served as a Postdoctoral Researcher at Aalto University School of Engineering, Finland. Rahman also has more than 12-year working experience in a government statutory body namely Rural Electrification Board (REB), Bangladesh. During his tenure in REB, Dr. Rahman has gathered practical experience in dealing with techno-economic and sociocultural challenges faced by rural electrification programme. He has accumulated deep insights towards the solution pathways for the Global Mega-challenge of having 1.2 billion people without access to electricity yet. Mr. Rahman has sound understanding into the global energy sector challenges and its societal implications. Mr. Rahman received his Ph.D. in Energy Economics and Power plant Engineering from Aalto University, Finland, M.Sc. in Sustainable Energy Engineering from Royal Institute of Technology KTH, Sweden, and B.Sc. in Mechanical Engineering from Khulna University of Engineering and Technology, Bangladesh. His research interests include rural electrification, energy economics, energy management, energy efficiency and system, sustainable and renewable energy, energy system modelling, Life-Cycle Analysis, distributed power generation, multicriteria evaluation etc. Dr. Rahman has several publications in International referred journals in energy engineering domain.

12:30 – 1:00 (Tuesday)

Dr. Razali Hassan
Associate Professor
Faculty of Technical & Vocational Education
Universiti Tun Hussein Onn Malaysia
86400 Parit Raja, Batu Pahat
Johor, Malaysia

Razali Hassan is a former Dean at Faculty of Technical and Vocational Education, Currently attached as UNESCO UNEVOC Coordinator at Universiti Tun Hussein Onn Malaysia (UTHM), Batu Pahat, Johor, Malaysia. PhD holder from University of Warwick, United Kingdom, Master Sc. (TVET) UPM, BTech. with Edu. (Electrical Technology) UTM, Teaching Certificate from Technical Teachers Training College TTTCKL, (Electrical Installation & Maintenance) Cert. in CAD (RMIT Melbourne): Ordinary members in TVET Society of Malaysian, ALUMNI Uni of Warwick, UPM, UTM, TTTCKL; Members for National Union Teacher Profession (NUTP), MTUN Society, Senior members Regional Association Vocational Teacher Education.
(RAVTE) and Honorary Advisor for Malaysian Trainer and Industries Expert Society (MANDATE). Working Experience: Electrical maintenance workers, TVET teacher in Vocational School, Lecturer in TVET TTTC, UTHM, (Electrical Technology & Graphic Engineering) Specialize in the development of Training in TVET at national level and international networking with various countries including Australia, German, United Kingdom, Indonesia, Singapore, Thailand, Vietnam, Laos and Jordan as a Consultant, advisor, Supervisor, panel and facilitator in TVET; Educational Technology (E-learning) High impact consultancy experience; Employer Driven Skill Development Project (EDSD) by world Bank for VTC Jordan, Training Consultant (2011-2013), Yemen Consultancy Committee (2010-2011), Assessor Panel for Malaysian Qualification Agency (MQA), involve in Academic Programme development, Curriculum assessor for MoE, Coordinator & supervisor for National Dual Training System (NDTS) Project under Ministry of Human Resource (Master & PhD Students), Teaching and Supervise for Post Graduates, Bachelor’s degree, & Certificate in TVET skills programs.

Session III: Global Engineering Education
2:30 – 3:45 pm (Tuesday, March 6) - Room Kapla
Session Chair: Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia

2:30 – 3:00 (Tuesday)

Dr. Jafri Mohd Rohani
Head of the Industrial Engineering Programme
Department of Materials, Industrial and Manufacturing Engineering
Faculty of Mechanical Engineering
Universiti Teknologi Malaysia
Skudai, Johor, Malaysia

Enhancing Outcome Based Education Industrial Engineering Curriculum at Universiti Teknologi Malaysia

Jafri Mohd Rohani is a Senior Quality and Statistical Engineering Lecturer. He is also Head of the Industrial Engineering Programme at the Department of Materials, Industrial and Manufacturing Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Skudai, Johor. Currently, he is the President of JohorCost and Quality Engineers Society. He is a member of the American Society for Quality (ASQ) and Human Factor Society of Malaysia.

3:00 – 3:30 (Tuesday)

Prof. Shekar Babu
Founding Head, AMRITA School of Business, Bangalore
Adjunct Faculty, SUNY, Buffalo, USA
Research & Consulting
AMRITA University
Bangalore, India

Dr. Shekar Babu is the Founding Head, Department of Management, Bangalore Campus, AMRITA Vishwa Vidyapeetham University. Dr. Shekar Babu holds a Bachelor of Engineering degree in Electronics and Communications from Bangalore University and a Master of Science degree in Electrical and Computer Science from California State University, Los Angeles and a Doctoral Degree in Strategic Management from Amrita University. He is a Management Consultant with over 25 years of experience in working with Price Waterhouse and Hewlett-Packard Co. His research areas are Corporate Social Responsibility (CSR), Corporate Governance (CG), Strategy and Social Development. He has taught courses in Marketing, Leadership, Management Consulting and Business Ethics.

3:30 – 4:00 (Tuesday)

Dr. Hongyi Sun
Associate Professor
Department of Systems Engineering and Engineering Management
City University of Hong Kong, China

Technology-Based Entrepreneurship

Dr. SUN is an Associate Professor in the Department of Systems Engineering and Engineering Management, City University of Hong Kong. His teaching and research areas include the management of technological innovation, manufacturing/operations strategy, quality management, and innovation & entrepreneurship education. Dr SUN has twice been the winner of the Teaching Excellence Award at the City University of Hong Kong and has won several other awards in education and education research for teaching and research on innovation and entrepreneurship education.
Session VI: Global Engineering Education: PANEL SESSION
4:30 – 6:00 pm (Tuesday, March 6) - Room Kapla
Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA

Panelists

Dr. Abu Masud, P.E. (Retired)
Boeing Global Engineering Professor
Professor of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

Dr. Abu Masud is an emeritus professor of industrial and manufacturing engineering at Wichita State University. He was named the Boeing Global Engineering Professor at Wichita State University. Dr. Masud advanced the College of Engineering’s strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering. Previously he was held various positions at Wichita State including dean and associate dean of graduate school (2008-2013), coordinator, college ABET affairs (2006-2008), chair, industrial and manufacturing engineering department (1994-2004) and associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IIE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.

Dr. Hamid Parsaei, PE
Professor of Industrial and Systems Engineering, Texas A&M University (College Station)
Professor of Mechanical Engineering and Director of Academic Outreach, Texas A&M Uni. Qatar

Accreditation: Preparing an International Campus for a Successful Visit

Hamid R. Parsaei is Professor of Industrial and Systems Engineering at Texas A&M University (College Station) and also Professor of Mechanical Engineering and Associate Dean for Academic Affairs at Texas A&M University at Qatar. He is a registered professional engineer (PE) in Texas, a Fellow of the Institute of Industrial Engineers (IIE), and a Fellow of the American Society for Engineering Education (ASEE). He has published over 200 articles in peer-reviewed archival journals and conference proceedings. He has also served as editor/co-editor in chief for four academic journals and five book series. His research, in excess of $22 million, has been funded by numerous government and private institutions.

Dr. Albertus Retnanto
Associate Professor, Petroleum Engineering
Texas A&M University at Qatar

Assessing and Documenting Students Competencies in their Respected Disciplines

Dr. Albertus Retnanto is Associate Professor of the Practice of Petroleum Engineering at Texas A&M University at Qatar and has been in the Petroleum Engineering program since 2009. He holds a Ph.D. in Petroleum Engineering from Texas A&M University. He was a Principal Engineer with Schlumberger with more than 18 years of experience worldwide in both technical and management positions in the area of well testing, field development, production enhancement, and stimulation. He has served as the Review Chairman of Society of Petroleum Engineers (SPE) Drilling & Completion, a member of SPE Cedric K. Ferguson Medal Award Committee, a member of SPE Drilling and Completion Advisory Committee, and SPE advanced technology workshop, and currently, he serves as Technical Editor of SPE. He received the A Peer Apart SPE Award, for technical excellence of authors, to SPE, and to the industry.

Wednesday (March 7, 2018)

Session V: Global Engineering Education
8:00 – 9:30 am (Wednesday) - Room Kapla
Session Chair: Dr. Eldon Caldwell, University of Costa Rica

8:00 – 8:30 (Wednesday)

Dr. N. Vinod Chowdhary
Professor and Head, Department of Mechanical Engineering
SRK Institute of Technology
Vijayawada, Andhra Pradesh, India

Teaching, Learning & Accreditation

Dr. Vinod Chowdhary is a Professor and Head of Mechanical Engineering Department at SRK Institute of Technology, Vijayawada, Andhra Pradesh, India. He was Principal at G.H. Raisoni College of Engineering and
Management, Ahmednagar (Shirdi), Maharashtra. India and Kruti Institute of Technology, Raipur, India. Dr. Chowdhary has 12 years industry experience. He has awarded FIE, LM-ISTE, ASME, and Chartered Engineer. His key achievements are:

- Development and substitution of Indian components with replacement of USA and Canadian parts.
- Improvement in the design to make the test rigs suitable for Ultrasonic inspection of Indian Products.
- Performed Automated Ultrasonic tube / pipe testing systems for customer like nuclear fuel complex, PSL limited, Mishra Dhatu Nigam Ltd, BHEL (R&D).
- Interacting with workshops of different industries for supply of the high quality materials in time. 200 /240 students in distinction and first division.
- Labs established. Civil Department started Consultancy and a part in designing civil work for college to a tune of 10 lakhs.
- Students increases from 900 to 1540. 5 courses started for ME, Diploma and increase in UG Mechanical intake.

8:30 – 9:00 (Wednesday)

Jedsada Tipmontian
Executive Board Member
Thai Association for Cooperative Education (Public Relations)
Nonthaburi, Thailand
Lecturer
King Mongkut’s University of Technology North Bangkok

Industrial and Systems Engineering Application through Cooperative and Work Integrated Education in Thailand

Jedsada Tipmontian is a lecturer, Department of Agro-Industry Technology and Management He is also serving as Vice Dean, and Chair for Cooperative & Work-Integrated Education Program, Faculty of Agro-Industry, King Mongkut’s University of Technology North Bangkok (KMUTNB), Thailand. He received a Bachelor’s degree in Agro-Industry from Prince of Songkla University, Thailand. He holds a Master degree of Engineering in Industrial Engineering from KMUTNB. He completed Certificate program in Industrial Engineering & Management from Asian Institute of Technology, Thailand. He completed PhD (Thesis Title: “Risk Modelling of Agro-Industrial Supply Chains in Asian Countries”) at Department of Industrial Engineering, Anna University (AU), Chennai, India. Before joining KMUTNB as a faculty member, he worked for fruit industry, frozen seafood industry and fresh food logistics business. Tipmontian’s research interests include Food Supply Chain Risk Management, Food Business Management and Operation Analytics, Statistical and Fuzzy Quality Control, System Dynamics Simulation and Multi-Criteria Decision Models for solving problems in Agro-Industry.

9:00 – 9:30 (Wednesday)

Dr. Ho Hwi Chie, M.Sc.
Dean
Binus Aso School of Engineering
Bina Nusantara University (Binus)
Tangerang, Banten, Indonesia

Coping with The Millennials

Hwi Chie Ho is Dean of Binus School of Engineering and Professor in Industrial Engineering at Bina Nusantara University, and has been teaching and publishing researches associated with ergonomics, quality, and industrial psychology. She is a member of the Institute of Industrial and Systems Engineers (IISE), Human Factors and Ergonomics Society (HFES), and American Psychology Association (APA). She has also served as the faculty advisor of the newly established IISE BINUS University Student Chapter # 716 that has earned Gold Award in three consecutive years since the establishment.

Session VI: Global Engineering Education
11:30 am – 1:00 pm (Wednesday, March 7) - Room Kapla
Session Chair: Dr. Chan Chee-Ming, Universiti Tun Hussein Onn Malaysia

Workshop on Industrial Revolution 4.0 in Higher Education

Dr. Chan Chee-Ming
Associate Professor and Deputy Dean (Academic and Research),
Centre for Graduate Studies
Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

Chee-Ming Chan is an Associate Professor with the Civil Engineering Technology Department, Faculty of Engineering Technology, Universiti Tun Hussein Onn Malaysia. She is presently holding the office of Deputy Dean in Academic and Research at the Centre for Graduate Studies in the University. Her area of expertise includes geomaterials, engineering education and higher education improvement. More recently, Dr. Chan’s current work on dredged materials from Malaysian waters has gained momentum and support from the Ministry of Science, Technology and Innovation and Department of Marine, Malaysia. She is also involved in professional bodies, including the Society for Engineering Education Malaysia (SEEM), Malaysian Geosynthetics Society (MyIGS), Institution of Engineers Malaysia (IEM), Board of Engineers Malaysia (BEM), and is an education quality auditor for the Malaysian Qualification Agency (MQA). From 2009-11, Dr. Chan served as a Postdoctoral Research Fellow at the Port and Airport Research Institute (PARI), Japan.
Dr. Alina Shamsudin
Associate Professor
Deputy Dean (Teaching, Learning and Academic Training)
Centre for Academic Development and Training
Universiti Tun Hussein Onn Malaysia
Johor, Malaysia

Alina Shamsuddin is currently an Associate Professor (Technology Management) with the Faculty of Technology Management and Business of Universiti Tun Hussein Onn Malaysia. Being a founding member of her faculty, Dr. Alina is not only knowledgeable on the immediate related fields of performance measurement, production and management, she is also an expert on educational quality assessment and assurance, with 5-year experience as an auditor for the Malaysian Quality Agency (MQA). Her research concerns are myriad but inter-related, encompassing higher education quality assurance and reforms, effective teaching and learning, as well as innovative technology adoption for SMEs. Currently heading the Unit of New Programmes Development, Dr. Alina is consolidating her effort to make a difference in the quality of programme design and delivery in the overall higher educational arena, institutionally and nationally.

Dr. Azeanita Suratkon
Senior Lecturer at the Faculty of Civil & Environmental Engineering
Lead – Department of Building and Construction Engineering
Universiti Tun Hussein Onn Malaysia
Johor, Malaysia

Azeanita Suratkon is currently a Senior Lecturer at the Faculty of Civil and Environmental Engineering, and leads the Department of Building and Construction Engineering. Dr. Azeanita had a multi-national education background: bachelor’s at UTM (Malaysia), Master’s at Herriot-Watt University (Scotland) and PhD at Chiba University (Japan). Her international exposure has given her the leverage for a multi-facet approach in her chosen field of study, which primarily revolves around construction management, risk assessment and procurement issues. Dr. Azeanita also aims to improve the current engineering education practice, in line with the nation’s Outcome-based Education philosophy, by drawing on her rich multi-discipline background. Her continuous effort in enriching construction management and higher educational reforms are driven forward in collaboration with Japanese counterparts too.

Session VII: Global Engineering Education
2:30 – 4:00 pm (Wednesday, March 7) - Room Kapla

Session Chair: Dr. Abdelaziz Berrado, The Ecole Mohammadia d’Ingénieurs (EMI), Rabat, Morocco

Prof. S. P. Mukherjee
Ex-Centenary Professor of Statistics
Calcutta University
Kolkata, India

Dr. Shyama Prasad Mukherjee retired from the University of Calcutta as Centenary Professor of Statistics and has since been a Visiting Professor in the Department of Statistics. He was Dean, Faculty of Science in the University. He has been the Mentor of Indian Association for Productivity, Quality & Reliability. He holds a Master’s Degree followed by a Ph.D. degree in Statistics from the University of Calcutta. He was President of the Calcutta Statistical Association, Indian Society of Probability & Statistics, Operational Research Society of India and International Indian Statistics Association (India Chapter), besides the Indian Association for Productivity, Quality & Reliability. He was President of the Asia-Pacific Association of Operational research Societies (APORS) and Vice-President of the International Federation of Operational Research Societies (IFORS). He was Chairman of the Committee on Statistical Methods for Quality & Reliability in the Bureau of Indian Standards. He has been the Chairman of the Govt. of India Standing Committee on Labour Force Statistics and of the Expert Group for the Quarterly Employment Survey of the Ministry of Labour & Employment, Govt. of India. He has taught course in several universities in USA, Canada, Italy, Japan, Ireland, Luxembourg and a few other countries. He is currently Chairman of the Board of Directors, International Statistics Education Centre, Indian Statistical Institute, Calcutta.

Dr. Eldon Caldwell
Director, Industrial Engineering Department, Engineering School
University of Costa Rica
San Jose, Costa Rica

Eldon Caldwell, is full professor/ Cathedraticus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Suma Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/ University of Nevada, USA. Currently, he is doctoral researcher at the (Dr. Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013. Dr. Caldwell is “Lean Systems Certificated Specialist”, MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prized. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering. Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican
Dr. Abdelaziz Berrado
Associate Professor of Industrial Engineering
The Ecole Mohammadia d’Ingénieurs (EMI)
Mohammed V University, Rabat, Morocco

Dr. Abdelaziz BERRADO is an Associate Professor of Industrial Engineering at EMI School of Engineering at Mohamed V University. He earned MS/BS in Industrial Engineering from same institution, an MS in Industrial and Systems Engineering from San Jose State University, and a PhD in Decision Systems and Industrial Engineering from Arizona State University. His research interests are in the areas of Data Science, Industrial Statistics, Operations and Supply Chain Modelling, Planning and Control with application in different industries. His research work is about developing frameworks, methods and tools for systems’ diagnostics, optimization and control with the aim of operational excellence. He has published several papers in international scientific journals and conferences’ proceedings. In addition to academic work, he is a consultant in the areas of Supply Chain Management, Data Mining and Quality Engineering for different Industries. He was also a senior engineer at Intel. He is member of INFORMS and IEEE.

Session VIII: Global Engineering Education
4:30 – 6:00 pm (Wednesday, March 7) - Room Kapla
Session Chair: Dr. S. C. Naik, National Institute of Technology, Rourkela, Odisha, India

Dr. Chrstian Edi Nugroho Soebandrijja, BSIE, MM.
Binus ASO School of Engineering
Bina Nusantara University (Binus)
Tangerang, Banten, Indonesia

Dr. Kristian Edi Nugroho Soebandrijja, BSIE, MM is one of faculty members in Industrial Engineering Department and also teaching at Binus ASO School of Engineering (BASE), in Bina Nusantara University, Jakarta, Indonesia. He earned Bachelor of Science Degree in Industrial Engineering (BSIE) from Wichita State University (WSU), Wichita, Kansas, USA; Master Degree in Management from Indonesian Institute for Management Development, Jakarta, Indonesia. He obtained Doctoral Degree in Doctoral Program in Research Management. He also has exposures for program in Moscow Aviation Institute. Since 1991, He has professional working exposures in Thompson CSF Corporation (Versailles, France), Cessna Aircraft Company (Wichita, Kansas, USA), Frigoglass Group (Cikarang, Indonesia), Citibank, N.A (Jakarta, Indonesia), Perfetti Van Melle Indonesia (Cibinong, Indonesia). As in Education Professional and Consultancy, he has been winning several professional global awards and involving in teaching in several National and Multinational Companies and State Owned Enterprises. He is a distinguished member of Sigma Gamma Tau (Aerospace Engineering Honor Society) and Tau Beta Pi (National Engineering Honor Society), Strategic Management Society (SMS) and International Council on Systems Engineering (INCOSE). His current research comprises: a. Service innovation in Products and Services, within disruptive innovation, Industry 4.0 and design thinking; and b. Sustainability in Industrial Systems and Engineering, Strategic Management and Psychology. c. Military and Civil Collaboration.

Dr. S. C. Naik
Professor, Former Head of Chem Engg and Dean
National Institute of Technology, Rourkela, Odisha, India
Past President, The Institution of Engineers
Past Vice-President,The Federation of Engineering Institutions in South & Central Asia

Vision 2025-Global Engineering Education

Professor S C Naik obtained his BTech, MS & PhD degrees all in Chemical Engineering from the Universities of Madras, Ottawa and UK (Swanse, Wales) respectively. He taught at the National Institute of Technology, Odisha State, India where Dr. Naik was Head of the Department and Dean. He guided many Research Fellows, some medium scale Industries and helped in establishment of an Engineering College. Dr. Naik authored/co-authored some books, published many papers in International and National Journals and presented papers in several countries. He was a Keynote Speaker at the Technical Events in Sri Lanka, South Korea, some Gulf countries, Naples, Tokyo and San Francisco in 2006. Dr. Naik was a Consultant to a prestigious Journal.

Dr. Naik was a President of The Indian Institution of Engineers, one of the largest professional bodies in the world, a Vice President of The Federation of Engineering Institutions of South & Central Asia and a Council Member of The Indian Institute of Chemical Engineers. He is a well-known writer in his own mother tongue, Odiya and has published several social novels, a book with one hundred poems and several articles for which he has been felicitated by his State Literature Academy and his name has found place in Central Literature Academy. Dr. Naik is associated with many Committees at the State and Central levels. Professor Naik has a deep involvement in social service for which he has been even appreciated by a world-based organization. For his achievements, he has been awarded and appreciated by Regional, State, Central and Global organizations.

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Dr. Mohammad T. Khasawneh, Ph.D.
Professor & Chair, Systems Science and Industrial Engineering
Associate Director, Watson Institute for Systems Excellence
Director, Healthcare Systems Engineering Center
Graduate Program Director, Executive Master of Science in Health Systems
Graduate Program Director, Industrial and Systems Engineering
Thomas J. Watson School of Engineering and Applied Science
State University of New York at Binghamton
Binghamton, New York 13902, USA

Dr. Mohammad Khasawneh is a Professor and Chair of Systems Science & Industrial Engineering at Binghamton University. He received his Ph.D. in Industrial Engineering from Clemson University, South Carolina, in August 2003, and his B.S. and M.S. in Mechanical Engineering from Jordan University of Science and Technology, Jordan, in 1998 and 2000, respectively. Dr. Khasawneh’s research is focused on healthcare systems engineering, operations management, and data science. Dr. Khasawneh currently serves as Associate Director for the Watson Institute for Systems Excellence (WISE), an institute for advanced studies that generates 2.5-3 million US$ in research funds annually. In addition, he currently serves as the founding director of the Healthcare Systems Engineering Center, an organized research center (ORC) at Binghamton University.

Since 2003, Dr. Khasawneh has been leading a wide spectrum of projects with U.S. hospital systems that focus on applied research in the areas of healthcare systems engineering, operational excellence, and data science. His health systems engineering center generates over one million US$ annually in sponsored research from various healthcare and hospital systems. Building on a successful research program and an academic concentration/minor, at the graduate/undergraduate levels, Dr. Khasawneh developed a 12-month Executive Master of Science with a Health Systems Concentration, which has been offered in Manhattan since 2013. He has also been instrumental in developing a new M.S. degree program in Healthcare Systems Engineering.

Over the years, Dr. Khasawneh presented his research at various national and international conferences, including China, India, Mexico, Jordan, Korea, Thailand, Japan, and Canada. Dr. Khasawneh’s research activities thus far have led to 40+ refereed journal articles, 100+ conference articles, one patent, and two new invention disclosures. In addition, his sponsored research efforts thus far have resulted in over eight million US$ in external funding and over 39 million US$ in software/equipment grants.

In 2006, Dr. Khasawneh received a U.S. Air Force Summer Faculty Fellowship to evaluate the use of multi-sensory cues to improve the landing of unmanned aerial vehicles. In 2009, he received another fellowship from the U.S. Air Force Office of Scientific Research to design ergonomic computer workstations for very large displays. Dr. Khasawneh received the State University of New York (SUNY) Chancellor’s Award for Excellence in Teaching in 2011 and University Award for Outstanding Graduate Director in 2015. He is a member of the Alpha Pi Mu and Alpha Epsilon Lambda honor societies. Dr. Khasawneh also holds an honorary visiting professor position with the Industrial Engineering Department at Hebei University of Technology in Tianjin, China.
DISTINGUISHED SPEAKERS – Global Engineering Education

Thursday (July 26, 2018)

Session I: Global Engineering Education
8:00 – 9:30 am (Thursday) - Room B15
Session Chair: Dr. Christoph Wunck, Jade University, Wilhelmshaven, Germany

8:00 – 8:30 (Thursday)

Dr. Christoph Wunck
Professor, Business Information Systems, Industrial Engineering
Jade University, Wilhelmshaven, Germany
OFFIS Institute for Information Technology, Oldenburg, Germany
Department of Computer Science, Iowa State University, Ames, USA

IT Skills Development for Graduate Students in Industrial Engineering

Prof. Dr. Christoph Wunck holds a full professorship for Business Information Systems at Jade University since 1999. He teaches courses on Distributed Applications, Software Engineering, Programming, Electronic Business Systems and Process Management. He holds a doctoral degree from the faculty of Mechanical Engineering and a Master’s degree (Diplom-Ingenieur) in Electrical Engineering, both from RWTH Aachen University. Dr. Wunck is a scientific director at OFFIS Institute for Information Technology in Oldenburg, Germany. He has been appointed Affiliate Professor of Computer Science at Iowa State University in Ames, Iowa, USA. His professional experience covers project management and consulting services for a major European business consultancy and work as a consulting engineer for manufacturing and electronics industries. He has served Jade University for nine years in the position of Dean and Dean of Studies.

His research interest include:
- Application of IT and Business Information Systems in Industrial Engineering
- Distributed Manufacturing Execution Systems, Multi-Agent Systems, Data Science, Manufacturing Intelligence
- IT Governance and Security in Operations and Supply Chain Management

Prof. Dr. Wunck is well connected in his field. He serves in the management of conferences and is a reviewer for conference papers and books. He is a member of IEEE Industrial Electronics Society, IEOM, IISE, INFORMS, ISCA, ISACA and VDI.

8:30 – 9:00 (Thursday)

Dr. Özlem Şenvar
Associate Professor, Department of Industrial Engineering
Faculty of Engineering
Marmara University
Istanbul, Turkey

Sustainability assessments in energy management AND/OR Life cycle assessment and life cycle impact assessments

Dr. Ozlem Senvar is an Associate Professor in Department of Industrial Engineering at Marmara University. She was officially granted (Ref. 2013/ 327-350) by European Commission and worked as post doctorant in Laboratoire Optimisation des Systemes Industriels (LOSI), Institut Charles Delaunay (ICD), Université de Technologie de Troyes in France. She holds PhD degree in Industrial Engineering, M.Sc. degree in Quality Engineering and BSc degree in Statistics and Computer Sciences. She has been author of international peer reviewed journal articles, book chapters, and conference papers.

9:00 – 9:30 (Tuesday)

Mohammad Abdullah Shaikh
Deakin University
Victoria, Australia

Mohammad Abdullah Shaikh is a PhD candidate in Faculty of Science, Engineering and Built Environment at Deakin University Melbourne. His area of research is modelling and integration of sustainable systems under human change. He has done his Masters Degree from Istanbul Sehir University (City University of Istanbul) in Industrial and Systems Engineering. As part of his master’s thesis, he developed a framework to calculate Energy-Water nexus of Electricity generation in Turkey and used statistical model to predict the water usage due to energy consumption till 2030. He has also worked on Supply Chain Operations Reference (SCOR) Model during his undergrad degree. He hold a bachelor’s degree in Industrial and Manufacturing Engineering. Mr. Shaikh has an industrial exposure of working in Automotive sector in Pakistan for two years. He has been involved in various optimization and line balancing projects. His interests manoeuvre over topics related to Sustainability, Optimization, Scenario Analysis, Integrated Modelling, Supply Chain Management, and Optimization.
11:30 – 12:00 (Thursday)

Dr. Matteo Mario Savino
Professor
University of Sannio
Benevento, Italy

Matteo Mario Savino got his Ph.D. Industrial Operations at University of Naples, Italy. Actually he is Professor of Industrial Operations and Production Systems at University of Sannio, Benevento. He is the head of the Centre on Production, Reliability and Industrial Management Engineering. He manages national industry-based and EU funded projects on Operations Management. He has been Guest Editor of Special Issues on International Journal of Product Lifecycle Management, Journal of Operations and Quantitative Management and he is IJOMM Europe Editor. Actually Prof. Savino is in the Editorial Board of several peer reviewed international journal. He manages several research project funded and co-funded by European Commission and he is also in the National Quality Evaluators Panel for Universities and Research Centres. His main research interests are related to quantitative approaches for Quality and Environmental Management, Production and Supply Chain Management. His research works appeared on several peer-reviewed International Journals.

12:00 – 12:30 (Thursday)

Prof Khumbulani Mpofu
Gibela Research Chair in Manufacturing and Skills Development
Professor – Industrial Engineering Department
Tshwane University of Technology (TUT)
Pretoria, South Africa

Prof Khumbulani Mpofu is Gibela chair in manufacturing and skills development. He is an NRF rated researcher with unbridled passion for Industrial Engineering. Prof Mpofu's research career began in 2004 at the completion of a five year qualification with a design project that he carried out for his Bachelor of Engineering Honours degree in Industrial and Manufacturing Engineering. This project had both design elements and also an exploratory research aspects. In 2005, he received an offer to be a lecturer in a Bachelor of Technology programme, where he was responsible for computer related courses. He then enrolled for a postgraduate course which had a 50% research component.

During his Master's studies he gained keen interest on the computer aspects of the manufacturing industry. He was also involved in a Cleaner Production project at the manufacturing site of an airport component production and maintenance unit. He also pursued a research project in 2006, focusing on small to medium enterprise wood manufacturing companies and how they can reduce their environmental impact by collating their efforts with a clustering approach. Prof Mpofu enrolled for a Doctor of Technology in Mechanical Engineering at TUT in 2007, where he designed a Knowledge Based System for Reconfigurable Manufacturing. Between 2004 and 2011, Prof Mpofu was exposed to a range of other manufacturing challenges in; for example, manufacturing maintenance, importance of environmental conscious manufacturing, the advanced manufacturing technologies, from the mechanical, and control design to information system application in manufacturing.


He has also reviewed numerous journals such as the Taylor and Francis Journal of Production Research, Elsevier Journal of Manufacturing Systems, the Emerald Design and Technology Journal, Engineering Optimization and the Proceedings of the Zimbabwe Institute of Engineers Journal. Currently, the Head of Department for the Industrial Engineering department, Prof Mpofu represented his faculty at the Research and Ethics Committee for a three year term and he spearheads the Innovative Design and Manufacturing research unit under the New Materials and Advanced Manufacturing niche area.

In addition to his many accolades, Prof Mpofu has received excellence awards at the institutional level as well as at the national level being one of the finalists in the DST awards for emerging researcher 2015. To date (2016), he has attracted in excess of R30 million corporately and individually for research activities. He has collaborators locally and internationally in France, Germany, Slovenia, Sweden, Slovenia, China and the United States of America. Until 2016, he had over 70 publications in conferences, journals and book chapters. Graduated two doctoral students and twelve masters students. Through his efforts and his team he, has registered 3 patents to date, which are at various stages for development for commercialisation.

Prof Mpofu’s field of expertise and research specialisation is Industrial Engineering with the focus on:
- Advanced manufacturing technologies
- Knowledge based systems
- Robotics applications in Manufacturing
Skills development is a challenge in the South African landscape, further skills in science, technology, engineering and mathematics is a global problem. This chair will seek to be a catalyst in revitalising the rail commuter coach manufacturing focusing on engineering and the related sectors to propel rail as a preferred commuter transport mode. Technical skills, running of technical business and development of localised technologies will bring about a revamp of the contribution of manufacturing sector to the GDP and also result in sustainable employment and black owned Small, Micro & Medium Enterprise development.

12:30 – 1:00 (Thursday)

**Dra. Ma. Ángeles Gómez Gavito**  
Directera Lean Advancement Initiative - México y Centro Lean Enterprise  
Senior Lean Six Sigma Consultant & Black Belt  
Dirección General de Internacionalización  
Universidad Popular Autónoma del Estado de Puebla AC.  
Piso, Barrio de Santiago, Puebla, Pue. Mexico

Dra. Gavito has 29 years of professional experience and 26 years of academic experience. She has been consultant in Lean Six Sigma projects in worldwide industries like Volkswagen Mexico, Benteler Automotive, Rassini Breaks, Mead Johnson Nutrition, Gestamp Automotive, Volkswagen Bank, Bayer Pharmaceutical, Audi Mexico, Kayser Automotive, PWO Automotive, Schlemmer Automotive, Truck & Wheel, Clerprem Mexico, Flex&Gate, among others. Her interests are consolidate a cluster of organizations grouped by industry sectors that actively participates in a learning and collaborative network around the Lean Enterprise Philosophy, achieve considerable gains in their quality, costs and delivery indicators, creating value for all stakeholders. Foster competitiveness in manufacturing, service and government organizations, through the adoption and development of Lean Enterprise management tools and methodologies in their enterprise processes, thus increasing flexibility towards changes in the environment, improving their ability of innovation and continuous improvement, and creating a new business culture focused on value creation and a permanent pursuit of excellence. Dra. Gavito has been speaker in several congresses in Mexico, USA, Spain, Singapore, and Argentina. She has completed Doctor in Business Administration from Swiss Management Center University, Zug, Suiza and Master in Theory of Design, Universidad de las Américas Puebla, Mexico.

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**Session III: Global Engineering Education**

2:30 – 4:00 pm (Thursday) - Room B15

Session Chair: Dr. Fabio Fruggiero, University of Basilicata – Italy

2:30 – 3:00 (Thursday)

**Dr. Fabio Fruggiero**

Assistant Professor in Industrial Systems Engineering  
School of Engineering  
University of Basilicata – Italy

**Human Factor, Safety and Sustainability in the Industry 4.0 Era**

FABIO FRUGGIERO graduated in Mechanical Engineering at the University of Salerno with a dissertation about newly formed meta-heuristics for the industrial scheduling optimisation, 2004. His dissertation was for published work in the field of industrial optimization at the ICPR18 conference. He conducted his PhD in Mechanical Engineering at the University of Salerno - Italy with a dissertation about Digital Factory Application from Manufacturing to Service Environment, 2008. Formerly, in 2008, He was post PhD student at the Mechanical Engineering Department of the University of Salerno with main topic of research: Operations Management Strategies for HealthCare optimisation.

Currently, he is Assistant Professor, and responsible of the area and lab, in Industrial Systems Engineering at the School of Engineering – Mechanical Engineering Area - of the University of Basilicata- Italy. He runs courses for both Industrial System Engineering and Operations Management. He works as referee for different International Journals (e.g., USOI, UAMT, UPR, CPPB, EIS, TPMR, TSMSI, UEBM, UHSE, Cogent OA etc …) and the national minister of research. Track Chair for Human Factor and Ergonomics in IEOM - Industrial Engineering and Operations Management Society - conferences. He is editor Of Cogent Engineering Journal and Industrial and Systems Engineering. Fabio has been engaged in the auto sector for both Human Factor analysis and Ergonomic research, scheduling optimization, production management. He has collaboration with firms of the production and service sector applying the results of his work to help multinational companies and SMEs to generate safety and Optimize services and profits.

He is acting as consultant to several major companies and patent initiatives (FCA, CRF, PintoTecno Srl, Metecon, Gallotta produzioni, M.I.p. Srl). He is active in initiative for knowledge transfer to industry. He has been conducting research with Ryerson University - Canada; Cardiff School of Engineering - UK; Manchester University – UK; Cork Institute of Technology – IR; Universidad Politécnica de Madrid- Spain (performing lectures and research initiatives); University Of Technology of Troyes - France. His research's activity encompassed the area of: Human Factor and Corporate Strategy; Industrial System Design Processes; Additive Manufacturing and Advanced Manufacturing; Simulation and Virtual modelling; Agent Based Modelling; Assembly Line Balancing; HealthCare Management and Clinical Risk Assessment; Scheduling and Optimisation; Safety and Risk analysis.

Dr. Ilham Kissani
Assistant Professor of Engineering & Management Science
School of Science & Engineering
Al Akhawayn University
Ifrane, Morocco

Dr. Ilham Kissani is an assistant professor in the field of engineering management for the School of Science and Engineering at Al Akhawayn University in Ifrane, Morocco. She has served as the main advisor and lead instructor for the undergraduate and MS programs in Engineering and Management Systems since 2010. She has helped create very close ties with the AUI School of Business Administration, which allows both schools to leverage our resources and deliver a greater diversity of courses to students, such as supply chain management and operations management. Her background is diverse and includes industrial experience as well as academic. Her degrees are from INSEA, Morocco (Engineer) and Université Laval, Canada (Master and Ph.D.). She has worked with Royal Dutch Shell as a project manager and with Modellium Québec, where she consulted in logistics and supply chain issues. Additionally, Dr. Kissani contributes in research in supply chain management, planning, and operations research. She is a member of ASEM, IEEE, IEOM, IIE, INFORMS.

Dr. Funlade Sunmola, BEng (Hons), MSc, MA, PhD
Senior Lecturer in Manufacturing and Enterprise Engineering
Manufacturing, Material and Biomedical Group
School of Engineering and Technology
University of Hertfordshire
United Kingdom

Funlade has several years of professional industrial and academic experience in higher education teaching and learning, consultancy and management having worked in a variety of sectors including construction, manufacturing, software development houses, and the National Health Service (NHS) UK. His current research interests lie in manufacturing, engineering informatics, enterprise systems, processes and operations. He has been involved with various research projects in a diverse range of contexts, e.g. electronic monitoring systems, products, manufacturing and operations intelligence, benchmarking of manufacturing and service operations; business process improvements and service transformations; SC21 – Supply chains of the twenty-first century; sequential decision making and optimised learning, and various performance modelling studies. He is especially interested in advances related to industry 4.0, the applications of advanced computing, information and communication technologies. He has published academic papers, and acted as referee, in the subject area. Funlade is a Prince2 Registered Practitioner - certified project manager.

Carmen Pasca
Liberal Arts Department
College of Engineering and Technology
American University of the Middle East - AUM
Egaila, Kuwait

Carmen Pasca holds a PhD in Sociology from University Victor Segalen Bordeaux 2- France and has degrees in philosophy, history and sociology (Research-Master from EHESS- Paris). Her research interests and activities focused on Social Choice, Risk, and Decision making Theories and the Acceptability of Fairness and Responsibility axioms. Recently she has conducted experiments to elicit social preferences over income compensation schemes with John D Hey and John Bone of York University they have been awarded a grant from the University of York to carry out a series of experiments into the impact of responsibility, effort and luck on distributional judgments. We (John Bone, John D. Hey and myself) are just about to embark on a new set of experiments adding a third dimension into the impact of responsibiltiy, effort and luck on social judgements. Her papers include: (1) “Inferring Social Preferences Over Income Distributions through Axioms”; (2) “On choosing a Constitution (at least the part relating to the distribution of income)”; (3) “Are Revealed Intentions Possible?”. She is currently working on a new experiment designed to discover, inter alia, people’s trade-offs between mean income and income inequality.
Suat Kasap
Industrial Engineering Department
College of Engineering and Technology
American University of the Middle East - AUM
Egaila, Kuwait


Presentation Title: Thinking Ethics Differently: Challenges and Opportunities for Engineering Education

Abstract: The debate in social sciences in 21st century points out the importance of interdisciplinary approaches and the necessity of a paradigm shift. The turmoil caused by the recent transformations of the world questions the well-established analytical categories of humanities and social sciences. These old categories become an obstacle to the understanding of the contemporary society. In this world on move, the constant changing cultural values affect and shape practices and behaviors. Fashioned by the domination of sciences, technologies, and power, the expectations of social actors are not taken into account. In this context, the ethical awareness is progressively increased. Ethics is becoming a pivotal component of today’s society. The profound rupture between actors and systems entails the emergence of new ethical conscience and ethics. At an individual level, the new ethical values enable the actors to resist better against systems through choices, decisions and accountability. The recent industrial paradigm challenges the evolution of professional ethics in engineering and its relationship with engineers as social actors. Perceived as a social and cultural construct, ethics, according to sociologists, prepare engineers via education to face and cope with societal and professional changes. Thus, ethics contributes in shaping the new identity of engineers. In practice, how can engineers reconcile the universality of ethical principles with the particularism of the engineers as individuals, the organizational constraints of the company, and the societal expectations? Is an ethical global education for engineers the appropriate response to address the challenges of the new ethics of responsibility?

5:00 – 5:30 (Thursday)

Dr. Balan Sundarakani, B.Eng, M.Eng.
Associate Professor, Supply Chain Management
Discipline Leader, MSc Logistics
Faculty of Business & Management
University of Wollongong
Dubai, UAE

Big DataDriven Supply Chain Analytics

Dr. Balan Sundarakani is an Associate Professor and Discipline Leader for the Master of Science in Logistics program in the Faculty of Business at the University of Wollongong in Dubai (UOWD). Previously he was working as an Assistant Professor at UOWD. He has 12 years of teaching and research experience in the area of Supply Chain Management across the various universities including the National Institute of Technology (NIT), Tiruchirappalli, Indian Institute of Technology (IIT), Roorkee, Hindustan University, Chennai and the National University of Singapore (NUS), Singapore and the Chair of Logistics Management in Swiss Federal Institute of Technology (ETH), Zurich, Switzerland.

He earned a B.Engg (Distinction) in Mechanical Engineering from M.S University and an M.Engg (High Distinction) in Industrial Engineering from the National Institute of Technology-Tiruchirappalli, a PhD in Supply Chain Management from the Indian Institute of Technology-Roorkee, India and a Post-Doctoral Research Fellowship from the Logistics Institute Asia Pacific, NUS Singapore. He has completed research and consultancy projects for the UOW Dubai, EDB Singapore, IBM, DHL, Ministry of Defence Singapore, Dubai Trade, JAFZA, and RTA Dubai. The cumulative value of his research and consulting projects in Singapore was around $2 Million. Since joining UOWD, he has received five university funded research grants totaling AED 60,000.

Dr Sundarakani has published 92 research papers in the form of Refereed Journals: 28, Refereed Conferences: 37, Book Chapters: 12, Book: 1, Periodicals: 7, Industry Reports: 4, Case Study: 1 and Book Review: 2. His research outcomes have appeared in international Journals such as International Journal of Production Economics, International Journal of Technology Management, Computers In Industry, Journal of Advances in Management Research, International Journal of Logistics Systems Management, etc. and which are received many citations worldwide. He serves as a supervisor for a number of PhD/DBA candidates, examined six PhD theses and currently serving as a member of the PhD examination panels of three different Universities.

He has won “Research Excellence Award” on two occasions for his research performance at UOWD in 2010 & 2012, received the ‘Highly commended’ Teaching Excellence Award from UOWD in 2015, the ‘Best paper Award’ from IEOM, Ball, Indonesia in 2014, the RTA Appreciation (2012) from the Government of Dubai for sustainable transport strategies, Best Educator Award (2010) from ITP Middle East, ‘Gold medal for Best
Dr. Sundarakani has previously served with the editorial board of Journal of Advances in Management Research, Emerald and also with the International Journal of Agile Systems and Management, Inderscience. He also serves as a regular reviewer for the EJOR, IJPR, IJPE, JAMR and SCM Journals. He is a member of the AIB (USA), ORSI (India), POMS (USA), EuROMA (UK) and INFORMS (USA). Currently he is on the “Supply Chain Asia’s” Executive Committee member in Singapore and the Executive Board member for SCLG Middle East in Dubai.

Dr Sundarakani is teaching students on both undergraduate and postgraduate level. He has been very successful in teaching the quantitative and modelling subjects with deep critical analysis and high level of academic engagement using relevant logistics industry cases and live demonstrations. The student’s evaluation of his teaching has been consistently very high and many students have admired his style of teaching in their feedback form. He was awarded ‘Highly commended’ Teaching Excellence Award from UOWD in 2015, nominee of (UOW Australia) Vice-Chancellors Award for Continuous Contribution to Teaching and Learning in 2016.

5:30 – 6:00 (Thursday)

Edly F. Ramly
Certification Director
EFR Certification
Johor, Malaysia

Edly F. Ramly is a Certification Director for EFR Certification. He is renowned coach, auditor, consultant and trainer. With his excellent technical expert and interpersonal skills, he has conducted various high impact trainings and workshop in the area of operation management, industrial engineering, management system including quality, environment and occupational health and safety, workplace improvement, variation and waste reduction, and practical problem solving techniques including statistical tools. Apart from being trained as Lead Auditor in various management system, he is also qualified auditor for Automotive Industry ISO/TS 16949. During his service with Pera Neville Clarke, he is also tutor for QMS lead auditor course. His industrial experience was in the automotive industry. During his stayed with the TRW Automotive, he was tasked with the responsibility of promoting and implementing Lean and Six-Sigma within the Organization. Due to his extensive exposure in Lean and Six-Sigma Management System, he was invited by Malaysia Productivity Corporation (MPC) and Asia Productivity Organization (APO) to conduct public training in the area of Six-Sigma implementation and Lean Implementation. In 2014, he been awarded as one of Malaysia Productivity Specialist by Malaysia Ministry of International Trade and Industry.
DISTINGUISHED SPEAKERS
Thursday (September 27, 2018)

2:30 – 3:00 (Thursday)
Dr. Jacqueline Chestnut
Adjunct Professor
Industrial and Systems Engineering Department
College of Engineering
North Carolina A&T State University
1601 E. Market St
Greensboro, NC

Jacqueline Chestnut is an adjunct professor in the Industrial and Systems Engineering Department of North Carolina A&T State University, Greensboro, NC. She is also an Adjunct Instructor for the Master of Science in Industrial Engineering and Master of Engineering Management in the A. Leon Linton Department of Mechanical Engineering at the Lawrence Technological University, Michigan, USA. She earned Bachelor of Science and Master of Science in Industrial Engineering from North Carolina A&T State University, College of Engineering, Greensboro, North Carolina. Dr. Chestnut received a Ph.D. in Industrial Engineering from Mississippi State University in Starkville, Mississippi. She has published journal and conference papers. Dr. Chestnut has done research projects with General Motors, Jones International University and Lawrence Technological University. Her research interests include human error, simulation, online education, human factors and ergonomics. She is a member of CUR, ASQ and Sloan.

3:00 – 3:30 (Thursday)
Dr. Bolanle Tolulope Abe
Senior Lecturer and Acting Academic Manager
Department of Electrical Engineering
Tshwane University of Technology
eMalahleni campus, South Africa

Active Learning in Engineering Education: Focus on TUT Perspective

Dr. Bolanle Tolulope Abe earned her Master degree in Communication Engineering from the Department of Electrical & Electronics Engineering, Federal University of Technology, Akure, Nigeria. She worked as a professional studio engineer at the Ondo State Television Broadcasting Corporation, Nigeria before she moved into academics. Dr. Abe taught at the Department of Electrical & Electronics Engineering, Federal Polytechnic, Ado-Ekiti, Nigeria before she relocated to South Africa for further studies. She obtained Doctoral degree (PhD) in Electrical Engineering from the School of Electrical and Information Engineering, University of the Witwatersrand, Johannesburg, South Africa. Dr. Abe is a senior lecturer and the acting academic manager of the Department of Electrical Engineering, Tshwane University of Technology (TUT), eMalahleni campus, South Africa. She is a senate member of the University and also the Chairperson of the TUT Women in Engineering. Her passion is to motivate females in choosing engineering as a profession and to remain in the engineering profession. She is a member of many professional bodies among which are: the Institute of Electrical and Electronics Engineers (IEEE), South Africa Institute of Electrical Engineers (SAIEE), Engineering Council of South Africa (ECSA), Council for the Regulation of Engineering in Nigeria (COREN) and Industrial Engineering and Operations Management (IEOM). Her research interests are multi-disciplinary; these include the application of computational intelligence in remote sensing, Communication engineering, Electromagnetic Compatibility, corrosion and water resource management. She has track records in human capacity development by supervising and producing Masters and Doctoral students. She has published several papers in Journals, book chapters and has presented conference papers in many countries. She is an editor of the African Journal of Science, Technology, Innovation and Development, Neural Computing and Applications Journal and Egyptian Journal of Remote Sensing.

3:30 – 4:00 (Thursday)
Dr. Esther T. Ososanya
Professor and Chair
University of the District of Columbia
Department of Electrical and Computer Engineering
4200 Connecticut Avenue, NW
Washington DC

Dr. Esther T. Ososanya is a professor of Electrical and Computer Engineering at the University of the District of Columbia, and the current department chairperson. During her career, Dr. Ososanya has worked for private industry as a circuit development engineer and as a software engineer, in addition to her academic activities. She received...
Session II: Global Engineering Education
4:30 – 6:00 pm (Thursday, September 27) - Room

Session Chair: Professor Sarma Yadavalli, University of Pretoria, South Africa

4:30 – 5:00 (Thursday)

**Professor Sarma Yadavalli**
Head
Department of Industrial and Systems Engineering
University of Pretoria
Pretoria, South Africa

Sarma Yadavalli is presently working as Professor, and Head, Department of Industrial & Systems Engineering, University of Pretoria. His research areas of interest include, Applied stochastic modeling towards Reliability engineering, Queuing theory, Inventory management, Quality control and various estimation and optimization problems related to these areas. Sarma Yadavalli is NRF (National Research Foundation, South Africa) rated, and attracted several research projects. He was former President of OR Society of South Africa. More than 135 research papers have been published in various national and international journals to his credit.

5:00 – 5:30 (Thursday)

**Prof. Dr. Md. Nurul Absar Chowdhury**
Professor
Department of Mechanical and Chemical Engineering
Islamic University of Technology (IUT)
Organisation of Islamic Cooperation (OIC)
Board Bazar, Gazipur-1704
Bangladesh

5:30 – 6:00 (Thursday)

**Amir Hessami**
Civil and Architectural Engineering Department
Texas A&M University–Kingsville
Kingsville, TX 78363, USA

Amir Hessami is an assistant professor of construction management in the Department of Civil and Architectural Engineering at Texas A&M University–Kingsville (TAMUK). He holds a Ph.D. in Civil Engineering (Construction Management) from Texas A&M University, an M.Sc. in Civil Engineering (Hydraulic Structures) from Sharif University, and a B.Sc. in Civil Engineering from Ferdowsi University. His research is in the areas of infrastructure asset management, project management, and construction management, with a focus on decision-making under uncertainty, risk analysis, and life-cycle cost analysis. Dr. Hessami’s background includes more than fifteen years of research, teaching, and practical experience in the planning, design, construction, and maintenance of infrastructure projects.

**ID 157 Multi-criteria Decision-making in Situations with a Large Number of Alternatives**
Amir Hessami, Civil and Architectural Engineering Department, Texas A&M University–Kingsville, Kingsville, TX 78363, USA
Joon-Yeoul Oh, Mechanical and Industrial Engineering Department, Texas A&M University–Kingsville, Kingsville, TX 78363, USA
Joon-Yeoul Oh
Mechanical and Industrial Engineering Department
Texas A&M University–Kingsville
Kingsville, TX 78363, USA

Joon-Yeoul Oh is an associate professor of Department of Mechanical and Industrial Engineering at Texas A&M University–Kingsville (TAMUK). He earned a Ph.D. and M.Sc. in Industrial Engineering from New Mexico State University and a B.Sc. in Industrial Engineering from Chong-Ju University. His work is in the area of operations research and engineering management, focusing on risk analysis, risk management and responses, project management, network optimization, wireless telecommunication network expansion and optimization, non-linear programming, heuristic algorithms, integer programming, linear programming, queueing theory, information systems engineering, and algorithm development. Dr. Oh has more than 15 years of teaching and research experiences at TAMUK and has published more than 50 journal and conference papers. His recent projects include emergency response-time optimization, improving garbage collection routing, and developing real-time aid for evacuation routing.

Friday (September 28, 2018)

Session III: Global Engineering Education
8:00 – 9:30 am (Friday) - Room 1
Session Chair: Dr. Rezg Nidhal, University of Lorraine, Metz, France

8:00 – 8:30 (Friday)
Anjum Ali, Ph.D.
Professor, Electrical Engineering Department
Editor-in-Chief, FAST-NU Research Journal
National University of Computer and Emerging Sciences
Lahore, Pakistan

Engineering Education in Pakistan: How it changed in the past forty years

Dr. Anjum Ali completed his Ph.D. degree in August 1988 from the University of Alabama, Huntsville, Alabama, U.S.A. He has been teaching Electrical and Computer Engineering subjects since March 1978. His first teaching appointment, as a lecturer of Electrical Engineering, was at the University of Engineering and Technology (UET), Lahore, Pakistan, after winning gold medals in each of the last three years of his undergraduate engineering education. His teaching experience includes twelve years at Mercer University, Macon, Georgia, USA, and about nine years at three different universities in Saudi Arabia. He has also worked, as an associate professor, at the Lahore University of Management Sciences (LUMS), Lahore, Pakistan, from 1996 to 1998. He served as the chairman of the Electronics Engineering and Instrumentation Department at the Hail Community College (now University of Hail), Hail, Saudi Arabia, from February 2000 to June 2002. During his stay there, he developed a four-year degree program in Electrical Engineering for the University of Hail. Dr. Anjum Ali moved to Pakistan in July 2002, and joined Al-Khawarizmi Institute of Computer Science (KICS) at the University of Engineering and Technology, Lahore, as a professor in December 2002. During his stay at KICS, he initiated many research and development projects and won research grants. He has been a professor of Electrical Engineering at the National University of Computer and Emerging Sciences, (FAST-NU), Lahore, since May 2005. Dr. Anjum Ali has taught many EE, CE and CS courses and supervised numerous graduate as well as undergraduate students during his 40 years of teaching career. He has over 30 conference and journal publications. He is also the founding editor of the FAST-NU Research Journal. His areas of current research interest include embedded control systems and computer architecture.

8:30 – 9:00 (Friday)

Dr. Rezg Nidhal
Professor of University
Director of LGIPM Laboratory (Laboratoire de Génie Industriel, de Production et de Maintenance)
Director of Training and Research Unit (MIM)
University of Lorraine
Metz, France

Nidhal Rezg is a Doctor of Industrial Automatic from the National Institute of Applied Sciences (INSA) in Lyon in 1996. Accreditation to supervise research at the University of Metz in 2003. he was Professor at the Faculty of Engineering of the University of Moncton, New Brunswick Canada from 1997 to 1999 and Associate professor at the University of Metz until 2004, and currently holds the position of Professor of University. He is director of LGIPM laboratory since October 2006 and scientific responsible of the INRIA CusTom team from 2007 to 2011. His research interests is the optimization of maintenance policies coupled to production, the optimal control SED. He is the author of sixty papers in international journals, directors of 12 theses and 4 Accreditation to supervise research. Keywords research are modeling, simulation and optimization of stochastic processes, reliability and maintenance and Petri nets.
Deji Badiru has diverse areas of avocation. His professional accomplishments are coupled with his passion for writing about everyday events and interpersonal issues, especially those dealing with social responsibility. Outside of the academic realm, he writes motivational poems, editorials, and newspaper commentaries; as well as engaging in paintings and crafts. As a contribution to sparking the interest of kids in science and engineering, Deji runs the Physics of Soccer website (www.physicsofsoccer.com). He is the founder of the Association of Military Industrial Engineers and newspaper commentaries; as well as engaging in paintings and crafts. As a contribution to sparking the interest of kids in science and interpersonal issues, especially those dealing with social responsibility. Outside of the academic realm, he writes motivational poems, editorials, and newspaper commentaries; as well as engaging in paintings and crafts. As a contribution to sparking the interest of kids in science and engineering, Deji runs the Physics of Soccer website (www.physicsofsoccer.com). He is the founder of the Association of Military Industrial Engineers.
(AMIE). He also runs ABICS Publications, through which he publishes non-technical guide books for home, work, and leisure. A prolific researcher and author, Deji espouses the spirit of sharing knowledge freely and widely, which is the reason he offers self-published guide books to make his publications affordable and accessible to the general public.

Education
- PhD, Industrial Engineering, University of Central Florida
- MS, Mathematics, Tennessee Technological University
- BS, MS, Industrial Engineering, Tennessee Tech Univ

12:00 – 12:30 (Friday)

**Prof. Clinton Aigbavboa, Ph.D.**

Vice Dean: Postgraduate Studies, Research and Innovation  
Head: Sustainable Human Settlement and Construction Research Centre  
Faculty of Engineering and the Built Environment  
University of Johannesburg, Johannesburg, RSA  
Editor - Journal of Construction Project Management and Innovation (JCPMI)

Prof. Aigbavboa Clinton, PhD, is an Associate Professor at the University of Johannesburg, South Africa. His research interest are situated in the fields of sustainable human development, with the focus on: sustainable housing regeneration (urban renewal and informal housing), Life Cycle Assessment in the Construction Industry, remanufacturing, leadership in low-income housing, Biomimicry, post occupancy evaluation and green job creation.

12:30 – 1:00 (Friday)

**Dr. Bachtiar H. Simamora**  
Associate Professor  
Leader of Performance Excellence Research Group  
Bina Nusantara University  
Jakarta, Indonesia

Bachtiar H. Simamora is an Associate Professor, and Leader of Performance Excellence Research Group at Bina Nusantara University, Jakarta, Indonesia. He earned B.S. in Mathematics from North Sumatera University, Medan, Indonesia, Master’s in General Operations Research from School of Engineering and Applied Science the George Washington University, Washington DC, USA and PhD in Industrial Engineering and Management from Oklahoma State University Stillwater Oklahoma, USA. He has published journal and conference papers. He has started new journal named International Journal of Organizational Business Excellence (IJOBEX) where he is the Editor-in-Chief. Dr Simamora has just completed research projects with Asian Productivity Organization (APO) about Public Sector Productivity. His research interests include Business Process Modelling and Mapping, Business Process Improvement, Organizational Performance Excellence, simulation, optimization, reliability, scheduling, and lean. He is member of ORSA and ICSB.

Session V: Global Engineering Education  
2:30 – 4:00 pm (Friday, September 28) - Room 1  
Session Chair: Dr. Pule Kholopane, University of Johannesburg, South Africa

2:30 – 3:00 (Friday)

**Dr. Pule Kholopane**  
Associate Professor  
Head of Department: Quality and Operations Management  
Department of Quality and Operations Management  
Faculty of Engineering and the Built Environment  
University of Johannesburg  
Johannesburg, South Africa

*New strategies and approaches in operations management are needed in order to meet challenges that will be brought about by new technological development like industry 4.0 and internet of things (IOT) in both private and public institutions*

Professor Pule Aaron Kholopane is currently a Head of Department in the Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg. He worked at Unilever first as an Operator and then a Plant Controller position within a manufacturing plant. He was then promoted to a Shift Manager position. He left Unilever in 2000 to take up a job at Picto Thobela Enterprise as a Technical Director. He left the company in 2003 to pursue his business interests. He established two companies called PULE AND MANAGEMENT CONSULTANTS (PUMAC) and SEBATI AND KOLOPANE Construction. Both companies were involved in many private and Government projects.

Professor Kholopane did part time lecturing at Production Management Institute (PMI) and later joined Vaal University of Technology as a Senior Lecturer in Industrial Engineering and Operations Management department but later moved to the University of Johannesburg to take up a senior
post. He also acted as the Head of Department (HOD). A number of research papers have been published in various national and international journals to his credit.

3:00 – 3:30 (Friday)

**Pradeep K. Behera, Ph.D., PE, D. WRE**  
**Professor and Chair**  
**Civil Engineering Department**  
**School of Engineering and Applied Sciences**  
**University of the District of Columbia**  
**4200 Connecticut Avenue NW**  
**Washington, DC 20008**

Dr. Pradeep K. Behera, P.E., D.WRE, the recipient of The Dr. Marjorie Holloman Parker Distinguished Educator's Award, is Professor and Chair of Department of Civil Engineering at the University of the District of Columbia School of Engineering and Applied Science (SEAS). Dr. Pradeep Behera has been an engineering educator for last 25 years in three different countries. He received his bachelors and master's degrees from Sambalpur University, India and Ph.D. degree from the University of Toronto, Canada. Dr. Behera started his engineering faculty career at the National Institute of Technology, India in 1990. Since then he has been serving as an engineering educator in India, Canada and United States. He joined UDC as an Associate Professor of Civil Engineering Program in 2005. He has been serving as first Chair of the Department of Civil Engineering which was created in 2013. Prior to joining UDC he was working as Sr. Water Resources Engineer in Canada and USA. His research interests include urban stormwater management, water resources engineering, sustainable urban water systems climate change and coastal infrastructures. He has published a number of research papers in peer review journals, book chapters, and international and national conference proceedings. He is a Professional Engineer from the State of Maryland, District of Columbia and is a Diplomat from the American Academy of Water resources Engineers. He has more than 20 years of practical engineering experience in planning, design and analysis of water resources systems and has served as President of District of Columbia Society of Professional Engineers.

3:30 – 4:00 (Friday)

**Dr. Lina Nataly Alvarado**  
**Department of Industrial Engineering**  
**Investigative group of Industrial and Environmental Processes (GIPIA)**  
**University of Cundinamarca, Bogotá D.C - Soacha**  
**Colombia**

Lina Nataly Alvarado is an industrial designer with a Masters degree in industrial engineering from the National University of Colombia. She works within this university as well as in the Global Campaign, 100 million for a 100 million, led by the Foundation for a Better world. Her investigative projects can be classified in three lines of study within innovation: competence strategies, as she won the award for the undergraduate thesis for her development of new products and processes in small businesses; communication strategies for her work obtaining the Guinness World Record with the creation of a mobilization strategy that enforced public policy within the country and finally social innovation with the creation of an investigative group on this topic for her alma mater. She was an Incase Business School scholar and a trustee in the Social Entrepreneurial Summit hosted by the international nonprofit VIVA for her work in socially innovative projects.

**ID 223  Design of an Architectural Traceability as an Observatory for Decision Making in Undergraduate Curriculums**  
Lina Nataly Alvarado Riaño and Jefferson Aldamer Rubiano Forero, Department of Industrial Engineering, Investigative group of Industrial and Environmental Processes (GIPIA), University of Cundinamarca, Bogotá D.C - Soacha, Diagonal 9 No. 595, Colombia.

4:00 – 4:30 (Friday)

**Gürsel A. Süer**  
**Professor of ISE Department**  
**Ohio University**  
**Athens, OH, USA**

Gürsel A. Süer is a professor in the ISE Department at Ohio University. He has obtained his BSIE and MSIE degrees from Middle East Technical University, Ankara, Turkey and PhD in IE from Wichita State University. He is on the editorial board of various journals. He has co-chaired two Computers and Industrial Engineering Conferences (1997-Puerto Rico, 2005-Istanbul), ANNIE Conference in 2009. He also initiated Group Technology/Cellular Manufacturing Conferences which were held in 2000-Puerto Rico, 2003-Ohio, 2006-Netherlands, 2009-Japan. He is also organized a workshop on CM/SERU in 2016 Ohio. He was the program chair for FAIM 2018 Conference held in USA and program co-chair for ICPR to be held in Chicago in 2019.

He has consulted various companies such as AVON, HP, General Dynamics, Ocular Science, Lifescan, Circo Caribe, Allergan America, Excel, Vornado, and carried out several funded projects sponsored by MVESC, TS Trim, Ohio University, NSF, AVON, Checkpoint, and Timberland. Most of his research has been motivated by his experiences and observations in industrial settings. His main interests are applied scheduling, manufacturing system design, supply chain, vehicle routing, logistics, applied optimization, decision making, genetic algorithms and hybrid systems, intelligent systems with human component, modeling competitive business strategies. He has offered workshops in Intelligent Manufacturing and Logistics and Cellular Manufacturing in various International Conferences and gave key note speeches. He has edited seven Conference Proceedings and four special issues with different journals. He has published over 60 journal papers, published 20 chapters in edited books, about 80 refereed conference papers, about 40 conference papers, and made 50 presentations. He also edited a book on cellular manufacturing in 2017.
Session VI: Global Engineering Education
4:30 – 6:00 pm (Friday, September 28) - Room 1
Session Chair: Professor Charles Mbohwa, University of Johannesburg, South Africa

4:30 pm – 5:00 pm (Friday)

Dr. Rumi Tobita
Associate Professor
Department of Innovative Engineering
Ashikaga University
Ashikaga, Tochigi, Japan

Rumi Tobita is a professor of department of Engineering, Ashikaga University in Japan. Prof. Tobita holds a Bachelor of Liberal Arts degree in Language Education, a Master of Education degree in Audio-Visual Education, and certification of Doctoral Candidate in Educational Technology from International Christian University, Tokyo, Japan. Her research topics are Computer Assisted Language Learning (CALL), Educational Technology, Curriculum Development, English Program Development, English for Specific Purposes, Extracurricular activity and International Exchange Program Development, and Brain Science. She has taught several fields of courses such as Educational Technology, Social Information, Brain Science besides English courses for engineering students for more than 10 years. She is committee member of The Japan Association for Language Education and Technology (LET) and also local organizing committee of WorldCALL 2008 and FLEAT VII.

ID 248 Integrating Analysis with NIRS and Active-Learning strategies for Developing an Effective ESP Course Design
Rumi Tobita, Department of Innovative Engineering, Ashikaga University, Ashikaga, Tochigi, Japan

5:00 pm – 5:30 pm (Friday)

Dr. Tonya Smith-Jackson
Professor
Department of Industrial and Systems Engineering
North Carolina Agricultural and Technical State University
Greensboro, NC, USA
Program Director (rotator) at the National Science Foundation (NSF/CISE Directorate/IIS Division)

Tonya Smith-Jackson, PhD, CPE is a Program Director (rotator) at the National Science Foundation (NSF/CISE Directorate/IIS Division). The presentation topic is based on some of her work associated with the Center for the Advancement of STEM Leadership (CASL), which is funded by the National Science Foundation. Before her temporary leave, she served as Professor and Chair of the Department of Industrial and Systems Engineering at NC A&T State University. She is a CASL Leadership Fellow, Higher Education Resources Services (HERS) Fellow, and an NC A&T State University Executive Leadership and Professional Development participant. She earned her BS degree in psychology (University of North Carolina-Chapel Hill) and holds an interdisciplinary Master of Science degree from NC State University in Industrial Engineering and Psychology; her doctoral degree is in Psychology/Ergonomics. She is a Certified Professional Ergonomist, and a Fellow of the Human Factors and Ergonomics Society. Research areas include usability engineering, cognitive ergonomics, and sociotechnical systems applied to cyber-human systems, systems safety, learning systems, and training systems design. Research sponsors include NSF, National Institutes of Health, Department of Defense, and private industry (UPS, Toshiba). She has worked in industry and the federal government in the USA and abroad.

Dr. G. Don Taylor
Vice Provost for Learning Systems Innovation and Effectiveness
Charles O. Gordon Professor
Virginia Tech
Blacksburg, VA, USA

G. Don Taylor, PhD, PE is the Vice Provost for Learning Systems Innovation & Effectiveness and the Charles O. Gordon Professor at Virginia Tech. Prior to this position, he served as Interim Dean of the College of Engineering and as the Head of the Grado Department of Industrial Engineering at Virginia Tech. He has also held the Mary Lee and George F. Duthie Chair in Engineering Logistics at the University of Louisville and was the Director of The Logistics Institute at the University of Arkansas. He is a Fellow and Past-President of the Institute of Industrial and Systems Engineers (IISE), and is a Fellow and member of the Board of the World Academy of Productivity Science. He is a registered Professional Engineer.

ID 286 Empowering Undergraduate Student Researchers through Inclusive Research Learning Systems
Tonya Smith-Jackson, Dept. of Industrial and Systems Engineering, North Carolina Agricultural & Technical State University, Greensboro, NC, USA
G. Don Taylor, Learning Systems Innovation and Effectiveness, Virginia Tech, Blacksburg, VA, USA
Michael S. Mkwanazi
Research Associate
Faculty of Engineering and the Built Environment
University of Johannesburg
South Africa

Michael S. Mkwanazi is a Research Associate in the Faculty of Engineering and the Built Environment at the University of Johannesburg in South Africa. Mr. Mkwanazi holds a National Diploma in Entrepreneurship, Bachelor of Technology Degree in Operations Management, and Master of Technology Degree in Operations Management (Cum Laude) from the University of Johannesburg and a Postgraduate Diploma from North West University. In 2017 he was awarded the prestigious Rhodes scholarship to pursue an MSc Degree in Business Management – Entrepreneurship at Oxford Brookes University. He is also admitted to the University of Oxford to read for a DPhil. Education degree programme from October 2018 focusing on Entrepreneurship Education Ecosystems. In 2016 he was recognized as a runner up for the Queens Young Leaders Initiative which is managed by the Cambridge University Institute for Continuing Education. He has published some conference papers in the field of co-operatives and on system reliability under IEEM.

Professor Charles Mbohwa
Acting Executive Dean
Faculty of Engineering and the Built Environment (FEBE)
University of Johannesburg
South Africa

Charles Mbohwa Professor Charles Mbohwa is the Acting Executive Dean at University of Johannesburg’s (UJ) Faculty of Engineering and the Built Environment (FEBE). As an established researcher and professor in the field of sustainability engineering and energy, his specializations include sustainable engineering, energy systems, life cycle assessment and bio-energy/fuel feasibility and sustainability with general research interests in renewable energies and sustainability issues. Professor Mbohwa has presented at numerous conferences and published more than 150 papers in peer-reviewed journals and conferences, 6 book chapters and one book. Upon graduating with his B.Sc. Honors in Mechanical Engineering from the University of Zimbabwe in 1986, he was employed as a mechanical engineer by the National Railways of Zimbabwe. He holds a Masters in Operations Management and Manufacturing Systems from University of Nottingham and completed his doctoral studies at Tokyo Metropolitan Institute of Technology in Japan. Prof Mbohwa was a Fulbright Scholar visiting the Supply Chain and Logistics Institute at the School of Industrial and Systems Engineering, Georgia Institute of Technology is a fellow of the Zimbabwean Institution of Engineers and is a registered mechanical engineer with the Engineering Council of Zimbabwe. He has also visited many countries on research and training engagements including the United Kingdom, Japan, Germany, France, the USA, Brazil, Sweden, Ghana, Nigeria, Kenya, Tanzania, Malawi, Mauritius, Austria, the Netherlands, Uganda, Namibia and Australia.

ID 135 Education Programmes for Manufacturing Cooperatives: United Kingdom and South Africa Study
Sizwe Mkwanazi and Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

Saturday (September 29, 2018)

Session VII: Curriculum Development for Business Analytics
8:00 – 9:30 am (Saturday) - Room 1
Session Chair: Professor Lillian Kamal, University of Hartford, CT, USA

Challenges and opportunities in curriculum development for Business Analytics

The focus of this session is mainly on practical aspects of course development, instruction, appropriate software in the context of growing data. In addition, student preparedness, ability to succeed through the learning process and serve the future needs of the business community will be addressed.

Professor James Peta Jr
Visiting Professor of Economics
Department of Economics, Finance and Insurance
Barney School of Business
University of Hartford

Presentation title: Delivery of Quant and Business Statistics courses to the Business students and developing MS in Business Analytics to meet the demands of the businesses

Jim Peta is a faculty member in the Department of Economics, Barney School of Business, University of Hartford, specializing in quantitative methods. He received his Bachelor of Chemical Engineering from Rensselaer Polytechnic Institute and his MBA from the University of Hartford in 1969. He has taught as an adjunct at the University of Hartford since 1973 before becoming a regular faculty member in 2008. Mr. Peta served as Director of the Accelerated MBA program from 2010 to 2012 and as Director of the MBA program from 2012 to2015. In 2018 he became Director of the new MS in Business Analytics which will be launched in spring 2019. During his tenure, Mr. Peta developed and implemented the Business Analytics minor for the undergraduate business program. He also developed and implemented a Business Analytics Concentration for the MBA program. As an active member of the Barney School of Business faculty, he has
taught both graduate and undergraduate courses. These include Quantitative Methods for Business Decisions, Managerial Statistics, and Business Forecasting.

Mr. Peta has received numerous commendations for his excellence in teaching at Barney School of Business, University of Hartford.

- 2017 High Impact Faculty
- 2016 Gordon Clark Ramsey Award for Creative Excellence in teaching, University of Hartford
- 2015 Professor Of The Year, Barney Leadership Council
- 2014 High Impact Faculty
- 2013 Professor Of The Year, Barney Leadership Council

Mr. Peta has over 40 years as a business manager in the industrial sector of business. He has held positions as Vice President of Production for Pioneer Steel Ball, Manager of Manufacturing Operations for Thomson Precision Ball and most recently as a Senior Product Manager and Site Manager for Danaher.

ID 510 Delivery of Quant and Business Statistics courses to the Business students and developing MS in Business Analytics to meet the demands of the businesses
James Peta Jr, Department of Economics, Finance and Insurance, Barney School of Business, University of Hartford, CT, USA

Professor Lillian Kamal
Associate Professor of Economics
Department of Economics, Finance and Insurance
Barney School of Business
University of Hartford

Presentation title: Issues in creating data analytics courses

Abstract: Data analytics is still a relatively new area of study. As such, courses in data analytics are as yet being finetuned. This discussion focuses on issues that have arisen in the development and teaching of courses in data analytics at both the undergraduate and graduate levels. These issues include the lack of case studies; lack of appropriate and adequate textbooks; and the lack of applications in different business fields. In particular, a marked gap exists in terms of long term case studies on the impact of data analytics on firm measures such as customer retention, sales, profitability, etc., and an adequate array of textbooks ranging from an introductory level to a more advanced level of business analytics. In addition, given diverse student backgrounds, it becomes necessary to create overview courses that present the application of data analytics and data visualization in different business areas. The difficulty in creating such a course which provides an overview of major business areas and applications to business analytics will therefore be discussed at length.

ID 511 Issues in creating data analytics courses
Lillian Kamal, Department of Economics, Finance and Insurance, Barney School of Business, University of Hartford, CT, USA

Professor Bharat Kolluri
Professor of Economics
Department of Economics, Finance and Insurance
Barney School of Business
University of Hartford

Presentation title: What does an Introductory Course look like in Business Analytics?

Bharat Kolluri is Professor of Economics at the Barney School of Business, University of Hartford, West Hartford, Connecticut, USA. He earned BA (Honours) in Mathematics and MS in Statistics from Andhra University, India, Masters and Ph.D.in Economics from State University of New York at Buffalo. His articles have appeared in journals such as The Review of Economics and Statistics, Applied Economics and Review of Quantitative Finance and Accounting. He has recently published a text book with two of his colleagues, Introduction to Quantitative Methods in Business: Using Microsoft Office Excel, 1st edition by John Wiley & Sons, 2017. Based on the recommendation of the Faculty Committee, the University bestowed the prestigious Bent Award for Scholarship/Creativity to Dr. Kolluri at Commencement on May 16, 2004.

Dr. Kolluri has presented papers in many professional organizations including American Economic Association, Econometric Society Meetings and others. He was invited to deliver an address during the Inaugural session of the 2nd International Conference on India 2020, Vision for the Financial Sector, Delhi, March 10-11, 2014. The address is on the topic, “The Anatomy of the 2007-09 U.S. Great Recession, Policy Responses, and the impact on Emerging Markets”, jointly written with Prof. Kamal. His current research activity deals with Interest Elasticity of Savings among US households, Stock Returns and Expected Inflation during the recent period of disinflation 2009-2017, across major global stock markets. At present, he is expanding his areas of teaching interests to Business Analytics.

ID 509 What does an Introductory Course look like in Business Analytics?
Bharat Kolluri, Department of Economics, Finance and Insurance, Barney School of Business, University of Hartford
Session VIII: Global Engineering Education
11:30 am – 1:00 pm (Saturday, September 29) - Room 1
Session Chair: Tonya Smith-Jackson, North Carolina Agricultural and Technical State University, Greensboro, NC 27411, USA

11:30 am – 12:00 pm (Saturday)

Inclusive Research Advancement: Why Collaboration with HBCUs Matters

Tonya Smith-Jackson
Department of Industrial and Systems Engineering
North Carolina Agricultural and Technical State University
Greensboro, NC 27411, USA
Current Position: Program Director, Cyber-Human Systems Division,
Cultivating Cultures of Ethics in STEM
Broadening Participation in Computing Work Group
National Science Foundation, Alexandria, VA 22314

Tonya Smith-Jackson is currently serving in a rotational position at the National Science Foundation (NSF/CISE Directorate/IIS Division). The presentation topic is based on some of her work associated with the Center for the Advancement of STEM Leadership, which is funded by the National Science Foundation. Before coming to NSF, she served as Professor and Chair of the Department of Industrial and Systems Engineering at NC A&T State University. She is also director of the Human Factors Analytics Lab and co-director of the Cyber-Human Analytics Research for the Internet of Things (CHARIoT) lab. She earned her BS degree in psychology from the University of North Carolina at Chapel Hill and holds an interdisciplinary Master of Science degree from NC State University in Industrial Engineering and Psychology; her doctoral degree is in Psychology/Ergonomics. She is Certified Professional Ergonomist. She has conducted research in usability engineering, cognitive ergonomics, and sociotechnical systems applied to cyber-human systems, systems safety, and training systems design. Research sponsors include NSF, National Institutes of Health, Department of Defense, and private industry (UPS, Toshiba). Prior to academia, she worked in industry and for the federal government in the USA and abroad. She is a member of IISE, HFES, ASEE, and INCOSE.

Fay Cobb Payton
Information Systems/Technology
North Carolina State University
Raleigh, NC 27695, USA
Current Position: Program Director, Computer & Network Systems Division,
Excellence in Research
INCLUDES Implementation Team
Broadening Participation in Computing Work Group
National Science Foundation, Alexandria, VA 22314

Fay Cobb Payton is currently serving in a rotational position at the National Science Foundation (CISE Directorate/CNS Division). She is also a Full Professor (with Tenure) of Information Technology/Systems at North Carolina State University and is named a University Faculty Scholar for her leadership in turning research into solutions to society’s most pressing issues. She directs funded research efforts associated with myHealthImpactNetwork and ChangeComputerScience. She conducts research in healthcare IT/informatics and disparities; data management/science, social media use, STEAM + Arts, online communities; broadening participation in IT/computing and STEM education and workforce participation. Research sponsors include NSF, National Institutes of Health, Kenan Institute, NC State Foundation and private industry (KPMG, AT&T, and others). She earned a Ph.D. in Information & Decision Systems from Case Western Reserve University. She holds a MBA from Clark Atlanta University in Decision Sciences. She completed the Atlanta University Center Dual Degree Engineering Program with a BS in Industrial and Systems Engineering from Georgia Institute of Technology and a BA in Accounting (with a minor in Mathematics) from Clark Atlanta University. Prior to joining academe, she worked in corporate IT, engineering and consulting at several US organizations. She is a member of ACM and IEEE.

Scott McCurdy
Cochranton Junior-Senior High School
Cochranton, PA 16314

Scott McCurdy is in his 12th year in public education. He earned undergraduate degree and teaching certifications from Grove City College and has worked with students at all levels in the subjects of Physics, Mathematics, and General Sciences. His teaching background includes 11 years in classroom where he worked extensively on STEM-related initiatives. He connected local employers with his classroom curriculum and helped facilitate STEM professional development across the state of Maryland. He has also coached JV and Varsity sports during his career. Along the way, he earned his M.Ed. in School Administration from Liberty University and is currently the Assistant Principal and Athletic Director at Cochranton Jr/Sr High School in Pennsylvania. His most recent STEM-related ambitions focus on piloting school’s first group of students to work through a newly created STEM Academy.
John Namey
Jefferson Area Junior-Senior High School
Jefferson, OH 44047, USA

John Namey has been a Math teacher and and sports coach at Jefferson High School for 4 years. He obtained his BS in Mathematics from The Ohio State University. By obtaining a Resident Educator License through ODE, he has taken the mathematical theory he learned from OSU back to his hometown of Jefferson to try and get students interested in STEM. He has worked on computer programming throughout college and into his professional career.

Faisal Aqlan
Industrial Engineering Department
Penn State Behrend
Erie, PA 16563, US

Faisal Aqlan is currently an assistant professor of Industrial Engineering and Master of Manufacturing Management (MMM) at Penn State Behrend. He earned his Ph.D. in Industrial and Systems Engineering from the State University of New York at Binghamton in 2013. Aqlan has worked on industry projects with Innovation Associates Company and IBM Corporation. His work has resulted in both business value and intellectual property. He is a certified Lean Silver and Six Sigma Black Belt. He is a senior member of the Institute of Industrial and Systems Engineers (IISE) and currently serves as the president of IISE Logistics and Supply Chain Division, director of Young Professionals Group, and founding director of Modeling and Simulation Division. Aqlan is also a member of American Society for Quality (ASQ), Society of Manufacturing Engineers (SME), and Industrial Engineering and Operations Management (IEOM) Society. He has received numerous awards including the IBM Vice President award for innovation excellence, Penn State Behrend’s School of Engineering Distinguished Award for Excellence in Research, and the Penn State Behrend’s Council of Fellows Faculty Research Award. Aqlan is the Principal Investigator and Director of the NSF RET Site in Manufacturing Simulation and Automation at Penn State Behrend.

ID 398  A Framework for Teaching Manufacturing Paradigms Using Simulation
Scott McCurdy, Cochranton Junior-Senior High School, Cochranton, PA 16314
John Namey, Jefferson Area Junior-Senior High School, Jefferson, OH 44047, USA
Faisal Aqlan, Industrial Engineering Department, Penn State Behrend, Erie, PA 16563, US

12:30 pm – 1:00 pm (Saturday)

Hemendra Nath Roy
Supply Chain Superintendent, Manufacturing and Apparel Sourcing
Gildan
Dhaka, Bangladesh

Engg. Hemendra Nath Roy has completed his Bachelor of Industrial and Production Engineering (IPE) from Khulna University of Engineering and Technology (KUET), a reputed public university in Bangladesh in the year of 2012. He has been engaging himself with diversified application based research and publication along with a dynamic professional career development at Gildan Bangladesh, a Canadian Apparel Manufacturing company. Around six research works have been published in different renowned journals and International conferences where the major research area were Implementation of different Industrial Engineering tools and concept like Six Sigma, Multi-criteria base decision analysis, Data Analytics, Reverse logistic, Green Supply Chain to enhance the productivity and Supply Chain performance. Also he has been facilitating a good number of Technical sessions on key area of Industrial and System engineering in different university in Bangladesh. In the last 6 years of professional experience he has been proving himself as a diversified experienced person in Manufacturing & Supply chain dynamics, Operations Management, Project management, Sourcing, Procurement, service process improvement, Product development and commercial management. In addition, two successful Raw-material cost reduction projects, Establishment and implementation of Vendor Selection, Monitoring and Evaluation Process, Vendor managed JIT inventory controlling system are being accomplished/developed in his recent responsibilities as a Superintendent of Supply Chain Department.

Session IX: Global Engineering Education
2:30 – 4:00 pm (Saturday, September 29) - Room 1
Session Chair: Dr. Shahram Taj, Florida Polytechnic University, Lakeland, FL, USA

2:30 pm – 3:00 pm (Saturday)

Dr. Mustafa Ilhan Akbas
Department of Computer Science
Florida Polytechnic University, Lakeland, FL 33805, USA

Mustafa Ilhan Akbas is an Assistant Professor at the Computer Science (CS) Department of Florida Polytechnic University. His research interests include Ad Hoc and Vehicular Networks, verification of Autonomous Vehicles, Internet of Things, Simulation and Modeling. Dr. Akbas has been teaching at every level of CS department and serving as the Academic Coordinator for the department. Prior to joining Florida Poly, Dr. Akbas was a research scholar at the University of Central Florida (UCF), where he participated in projects on simulation and modeling of cyber-physical systems and innovation networks. Dr. Akbas received his Ph.D. degree in Computer Engineering, UCF. His BS and MS degrees are from the Department of Electrical and Electronics Engineering, Middle East Technical University. Dr. Akbas has industry experience in various international projects on communication networks. He serves as a member of the editorial board and of the technical program committee of IEEE journals and conferences. He is a member of IEEE, ACM, IEEE Communications Society, IEEE Internet of Things and Complex Systems Society.
Dr. Shahram Taj
Department of Data Science and Business Analytics
Florida Polytechnic University
Lakeland, FL 33805, USA

Shahram Taj is a Professor and the Chair of the Department of Data Science and Business Analytics at Florida Polytechnic University. Prior to joining Florida Poly, he was Professor and Chair of the Department of Management and Marketing at Lawrence Technological University in Michigan from 2013 to 2016. He is an accomplished academician, executive consultant, and with an expertise in business model innovation, lean and sustainable operations, strategic management, production systems design, systems optimization/simulation, and supply chain management. Dr. Shahram Taj was the Cameron Endowed Chair of Management and Marketing at the University of St. Thomas in Houston from 2008 to 2013. He previously taught at the University of Detroit Mercy from 1987 to 2008 and earned the University of Detroit Mercy President's Award for Faculty Excellence. He also taught in the Global Entrepreneurial MBA Program at Fu Jen Catholic University in Taiwan from 2004 to 2006 and was a visiting professor at Peking University in China teaching in the Beijing International MBA Program in 2004. Dr. Taj has conducted over 100 projects at Ford, Visteon, New Venture Gear, GM-Holden, and Baker Hughes. The projects have covered productivity improvements, implementing lean manufacturing, and optimizing process design.

ID 314 Intelligent Mobility Concentration for Undergraduate Students in Data Science and Business Analytics
Mustafa Ilhan Akbas, Department of Computer Science, Florida Polytechnic University, Lakeland, FL 33805, USA
Shahram Taj, Department of Data Science and Business Analytics, Florida Polytechnic University, Lakeland, FL 33805, USA

Mr. Abdul Mannan
Software Engineer at Social Security Administration
Adjunct Professor, Department of Computer Science and Information Technology (CSIT)
The University of the District of Columbia
Washington, DC, USA

Progress and Obstacles in Software Development Process
Professor Abdul Mannan is an Adjunct Professor at Department of Computer Science and Information Technology (CSIT), The University of the District of Columbia, Washington, DC, USA. He is a Software Engineer at Social Security Administration. Mr. Mannan was a Software Developer at EDS, an HP Company for more than five years. He was a Software Engineer at CompSci Resources for three years. Mr. Mannan has earned Master of Science (MS) in Computer Science from New York Institute of Technology, USA and Bachelor of Science in Civil Engineering from Khulna Univ. of Engineering and Technology, Bangladesh.

3:30 – 4:00 (Saturday)
Mohammad A Rahman, Ph.D.
Manufacturing and Construction Management
Central Connecticut State University
New Britain, CT, USA

Dr. Mohammad Anwar Rahman is a faculty at the Central Connecticut State University in Manufacturing and Construction Management. He has published papers in referred journals and presented results in conferences. His research focuses on logistics, supply chain management, stochastic process and designing quality procedure. Dr. Rahman conducted several research projects with Mississippi Dept. of Education (MDE) and US Dept. of Transportation (USDOT). He has various certifications including Lean Six Sigma Green Belt (Purdue University), Lean Principles (Purdue University), Demonstrated Master Logician (The International Society of Logistics), Malcolm Baldrige Quality Award Examiner (Louisiana Quality Foundation), and Certified Transportation & Logistics (American Society of Transport & Logistics). Dr. Rahman is affiliated with ISERC, DSI, AST&L and IEOM.

Session X: Global Engineering Education
4:30 – 6:00 pm (Saturday, September 29) - Room 1
Session Chair: Dr. Oscar A. Vasquez-Bernal, Universidad Nacional Abierta y a Distancia, Bogotá Colombia

Dr. Oscar A. Vasquez-Bernal
Associate Professor, School of Basic Sciences, Technology and Engineering
Universidad Nacional Abierta y a Distancia
Bogotá Colombia

Oscar A. Vasquez-Bernal is an Associate Professor in the School of Basic Sciences, Technology and Engineering at Universidad Nacional Abierta y a Distancia, Bogotá Colombia. He earned his BS in industrial engineering from Universidad Antonio Nariño, Colombia, and his Master's in business administration from UNAD Florida USA. He is presently a PhD candidate in engineering at Universidad Nacional de Colombia. He has published several journal articles and conference papers. Professor Vasquez-Bernal has been involved in projects with manufacturing and engineering companies. He is a management consultant in quality assurance, project management and safety management. He has taught courses in entrepreneurship, strategy and corporate logistics and innovation for engineers; his research interests include certification, accreditation, multi-criteria decision analysis and optimisation. He is a member of NFPA, LACCEI and IEEE.
ID 212  Professional Certification Engineering: A Goal-Based and Multi-Criteria Decision Analysis Approach
Oscar Alejandro Vásquez-Bernal, School of Basic Sci., Tech. and Eng., Univ. Nacional Abierta y a Distancia UNAD, Bogotá D.C., Colombia
Félix Antonio Cortés-Aldana, Faculty of Engineering, Universidad Nacional de Colombia, Bogotá D.C., Colombia

5:00 – 5:30 (Saturday)

Dr. Faisal Aqlan
Assistant Professor of Industrial Engineering
Master of Manufacturing Management (MMM)
Penn State Behrend, Erie, Pennsylvania, USA

Faisal Aqlan is currently an assistant professor of Industrial Engineering and Master of Manufacturing Management (MMM) at Penn State Behrend. He earned his Ph.D. in Industrial and Systems Engineering from the State University of New York at Binghamton in 2013. Aqlan has worked on industry projects with Innovation Associates Company and IBM Corporation. His work has resulted in both business value and intellectual property. He is a certified Lean Silver and Six Sigma Black Belt. He is a senior member of the Institute of Industrial and Systems Engineers (IISE) and currently serves as the president of IISE Logistics and Supply Chain Division, director of Young Professionals Group, and founding director of Modeling and Simulation Division. Aqlan is also a member of American Society for Quality (ASQ), Society of Manufacturing Engineers (SME), and Industrial Engineering and Operations Management (IEOM) Society. He has received numerous awards including the IBM Vice President award for innovation excellence, Penn State Behrend’s School of Engineering Distinguished Award for Excellence in Research, and the Penn State Behrend’s Council of Fellows Faculty Research Award. Aqlan is the Principal Investigator and Director of the NSF RET Site in Manufacturing Simulation and Automation at Penn State Behrend.

5:30 – 6:00 (Saturday)

Jefia Abigail Oghenevwegba
Department of Electrical and Information Engineering
Covenant University
Ogun State, Nigeria

Achieving Quality Engineering Education in Nigeria

Abigail Jefia is presently a senior at Covenant University where she majors in Information & Communication Engineering from the department of Electrical & Information Engineering with a concentration in Networking. In 2015, she worked as an IT Support intern at the Covenant University Network Office Centre where she developed her interest for networking. Afterwards, she interned with Telnet Nigeria Limited as a Network Analyst/Engineer in 2018, where she honed her network management skills and gained deeper insights into the various advancements towards networking. In 2018, Abigail obtained a Cisco Certified Network Associate Routing and Switching (CCNA Routing and Switching) Certificate from the experience garnered from her internships. Her current research interests include Software-defined Networking and Cyber security.
12th IEOM Global Engineering Education
Pretoria, South Africa, October 30-November 1, 2018

DISTINGUISHED SPEAKERS
Tuesday (October 30, 2018)

Session I: Global Engineering Education (Room - Spartan 2)
Session Chair: Dr. Olufemi Adetunji, University of Pretoria, South Africa
8:00 – 9:30 (Tuesday)

Dr. Olufemi Adetunji
Senior Lecturer
Department of Industrial and Systems Engineering
University of Pretoria
Pretoria, South Africa

Dr. Olufemi Adetunji is a Senior Lecturer in the department of Industrial and Systems Engineering at the University of Pretoria, Pretoria, South Africa. He earned his Bachelors in Agricultural Engineering and his Masters in Industrial and Production Engineering from the University of Ibadan Nigeria. He also had a Post Graduate Diploma in Computer Science from the University of the Witwatersrand, Johannesburg, and his doctorate in Industrial and Systems Engineering from the University of Pretoria, Pretoria, both in South Africa. He is professionally certified in SCOR-P by the Supply Chain Council, certified in CPIM and CSCP by APICS, certified in SAP ERP systems by SAP, and has a green belt in lean six sigma. He has published several journal and conference papers. Dr. Adetunji has also conducted research and process improvement projects in diverse industries including Finance, Education, Manufacturing and Information Systems. His teaching and research interest is in the application of models to the design and operation of Manufacturing Planning Systems and Supply Chain Engineering.

ID 386 Acceptance of a new industry work experience reporting platform among students
Olufemi Adetunji, University of Pretoria, South Africa

8:30 – 9:00 (Tuesday)

Ngaka Mosia
Junior Lecturer
Department of Mechanical and Industrial Engineering
School of Engineering and a College of Science, Engineering and Technology
University of South Africa (Unisa)
Gauteng, South Africa

Ngaka Mosia is a Junior Lecturer in the department of Mechanical and Industrial Engineering, in the school of Engineering and a College of Science, Engineering and Technology at the University of South Africa (Unisa), in Gauteng, South Africa. He holds a BSc (Hons) in Applied Science from the University of Pretoria (UP), a BTech in Industrial Engineering from University of Johannesburg (UJ) and post graduate certificate in Distance education from the University of Maryland University College (UMUC). He has conference papers and posters. His research interests includes technology mediated teaching and learning and Productivity improvement through mechanization. He is a member of SAIE & IEOM and Nadeosa & DEASA.

ID 129 Application of quality evaluation tools for learning objects (A technology scorecard report)
Ngaka Mosia, Mechanical and Industrial Engineering, University of South Africa (Unisa), Florida, Science Campus, Gauteng, South Africa

9:00 – 9:30 (Tuesday)

Bontle Tladi
Industrial Engineering, BS, MS
University of the Witwatersrand
Johannesburg, South Africa

Bontle Tladi has a BSc and MSc in Industrial Engineering from the University of the Witwatersrand (Johannesburg). She has spent 6 years in the petro-chemical industry, working in the areas of general business optimisation and improvement projects, Supply Chain, and the Information and Communication Technology. She has served as a member of the Highveld Special Interest Group (as part of the Southern African Institute for Industrial Engineering); and is also certified in Professional Business Coaching from the Gordon Institute of Business Science. She is currently a Lecturer of Industrial Engineering Design at the University of Witwatersrand. Her research interests include collective impact as well as shared measurement systems for tri-sector partnerships.
9:40 am - Welcome Speaker

10:00 am (Tuesday) - Opening Keynote: Dr. Rupy Sawhney, Professor and Heath Fellow in Business & Engineering, Department of Industrial and Systems Engineering and Executive Director of CASRE (Center for Advanced System, Research and Education), University of Knoxville, Knoxville, Tennessee, USA

11:30 am (Tuesday) – Keynote: Khaya Master, Subsystem and Maintenance Engineer, Gibela-Rail, South Africa

12:15 am – Keynote: Cobus Oosthuizen, Chief Executive Officer, ESTEQ, Pretoria, Gauteng, South Africa

11:00 - 11:30 - Networking Break

**Session II: Global Engineering Education (Room - Spartan 2)**
Session Chair: Dr. Michael Mutingi, Namibia University of Science & Technology, Windhoek, Namibia

2:30 – 4:00 pm (Tuesday)

2:30 – 3:00 (Tuesday)

**Dr. Kirti Menon**  
Senior Director of Academic Planning, Quality Promotion and Academic Staff Development  
University of Johannesburg  
South Africa

Dr. Kirti Menon is the Senior Director of Academic Planning, Quality Promotion and Academic Staff Development at the University of Johannesburg and a member of the UJ Senate Ad Hoc Task Team on ‘Decolonisation of Knowledge and Curriculum Reform.’ Prior to this she was Registrar at the University of the Witwatersrand from 2011 to 2013, Acting Deputy Director General: Universities from January 2010 till June 2011 in the Department of Higher Education and Training and Chief Director: Higher Education Planning and Management at the Department of Education from 2008. She worked for the Council on Higher Education between 1999 and 2008. She has served on several national task teams and her research focus is higher education with a focus on access, exclusion and redress.

3:00 – 3:30 (Tuesday)

**Gloria Castrillón**  
Director  
Academic Planning and Quality Promotion  
University of Johannesburg  
South Africa

Gloria has always worked in education, and in higher education since 1994. She has wide-ranging experience of both the private and public sectors and of the regulatory environment. She is currently the Director of the Centre for Academic Planning and Development at the University of Johannesburg.

3:30 – 4:00 (Tuesday)

**Dr. Michael Mutingi**  
Associate Professor - Industrial Engineering  
Namibia University of Science & Technology  
Windhoek, Namibia

Michael Mutingi is a Associate Professor and Coordinator of the Master of Industrial Engineering at the Namibia University of Science and Technology, Namibia. He is also a Senior Visiting Research Associate at the University of Johannesburg, South Africa. He obtained his PhD in Engineering Management from the University of Johannesburg, South Africa. He also holds a MEng and a BEng in Industrial Engineering from the National University of Science and Technology, Zimbabwe, where he served as a Research Fellow and a Lecturer in Industrial Engineering. Michael Mutingi also served as a Research Associate at the National University of Singapore, Singapore, and a Lecturer at the University of Botswana, Botswana. His research interests include fuzzy multi-criteria decision making, simulation, optimization, scheduling, healthcare operations, logistics, and lean. He has published two books with Springer and Taylor & Francis, and more than 95 articles in international journals and conference proceedings. He is a member of the South African Institute of Industrial Engineering (SAIIE) and the International Association of Engineers (IAENG).
Dr. Arno Louw
Senior Specialist: Instructional Design (e-Learning):
Manager: Centre for Academic Technologies Laboratory (CAT Lab)
Division for Academic Development and Support (ADS)
University of Johannesburg
South Africa

Arno Louw is a Teaching and Learning Consultant at UJ. He has been involved in curriculum development and the implementation of computer courses involving the integration, application, implementation and evaluation of courses encompassing computer-based education. Arno was involved in projects at UJ (previously RAU) since 1998 and was also co-author and researcher of computer-based textbooks for the Gauteng Department of Education. Research and course development included the training of educators, subject facilitators, presentation and implementation of research as well as publications and presentations of papers on the implementation of web-based education in the school system. During this period, he was an educator at Metropolitan RAUCALL and a part-time lecturer at the University of Johannesburg. He holds a master's degree with the focus on web-based education and doctoral degree in the same field.

4:00 - 4:30 Networking Break

Session III: Global Engineering Education (Room - Spartan 2)
Session Chair: Prof. Clinton Aigbavboa, University of Johannesburg, Johannesburg, RSA

4:30 – 5:00 (Tuesday)

Dr. William Msekiwa Goriwondo (PhD, FZ'weIE, Pr.Eng., MIoDZ)
Executive Dean
Faculty of Industrial Technology
National University of Science and Technology (NUST)
Zimbabwe

Presentation Title: Industry – Academia partnerships in enhancing engineering education in Zimbabwe.
Case Study of the National University of Science and Technology (NUST) in Zimbabwe

Dr. WM Goriwondo is a registered Professional Engineer with an MSc. degree in Manufacturing Systems & Operations Management as well as a Doctor of Philosophy (PhD) degree. He has a proven track record of technical, operational and strategic leadership, spanning over 20 years. Currently the Executive Dean of the Faculty of Industrial Technology at the National University of Science and Technology (NUST), a Senior Lecturer, Researcher and an Engineering & Management Consultant. Member of the Institute of Directors Zimbabwe (IoDZ), Fellow and Board member of the Zimbabwe Institution of Engineers (ZIE). He is an experienced Project Manager and team player with advanced strategic planning skills. A published researcher with over 10 peer reviewed journal papers, 40 peer reviewed papers in conference proceedings and several other technical newspaper articles. He is a passionate leader in manufacturing excellence, resource utilization and World Class Manufacturing (WCM).

Abstract: Engineering education is important in providing solutions to problems that face humankind. Zimbabwe has gone through a period of economic decline characterised by myriad of challenges, some of which requires engineering solutions. It is only when the quality of engineers from educational institutions is of high quality, that any such problems can be resolved. This paper presents the journey that the National University of Science and Technology (NUST) in Zimbabwe took towards improving engineering education. A two year project sponsored by the Royal Academy of Engineering (RAE), UK, saw NUST as a hub institution in Sub-Saharan Africa working with several spoke institutions in both Industry and Academia. The project sought to develop and strengthen relationships between academia and industry through secondment programmes to bridge skills and knowledge deficiencies. This was achieved through secondment of junior lecturers to industry, as well as skilled industrial players to the NUST. Knowledge sharing and skills transfer was achieved during this project, ultimately leading to improved engineering education. Relevance of engineering programmes at the NUST was also reviewed and improvements implemented. This will result in sustainable engineering educational changes and industry ready engineers. Important networks were established and these are key to sustainability.

5:00 – 5:30 (Tuesday)

Mohammad Sarwar Morshed, PhD
Professor of Industrial and Production Engineering
Department of Mechanical and Production Engineering
Ahsanullah University of Science and Technology (AUST)
Dhaka, Bangladesh

Dr. Sarwar Morshed is a Professor of Industrial and Production Engineering at the Faculty of Engineering, Ahsanullah University of Science and Technology (AUST). He started his academic career in Chittagong University of Engineering and Technology (CUET) in early 90s after receiving his undergraduate degree in Mechanical Engineering. He received his Masters in Industrial Management from the Centre for Industrial Management of Katholieke University of Leuven, Belgium and received his PhD in Manufacturing and Mechanical Engineering from the Birmingham University, UK on Optimization and Scheduling. He worked in the Birmingham University as PhD researcher before his post-doctoral research in Coventry and Bath University. He also served as a visiting academic at Bath University and affiliated
as a visiting research fellow at Aalborg University, Denmark. He has published 20 articles in several journal and conferences. He has been working as a Senior Researcher and Deputy Project Leader of Aalborg-AUST Research Project (POHS-BD) and collaborative work among AUST, Aalborg University and BGMEA since 2015. A sustainable maturity model has been developed by integrating lean and OHS for intervention process in RMG industries. He also developed Multi-objective knowledge based scheduling techniques using genetic algorithm (GA) for cancer patients in dynamic situation along with his hybrid GA framework for industrial and service scheduling. Prof Morshed has affiliations with HEA (UK), OR Society, IEOM Society and IEB.

Presentation Title: Synergies of OHS and Productivity Improvement in RMG Industries – An Outcome of Intervention Process

Abstract: The overall aim and objective of readymade garments (RMG) is to improve the productivity and competitiveness of RMG industry in Bangladesh while simultaneously improving OHS and ergonomic conditions. In order to reach this objective the research strives towards gaining new knowledge about the dynamics among the major stakeholders in respect to co-development of sustainable OHS and productivity advancements. This research has identified the positive synergies between productivity and OHS conditions after analysing baseline data collected from fifty RMG industries. The Lean and OHS model for the sustainable productivity improvement are developed for the intervention process has been implemented in twelve RMG industries with positive outcomes as expected. The last phase of baseline data collection process is in progress to make a final comparison between intervening and no-intervening industries in the journey of ensuring sustainable productivity. The research capacity in Bangladesh is strengthening by initiating and institutionalizing this novel research domain which eventually applicable to many countries.

5:30 – 6:00 (Tuesday)

Prof Clinton Aigbavboa, Ph.D.
Vice Dean
Postgraduate Studies, Research and Innovation
Head
Sustainable Human Settlement and Construction Research Centre
Faculty of Engineering and the Built Environment
University of Johannesburg
Johannesburg, RSA
Editor - Journal of Construction Project Management and Innovation (JCPMI)

Prof. Aigbavboa Clinton is an Associate Professor at the University of Johannesburg, South Africa. His research interest are situated in the fields of sustainable human development, with the focus on: sustainable housing regeneration (urban renewal and informal housing), Life Cycle Assessment in the Construction Industry, remanufacturing, leadership in low-income housing, Biomimicry, post occupancy evaluation and green job creation.

Wednesday (October 31, 2018)

Session IV: Global Engineering Education (Room - Spartan 2)
Session Chair: Deborah Oluwafunke Adedokun, Joseph Ayo Babalola University, Ikeji-Arakeji, Nigeria
8:00 – 9:30 am (Wednesday)

8:00 – 8:30 (Wednesday)
TBA

8:30 – 9:00 (Wednesday)
Dr. Imad Alsyouf
Associate Professor
Sustainability Office, Director
Industrial Engineering & Engineering Management Department
College of Engineering
University of Sharjah
United Arab Emirates (UAE)

Imad Alsyouf is an associate professor of Industrial Engineering at University of Sharjah (UoS), UAE. He is the director of the Sustainability Office and the founder and coordinator of Sustainable Engineering Asset Management (SEAM) Research Group at UoS. He received his doctorate in Maintenance Engineering from Linnaeus University, Sweden, in 2004. He has 27 years of industrial and academic experience, and his research interests include reliability, quality and maintenance engineering, lean production, productivity improvement, performance measurement, life-cycle cost analysis, and optimisation. He has developed and taught more than 25 post- and undergraduate courses covering a wide range of IEEM fields.

Sadeque Hamdan is a research assistant in the Sustainable Engineering Asset Management (SEAM) research group at University of Sharjah, UAE. He obtained his Master of Science degree in Engineering Management in 2015 and his Bachelor of Science degree in Civil Engineering degree in 2013 from University of Sharjah. His current research focuses on optimization, supply chain management, logistics, air traffic management, and multi-criteria decision making.
Maitha Alsuwaidi obtained her Master of Science degree in Engineering Management in 2017 from University of Sharjah, UAE.

Mohammad Shamsuzzaman is an associate professor in the Department of Industrial Engineering and Engineering Management at University of Sharjah, UAE. He obtained his doctorate in Systems and Engineering Management in 2005 from Nanyang Technological University, Singapore. His current research focuses on quality control and improvement, reliability, simulation, and multi-criteria decision making. He is a member of the American Society for Quality.

ID 416 Monitoring and Assessing the Impact of Implementing ISO 55000 in an Educational Institute
Sadeque Hamdan, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, 27272, UAE
Imad Alyouf and Mohammad Shamsuzzaman, Sustainable Engineering Asset Management (SEAM) Research Group
Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, 27272, UAE

Deborah Oluwafunke Adedokun
Lecturer
Department of Building & Quantity Surveying
College of Environmental Sciences
Joseph Ayo Babalola University
Ikeji-Arakeji, Nigeria

ADEDOKUN, D.O. is a Lecturer at the Department of Building and Quantity Surveying, College of Environmental Sciences, Joseph Ayo Babalola University, Ikeji-Arakeji, Nigeria. She is currently a Ph.D student in the Department of Quantity Surveying, School of Environmental Technology, Federal University of Technology, Akure, Nigeria. She is a researcher per excellence as her publications cuts across referred journals at local and international outlets while her contributions to conference proceedings cannot be overemphasized. She is also affiliated to GBM Konsult Associates, a firm offering Quantity Surveying and Project management services, on construction projects.

ID 064 Influence of the Consultants Related Factors on the Performance of Selected Tertiary Educational Building (TEB) Projects in Nigeria
Deborah Oluwafunke Adedokun, Department of Building & Quantity Surveying, College of Environmental Sciences, Joseph Ayo Babalola University, Ikeji-Arakeji, Nigeria

9:40 - 10:20 (Wednesday): Keynote: Professor Angina Parekh, Deputy Vice Chancellor: Academic, University of Johannesburg, South Africa and Former Special Advisor on Higher Education to the Minister of Education

10:20 - 11:00 (Wednesday): Keynote: Dr. Abu Masud, P.E., Boeing Global Engineering Professor Emeritus, Professor of Industrial and Manufacturing Engineering, Wichita State University, Kansas, USA – “Student Learning: Assessment and Improvement”

11:00 - 11:30 Networking Break

11:30 - 12:15 (Wednesday) Keynote: Arthur Mutambara, Former Deputy Prime Minister of Zimbabwe, Visiting Full Professor - University of Johannesburg

12:15 - 1:00 (Wednesday) Keynote: Dr. AAA. Atayero, Vice Chancellor, Covenant University, Ota, Ogun State, Nigeria

1:00 - 2:30: Networking Lunch Buffet

Session VI: Global Engineering Education (Room - Spartan 2)
Session Chair: Matimba Mkansi, University of the Witwatersrand, Johannesburg, South Africa
2:30 – 4:00 pm (Wednesday)
Didier ILUNGA  
Researcher  
Civil Engineering  
University of Johannesburg  
South Africa

Didier ILUNGA has:  
• A Senior Matric Certificate as a Mechanical Turner from Salama Technical College,(D R Congo),  
• A Bachelor Degree of Applied Science in Mining Engineering from University of Lubumbashi (D R Congo),  
• A Bachelor Degree of Engineering in Mining Engineering From University of Lubumbashi (D R Congo) and  
• A Master's Degree of Engineering in Civil Engineering at University of Johannesburg (RSA).

He is currently registered as a PhD Candidate in Civil Engineering at University of Johannesburg (RSA). His area of interest includes the Effect of Pressure on Leakage in Water Distribution Systems where he is investigated the “The Effect of Pipe Material on the Behaviour of Water Leakage through Longitudinal Cracks in Pressurised Pipes”. Didier Ilunga, has spent 10 years at Rand Water (Johannesburg) as a Project Manager and Currently He is been given the responsibility of a Senior Pipeline Engineer in Pipeline Assets, where he has demonstrated a strong background in the following areas:

• Understanding of the behaviour of pressurised pipelines,  
• Knowledge and understanding of pipeline water leakage,  
• Pressure management and water loss reduction in water distribution systems.  
• Knowledge of pipeline condition assessment,  
• Knowledge of pipeline behaviour under different conditions and mechanical of materials,  
• Pipeline design and stresses generated by internal pressure concepts.

Didier Ilunga is member of SAICE, and processing his registration as Professional Engineer with ECSA. He does speak fluently French, English and Swahili.

ID 056  
Experimental Investigation of Water Leakages through a Longitudinal Crack due to Expansion of the Pipe Material under Pressure.  
D. Ilunga, M.O. Dinka and D. Madyira, University of Johannesburg, South Africa.

3:00 – 3:30 (Wednesday)

Jonathan Mkansi, Hannelie Nel and Annlizé Marnewick  
Post-Graduate School of Engineering Management  
Faculty of Engineering and the Built Environment  
University of Johannesburg  
Auckland Park, South Africa

Jonathan Mkansi is currently a fulltime employee as Sales Engineer at Foseco South Africa in the Sales and Marketing department. Mr. Mkansi holds Bachelor of Technology degree in Engineering Metallurgy, Bachelor of Technology degree in Quality Management, Masters of Philosophy in Engineering Management all from the University of Johannesburg. In 2017 he completed an inhouse sales course; Selling by Objectives which focused on combining technical skills to improve processes at customers while helping the local foundry industry. This programme was offered by Mercuri International. Mr. Mkansi has 9 years working experience where he worked as a Metallurgist in the Aluminum rolling company in Pietermaritzburg, a Technical Specialist in the steel tube making company in Alrode and a Sales Engineer for a foundry consumables supplier in Alrode. Mr. Mkansi is a member of the South African institute of Foundrymen where technical presentations and discussions take place every month in an effort to help foundries conduct business differently and compete globally.

Professor Annlize Marnewick is an Associate Professor at the Postgraduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg where she focuses on the supervision of research master’s and doctoral students. Before joining the academia she has been involved in the industry with a technical record of 15 years in architecture, design and the implementation of system and software engineering projects with specialisation in requirements engineering. She is a registered professional engineer (Pr Eng) with the Engineering Council of South Africa (ECSA).

ID 99  
Lack of Training Opportunities in South African Foundries and the Impact on the Number of Engineering Metallurgy Graduates  
Jonathan Mkansi, Hannelie Nel and Annlizé Marnewick, Post-Graduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park, South Africa

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Matimba Mkansi
Industrial Engineering
University of the Witwatersrand
Johannesburg, South Africa

Matimba Mkansi is a Masters student in Industrial Engineering at the University of the Witwatersrand, Johannesburg. He holds a Bachelor of Science degree in Industrial Engineering from the same University. His honors research project, whose extension is this paper, focused on researching on the concept of decolonisation as applicable to engineering education.

Chioniso Kuchwa-Dube
Lecturer
School of Mechanical, Industrial and Aeronautical Engineering
University of the Witwatersrand
Johannesburg, South Africa

Chioniso Kuchwa-Dube is a lecturer within the School of Mechanical, Industrial and Aeronautical Engineering at the University of the Witwatersrand. Her main research interest is in the design and control of intelligent autonomous robots for various applications including manufacturing. She is also interested in engineering curriculum transformation.

Bruno Emwanu
Senior Lecturer
University of the Witwatersrand
Johannesburg, South Africa

Bruno Emwanu is a Senior Lecturer at the University of the Witwatersrand, Johannesburg. He lectures Industrial Engineering courses including Manufacturing Strategy, Business Studies and Business Management. His research interest are in Manufacturing Strategy primarily and linkages involved. He supervises research students, including Masters and PhD students, in a wide range of topics including manufacturing strategy, business strategy, supply- chain management among others.

ID 299 The concept of Decolonisation within Engineering Education
Matimba Mkansi, Bruno Emwanu and Chioniso Kuchwa-Dube, School of Mechanical, Industrial and Aeronautical Engineering, University of the Witwatersrand, Johannesburg, South Africa

4:00 - 4:30 pm: Networking Break

Session VII: Global Engineering Education (Room - Spartan 2)
Session Chair: Christian Amaechi Bolu, Covenant University, Ota, Nigeria
4:30 – 6:00 pm (Wednesday)

4:30 – 5:00 (Wednesday)

Dr. Imad Alsyouf
Associate Professor
Sustainability Office, Director
Industrial Engineering & Engineering Management Department
College of Engineering
University of Sharjah
United Arab Emirates (UAE)

Imad Alsyouf is an associate professor of Industrial Engineering at University of Sharjah (UoS), UAE. He is the director of the Sustainability Office and the founder and coordinator of Sustainable Engineering Asset Management (SEAM) Research Group at UoS. He received his doctorate in Maintenance Engineering from Linnaeus University, Sweden, in 2004. He has 27 years of industrial and academic experience, and his research interests include reliability, quality and maintenance engineering, lean production, productivity improvement, performance measurement, life-cycle cost analysis, and optimisation. He has developed and taught more than 25 post- and undergraduate courses covering a wide range of IEEM fields. Sadeque Hamdan is a research assistant in the Sustainable Engineering Asset Management (SEAM) research group at University of Sharjah, UAE. He obtained his Master of Science degree in Engineering Management in 2015 and his Bachelor of Science degree in Civil Engineering degree in 2013 from University of Sharjah. His current research focuses on optimization, supply chain management, logistics, air traffic management, and multi-criteria decision making. Maitha Alsuwaidi obtained her Master of Science degree in Engineering Management in 2017 from University of Sharjah, UAE.
ID 420  Using Six-Sigma DMAIC Methodology to Systematically Improve the Performance of Physical Plants at an Educational Institute
I. Alsyouf, A. Salti, B. Hamed, A. Abdelsalam, Department of Industrial Management and Engineering Management, University of Sharjah, Sharjah, UAE

5:00 – 5:30 (Wednesday)

Dr. Joe E. Amadi-Echendu
Professor, Engineering and Technology Management
University of Pretoria, South Africa
Director, Institute of Engineering Technology and Innovation Management, UNIPORT
Editor-in-Chief, Engineering Asset Management Review Series, Spring, UK

Joe Amadi-Echendu earned BS and MS degrees in Electrical and Electronic Engineering from University of Wyoming, USA, and DPhil in Control Engineering from University of Sussex, UK. Dr Joe currently serves as a Professor of Engineering and Technology Management at University of Pretoria, Republic of South Africa. He is the founding Director of the Institute of Engineering, Technology and Innovation Management at University of Port Harcourt in Nigeria.

Prof Amadi-Echendu commenced his career as an apprentice maintenance technician at a tyre manufacturing plant, and his expertise is underpinned by his doctoral research in digital signal processing, condition monitoring and diagnostic engineering management of physical plants and processes. He has over 12 years industry work experience, as well as 20+ years academic experience in USA, UK, Nigeria and South Africa. His extensive experience and interests cover the broad fields of engineering and technology management with particular emphasis on the management of intellectual assets, engineering technologies, plant, equipment and infrastructure assets. While working in industry, Dr Joe primarily implemented “operational readiness” programmes for green field capital development projects in petrochemical and mining sectors. His current teaching and research activities are focused on engineering asset management and technology commercialisation, as well as supervision, mentoring and coaching to all grades of students and technology-based business start-ups. Prof Amadi-Echendu has published over 150 articles in journals and accredited international conference proceedings. Joe’s involvement in community development, professional and scholarly activities has been recognised through many local, national and international awards such as best paper, distinguished service, excellence, and leadership awards.

Joe is registered as a professional engineer in both the UK and South Africa. He continues to provide consulting advice and training to both private business and public sector organisations. In addition to external examination of master and doctoral degree dissertations at local and overseas institutions, and review of manuscripts for a number of journals, Prof Amadi-Echendu’s concurrent roles and scholarly activities include; (i) editor-in-chief for Springer’s Engineering Asset Management Review Series, ii) founding fellow, board member and director of International Society of Engineering Asset Management (ISEAM), iii) member of board of directors of the International Association for the Management of Technology (IAMOT), iv) member of technical panels of long standing international conferences namely, COMADEM, IAMOT, PICMET, and WCEAM, and v) ‘Experienced Researcher’, EU grant funded H2020-MSCA-RISE Sustain Owner Project 645733.

5:30 – 6:00 (Wednesday)

Professor Christian Amaechi Bolu, FNSE, FAEng
Dean, College of Engineering
Covenant University, Ota, Nigeria

Professor Christian Amaechi Bolu, graduated with B,Sc in Mechanical Engineering from University of Nigeria, Nsukka in 1976, M.Eng in Industrial Engineering from University of Toronto, Canada in 1979 and Ph.D in Industrial and Systems Engineering from University of Wales, Swansea, United Kingdom in 1982. Prof Bolu, a professor of Mechatronics Engineering, is a practicing engineer with engineering industry work experience spanning over 27 years. He ran several multi-national engineering companies in Nigeria, Ghana and Kenya at top technical and management levels. He was instrumental to setting up of the first CNC wire-cutting machine in Nigeria, in the late 1980s as well as the first automated powder coating plant in Nigeria. He was the developer of one of the early Enterprise Resource Planning solutions widely used in engineering manufacturing plants in Nigeria, Ghana and Kenya.

Prof Bolu, a Fellow of the Nigerian Academy of Engineering, Fellow of both the Nigerian Society of Engineers and Nigerian Institution of Industrial Engineers was a one-time Chairman of the Nigerian Society of Engineers (Lagos Branch), National Technical Secretary of the Nigeria Society of Engineers and President of the Nigerian Institution of Industrial Engineers. He is an SAP Certified Solution Consultant. His present special interest area is in Mechatronics System Design for community development, Internet of Things (IoT) and Rapid Prototyping. He is presently the Dean, College of Engineering, Covenant University, Ota, Nigeria, after serving as pioneer Dean, Faculty of Engineering, Federal University Oye-Ekiti, Nigeria from 2012-2015.

Thursday (November 1, 2018)

Session VIII: Global Engineering Education (Room - Spartan 2)
Session Chair: John Ikome, Vaal University of Technology, South Africa
8:00 – 9:30 am (Thursday)
Dr. Anthea Amadi-Echendu
Senior Lecturer
Acting Chair of the Department of Operations Management
University of South Africa

Anthea Amadi-Echendu is a senior lecturer at the University of South Africa. She is Acting Chair of the Department of Operations Management. She holds a Master of Commerce degree from the University of South Africa and a Doctor of Philosophy degree from the University of Pretoria. Anthea has presented various national and international conference papers and published several journal papers. She holds directorships of the Society of Operations Management in Africa (SOMA) and Destiny Environmental and Infrastructure Development (Pty) Ltd. Anthea is also a founder member of SOMA. She has more than 15 years’ industry experience on various levels.

8:30 – 9:00 (Thursday)

John Ikome
Lecturer, Department of Industrial Engineering and Operation Management
Vaal University of Technology
South Africa

Mr. John Ikome is a lecturer in the Department of Industrial Engineering and Operation Management at the Vaal University of Technology, South Africa. He earned his National Diploma and Bachelors in Industrial Engineering (B-Tech) from the Vaal University of Technology South Africa and his Masters in Industrial Engineering, specialization (Technology Management) from the Tshwane University of Technology Pretoria, and currently pursuing his PhD (Deng) Industrial Engineering with Tshwane University of Technology, where he is trying to develop a Competitive model to enhance the South African Automotive Industries Global competitiveness. He also has a number of qualifications within the Mechanical Engineering Field, specialization in Automotive Systems from London and Lean manufacturing certification. He is a member of the Southern African Institute of Industrial Engineering (SAIIE). John Ikome has also conducted extensive research in productivity and continuous improvement within the manufacturing field in which he developed a number of models to improve manufacturing systems after unforeseen disruption. He is a member and a reviewer of a number of international conference and journal and has also published extensively a number of journal and conference papers around the world. His main interest in research is manufacturing and continues improvement.

9:00 – 9:30 (Thursday)

9:30: Keynote (Thursday): Dr. Sundaravalli Narayanaswami, Indian Institute of Management, Ahmedabad, India

10:15: Keynote (Thursday): Dr. Eugén Ranft, Operations Manager, Eaton Electric (South Africa) (Pty) Ltd, Johannesburg, South Africa

11:00 - 11:30: Networking Break

Session IX: Global Engineering Education (Room - Spartan 2)
Session Chair: Thomas Tengen, Vaal University of Technology (VUT), South Africa
11:30 am – 1:00 pm (Thursday)

11:30 – 12:00 (Thursday)

Prof Khumbulani Mpofu
Gibela Research Chair in Manufacturing and Skills Development
Professor – Industrial Engineering Department
Tshwane University of Technology (TUT)
Pretoria, South Africa

Prof Khumbulani Mpofu is Gibela chair in manufacturing and skills development. He is an NRF rated researcher with unbridled passion for Industrial Engineering. Prof Mpofu’s research career began in 2004 at the completion of a five year qualification with a design project that he carried out for his Bachelor of Engineering Honours degree in Industrial and Manufacturing Engineering. This project had both design elements and also an exploratory research aspects. In 2005, he received an offer to be a lecturer in a Bachelor of Technology programme, where he was responsible for computer related courses. He then enrolled for a postgraduate course which had a 50% research component.

During his Master’s studies he gained keen interest on the computer aspects of the manufacturing industry. He was also involved in a Cleaner Production project at the manufacturing site of an airport component production and maintenance unit. He also pursued a research project in 2006,
focusing on small to medium enterprise wood manufacturing companies and how they can reduce their environmental impact by collating their efforts with a clustering approach. Prof Mpfou enrolled for a Doctor of Technology in Mechanical Engineering at TUT in 2007, where he designed a Knowledge Based System for Reconfigurable Manufacturing. Between 2004 and 2011, Prof Mpfou was exposed to a range of other manufacturing challenges in; for example, manufacturing maintenance, importance of environmental conscious manufacturing, the advanced manufacturing technologies, from the mechanical, and control design to information system application in manufacturing.


He has also reviewed numerous journals such as the Taylor and Francis Journal of Production Research, Elsevier Journal of Manufacturing Systems, the Emerald Design and Technology Journal, Engineering Optimization and the Proceedings of the Zimbabwe Institute of Engineers Journal. Currently, the Head of Department for the Industrial Engineering department, Prof Mpfou represented his faculty at the Research and Ethics Committee for a three year term and he spearheads the Innovative Design and Manufacturing research unit under the New Materials and Advanced Manufacturing niche area.

In addition to his many accolades, Prof Mpfou has received excellence awards at the institutional level as well as at the national level being one of the finalists in the DST awards for emerging researcher 2015. To date (2016), he has attracted in excess of R30 million corporately and individually for research activities. He has collaborators locally and internationally in France, Germany, Slovenia, Sweden, Slovenia, China and the United States of America. Until 2016, he had over 70 publications in conferences, journals and book chapters. Graduated two doctoral students and twelve masters students. Through his efforts and his team he, has registered 3 patents to date, which are at various stages for development for commercialisation.

Prof Mpfou’s field of expertise and research specialisation is Industrial Engineering with the focus on advanced manufacturing technologies, knowledge based systems and robotics applications in Manufacturing

Skills development is a challenge in the South African landscape, further skills in science, technology, engineering and mathematics is a global problem. This chair will seek to be a catalyst in revitalising the rail commuter coach manufacturing focusing on engineering and the related sectors to propel rail as a preferred commuter transport mode. Technical skills, running of technical business and development of localised technologies will bring about a revamp of the contribution of manufacturing sector to the GDP and also result in sustainable employment and black owned Small, Micro & Medium Enterprise development.

12:00 – 12:30 (Thursday)

Prof. John Alfred Trimble
Professor, Department of Industrial Engineering
Tshwane University of Technology (TUT)
Pretoria, South Africa

Professor John Trimble is currently serving as a Flagship professor with a joint appointment in Tshwane University of Technology’s Operations Management and Industrial Engineering. Departments. From 2015 through 2016, he served as a Fulbright professor in Industrial Engineering. He holds a BSc in Engineering from Northwestern University, MSC in Computer Science from Stanford University, MSc in Operations Research from University of California, Berkeley and a PhD in Industrial and Systems Engineering from Georgia Institute of Technology /USA.

Trimble has over 25 years of teaching experience at various universities in the USA, Zimbabwe, Rwanda and South Africa. He has served as Head of Department and Dean of ICT. Prior to joining the academy, Trimble worked in industry as a researcher, software developer and manager. Over the past 15 years, Trimble has been heavily involved with research and projects concerning the use of ‘appropriate technology’. He has led in the organizing of 8 international conferences on appropriate technology, held across Africa in Zimbabwe, Rwanda, Ghana, South Africa, Benin and Kenya.

12:30 – 1:00 (Thursday)

Prof. Thomas Tengen
Associate Professor and Head
Department of Industrial Engineering and Operations Management
Vaal University of Technology (VUT), South Africa

Thomas B. Tengen is an Associate Professor and Head of Industrial Engineering & Operations Management Department at Vaal University of Technology (South Africa). Prof TB Tengen is also a C3 Rated Researcher by the NRF. He earned his BSc (Hons) in Mathematics with Minor in Physics and Computer Science from the University of Buea (Cameroon). He proceeded to do his MSc in Physics at the same University of Buea (Cameroon) with a Mini Dissertation of Alternative Specifications and Mechanics of Wind-Charger Type Brake. He obtained his PhD in Engineering from the University of the Witwatersrand in Johannesburg (South Africa) while researching on the Application of the Stochastic Principles in the Design of Nanomaterials Mechanical Properties and Design of Nanotechnology. His general research deals with the application of the Stochastic Theory and Stochastic Principle in designing engineering system and addressing engineering (system) problems. He has published widely both in conference proceedings and in journals. He is currently developing three patents

1:00 - 2:30 Networking Lunch Buffet
Session X: **Global Engineering Education (Room - Spartan 2)**
Session Chair: Dr. Grace Mukondeleli Kanakana – Katumba, University of South Africa (UNISA)
2:30 – 4:00 pm (Thursday)

**2:30 – 3:00 (Thursday)**

**Dr. Bolanle Tolulope Abe**
Senior Lecturer and Acting Academic Manager
Department of Electrical Engineering
Tshwane University of Technology
eMalahleni campus, South Africa

Dr. Bolanle Tolulope Abe earned her Master degree in Communication Engineering from the Department of Electrical & Electronics Engineering, Federal University of Technology, Akure, Nigeria. She worked as a professional studio engineer at the Ondo-State Television Broadcasting Corporation, Nigeria before she moved into academics. Dr. Abe taught at the Department of Electrical & Electronics Engineering, Federal Polytechnic, Ado-Ekiti, Nigeria before she relocated to South Africa for further studies. She obtained Doctoral degree (PhD) in Electrical Engineering from the School of Electrical and Information Engineering, University of the Witwatersrand, Johannesburg, South Africa. Dr. Abe is a senior lecturer and the acting academic manager of the Department of Electrical Engineering, Tshwane University of Technology (TUT), eMalahleni campus, South Africa. She is a senate member of the University and also the Chairperson of the TUT Women in Engineering. Her passion is to motivate females in choosing engineering as a profession and to remain in the engineering profession. She is a member of many professional bodies among which are: the Institute of Electrical and Electronics Engineers (IEEE), South Africa Institute of Electrical Engineers (SAIEE), Engineering Council of South Africa (ECSA), Council for the Regulation of Engineering in Nigeria (COREN) and Industrial Engineering and Operations Management (IEOM).

Her research interests are multi-disciplinary; these include the application of computational intelligence in remote sensing, Communication engineering, Electromagnetic Compatibility, corrosion and water resource management. She has track records in human capacity development by supervising and producing Masters and Doctoral students. She has published several papers in Journals, book chapters and has presented conference papers in many countries. She is an editor of the African Journal of Science, Technology, Innovation and Development, Neural Computing and Applications Journal and Egyptian Journal of Remote Sensing.

**3:00 – 3:30 (Thursday)**

**Ms. Sebonkile Thaba**
Lecturer and Community Engagement Coordinator
Department of Transport and Supply
University of Johannesburg, South Africa

Sebonkile C. Thaba, is currently a lecturer and community engagement coordinator in the Department of Transport and Supply. Sebonkile is studying towards Doctoral Degree at the University of Johannesburg (UJ). She is awarded Academic Doctorate Advancement Project towards Transformation (ADAPT) Scholarship, which is the collaboration of United State and South Africa Higher Education (SA-HE) Network. She serves as the president of Industrial Engineering and Operations Management (IEOM) UJ Student Chapter. She has 21 conference papers and two-book chapters published. Her research interest are Sustainable Supply Chain Management, Life Cycle Assessment, Enterprise development and Sustainable Transport (renewable energy).

**3:30 – 4:00 (Thursday)**

**Dr. Grace Mukondeleli Kanakana – Katumba**
Deputy Executive Dean
College of Science, Engineering and Technology
University of South Africa (UNISA)
Unisa Science Campus
Florida, Gauteng, South Africa

Dr. Grace Mukondeleli Kanakana – Katumba is a Deputy Executive Dean of College of Science, Engineering and Technology at University of South Africa (UNISA), Unisa Science Campus, Florida, Gauteng, South Africa. She was an Assistant Dean of the Faculty of Engineering and Built Environment at Tshwane University of Technology. Dr. Kanakana – Katumba was head of the Industrial Engineering Department at Tshwane University of Technology.

She earned her B-Tech industrial from the University of Technology South Africa, Masters in Business administration from Nelson Mandela University, and PhD in Engineering Management from University of Johannesburg, South Africa. Dr. Kanakana – Katumba has published journal articles and conference papers pertaining to need areas from an industrial engineering perspective. She has carried out research studies with various research institutes and universities within South Africa and beyond. Her research interests include manufacturing, quality, benchmarking, optimization, project management, and lean six sigma. She is a member of local and international professional organizations. Dr. Kanakana – Katumba is serving as a conference chair of the 2018 IEOM South Africa Conference.

4:00 - 4:30: Networking Break
Workshop on Entrepreneurship

Professor Donald M. Reimer
Director of Membership and Chapter Development – IEOM Society
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs' Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs' Organization Faculty Advisory Council and is a member of the American Society of Engineering Education. He has operated his own consulting company – The Small Business Strategy Group for 23 years. He published numerous articles on small business, entrepreneurship and strategic thinking. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer is a member of Advisory Board of the Milwaukee Junction Small Business Assistance Center. He is also a member of the Applied Innovation Alliance. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.
13th IEOM Global Engineering Education

DISTINGUISHED SPEAKERS

Tuesday (March 5, 2019)

Session I: Global Engineering Education (Room 1) – 8:00 – 9:30 (Tuesday)
Session Chair: Dr. Syed Ahmad Helmi Al Haddad, Universiti Teknologi Malaysia

8:00 – 8:30 (Tuesday) – Room 1

Ana Luisa Ferreira Andrade Ramos
Assistant Professor of Management and Industrial Engineering (MIE)
Department of Economics, Management and Industrial Engineering (DEGEI)
University of Aveiro, Campo de Santiago, Aveiro, Portugal

Model-Based Systems Engineering (MBSE): Visual Thinking to Engineer Modern Complex Systems

Ana Luisa Ferreira Andrade Ramos was born in Viseu (Portugal), in 1974. She received the M.Sc. degree in Computers Engineering from the University of Coimbra, Coimbra, Portugal, in 2002 and the Ph.D. degree in Industrial Management from the University of Aveiro, Aveiro, Portugal, in 2011. She is currently an Assistant Professor of Management and Industrial Engineering (MIE) with the Department of Economics, Management and Industrial Engineering (DEGEI) of University of Aveiro, where she teaches since 1997 (Simulation, Operations Management and Logistics). She is member of the Executive Board of the Department. She was a member of the Department Council, vice-director of the MIE undergraduate and graduate courses and coordinator of the Socrates/Erasmus program for the MIE area. She is an integrated member of the Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP) of the University of Aveiro being the research work focused on systems engineering and modeling & simulation of complex systems, with applications in the industrial and transportation sectors. She has participated in several scientific research projects and industry-based projects. She co-authored book chapters and numerous scientific papers published in peer reviewed international journals and international conferences proceedings. She received, in 2009, the international award “INCOSE Foundation/Stevens Institute Doctoral Awards for Promising Research in Systems Engineering and Integration”. She served as reviewer for many scientific journals such as Computers and Industrial Engineering, IEEE Transactions, and Research in Engineering Design. She is a member of the IEEE Society, the IEEE Systems, Man, and Cybernetics Society, the International Association of Computer Science and Information Technology, the Systems Engineering & Architecting Network for Research (SEANET), and the Portuguese Association for the Development of Operational Research (APDIO).

8:30 – 9:00 (Tuesday) – Room 1

Prof. Aurobindo Ogra
Lecturer: Department of Town and Regional Planning
Coordinator: Masters in Sustainable Urban Planning and Development (MSUPD)
Faculty of Engineering and the Built Environment (FEBE), University of Johannesburg, South Africa

Mr. Aurobindo Ogra joined University of Johannesburg in 2009 and presently lectures in areas of Sustainable Urban Infrastructure and Smart Cities Development at Department of Town and Regional Planning, Faculty of Engineering and the Built Environment. He acquired Bachelor of Construction Technology (2000) and Masters in Urban & Regional Planning (2002) from CEPT University, Masters in Business Economics (2009) from Annamalai University and is currently finishing his doctoral research in Engineering Management at University of Johannesburg. He has also participated in specialized certificate programmes in urban sector from leading institutions namely Central European University (CEU), World Bank Institute, IGLUS-EPFL Switzerland, University of California, Berkeley and University of West Florida. He has more than 16 years of international professional experience from South Africa, India and China. He had worked on multi-sectoral urban projects from multilateral & bilateral donor agencies like ADB, World Bank, JBIC, USAID, and National, Provincial and Local Governments. His key expertise and interest areas span across multidisciplinary domains of urban sector: Smart Cities, Urban and Regional Planning, Urban Infrastructure, Urban Development and Management, Local Government, Urban Financial Management, Metropolitan and City Regions, e-Governance, Geographic Information Systems, Urban/Spatial Analytics, Innovation & Technology Integration, Tourism, and Industrial Parks Development. He is currently acquiring further knowledge and skills in areas of Data Science, Big Data, Machine Learning, Artificial Intelligence and Geo-Computation and its application for solving complex real world problems in urban and regional sector. He is a registered Professional Planner with South African Council for Planners (SACPLAN), Member of International Society of City and Regional Planners (ISCARP), Associate Member of Institute of Town Planners India (ITPI) and among other key national and international professional and voluntary associations. At an institutional/industry engagement level, he has provided technical inputs at various levels in the capacity of an Expert Panel Member, Working Commission Member, Scientific Committee Member, Editorial Board Member, Reviewer, Session Chair and as a Keynote Speaker.

9:00 – 9:30 (Tuesday) – Room 1

Dr. Syed Ahmad Helmi Al Haddad
Program Coordinator for MSc in Industrial Engineering, Faculty of Mechanical Engineering
Associate Fellow, Center for Engineering Education (CEE), Universiti Teknologi Malaysia, Johor, Malaysia

Dr. Helmi is a senior lecturer in the Faculty of Mechanical Engineering, Universiti Teknologi Malaysia (UTM), and is affiliated to the UTM Centre for Engineering Education. He is currently the Graduate Programme Coordinator for the Department of Material, Manufacturing and Industrial Engineering. He has a Bachelor of Science in Mechanical Engineering, Master in Mechanical Engineering, and a PhD in Engineering Education. Prior to joining UTM, he worked as industrial extension officer in Standard and Industrial Research Institute of Malaysia (SIRIM) and as an engineer in various industries, such as INTEL and SIME-DARBY. Syed Helmi was a visiting scholar in University of Waterloo, Canada, and one of a task force member in-charged of propagating active learning in UTM. Over the years, as a practitioner of Problem Based Learning (PBL), he has conducted several workshops to train academics, especially those in Science, Technology, Engineering, and Mathematics (STEM) education areas, on Outcomes-Based Education (OBE) particularly in effective implementation of Student Centred Learning (SCL) throughout Malaysian higher institutions, and international institutions such as in China, India, Korea, Turkey, and Afghanistan. Dr. Helmi was invited as speaker in several international conferences, has published numerous articles related to his area of interest. His recent works include SCL, change management, complex engineering problems, manufacturing systems and optimization, and modelling of complex industrial systems.
ID 398 Engineering Education through Students Engagement in Virtual Learning Space

Puteri Suhaiza Sulaiman, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

Puteri Suhaiza Sulaiman is a senior lecturer in Universiti Putra Malaysia. She has a degree in Science (Computer) and Masters of Science in Computer Science, both from Universiti Teknologi Malaysia (UTM). She has received her PhD in Computer Graphics at Universiti Putra Malaysia (UPM). She has more than 15 years of experience in the field of computer graphics, computer vision, information visualization and advanced interaction. Her current research explores the realm of virtual and mixed reality, focusing on the interaction and visualization elucidation. She has been involved in designing and developing computer games for children and people with special needs.

ID 301 Applications of Virtual Reality (VR) as Teaching Tool to Enrich Students Learning

Boback Parsaei, Senior Consultant, Integrated Technology Systems, Inc., Houston, Texas

Boback Parsaei is a Senior IT Consultant and created several pioneering initiatives for promoting the use of digital technologies in the classroom. He has served on a number of university committees (admissions, staffing and appeals) and also board member of PNG Ports for international funding. He reviews for many journals and is member of INFORMS, IEOM and IEEE. In addition to academic work, he interacts continuously with different Industries in the areas of Machine Learning, Quality Engineering and Supply Chain Management. He was also a senior engineer at Intel.

John Yuahan Pumwa

Professor of Mechanical Engineering and Acting Dean of Engineering, PNG University of Technology, Papua New Guinea

John Yuahan Pumwa graduated from the PNG University of Technology with a BEng., degree in Mechanical Engineering. He also graduated from the University of Wollongong, N.S.W., Australia with a MEng (Hons) in Mechanical Engineering. He has served as a Acting Vice Chancellor for almost a year while waiting for the Vice Chancellor to arrive on campus. He has served on a number of university committees (admissions, staffing and appeals) and also board member of PNG Ports for a number of years. He is currently teaching failure analysis to final year students and engineering ethics to third year mechanical engineering students. Educational Background: Postdoctoral Fellow, Korea Advanced Institute of Science and Technology (KAIST), Ph.D., Interdisciplinary Engineering, Texas A&M University, MEng., Mechanical Engineering, University of Wollongong, NSW, Australia and B.Eng., Mechanical Engineering, PNG University of Technology.
ID 439  A Critical review about performance management in education systems: Case of Morocco  
HIND BENLHABIB, Ecole Mohammadia d’Ingénieurs, Mohammed V University of Rabat, Morocco

3:00 – 3:30 (Tuesday) – Room 1

Dr. Trynos Gumbo  
Associate Professor and Head of the Department of Town and Regional Planning  
Faculty of Engineering and the Built Environment, University of Johannesburg (UJ), South Africa

Trynos Gumbo is an Associate Professor and Head of the Department of Town and Regional Planning within the Faculty of Engineering and the Built Environment in the University of Johannesburg (UJ). He holds a PhD from Stellenbosch University, South Africa as well as masters and honours degrees from the University of Zimbabwe (UZ), Zimbabwe. He has previously worked in the Africa Institute of South Africa of the Human Sciences Research Council as a research specialist and Acting Manager for the sustainable development programme. Prof Gumbo has also worked as an international instructor in the urban management masters programme within the Ethiopian Civil Service University College (ECSUC) in Addis Ababa in Ethiopia. Before, Prof Gumbo had worked as lecturer and Head of Department at the National University of Science and Technology (NUST) in Zimbabwe. He has attended and presented at several national and international conferences and has published widely on urban development and management. His research interests include urban transportation planning and management, sustainable and smart cities development, housing and economic informality, green economy and renewable energy generation from waste and innovative building technologies and materials.

ID 448  Investigating curriculum transformation pathways in technological planning schools: Learning from conventional planning programmes and beyond  
Trynos Gumbo, University of Johannesburg, Gauteng, South Africa  
Emaculate Ingwani, Department of Urban and Regional Planning, School of Environmental Science, University of Venda, South Africa

3:30 – 4:00 (Tuesday) – Room 1

Dr. Fauzia Jabeen  
Associate Professor of Management  
College of Business, Abu Dhabi University, UAE

Dr. Fauzia Jabeen is an Associate Professor of Management at College of Business, Abu Dhabi University. She holds a Ph.D. in Management and has notable academic and industrial experience of United Arab Emirates (UAE). Dr. Jabeen’s teaching and research interests pertain to Women Entrepreneurship & SMEs, Family Business, Organizational Behaviour, Leadership, Sustainability, and Emiratization. Her work has been published in the leading journals like International Journal of Hospitality Management, International Journal of Productivity and Performance Management, International Journal of Organizational Analysis, Journal of Small Business and Enterprise Development, and Journal of Management Development. She has more than 15 years of experience in Teaching, Research and Consulting.

ID 656: Perceptions and Career Choices Linked to the UAE Youths Entrepreneurial Intention  
Fauzia Jabeen, College of Business, Abu Dhabi University, UAE

4:00 - 4:30 Networking Break

Session IV: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Tuesday)  
Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA  
Panel Session – Global Engineering Education

Dr. Abu Masud, P.E.  
Emeritus Professor, Department of Industrial and Manufacturing Engineering  
Wichita State University, Kansas, USA

Dr. Abu Masud is an emeritus professor of industrial and manufacturing engineering at Wichita State University. He was named the Boeing Global Engineering Professor at Wichita State University. Dr. Masud advanced the College of Engineering’s strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering. Previously he was held various positions at Wichita State including dean and associate dean of graduate school (2008-2013), coordinator, college ABET affairs (2006-2008), associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.

Dr. Hamid Parsaei, PE  
Professor of Industrial and Systems Engineering  
Texas A&M University (College Station)  
and  
Professor of Mechanical Engineering  
Texas A&M University - Qatar

Hamid R. Parsaei is Professor of Industrial and Systems Engineering at Texas A&M University (College Station) and also Professor of Mechanical Engineering and Associate Dean for Academic Affairs at Texas A&M University at Qatar. He is a registered professional engineer (PE) in Texas, a Fellow of the Institute of Industrial Engineers (IIE), and a Fellow of the American Society for Engineering Education (ASEE). He has published over 200 articles in peer-refereed archival journals and conference proceedings. He has also served as editor/co-editor in chief for four academic journals and five book series. His research, in excess of $22 million, has been funded by numerous government and private institutions.
Wednesday (March 6, 2019)

Session V: Global Engineering Education (Room 1) - 8:00 – 9:30 am (Wednesday)
Session Chair: Dr. S. C. Naik, National Institute of Technology, Rourkela, Odisha, India

8:00 – 8:30 (Wednesday) – Room 1

Dr. Paul A. Ozor
TWAS-NRF Research Fellow, University of Johannesburg, South Africa

Dr Paul A. Ozor obtained a bachelor’s degree (B.Eng) in Mechanical/Production Engineering at Enugu State University of Science and Technology, Nigeria. He worked as project manager with some Engineering Companies before proceeding to Department of Mechanical Engineering, University of Nigeria Nsukka (UNN) for higher studies, and specialized in Industrial Engineering and Operations Management. He obtained both Masters and PhD degrees in 2008 and 2015 respectively from UNN. He has been a teaching and research staff of UNN for over a decade. He is a Professional Member of Nigeria Society of Engineers. Dr Ozor is currently a TWAS-NRF research fellow to University of Johannesburg, South Africa, and has been awarded the Association of Common Wealth Universities’ (ACU) early career scholarship in 2014. His research interests include Industrial Operations modelling, Quality management, Systems Analysis, Reliability Engineering, with special emphasis on System Sustainability, Failure mode effects and criticality analysis (FMECA), Safety and Risk assessment (SRA) as well as Environmental influence modelling, including Waste Management, Water and Energy nexus.

Professor Charles Mbohwa
Professor, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

Professor Charles Mbohwa is a full professor in Faculty of Engineering and the Built Environment, University of Johannesburg. He was formerly the Vice-Dean for postgraduate studies research and innovation and Acting Dean of the faculty. He obtained B. Sc. Honours in Mechanical Engineering in 1986 from Department of Mechanical Engineering, University of Zimbabwe, Harare, Zimbabwe. He later bagged M. Sc. in Operations Management and Manufacturing Systems in 1992, with a distinction from Department of Manufacturing Systems Engineering, University of Nottingham, UK. He obtained PhD in Engineering (Production Systems focusing on Energy and life cycle assessment) from Tokyo Metropolitan Institute of Technology, Tokyo, Japan in 2004. Professor Mbohwa is an NRF-rated established researcher. In January 2012 he was confirmed as an established researcher making significant contribution to the developing fields of sustainability and life cycle assessment. In addition, he has produced high quality body of research work on Southern Africa. He is an active member of the United Nations Environment Programme/Society of Environmental and Toxicology and Chemistry Life Cycle Initiative, where he has served on many taskforce teams.

ID 603 Engineering Education and Self Dependence: A Nigerian Experience
Paul Amaechi Ozor and Charles Mbohwa, University of Johannesburg, South Africa

8:30 – 9:00 (Wednesday) – Room 1

Dr. A. K. Malik
Associate Professor, Department of Mathematics, B. K. Birla Institute of Engineering & Technology, Pilani, INDIA

Applications of Optimizations in Engineering and Management

Dr. A. K. Malik, Associate Professor in the Department of Mathematics, B. K. Birla Institute of Engineering & Technology Pilani, Rajasthan, India. He received his MSc degree with Mathematics from Gurukula Kangri Vishwavidyalaya, haridwar, Uttarakhand and PhD from Chaudhary Charan Singh University, Meerut, Uttar Pradesh. He has more than 13 years’ experience in academic and research. His area of specialization is Operations Research, Inventory Control, and soft computing techniques. He has published more than forty research papers in reputed national and international journals. He has also attended various national and international seminar/conferences/symposiums/workshops and presented his research papers. He is author/co-author of 18 books like Operations Research (Oxford University Press), Engineering Mathematics-I & II, Mathematics-III (for EC&EE), Adv Engineering Mathematics (All New Age International Publication, New Delhi); Optimization Techniques, Topology, Measure Theory & Integration (I K International Publication, New Delhi); and Mathematics-III (for CSE & IT) (Asian Publication, New Delhi) etc. Dr. Malik has been invited to deliver talks on various research topics in several Institutes (IITs and others) and universities; and a visiting Professor in various prestigious institutes/ISTI University, CERGY, Paris France for delivered lectures on “Thorough operational research: Modelling and Business Application” to Master In Business Analytics-ADEO during Nov 2014 -Dec 2014. He has supervised 5 Ph.D. students in the field of inventory control and soft computing techniques. He is a life member of learned societies, Association of Inventory Academicians and Practitioners (AIAP), Indian Association for Reliability and Statistics (IARS), Rajasthan Ganita Parishad (RGP). He is reviewer of various journals Opsearch, JIEL, IJPMB & USCM, IJPM, and editorial board member of IJSCE, AJMS,BSMSS, IJMSA, etc.
9:00 – 9:30 (Wednesday) – Room 1
Dr. Shiba Charan Naik
Professor, Former Head of Chemical Engineering and Dean, National Institute of Tech, Rourkela, Odisha, India
Past President, The Institution of Engineers, Past VP, Federation of Eng. Institutions in South & Central Asia

Dr. Albertus Retnanto is Professor of the Practice of Petroleum Engineering at Texas A&M University at Qatar. He teaches undergraduate courses in numerical methods, well testing, petroleum production system, production engineering, petroleum technical presentation, natural gas engineering, and integrated asset development and makes significant curriculum enhancements to several courses. He held a Principal position with Schlumberger and has more than 18 years of experience worldwide in both technical and management positions in the area of well testing, field development, and production enhancement. He has received the Performed by Schlumberger Bronze Award four times. He has served as the Review Chairman of SPE Drilling & Completion Journal and chair on several committees on SPE. He received the A Peer Apart SPE Award, which is dedicated to the technical excellence of authors to the industry. He received the AFS College-level Distinguished Achievement Award in Teaching in 2016, SGA Educator Award, SEC Best Faculty Award, and the Faculty of the Year Award in five times, and the Distinguished Teaching Award. He has authored and co-authored over 35 papers. He is a PETE undergraduate advisor, and held the Principal position with Schlumberger.

ID 217 The Role of Program Advisory Board in Elevating the Degree Program Content
Albertus Retnanto and Hamid R. Parsaei, Texas A&M University at Qatar

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Ninth Annual International Conference
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Began the academic career with a technician course in Electronics from Liceu de Artes e Oficios (1999) followed by an undergraduate degree in Electronic Engineering from Universidade Presbiteriana Mackenzie in 2004. In 2016, finished the Masters course in Industrial Engineering with the Quality of Engineering Education and its Relation to Regional Development as his area of research. As a technical profession, from 1999 until 2016, started in Caltronic Automação Industrial, a service-based company in Brazil that represents American and European automation equipment for the printing industry, and finished as Service and Projects Manager, serving not only Brazil but the whole of South America with services performed also in USA and China. During the professional career took several courses in USA and Europe to Automation and dedicated equipment maintenance. In 2016 left the company for full-time dedication to IFSP. In 2014 began his teaching career in FIEB as a substitute teacher for the Technical Course of Electronics. In 2016 moved to IFSP to start the electronics Technical Course in the city of Sorocaba and has been engaged with this project since 2016. In this 4,5 years period, he has taught a large variety of courses in electronics. In 2018 began his Research Group in Industry 4.0 and is currently working with colleagues in this research area as well as the project for the PhD.

Prof. Dr. Ripu Ranjan Sinha
Director General, Asia Africa Development Council
Founder, The India – Africa ICT Knowledge Consortium and Professor, S S Jain Subodh P G College, Jaipur
Associate Dean for Research Affairs, Suresh Gyan Vihar University, Jaipur, India

Prof. Sinha is Indian Academician Serving as a Director General of Asia Africa Development Council (ADCO), a Promising Council to support and promote sustainable peace and Development, and India Africa Cultural & Business Cooperation, and an academician and expert in the area of Master’s and Bachelor’s from St. Xavier College of Computer Studies, Patna and, Doctor of Philosophy in Computer Sciences in Strategic Knowledge Management. He attained excellence in research through QIP on “Business Informatics” and “Research Methodologies” form IIT Kanpur and IIT, Mumbai where he developed an innovative vision to contribute for sustainable peace and Development. He spent two decades as a Professor and research administrator mainly at leading academic and research labs and is intimately involved in the Computer Society of India as Vice Chairmen. He came to be known as “MAN WITH INNOVATIVE VISION” for his work on sustainable peace & Development. He also played a pivotal organizational, technical role in strategic alliances with a vision to promote innovation. Prof Sinha is the Founder Leader of World Academy of Informatics and Management Sciences and Founder President of Innovation Society (India) a platform for Innovative Culture Establishment in PAN India focusing the Youth. He made contribution in framing of India Africa ICT Knowledge Consortium for the Promotion of Bilateral Relation among India and Africa. Prof. Sinha believes that without nourishment of Innovative culture a developing countries may not able to gain ‘Developed’ status and all his efforts are in same direction. Prof Sinha is Secretary General of Indo Global Chamber of Commerce, Industries and agriculture an international agency promoting and supporting innovative culture through various chambers and professional excellence. He is also associated with Professional Body as Member/Board of Directors like CSI, Brain Rhyme, AAGSON United Kingdom, SMIACSIT Singapore, SIAEng, Hong Kong. Prof. Sinha is Country Director of Public Opinions International an organisation involved in promoting the United Nations Sustainable Development Goals through information Dissemination, Public Awareness, Public Relations, issues Research, training and mentor-ship, Investment Advisory services, etc. He is recipient of several prestigious awards and Honored for Excellence to Promote innovate Culture and Made in India Initiative in conference/seminar/meetings in the SRI LANKA, BHUTAN, NEPAL, UAE, UNITED KINGDOM and PAN India. Presently he is associated with Rajasthan University. Prof Sinha is Academician, Author of Numerous Books, Journals, Mentor of PhD Research Scholars, Innovative Leaders with SAP Consultants, Quality Assurance Professional.

Jedsada Tipmontian, Ph.D.
Assistant Dean at International Academy of Aviation Superior
King Mongkut’s institute of Technology Ladkrabang (KMITL) Thailand
Executive Board Member, Thai Association for Cooperative Education

Dr. J. Tipmontian is a faculty member in the field of Logistics Management, International Academy of Aviation Industry (IAAI) at King Mongkut’s Institute of Technology Ladkrabang (KMITL) and serving as Executive Board Member for Thai Association for Cooperative Education (TACE). Before joining at KMITL, he worked for Manufacturing Business, Logistics Business, and Academic Institute, King Mongkut University of Technology North Bangkok (KMUTNB). He received a Bachelor’s degree in Agro-Industry from Prince of Songkla University (PSU), Thailand. He holds a Master of Engineering in Industrial Engineering from KMUTNB. He completed Certificate program in Industrial Engineering & Management from Asian Institute of Technology, Thailand. He completed PhD under Faculty of Mechanical Engineering (Specialization in Industrial Engineering, Logistics and Supply Chain Management) at Department of Industrial Engineering, College of Engineering, Guindy, Anna University (AU), Chennai, sponsored by Government of India Doctoral Scholarship. Tipmontian’s research interests include Supply Chain Risk Management, Quality & Production Management, Statistical and Fuzzy Quality Control, Application of Fuzzy Logic and Neural Network for Production and Distribution Problems, System Dynamics Simulation and Multi-Criteria Decision Models. From last decade, he was in-charged as Associate Dean and chair for cooperative education committee at his academic department, King Mongkut’s University of Technology North Bangkok. He had been responsible for planning, organizing, leading, monitoring, and controlling for cooperative and work-integrated education. Apart from administration and management functions above, he was in-charged as academic supervisor for more than 30 cooperative and work-integrated education (CWIE) students projects. Several CWIE projects that he had supervised were selected for awards both in regional and national level. He was a chair of steering committee for Cooperative Education National Conference (Consortium of Cooperative Education in Industry Management) in 2015 and 2017. Jedsada Tipmontian was awarded for Staff of the Year (faculty level) by King Mongkut’s University of Technology North Bangkok in 2015, and Sustained Superior Performance Award in 2015 by Cooperative Education Network of the Higher Central Region, Office of Higher Education Commission, Ministry of Education, Royal Thai Government. He recently joined as faculty member of Logistics Management Program, International Academy of Aviation Industry, King Mongkut’s Institute of Technology Ladkrabang (KMITL).
Workshop on Outcome Based Education (OBE)

Session Chair: Dr. Alina Shamsuddin, UTHM, Malaysia
2:30 – 4:00 pm (Wednesday) - Room 9

Alina Shamsuddin (Associate Prof. Dr.)
Deputy Director, Center of Academic Development and Training (CAD)
Universiti Tun Hussein Onn Malaysia
Parit Raja, Johor, Malaysia

Dr. Alina Shamsuddin is currently an Associate Professor (Technology Management) with the Faculty of Technology Management and Business of Universiti Tun Hussein Onn Malaysia. Being a founding member of her faculty, Dr. Alina is not only knowledgeable on the immediate related fields of performance measurement, production and management, she is also an expert on educational quality assessment and assurance, with 5 year experience as an auditor for the Malaysian Quality Agency (MQA). Her research concerns are myriad but inter-related, encompassing higher education quality assurance and reforms, effective teaching and learning, as well as innovative technology adoption for SMEs. Currently heading the Unit of New Programmes Development, Dr. Alina is consolidating her effort to make a difference in the quality of programme design and delivery in the overall higher educational arena, institutionally and nationally.

Dr. Chan Chee-Ming
Associate Professor and Deputy Dean (Academic and Research),
Centre for Graduate Studies
Universiti Tun Hussein Onn Malaysia
Batu Pahat, Johor, Malaysia

Chee-Ming Chan is an Associate Professor with the Civil Engineering Technology Department, Faculty of Engineering Technology, Universiti Tun Hussein Onn Malaysia. She is presently holding the office of Deputy Dean in Academic and Research at the Centre for Graduate Studies in the University. Her area of expertise includes geo-materials, engineering education and higher education improvement. More recently, Dr. Chan’s current work on dredged materials from Malaysian waters has gained momentum and support from the Ministry of Science, Technology and Innovation and Department of Marine, Malaysia. She is also involved in professional bodies, including the Society for Engineering Education Malaysia (SEEM), Malaysian Geosynthetics Society (MyIGS), Institution of Engineers Malaysia (IEM), Board of Engineers Malaysia (BEM), and is an education quality auditor for the Malaysian Qualification Agency (MQA). From 2009-11, Dr. Chan served as a Postdoctoral Research Fellow at the Port and Airport Research Institute (PARI), Japan.

Dr. Azeanita Suratkon
Senior Lecturer at the Faculty of Civil & Environmental Engineering
Lead – Department of Building and Construction Engineering
Universiti Tun Hussein Onn Malaysia
Johor, Malaysia

Dr. Azeanita Suratkon is currently a Senior Lecturer at the Faculty of Civil and Environmental Engineering, and leads the Department of Building and Construction Engineering. Dr. Azeanita had a multi-national education background: bachelor’s at UTM (Malaysia), Master’s at Herriot-Watt University (Scotland) and PhD at Chiba University (Japan). Her international exposure has given her the leverage for a multi-faceted approach in her chosen field of study, which primarily revolves around construction management, risk assessment and procurement issues. Dr. Azeanita also aims to improve the current engineering education practice, in line with the nation’s Outcome-based Education philosophy, by drawing on her rich multi-discipline background. Her continuous effort in enriching construction management and higher educational reforms are driven forward in collaboration with Japanese counterparts too.

4:00 - 4:30 pm: Networking Break

Session VIII: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Wednesday)
Session Chair: Dr. Eldon Caldwell, University of Costa Rica

4:30 – 5:00 (Wednesday) – Room 1

Dr. Trynos Gumbo
Associate Professor and Head of the Department of Town and Regional Planning
Faculty of Engineering and the Built Environment, University of Johannesburg (UJ), South Africa

Trynos Gumbo is an Associate Professor and Head of the Department of Town and Regional Planning within the Faculty of Engineering and the Built Environment in the University of Johannesburg (UJ). He holds a PhD from Stellenbosch University, South Africa as well as masters and honours degrees from the University of Zimbabwe (UZ), Zimbabwe. He has previously worked in the Africa Institute of South Africa of the Human Sciences Research Council as a research specialist and Acting Manager for the sustainable development programme. Prof Gumbo has also worked as an international instructor in the urban management masters programme within the Ethiopian Civil Service University College (ECSUC) in Addis Ababa in Ethiopia. Before, Prof Gumbo had worked as lecturer and Head of Department at the National University of Science and Technology (NUST) in Zimbabwe. He has attended and presented at several national and international conferences and has published widely on urban development and management. His research interests include urban transportation planning and management, sustainable and smart cities development, housing and economic informality, green economy and renewable energy generation from waste and innovative building technologies and materials.

Emaculate Ingwani
Senior Lecturer in the Department of Urban and Regional Planning
School of Environmental Science
University of Venda in South Africa

ID 449 Exploring the Efficacy Of Blended Learning and Innovative Assessments in Town Planning Students at the University of Johannesburg
Trynos Gumbo and Emaculate Ingwani, University of Johannesburg, South Africa
Dr. Niraj Gupta

Dean and Professor, FoME, Shri Ramswaroop Memorial University, Lucknow, Uttar Pradesh, India

Dr. Niraj Gupta graduated in Mechanical Engineering from IIT Bombay and did his Master’s degree in Industrial Engineering from IIT Bombay in 1996. He was awarded PhD in supply Chain Management in 2011. He has a unique blend of teaching – Industry-Research experience of over 20 years. He had been a faculty member at Integral University, IIIT, NIILM and a visiting faculty at the AIIMA, New Delhi and IIM Ghaziabad. He has also served in past Festo (German MNC) and Safexpress, New Delhi. At Festo, he has trained engineers from TATA Motors, Maruti, SAAMTEL, Hero Honda etc. in the area of pneumatic & Eletropneumatic. At Safexpress, he was heading Safe extension cell. He has also worked in a DST sponsored project,” Technical back up in entrepreneurship development program” at IIT Delhi. He had also undergone training program at IIT Kharagpur & IIT Kanpur in the area of Quality & Supply Chain Management respectively. He has also worked in the consultancy project of Crompton Greaves, PAL & Garware in the area of Productivity, Quality and Integrated Production & Distribution System respectively. He has conducted 5 days short term course in supply chain management for teachers and industry practitioners in 2015-2016. Presently, working as a Dean and Professor at Shri Ramswaroop Memorial University, Barabanki. He is responsible for all academic operation of FoMe including the planning, delivery, performance and quality management of Teaching – Learning – Evaluation process. Some of the responsibilities, he has handled are designing of syllabus, academic instruction, ordinances (U.G.+P.G), Supervision of 10 dissertations at M. Tech level, guiding 3 PhD in the area of Supply Chain Management, Lean Six Sigma and Knowledge Management, publication of 25 research paper and one book with Lambert Publication on ERP, Chairing of Technical Session at various conference etc. Dr Niraj Gupta is a Fellow of Institute of Engineers (India). His area of Interest include: Supply Chain Management, Quality (TQM, Six Sigma, ISO) & Operation Management related topics.

Dr. Eldon Caldwell

Director, Industrial Engineering Department, Engineering School, University of Costa Rica, San Jose, Costa Rica

The Project based Learning combined with Problem Solving based Learning in Industrial Engineering Programs

Eldon Caldwell is full professor/ Cathedraticus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Summa Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/ University of Nevada, USA. Currently, he is a doctoral researcher at the (Dr. Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013. Dr. Caldwells “Lean Systems Certified Specialist”, MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prize. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering. Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc; Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at IITESM, Mexico. He is author of many scientific articles and two books: “Marketing of Social Products & Services”, UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Ins. Press, USA. Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica; General Manager atQuiros & Cia-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panama, Costa Rican Institute for Electricity, RTC-Peru, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.

7:00 - 10:00 pm, Wednesday - Awards Dinner

Awards Keynote: Dr. Robert de Souza, Executive Director, The Logistics Institute - Asia Pacific, NUS, Singapore

Thursday (March 7, 2019)

Session IX: Global Engineering Education (Room 1) - 8:00 – 9:30 am (Thursday)

Session Chair: Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia

Sumit Shandilya

Director & C.E.O., Academy for Performance & Excellence, Gurgaon, Haryana, India

Mr. Shandilya is an operations and quality management professional, consultant and a trainer. He is a key professional for deployment of Quality Management system, Lean manufacturing system, Six Sigma, TQM, TPM, Problem Solving and Operational Performance Excellence. His diverse range of consulting & training experience includes providing onsite vendor up-gradation through cluster activity, vendor system audit, conducting public & in-house trainings courses and onsite support. He has supported and mentored various organization for activities related to implementation of tools like SPC & MSA, FMEA, IATF 16949, APQP & PPAP, Six Sigma, Lean Manufacturing, TPM, Problem Solving, Plant Maintenance, DOE, TQM etc. He has been a recipient of numerous prestigious awards for his contribution in Industry like National merit award, speaker of the session award, best researcher award, best trainer award, best consultant award, young leader award and so on. He has worked with various big business houses of the country like HERO MotoCorp Limited, Maruti Center for Excellence – Maruti Suzuki India Limited and VISA Steel Limited. Currently, Sumit is associated with the following organizations: Director – Institute for Industrial Performance and Engagement, Director & C.E.O. – Academy for Performance & Excellence, Executive Director – Global System Certifications and Adjunct Professor – School of Management, BML Munjal University. Academically, Sumit is a: Ph.D. Research Fellow, BML Munjal University, Gurgaon, M.S. – Business Analytics, BITS Pilani, M.B.A. – Operations, Symbiosis, Pune, M.Sc. – Applied Statistics, I.G.N.O.U., M.G. – Project Management, MIT School of Distance Education, Pune and B.Tech. – Mechanical Engineering, Nagpur University. He is also a Master Black Belt in Lean Six Sigma, Lead Auditor – ISO 9001, ISO 14001, ISO 27001 and ISO 45001, Quality Council of India empanelled Lean consultant and a certified ZED consultant. He is continuously contributing to the professional world through his following associations: Member & Chair, Communication – American Society for Quality (ASQ) India, Delhi LMC, Life Member – Quality Circle Forum of India, Associate Member – Society for Automotive Engineers (SAE), India, Member & Core Committee member – National Institute for Quality & Reliability (NIQR), Northern Region. Apart from the academics, Sumit has been a national level sportsman in athletics and has won various medals for State, University and College.
8:30 – 9:00 (Thursday) – Room 1

Dr. Kin Keung Lai
Chair Professor
Department of Management Science, College of Business
City University of Hong Kong, Hong Kong

Kin Keung Lai is a Chair Professor of Management Science at City University of Hong Kong, Hong Kong. He is a certified senior enterprise risk manager and a fellow of the Hong Kong Institute of Directors and the Asia Pacific Association of Industrial Engineering and Management Systems. He provides consulting in supply chain and logistics management, operations analysis and management, business problem solving and marketing analysis, and financial management and engineering. He is currently president of the Asia Association of Risk and Crisis Management and the International Association on Financial and Risk Management. He is vice president of the International Federation of Logistics and Supply Chain Society and founding chair of the Operational Research Society of Hong Kong. He serves as editor in chief for two international journals and is on the editorial boards of 17 others. He is the author of more than 40 books and 700 publications. Kin has earned many honors and awards. World Executive Weekly named him among the Ten Most Influential Management Professors in China in 2008. He was named the Chang Jiang Scholar Chair Professor, Ministry of Education, China, in 2009; he was the recipient of the Joon S. Moon Distinguished International Alumni Award, Michigan State University, in 2009; and was ranked fourth among the top 20 academic authors in the area of business intelligence and analytics worldwide in a special issue of MIS Quarterly in 2012. Kin established a charity organization—Care for Children Foundation—20 years ago and has served as vice chair since then; he organizes projects including rehabilitation, education, foster care, and disaster relief in China. He has lived in Hong Kong since graduating from MSU in 1977.

9:00 – 9:30 (Thursday) – Room 1

Dr. Jafri Mohd Rohani
Head of the Industrial Engineering Programme
Department of Materials, Industrial and Manufacturing Engineering
Faculty of Mechanical Engineering
Universiti Teknologi Malaysia
Skudai, Johor, Malaysia

Knowledge, Attitude and Practices of Occupational Safety and Health in Construction industry Management (OSHCIM) from perspective of Clients, Designers and Contractors

Jafri Mohd Rohani is a Senior Quality and Statistical Engineering Lecturer. He is also Head of the Industrial Engineering Programme at the Department of Materials, Industrial and Manufacturing Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Skudai, Johor. Currently, he is the President of JohorCost and Quality Engineers Society. He is a member of the American Society for Quality (ASQ) and Human Factor Society of Malaysia.

9:40: Keynote (Thursday): Dr. Chen-Fu Chien, Tsinghua Chair Professor, Department of Industrial Engineering & Engineering Management, National Tsing Hua University, Convener, Industrial Engineering and Management Program, Ministry of Science & Technology and Director, Artificial Intelligence for Intelligent Manufacturing Systems Research Center, Ministry of Science & Technology, Hsinchu, Taiwan

10:20: Keynote (Thursday): Dr. Josu Takala, Professor, Industrial Management and Materials Management, University of Vaasa, Vaasa, Finland

11:00 - 11:30: Networking Break

Session X: Global Engineering Education (Room 1)

Session Chair: Dr. Jiří Tupa, University of West Bohemia, Pilsen, Czech Republic

11:30 am – 1:00 pm (Thursday)

11:30 – 12:00 (Thursday) – Room 1

Dr. Muhammad Hisjam
Department of Industrial Engineering, Faculty of Engineering
Universitas Sebelas Maret, Surakarta, Indonesia

Problem Based Learning for Techno-economic Analysis for Logistics System Course: Case in a State-owned Warehouse

Dr. Muhammad Hisjam is with the Department of Industrial Engineering, Faculty of Engineering, Universitas Sebelas Maret, where he has been since 1998. He received his Bachelor degree from Universitas Gadjah Mada, Indonesia in 1986, and a Master degree from Institut Teknologi Bandung, Indonesia in 2002. He received his Ph.D. in Environmental Science from Universitas Gadjah Mada, Indonesia in 2016, with his dissertation title is “Sustainable Supply Chain Model in Export Oriented Furniture Industry in Indonesia (Case in Perum Perhutani)”. His research interests are in supply chain, logistics, business and sustainable development. He has published some papers in Journals, Conference Proceedings, and chapter books in his research area.

ID 774: Problem Based Learning for Techno-economic Analysis for Logistics System Course: Case in a State-owned Warehouse

Muhammad Hisjam, Department of Industrial Engineering, Faculty of Engineering, Universitas Sebelas Maret, Indonesia
Dr. Mohammad Khasawneh is a Professor and Chair of Systems Science & Industrial Engineering at Binghamton University. He received his Ph.D. in Industrial Engineering from Clemson University, South Carolina, in August 2003, and his B.S. and M.S. in Mechanical Engineering from Jordan University of Science and Technology, Jordan, in 1998 and 2000, respectively. Dr. Khasawneh’s research is focused on healthcare systems engineering, operations management, and data science. Dr. Khasawneh currently serves as Associate Director for the Watson Institute for Systems Excellence (WISE), an institute for advanced studies in healthcare systems engineering and data science. His research activities thus far have included a wide range of projects with U.S. hospital systems that focus on applied research in the areas of healthcare systems engineering, operational excellence, and data science. His health systems engineering center generates over one million US$ annually in sponsored research from various healthcare and hospital systems. Building on a successful research program and an academic concentration/minor, at the graduate/undergraduate levels, Dr. Khasawneh developed a 12-month Executive Master of Science with a Health Systems Concentration, which has been offered in Manhattan since 2013. He has also collaborated with industrial and University partners. The project RiMaCon Risk Management Software System for SMEs in the Construction Industry is one of the important international projects. This project has received funding from the European Union’s Seventh Framework Program for research, technological development and demonstration (2013-2017). The RiMaCon project’s main goal is to implement a collaborative effort to promote the sharing of knowledge and competencies in a long-term strategic research partnership around the development, testing and validation of a cost effective and user-friendly risk management system for SMEs in the construction sector.

Dr. Mohammad T. Khasawneh, Ph.D.
Professor & Chair, Systems Science and Industrial Engineering
Associate Director, Watson Institute for Systems Excellence
Director, Healthcare Systems Engineering Center
Graduate Program Director, Executive Master of Science in Health Systems
Thomas J. Watson School of Engineering and Applied Science
State University of New York at Binghamton, Binghamton, New York 13902, U.S.A.

Dr. Mohammad Khasawneh has been leading a wide spectrum of projects with U.S. hospital systems that focus on applied research in the areas of healthcare systems engineering, operational excellence, and data science. His health systems engineering center generates over one million US$ annually in sponsored research from various healthcare and hospital systems. Building on a successful research program and an academic concentration/minor, at the graduate/undergraduate levels, Dr. Khasawneh developed a 12-month Executive Master of Science with a Health Systems Concentration, which has been offered in Manhattan since 2013. He has also been instrumental in developing a new M.S. degree program in Healthcare Systems Engineering. Over the years, Dr. Khasawneh presented his research at various national and international conferences, including China, India, Mexico, Jordan, Korea, Thailand, Japan, and Canada. Dr. Khasawneh’s research activities thus far have included over 40 refereed journal articles, 100 conference articles, one patent, and two new invention disclosures. In addition, his sponsored research efforts thus far have resulted in over eight million US$ in external funding and over 39 million US$ in software/equipment grants.

In 2006, Dr. Khasawneh received a U.S. Air Force Summer Faculty Fellowship to evaluate the use of multi-sensory cues to improve the landing of unmanned aerial vehicles. In 2009, he received another fellowship from the U.S. Air Force Office of Scientific Research to design ergonomic computer workstations for very large displays. Dr. Khasawneh received the State University of New York (SUNY) Chancellor’s Award for Excellence in Teaching in 2011, the University Award for Outstanding Graduate Director in 2015, and the University Award for Excellence in 2016. He is also a member of the Alpha Pi Mu and Alpha Epsilon Lambda honor societies. Dr. Khasawneh was also recently honored with the Diplomate status with the Society for Health Systems (SHS), a professional society within the Institute of Industrial and Systems Engineers (IISE) that supports the industrial engineering profession and individuals involved with improving quality and productivity within healthcare. Dr. Khasawneh also holds an honorary visiting professor position with the Industrial Engineering Department at Hebei University of Technology in Tianjin, China.
Dr. Denchai Woradechjumroen is a Head and Founder of Intelligent Building Collaboration (IBC) Research Unit which is the collaboration between Sripatum University (SPU) and Institute of Field Robotics (FIBO), King Mongkut's University of Technology Thonburi (KMUTT) located at KX Knowledge Exchange Building. This national smart building laboratory serves influential Government organization such as Bank of Thailand (BOT), manufacturers, building consultant and designer firms, building automation contractors and energy management companies such as EEC Engineering Network Co., Ltd, Africvs, Co., Ltd, Goldmarktech Co., Ltd, Jardine Engineering Corporation as R&D center. He received his Ph.D. in Architectural Engineering from University of Nebraska - Lincoln in August 2015, and his B.S. and M.S. in Mechanical Engineering from Chulalongkorn University, Thailand, in 2005 and 2009, respectively.

Dr. Woradechjumroen has special interest in developing low-cost, non-invasive, plug-n-play and high performance diagnostic technologies for heating, ventilation, air-conditioning unit and refrigeration (HVAC&R) operations, and smart building energy modeling and control in high-rise commercial buildings and commercial supermarkets. For the past 8 years as a leader and innovator of modern HVAC&R industry in Thailand, his experience involves developing and implementing monitoring, control, automated fault detection and diagnosis (AFDD) and soft-repair algorithms to successfully penetrate the Thai HVAC&R market.

Currently, he successfully launches modern and commercial products; one of them iBAS (intelligent building automation system based AFDD algorithms) used for monitoring based commissioning (MBCCx) process for assuring overall system performance of green buildings. For this novel product in Thai HVAC&R areas, IBAS is implemented via the SPU and FIBO alumni students namely "TIE smart solutions Co., Ltd" under the work integrated learning (WIL) project between EEC Engineering Company and IBC Research Unit.
Game Based Evaluation and Learning (GABEL)

Dr. Manoj Kumar Soni, is an Associate professor in Mechanical Engineering department at BITS Pilani. He is B.E. in Mechanical Engineering, M.E. in Thermal Power Engineering, Ph.D. in the area of Energy Efficiency. He has total 22+ yrs of teaching and research experience. He rendered his services as a faculty in VNIT Nagpur (NIT, Nagpur) for seven years (1995-2002). He joined BITS Pilani in 2002. He is also the coordinator of Centre for Renewable Energy and Environment Development (CREED) at BITS, Pilani. His research interest includes solar thermal, thermal engineering, renewable energy and energy efficiency. He has total 40 publications in high impact factor international journals and international conferences and one patent in his name. He has delivered key note addresses at various national conferences and workshops. As a research team member, he has visited PT Indo Bharat Rayon, Indonesia an Aditya Birla Group unit in 2011 and in 2015 he was awarded Summer Scholarship under university immersion scheme of BITS Pilani and he visited University of South Florida, Tampa and Columbia University, New York. He has special interest in spirituality and he has mixed the philosophies of spirituality and thermodynamics. Based on it he has delivered special lectures on Thermodynamics- A philosophy of life and A date with entropy at various institutes. His coveted lecture on Spiritual thermodynamics is very well appreciated by the students, academicians and industries. He delivered his Spiritual Thermodynamics talk at University of South Florida, Tampa, USA and University of Baleric Island, Spain. Out of his five PhD students in the field of solar and solar thermal one has successfully completed. He has guided over 50 M. Tech and first degree thesis. He has experimented with lot of pedagogical innovations, like team based and game based learnings in his various courses.

At BITS he is actively involved in industrial collaborations in Work Integrated Programs Division as a coordinator of various collaborative programs: BS and B.Tech Power Engg (Aditya Birla Group, NTPC, NDPL, THDC, ESSAR Power, Tata Power, JSW Energy), BS and B.Tech Process Engg (Aditya Birla Group Cement Business UltraTech, Hindalco Industries, Birla Cellulosic, Indogulf Fertilizers, Vedanta Aluminium), BS Engg Design (L&T IES, Vadodara), MS Engineering Management (Mahindra & Mahindra), MS Embedded Systems (L&T IES), MS Pharmaceutical Operations & Management (Wockhardt), MS Manufacturing Management (Vedanta Aluminium), and MS Automotive Engg Programs (Tata Technologies). He is Fellow of Institute of Engineers, and Life member of International Solar Energy Society (Gold Member), and Energy and Fuels Users Association of India (ENFUSE). He is associate member, Solar Cookers International, USA and Senior Member, Universal Association of Mechanical and Aeronautical Engineers i.e UAMAE.

Kingsley Gnanendran
OIM Department, The University of Scranton
Scranton, PA 18510, USA

Kingsley Gnanendran is a professor of operations management and director of the online MBA program at the University of Scranton, Pennsylvania, USA. He earned a B.S. in mechanical engineering from the University of Sri Lanka, an M. Eng. in industrial engineering and management from the Asian Institute of Technology, Bangkok, and a PhD in management science from the University of Tennessee-Knoxville. His research interests involve the application of optimization modeling to supply chains, and his publications have appeared in: Decision Support Systems, International Journal of Production Research, European Journal of Operational Research, and International Journal of Production Economics, among others. Dr. Gnanendran has been a Visiting Professor at the University of Waterloo (Ontario, Canada), Capital University of Economics and Business (Beijing), and Dayeh University (Taiwan). He is a member of INFORMS and APICS.

Manohar Madan
ITSCM Department, University of Wisconsin-Whitewater
Whitewater, WI 53190, USA

Manohar Madan is a Professor in the Information Technology and Supply Chain Management Department in the College of Business and Economics at the University of Wisconsin-Whitewater. His teaching and research interests are in the area of Operations and Supply Chain Management. He has a Ph.D. in Operations Management from the University of Tennessee. Manohar’s research has been published in many professional journals such as the Journal of Operations Management, IIE Transactions, OMEGA, International Journal of Operations and Production Management, International Journal of Production Research and the Journal of Operational Research Society. He is a member of APICS, and also is certified as CPIM by APICS.

ID 674 Heuristics for Course Planning in Degree Programs
Kingsley Gnanendran, University of Scranton, PA, United States
Manohar Madan, University of Wisconsin-Whitewater, WI, United States
Continuous Innovation

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14th IEOM Global Engineering Education

DISTINGUISHED SPEAKERS

Tuesday (July 23, 2019)

Session I: Global Engineering Education (Room 1) - 8:00 – 9:30 (Tuesday)
Session Chair: Dr. Kapil Gupta, University of Johannesburg, South Africa

8:00 – 8:30 (Tuesday) – Room 1

Dr. Kapil Gupta
Associate Professor, Department of Mechanical and Industrial Engineering Technology
University of Johannesburg, South Africa

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing from Indian Institute of Technology Indore, India in 2014. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. He has authored several SCI/ISI Journal and International Conference articles. He also authored and edited 10 international books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing, and sustainable manufacturing with the renowned international publishers.

Kapil Gupta has also successfully guest edited special issues of a Scopus indexed journals and he is currently editing a series of handbooks on Advanced Manufacturing as a series editor. He is a recognized reviewer of many international journals and in the advisor/technical committees of international conferences. He has also delivered invited speeches in international conferences and symposiums, and seminar talks at international universities. Kapil Gupta is a NRF [National Research Foundation] rated Researcher in South Africa. Currently, he is supervising 8 Masters and 4 Doctorate students who are busy conducting research in advanced manufacturing and industrial engineering fields. Dr. Gupta is also conducting research in teaching & learning in higher education (HE) scenario along with doing his PG Diploma in HE. He is working on implementation of innovative teaching techniques for the enhanced learning of the students. Recently, he also developed a manufacturing engineering virtual lab.

8:30 – 9:00 (Tuesday) – Room 1

D. Sujitha Juliet, Ph.D.
Assistant Professor, Department of Computer Science and Engineering
Karunya Institute of Technology and Sciences, Coimbatore, India

Presentation Title: 3N Coordinates of Accreditation of Engineering Education

Dr. D. Sujitha Juliet is currently an Assistant Professor with the Department of Computer Science and Engineering, Karunya Institute of Technology and Sciences, India. She holds a Ph.D. in Information Technology from the same Institution. She has over 15 years of experience in teaching and has several international publications to her credit with research interest in Medical image processing, Telemedicine and Machine learning. In addition to academic work, Dr. Juliet has also been the member of Quality assessment and assurance team, with 3-years of experience as a Coordinator for Internal Quality Assurance Cell of Karunya Institute of Technology and Sciences. Her active contributions for Quality assurance Cell consist of Ranking, Accreditation and Higher education Quality assurance reforms.

9:00 – 9:30 (Tuesday) – Room 1

M Chairul Basrun Umanailo
Department of Agricultural and Forestry
Universitas Iqra Buru
Namlea, Maluku 97571, Indonesia

M Chairul Basrun Umanailo is a lecturer at the agriculture Faculty of Iqra Buru University with rural sociology specifications and research methodology. It has a M.Si degree in Sociology sciences obtained from Sebelas Maret University. Nowadays while completing the dissertation about the problem of urbanisation due to the development of the village focused on the Central Java area.

ID 571 Utilization of Qualitative Methods in Research Universities

M Chairul Basrun Umanailo and Iskandar Hamid, Universitas Iqra Buru, Department of Agricultural and Forestry, Namlea, Maluku 97571, Indonesia
Hamiru Hamiru, Universitas Iqra Buru, Department of Economy, Namlea, Maluku, Indonesia
Sjaid S Fais Assaqaf and M Bula, Universitas Iqra Buru, Department of Engineering, Namlea, Maluku, Indonesia
Mansyur Nawawi, Sukainap Pulhehe and Salma Yusuf, Universitas Iqra Buru, Department of Law, Namlea, Maluku, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

9:30 am - Welcome Address: Dr. Miroslav Holeček, Rector, University of West Bohemia, Pilsen, Czech Republic
9:40 am - Opening Keynote I: Dipl. Ing. Wolfgang Weissler, CEO Digital Factory & Process Industries and Drives, Siemens Czech Republic
10:20 am (Tuesday) Opening Keynote II: Prof. Ing. Josef Basl, CSc., Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
11:30 – 12:00 (Tuesday) – Room 1

Dr. Vinayak A Drave  
Senior Research Fellow  
Department of Industrial & Management Engineering  
Indian Institute of Technology (IIT) Kanpur, India

Engineering Education in India

Vinayak A Drave is a Senior Research Fellow and pursuing PhD in the Department of Industrial & Management Engineering, Indian Institute of Technology (IIT) Kanpur, INDIA. He is a management graduate specialized in the field of Operations and Human Resource, and has Bachelor of Science in Mathematics. He has published ten research papers in Scopus indexed international conferences and has published a case study with Ivey Publishing featured in Harvard Business Publishing. He has published two research papers in a journal of international repute and have authored one magazine article related to his doctorate thesis. He also received Best Creativity Award in the fully sponsored ‘Startup Starts Now! 2018’, Entrepreneurial Camp organized by Ministry of Education, Taiwan.

12:00 – 12:30 (Tuesday) – Room 1

Dr. Galal M. Abdella  
Assistant Professor, Mechanical and Industrial Engineering Department  
College of Engineering  
Qatar University, Doha, Qatar

Engineering Education in Qatar

Galal M. Abdella is an assistant professor at the Mechanical and Industrial Engineering Department in the College of Engineering, Qatar University. He was awarded his Ph.D. degree in Industrial and Systems Engineering from Wayne State University, Michigan-USA. Dr. Abdella is the founder of the professional IEM chapter in Qatar. His research area has always been the utilisation of mathematics and advanced statistical data analysis for high-dimensional data processing, modeling and simulating rare events, quality data modeling and analysis, and project resource management. Dr. Abdella has significantly participated, as a member of the organizing committee or a speaker, in several workshops and forums on strategic topics related to transportation and road safety.

12:30 – 1:00 (Tuesday) – Room 1

Patrick Pötters, Christoph Szedlak and Bert Leyendecker  
Faculty of Operations Management  
University of Applied Sciences Koblenz, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

ID 271 Prevalence Study of Lean Management in Academic Education

Patrick Pötters, Christoph Szedlak and Bert Leyendecker, University of Applied Sciences Koblenz, Faculty of Operations Management, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

Patrick Pötters, M.Sc., M.Eng. is Project Manager of the Model Factory Koblenz and Visiting Professor at University of Applied Sciences Koblenz, Faculty of Operations Management/ Germany. He is a certified Senior Lean Expert as well as Six Sigma Black Belt. Furthermore, he is working in different consultancy projects, especially lean six sigma implementations. His research focus is on process optimization methods on the shop floor, lean six sigma and quality management.

Christoph Szedlak, M.Sc. is Digitalization Coordinator at the University of Applied Science Koblenz. He is a certified Project Manager working in different consultancy projects and as a project manager for IT. His research focus is on process optimization, digitalization and quality management.

Prof. Dr. Bert Leyendecker is Professor of Operations Management and Project Management at the University of Applied Sciences Koblenz/ Germany. He is Lean Six Sigma Master Black Belt and senior project management expert. He used to work for Johnson & Johnson before in different roles as value chain manager, business excellence champion as well as process and project engineer. He holds a PhD from the University of Newcastle upon Tyne and a first degree from TH Koeln. Bert Leyendecker is an active member of various organisations such as Gesellschaft für Qualitätswissenschaften, DIN/ ISO, Deutsche Gesellschaft für Qualität. Furthermore, he is board member at the European Six Sigma Club.

1:00 – 2:30 (Tuesday) – Lunch Keynote - Dr. Zain Tahboub, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, United Arab Emirates - Industrial Engineering and the Fourth Industrial Revolution: Education and Skills
Dr. Bhaba R. Sarker
Elton G. Yates Distinguished Professor of Engineering
Louisiana State University
Baton Rouge, Louisiana, USA

Collaborative Research: Learning, Training and Research Productivity

Dr. Bhaba R. Sarker is the Elton G. Yates Distinguished Professor of Industrial Engineering and Operations Research at the Louisiana State University (LSU) where he has been teaching for about 30 years. He holds a BA (Mathematics) from Dhaka University, a BSME from BUET-Dhaka, an MTech (IE&OR) from IIT-Kharagpur, two MS degrees from Syracuse University and a PhD degree from Texas A&M University. Before joining LSU, he taught at the University of Texas at Austin and Texas A&M University. Dr. Sarker worked with the World Bank (Washington, DC), NASA (MSFC, KSC & JSC) and several industrial organizations in Bangladesh and India.

Dr. Sarker was the winner of Best (PhD) Dissertation Awards given by Institute of Industrial & Systems Engineers (IISE), Decision Sciences Institute (DSI) and Production and Operations Management Society (POMS). He published more than 160 papers in refereed journals and more than 90 technical papers in conference proceedings. Later, Professor Sarker also won the 2006 David F. Baker Distinguished Research Award from Institute of Industrial & Systems Engineers (IISE) for his outstanding research contributions in Industrial Engineering and Operations Research. Dr. Sarker supervised 12 post-doctoral and visiting fellows from many countries and also supervised many PhD and Masters’ students at LSU. He held several visiting faculty positions in many universities, and lectured extensively at more than 15 universities in China, Hong Kong and Taiwan. He served/serve on the editorial boards of many leading journals such as AJOR, APJOR, COR, EJOR, IJPE, IJPR, JMS, PPC, and ISE Transactions.

Dr. Sarker’s current research interest is in optimization applied to manufacturing systems, supply chain management, lean production system, warehouse logistics and distribution, product pricing & carbon reduction, healthcare systems, military logistics and renewable energy. His research has been funded by many federal agencies including DoE, DoT, NASA, NSF and US Army. He is a Fellow of IISE and South Asia Institute of Science and Engineering, and is also a member of DSI, INFORMS, POMS, and New York Academy of Sciences.

Ms. Malini K V
Head (EEE)
Sri Sairam College of Engineering
Anekal, Bangalore, India

ID 542 Managing Student Technology Innovations of Rural Engineering Campuses

Professor Malini graduated in Electrical and Electronics Engineering from Mysore University and obtained Masters in Power Electronics from JNTU-A, AP Currently working as HOD, Electrical and Electronics Department and served in various verticals. The polyvalent experience of industry and academia has helped her to contribute to the development of the entrepreneurship cell in the campus. Prof. Malini is serving as a advisory board member of National Experts advisory board, DST, Govt. of India for the promotion of science and technology in the institutions. She is also the advisory board member of IEDC, Innovation and Entrepreneurship Development Centre, DST and serving as a nodal point of contact in the campus. Prof. Malini has recently bagged the National award as Best faculty female award by ISTE, New Delhi and she has bagged other prestigious awards like visionary leader by IIICCIA and national award for excellence, by entrepreneurship council of India, Distinguished Women in engineering award by Venus foundation and Best familiar female faculty by international ASDF.

4:00 - 4:30 Networking Break

Session IV: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Tuesday)
Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA

Panel Session – Global Engineering Education

Dr. Abu Masud, P.E.
Emeritus Professor, Department of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

Dr. Abu Masud is an emeritus professor of industrial and manufacturing engineering at Wichita State University. He was named the Boeing Global Engineering Professor at Wichita State University. Dr. Masud advanced the College of Engineering’s strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering. Previously he was held various positions at Wichita State including dean and associate dean of graduate school (2008-2013), coordinator, college ABET affairs (2006-2008), associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IIE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.
Panel Speaker III

**Dr. António Grilo**

Associate Professor with Habilitation  
Head of the Department of Mechanical and Industrial Engineering at FCT NOVA  
Director of UNIDEMI and Director of the PhD Program in Industrial Engineering UNIDEMI- Research Centre hosted by the Department of Mechanical and Industrial Engineering (DEMI), of NOVA School of Science and Technology of Lisbon Nova University  
Campus da Caparica, Portugal

Antonio Grilo is an Associated Professor with Habilitation at NOVA School of Science and Technology, Universidade NOVA de Lisboa, in the Department of Mechanical and Industrial Engineering. He is currently the Head of Department, Director of the research center UNIDEMI (www.unidemi.com), and Director of the PhD Program in Industrial Engineering. He lectures undergraduate, master and PhD courses on Technological Entrepreneurship, Engineering Economics, Information Systems for Industry, Industry Strategy and Management, Decision Models, and Project Management. The research interests are related with Digital Platforms and Digital Entrepreneurship. He has published over 100 papers in scientific journals and conferences, with 1000 citation in Scopus.

**Wednesday (July 24, 2019)**

**Session V: Global Engineering Education (Room 1)**  
8:00 – 9:30 am (Wednesday)  
Session Chair: Shaligram Pokharel, Qatar University, Doha, Qatar

8:00 – 8:30 (Wednesday) – Room 1  
Shaligram Pokharel  
Professor  
Department of Mechanical and Industrial Engineering  
Qatar University  
Doha, Qatar

Shaligram Pokharel is a Professor of Industrial and Systems Engineering program at the Department of Mechanical and Industrial Engineering, in Qatar University. Shaligram earned B.E (Hons) in Mechanical Engineering from the Regional Engineering College, Kashmir, India and Masters and PhD in Systems Design Engineering from the University of Waterloo, Canada. Shaligram has obtained more than US$ 2,000,000 research grant in various areas of engineering management. He has published more than 100 papers in journals and conferences.

8:30 – 9:00 (Wednesday) – Room 1  
Professor Charles Mbohwa  
Professor  
Faculty of Engineering and the Built Environment  
University of Johannesburg  
South Africa

**Engineering Education in Africa**

Professor Charles Mbohwa is a full professor in Faculty of Engineering and the Built Environment, University of Johannesburg. He was formerly the Vice-Dean for postgraduate studies research and innovation and Acting Dean of the faculty. He obtained B. Sc., Honours in Mechanical Engineering in 1986 from Department of Mechanical Engineering, University of Zimbabwe, Harare, Zimbabwe. He later bagged M. Sc. in Operations Management and Manufacturing Systems in 1992, with a distinction from Department of Manufacturing Systems Engineering, University of Nottingham, UK. He obtained PhD in Engineering (Production Systems focusing on Energy and life cycle assessment) from Tokyo Metropolitan Institute of Technology, Tokyo, Japan in 2004. Professor Mbohwa is an NRF-rated established researcher. In January 2012 he was confirmed as an established researcher making significant contribution to the developing fields of sustainability and life cycle assessment. In addition, he has produced high quality body of research work on Southern Africa. He is an active member of the United Nations Environment Programme/Society of Environmental and Toxicology and Chemistry Life Cycle Initiative, where he has served on many taskforce teams.
Dr. Y. Vijaya Kumar
Principal
Sri Sairam College of Engineering (SSCE)
Sai Leo Nagar, Anekal, Bengaluru, India

Dr. Y. Vijaya Kumar currently working as Principal at Sri Sairam College of Engineering (SSCE), Sai Leo Nagar, Anekal, Bengaluru, graduated in Mechanical Engineering in the year 1984 from Sri Venkateswara University College of Engineering, S.V. University – Tirupati, A.P. and subsequently acquired Masters Degree in Industrial Engineering from National Institute of Technology (NIT), Calicut (Kerala) and Ph.D in Industrial Engineering (OR & SQC) from Sri Krishna Devaraya University – Anantapur A.P. He also served various academic bodies like Member of Governing Council, BOS & BOE of various Universities like VTU, BU, JAIN etc.

Prof. Kumar has been worked for one term as a Member of the SECTION MANAGING COMMITTEE of ISTE - Karnataka Section during 2012 - 2014. I have been awarded "BEST EDUCATIONIST" and a CERTIFICATE OF EDUCATION EXCELLENCE by International Institute of Education & Management, Delhi during 2012 and Received LIFETIME ACHIEVEMENT AWARD for the contribution and achievement in the field of Industrial Engineering by Venus International Foundation conferred on 9th July 2016 at Hotel Green Park, Chennai. Recently I have been awarded as BEST PRINCIPAL (Engg & Tech) of the Year 2017 by South Indian ASDF Awards (SIAA 2017) held at Crown Plaza, Cochin on 8th April 2017.

Prof. Kumar has five years of Industrial experience at M/s Rashtriya Chemicals & Fertilizers Ltd., Chembur, Mumbai & M/s Reliance Industries Ltd., Mumbai and 28 years of teaching experience in both UG and PG. Ten Research scholars have acquired Ph. D under his supervision at Visvesvaraya Technological University (VTU – 2 Scholars), Jawaharlal Nehru Technological University (JNTU-A – 2 Scholars), Dr. M G R University (MGR – 2 Scholars) and JAIN University (JU – 4 Scholars). One Scholar has acquired M S Engg in the area of Mechanical Engineering from VTU. At present Prof. Kumar is guiding five scholars for Ph. D. in Industrial Engineering, Manufacturing, Product Design & Development and Reliability Engineering.

During 28 years of Teaching (which includes 10 years as Principal), Research and Consultancy experience, Prof. Kumar has applied for two patents and published more than 36 research papers in referred journals at International & National level and presented 30 papers at various conferences. Teaching and Research interest center on Industrial Engineering, Machinability, Product Design & Development and Reliability Engineering and conducted several sponsored workshops and conferences. He is a member of number of professional bodies such as ISTE, IEI, CSI, IET, SAIE, IIPE etc., Prof. Kumar has given several programs in the T V Channels. Encouraging and motivating the students and colleagues to do innovative things and working for the robust growth of the Institution is the key mantra for the success of my career.

9:40 - 10:20 (Wednesday): Keynote: Dr. Seifedine Kadry, Professor of Applied Statistics, Director of Applied Statistics Center, Coordinator of Continuing Education Program (CPE), Beirut Arab University, Lebanon

10:20 - 11:00 (Wednesday): Keynote: Petr Nekolný, Valeo, Prague, Czech Republic - Ballroom

Session VI: Global Engineering Education (Room 1) - 11:30 am – 1:00 pm (Wednesday)
Session Chair: Leslie Monplaisir, Wayne State University, Detroit, MI, USA

11:30 – 11:55 (Wednesday) – Room 1

Jiří Patermann
Prague, Czech Republic

The Title of the Presentation: How to measure efficiency efficiently

Short Synopsis: Basically, it would be about different ways how to tackle machine and Labour efficiency and avoid some pitfalls. My assumption is that many companies eager for digitalization skip some fundamental basics which leads to disappointing outcomes.

Bio: Jiří Patermann has over 10 years hands-on experience in different industries including automotive supplier manufacturing and repair shops. His primary focus includes gemba governance and usability aspect of lean production systems. He currently works for one of the largest Tier 1 car suppliers in the Czech Republic as a lean manager where he is passionate in applying and teaching fundamental practices he learned from his Japanese coaches.

11:55 – 12:10 (Wednesday) – Room 1

Carlos Ermani Fries, Lucas Bonomini de Luna, Ricardo Giglio
Department of Production and Systems Engineering
Federal University of Santa Catarina, Campus Trindade
Florianopolis, SC, Brazil

Carlos Ermani Fries is currently Associate Professor in the Department of Production and Systems Engineering at UFSC. Mr. Fries holds a Master and PhD in Production Engineering from UFSC. He has taught courses of Operations Research applied to Manufacturing, Decision Theory, and Statistics among others. His research interests include Simulation, Optimization, Management Games, and application of big-data tools. He is member of IEOM and INFORMS.

ID 455 Efficiency Analysis of Public Primary Schools: The Case of a Medium-Sized Brazilian City

12:10 – 12:35 (Wednesday) – Room 1

Pramod Kinker, Shailesh Vaidya, A. R. Singh
Department of Mechanical Engineering
National Institute of Technology
Raipur, Chhattisgarh, India
Rajeev Jain  
Department of Mechanical Engineering  
Kalaniketan Polytechnic College  
Jabalpur, Madhya Pradesh, India

Pramod Kinker is a part time research scholar at Mechanical Engineering Department at National Institute of Technology, Raipur, India. He is also a senior Lecturer in the Mechanical Engineering Department, Kalaniketan Polytechnic College Jabalpur, India. He has completed his bachelor degree from Guru Ghasidas University Bilaspur Madhya Pradesh, India and completed his master degree in heat power from Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal, Madhya Pradesh, India. He has eighteen years of experience in teaching. His area of interest is refrigeration system, education management etc.

ID 489 Prioritizing Service Quality Factors for Polytechnic Institutions as Per Student’s Perception in the State of Madhya Pradesh, India

12:35 – 1:00 (Wednesday) – Room 1

Leslie Monplaisir, PhD  
Professor and Chair  
Industrial and Systems Engineering  
Wayne State University, Detroit, MI

**ID 179 Global Executive Doctoral Program**

Leslie Monplaisir, Professor of Industrial and Systems Engineering, is Chair of the Department of Industrial and Manufacturing Engineering at Wayne State University (WSU). He is a Lead Researcher and Director of the Product Development and Systems Engineering Consortium (PDSEC) at WSU. His research interests include: Lean Product Development, Design for lean Systems and Services and Design reuse, Collaborative PD Decision Making, Product Architecture Optimization, Design for Supply Chain, Global Product Platform Optimization and Healthcare Technology System Design. He has authored over 100 publications in these areas with funded research from NSF, Ford, GM, Sun Microsystems, Tardec, VA and PTC.

Monplaisir joined the College of Engineering at Wayne State University in the Department of Industrial and Manufacturing Engineering in 1996 from Florida A & M University where he was a visiting assistant professor. He earned his PhD in Engineering Management from the Missouri University of Science and Technology (MUST), a masters in Computer Integrated Manufacturing from the University of Birmingham in Great Britain, and bachelors in Mechanical Engineering from the University of the West Indies in Trinidad.

Education:  
Ph.D. - 1995 (Engineering Management) University of Missouri-Rolla  
M.S. - 1991 (Computer Integrated Manufacturing) University of Birmingham; England  
B.S. - 1987 (Engineering) The University of the West Indies; St. Augustine, Trinidad

1:00 - 2:30: Networking Lunch Buffet

1:30 – 2:00: Wednesday Lunch Keynote: Roman Žák, Chairman of the Board, Aimtec, Pilsen, Czech Republic-Ballroom

**Thursday (July 25, 2019)**

Session IX: Global Engineering Education (Room 1) - 8:00 – 9:30 am (Thursday)  
Session Chair: Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia

8:00 – 8:30 (Thursday) – Room 1

Dr. Eldon Caldwell  
Director, Industrial Engineering Department  
Engineering School  
University of Costa Rica, San Jose, Costa Rica

The Project based Learning combined with Problem Solving based Learning in Industrial Engineering Programs

Eldon Caldwell, is full professor/ Cathedraticus of the University of Costa Rica, Central America and member of the IEOM Society Academy of Fellows; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering, University of Nevada. Currently, he is doctoral researcher at the (Dr. Sc.) Computing Science Program, major in Robotics and Automation at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013 and 2015. Dr. Caldwell is ISO 9000 Lead Auditor, UK, “Lean Systems Certified Specialist”, MAPV-University of Nevada, USA and ASQ-Six Sigma Black Belt Certified Trainer. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering. Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at ITESM, Mexico. He is author of many scientific articles and two books: “Marketing of Social Products & Services”, UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Ins. Press, USA. Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quiros & CIA-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panama, Costa Rican Institute for Electricity, RTC- Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.
Dr. Kapil Gupta
Associate Professor
Dept. of Mechanical and Industrial Engineering Technology
University of Johannesburg, South Africa

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing from Indian Institute of Technology Indore, India in 2014. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. Several SCI Journal and International Conference articles have been credited into his account. He has also published some books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing etc. with renowned international publishers.

ID 343 Development of Industry 4.0 Virtual Lab for Manufacturing Engineering Education
Kapil Gupta, M Mukhawana, Madindwa Mashinini and Arno Louw, Centre for Academic Technologies, University of Johannesburg, South Africa

9:00 – 9:30 (Thursday) – Room 1

Ing. Andrea Benesova
Commercial Electrical Engineering
University of West Bohemia
Pilsen, Czech Republic

Ing. Andrea Benesova In 2013 obtained bachelor degree in Commercial Electrical Engineering at the University of West Bohemia in Pilsen. In 2015 obtained master degree in Commercial Electrical Engineering at the University of West Bohemia in Pilsen, diploma thesis “Analysis and modeling of selected processes in electrical engineering production”. From 2015 to present she is a Ph.D student at the University of West Bohemia in Pilsen, Faculty of Electrical Engineering, Department of Technologies and Measurement, topic of her doctoral thesis is “Management of prospective technological processes in electrical engineering”. She has published conference papers such as Requirements for Education and Qualification of People in Industry 4.0.

ID 358 Requirements for Education 4.0 and Study Programs within Industry 4.0
Andrea Benesova, Martin Hirman, Frantisek Steiner and Jiri Tupa, Department of Technologies and Measurement, Faculty of Electrical Engineering, University of West Bohemia, Univerzitni, Pilsen, Czech Republic

09:30: Keynote (Thursday): Dr. Sascha Gierlings, Head of Prototype Manufacturing, Business Development Turbomachinery, Fraunhofer-Institute for Production Technology (IPT), Steinbachstraße, Aachen, Germany - Ballroom
10:00: Keynote (Thursday): Ing. Tomáš Vondrák MBA, Plant Manager, Continental Automotive Czech Republic, Brandýs nad Labem – Ballroom
10:30: Keynote (Thursday): Ing. Luděk Janík, Ph.D., Director – Eaton European Innovation Center, Eaton Corporation, Prague, Czech Republic

11:00 - 11:30: Networking Break

Session Chair: Dr. Christoph Wunck, Emden/Leer University of Applied Sciences, Germany

11:30 am – 1:00 pm (Thursday)
Session Chair: Dr. Christoph Wunck, Emden/Leer University of Applied Sciences, Germany

11:30 – 12:00 (Thursday) – Room 1

Dr. Felicita Chromjakova
Professor, Department of Industrial Engineering and Information Systems
Tomas Bata University
Zlin, Czech Republic

Felicita Chromjakova is a Professor by Department of Industrial Engineering and Information Systems at the Tomas Bata University in Zlin, Czech Republic. She holds a Science degree in Industrial Engineering by University Žilina, Slovakia. Professor grade she holds at Tomas Bata University in Zlin, programme Economic and Management – Industrial Engineering. She is oriented on research project concerned into area of lean management techniques, digitized process management technologies, innovations and improvement projects in traditional production technologies. A lot of industrial projects she completed in cooperation with more industrial companies as Hella, Autin Detonator, Continental, Denso. Her publication horizon consists from more scientific oriented papers, presented by various international meetings with colleagues from European countries, USA, Australia and Asia.

12:00 – 12:30 (Thursday) – Room 1

Bhavani Rao R.
UNESCO Chair in Gender Equality & Women’s Empowerment
Amrita Vishwa Vidyapeetham, India
Director of AMMACHI Labs, Amrita Multi Modal Applications Using Computer & Human Interaction Labs

Bhavani Rao R. serves as the UNESCO Chair in Gender Equality & Women’s Empowerment (Amrita Vishwa Vidyapeetham, India) and is the Director of AMMACHI Labs, Amrita Multi Modal Applications Using Computer & Human Interaction Labs, at Amrita Vishwa Vidyapeetham. Under the UNESCO Chair, Bhavani Rao heads an academic center dedicated to participatory action research, education and implementation that focuses on the mapping of vulnerabilities of women in underserved communities. As the Director of AMMACHI Labs, Bhavani Rao heads the R&D that focuses on Human Computer Interaction (HCI), Robotics and Automation technologies for education, skill development, disaster response, medical assistance and rehabilitation. Bhavani Rao is the Principal Investigator for several projects at Amrita, funded by organizations such as the United Nations Democracy Fund, the Ministry of Skill Development And Entrepreneurship (MSDE) and the National Skill Development Corporation (NSDC), Government of India. A
central focus on her work has been the use of skill-development as the baseline strategy, and women’s empowerment as the underlying vision. She is also a full time Associate Professor at Amrita Vishwa Vidyapeetham (University), Kerala, India.

12:30 – 1:00 (Thursday) – Room 1

Dr. Christoph Wunck
Professor of Business Information Systems
Department of Electrical Engineering & Computer Science
Emden/Leer University of Applied Sciences, Germany

Prof. Dr. Christoph Wunck holds a full professorship for Business Information Systems at Emden/Leer University of Applied Sciences, Germany. He was a professor for Business Information Systems at Jade University from 1999 to 2018. He teaches courses on Distributed Applications, Software Engineering, Programming, Electronic Business Systems and Process Management. He holds a doctoral degree from the faculty of Mechanical Engineering and a Master’s degree (Diplom-Ingenieur) in Electrical Engineering, both from RWTH Aachen University. Dr. Wunck is a scientific director at OFFIS Institute for Information Technology in Oldenburg, Germany. He has been appointed Affiliate Professor of Computer Science at Iowa State University in Ames, Iowa, USA.

His professional experience covers project management and consulting services for a major European business consultancy and work as a consulting engineer for manufacturing and electronics industries. He has served Jade University for nine years in the position of Dean and Dean of Studies. His research interest include:

• Application of IT and Business Information Systems in Industrial Engineering
• Distributed Manufacturing Execution Systems, Multi-Agent Systems, Data Science, Manufacturing Intelligence
• IT Governance and Security in Operations and Supply Chain Management

Prof. Dr. Wunck is well connected in his field. He serves in the management of conferences and is a reviewer for conference papers and books. He is a member of IEEE Industrial Electronics Society, IEOM, IISE, INFORMS, ISCA, ISACA and VDI.

1:00 - 2:30 Networking Lunch Buffet

1:30 – 2:00: Lunch Keynote: Dr. Jose Luis Guerrero-Cusumano, Associate Professor of Operations and Information Management, McDonough School of Business, Georgetown University, Washington D.C., USA

Session XI: Global Engineering Education (Room 1) - 2:30 – 4:00 pm (Thursday)
Session Chair: Dr. Sharif, Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, India

2:30 – 3:00 (Thursday) – Room 1

Dr. Mohammad Khadem
Assistant Professor
Department of Mechanical and Industrial Engineering
Sultan Qaboos University
Muscat, Oman

Mohammad Khadem is working as an Assistant Professor at Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Sultanate of Oman since September 2005. He received his PhD from University of Wisconsin, Milwaukee, USA in 2004. He received his Master of Science (Mechanical Engineering) degree from the University of South Alabama, USA in 2001. His research interest lies in the area of Simulation and Optimization, Decision Support System, Intelligent Manufacturing System, Lean Manufacturing, Flexible Manufacturing System, Logistic and Supply Chain, Production Planning and Control. He has published several research papers both in international journals and in conference proceedings.

3:00 – 3:30 (Thursday) – Room 1

Ozofu Akerele
Postgraduate School of Engineering Management
Faculty of Engineering and the Built Environment
University of Johannesburg
Auckland Park, Johannesburg, South Africa

Ozofu Akerele has both National Diploma and Higher National Diploma in Civil Engineering obtained from the Federal Polytechnic, Ilaro, Nigeria. She has over 15 years of work experience in the Construction and Built Proceedings of the International Conference on Industrial Engineering and Operations Management Environment industry mainly in supervision, planning, tender packaging, construction and management of various building and civil works which includes residential buildings, commercial properties (office buildings), road projects and other infrastructure. She has just completed a Masters (MPhil) in Engineering Management at the University of Johannesburg, South Africa. She has worked for both the Employer/Clien and Consultant organisations in both West Africa (i.e. Nigeria) and sub-Saharan Africa region (i.e. South Africa).

ID 064 Determining the Benefits of the Engineering Mentoring Programmes for Graduates
Ozofu Akerele, André Vermeulen and Annliëz Marnewick, University of Johannesburg, Gauteng, South Africa

3:30 – 4:00 (Thursday) – Room 1

Prof. R.R.K. Sharma
HAG Scale Professor
Department of Industrial and Management Engineering
Indian Institute of Technology
Kanpur, India
Prof. R.R.K. Sharma is a HAG scale professor in the Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, India. He was awarded Sanjay Mittal Chair professor for a period of three years. He has published more than 200 research articles of international repute. He published five books and two research monographs in 2018. He has been awarded with several international awards, including Best Academician award from IEOM in 2017.


R.R.K. Sharma, Ateequr Rahman, Sharif and Vinayak A Drave, Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, India

**Session XII: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Thursday)**

**Session Chair:** Dr. Abdul Talib Bon, UTHM, Malaysia

**ID 566 Model of Students’ Understanding on Thermodynamic Concepts in Learning with Virtual Labs**

Gunawan, Ahmad Harjono, Hairunisyah Sahidu and Ni Made Yeni Suranti, Departemen of Physics Education, Universitas Mataram, Jln. Majapahit No 62 Mataram 83125, Indonesia

Lovly Herayanti, Physics Education Study Program, IKIP Mataram, Jln. Pemuda No 59A Mataram 83125, Indonesia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 567 Model of Triple Jump Achievement: The Effect Method Learning and Motor Skills Youth 18 – 20 Age**

Herli Pardilla, Achmad Sofyan Hanif, Hidayat Humaid, Mulyana and James Tangkudung, Universitas Negeri Jakarta, Sport Education Department, Jakarta Timur, Jakarta 13220, Indonesia

Jufrianis, Universitas Pahlawan, Department of Physical Education, Bangkinang, Riau 28412, Indonesia

Raffly Henjilito, Islamic University of Riau, Department of Physical Education, Pekanbaru, Riau 28284, Indonesia

Samsuddin Siregar, Universitas Negeri Medan, Department of Physical Education and Recreation, Medan 20221, Indonesia

Abdul Talib Bon, Department of Production and Operations Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia

**ID 568 The role of academics’ organizational commitments on their extra role behavior in academic contexts**

Isnawati Osman, Andi Reni, Ria Maruddani and Andi Nur Baunassepe, Hasanuddin University, Faculty of Economics and Business, Department of Management, Makassar, Indonesia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 569 Model of Physical Condition of Leg Muscle Explosive Power, Nutrition Status and Confidence Towards Skill Smash Sepaktakraw**

Jufrianis, Student of Department of Sport Education, Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta, Indonesia and Department of Physical Education, Universitas Pahlawan Tuanku Tambusai, Jalan Lingkar Bangkinang, Kampar, Riau, Indonesia

James Tangkudung, Hidayat Humaid, Achmad Sofyan Hanif, Firmansyah Dilis, Moch Asmawi and Widiastuti, Department of Sport Education, Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta, Indonesia

Herli Pardilla, Department of Physical Education, Universitas Pahlawan Tuanku Tambusai, Jalan Lingkar Bangkinang, Kampar, Riau, Indonesia

Raffly Henjilito, Departement of Physical Education, Universitas Islam Riau, Jalan Kaharuddin Nasution Marpoyan, Pekanbaru, Indonesia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 572 Interactive Multimedia Product Based on Green Chemistry in the Acid-Base Concept of Chemistry Learning Process**

M. Yustiqvar, Magister Program of Science Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia

Gunawan, Department of Physics Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia

Saprizal Hadisaputra, Department of Chemistry Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia
1:30 – 1:50 (Tuesday)

Dr. Anwar Ali Yahya Esmail
Associate Professor of Artificial Intelligence
Computer Science department
Najran University, Saudi Arabia

Knowledge Discovery in Engineering Education: Mining Association Rules from Engineering Programs’ Data

Bio: Dr. Anwar Ali Yahya is an Associate Professor at Computer Science Department, College of Computer Science and Information Systems, Najran University in Saudi Arabia. Holds a Ph.D. in Artificial Intelligence from University Putra Malaysia, M. Sc. in Artificial Intelligence from University of Technology, Baghdad, Iraq, and B. Sc. in Computer Science from Basrah University, Iraq. He has many years of teaching, research and quality assurance experiences in higher education. He has published more than 30 publications in reputed ISI-JCR and Scopus indexed Journals of Taylor & Francis, Wiley, Elsevier, IEEE, and Springer. He is also a member of review board for several international journals. His research areas are educational data mining, machine learning, natural language processing, and evolutionary algorithms.

1:50 – 2:10 (Tuesday)

2:10 – 2:30 (Tuesday)

Dr. R. D. Senthilkumar
Associate Professor
Department of Mathematics and Applied Sciences
Middle East College
Al Rusayl, Sultanate of Oman

Title: Designing Dynamic Education for the 21st Century Students

Dr. R. D. Senthil Kumar is currently the Associate Professor of the Department of Mathematics and Applied Sciences in the Middle East College (MEC), Sultanate of Oman. Prof. Senthil has many years of teaching, research and administrative experiences in higher education, and organized numerous workshops particularly on the effective integration of ICT in education. Also he has supervised research projects of junior scientists who were pursuing Master of Science and Master of Philosophy (Physics) degrees. He has authored few book chapters and more than 20 research articles and published in peer-reviewed journals and indexed conference proceedings. He has reviewed different research papers, book chapters and adjudicated Ph.D. theses. Prof. Senthil has his Doctor of Philosophy in Physics and M.Sc. (Physics); both of these degrees were conferred by the Annamalai University, India. He takes much pride in being Senior Fellow of Higher Education Academy, Fellow of International Congress on Chemistry and Environment. He is also the Member of IEEE Education Society, Member of Omani Society for Educational Technology, and Life member of Indian Spectrophysics Association. Prof. Senthil has effectively integrated various innovative strategies in his teaching and learning and received the Best Teaching Award at MEC, Oman. He has a strong potential of building learning activities in SCORM packages for Flip Learning.

2:30 – 2:50 (Tuesday)

Dr. Sidi M Ahmed Ghaly
Assistant Professor
Electrical Engineering Department
College of Engineering
Al Imam Mohammad Ibn Saud Islamic University
Riyadh, Saudi Arabia

Title of presentation: Writing and Assessing Measurable Learning Outcomes of Engineering Program

Bio: Dr. Sidi M Ahmed Ghaly is an Assistant Professor at Electrical Engineering Department, College of Engineering, Al Imam Mohammad Ibn Saud Islamic University. Holds a Ph.D. in Instrumentation & Micro-Electronics, Nancy University, France, a Master of Instrumentation & Micro-Electronics, Nancy University, France. He is the head of the quality committee for the EE department. He works on Instrumentation, RF coils, ECT Sensors, Fractional PID Controllers and Engineering Education. His focus is on ECT Sensors, RF coils, and Assessment. He is the co-author of many publications. He received one grant in 2019 from King Abdulaziz City of Scientific Research KACST. He received three grants in 2014, 2016 and in 2018 from Deanship of Academic Research in Al Imam Mohammad Ibn Saud Islamic.
Dr. Ahmad H. Baik
Assistant Professor
Faculty of Environmental Designs
King Abdul-Aziz University
Jeddah, Saudi Arabia

The role of BIM in Education to understand architectural heritage

Bio/Arch/Dr. Ahmad Baik is Assistant Professor at King Abdul-Aziz University, Jeddah, Saudi Arabia. Holds a Ph.D. in BIM from University College London, a Masters of Geospatial Information from RMIT University, Australia, and Bachelor of Architecture from King Abdul-Aziz University. BIM specialist with progressive experience in Architecture Design, 3D laser scanning, Modelling and Simulation, Virtual Reality (VR), Augmented Reality (AR), Architecture documentation, Interior Design, and Graphics Design.

Salah Elaskari, Ph.D., IWE, P.Eng.
IE Accreditation Coordinator
Assistant Professor, Industrial Engineering Department
Faculty of Engineering, University of Tabuk, Saudi Arabia

Presentation Title: Reverse Engineering and 3D Printing Technology: A Case Study

Salah Elaskari is the supervisor of the industry and production unit at University of Tabuk Fablab-Saudi Arabia. He completed his doctorate degree in Industrial Engineering at Dalhousie University-Canada. Salah is a registered International Welding Engineer (IWE) from International Institute of Welding (IIW) and certified in University teaching and learning from Dalhousie University. He is a registered professional Engineer (P.Eng.) in Canada with industrial experience in subtractive and additive manufacturing, welding fabrication, wind tower manufacturing, and facility layout design. Salah has several years of International real-world experience, he worked closely with world most innovative companies. His work experience included research and consultation projects, process and product inspection, and procurement and negotiations. Before joining University of Tabuk in 2015, Salah spent several years teaching in industrial engineering at Dalhousie University. Salah has led creative events such as engineering design day competition for engineering students. In this exceptional event, students demonstrate their skills in design processes, and they go along their prototype designs which make their learning experience more hands on and exciting. Students were very devoted to come up with the best ideas and compete with their fellow classmates. His research is in the area of facility design, additive manufacturing, lean manufacturing, barcode technology, and welding fabrication. In addition to the industrial engineering courses that he uses to teach such as supply chain management, maintenance engineering, design and analysis of production systems, Work systems, safety engineering, he enjoys teaching engineering design, and reverse engineering courses and providing an engaging learning experience that enabled students to put theory into action. He would like to contribute into making a positive and desirable environment for the community through training, projects, research work, and technical support and service.

Dr. Abdullatif AlMunifi
Associate Professor
Civil Engineering Department
Qassim University, KSA

Abdullatif AlMunifi has been working as an associate professor of Civil Engineering at Qassim University/KSA since he left Sana'a University/Yemen on sabbatical leave in 2014. He graduated as a civil engineer from the Aristotle University/Greece in 1987, and pursued his MSc and PhD of Earthquake Engineering and Engineering Seismology at the Imperial College / London University in 1995.

In his academic career, AlMunifi has been contributing effectively to the development of academic programs, and providing instructional and institutional support derived from his considerable past academic and industrial experiences. He has a very concrete experience relevant to higher education management, quality assurance & academic accreditation. He is an expert and trainer as well as a certified external reviewer for academic programs. Besides academic duties, AlMunifi had been in executive management positions in the development field for ten years managing on a daily basis a portfolio of internationally and government funded education and construction projects and programs that amount to US$500 million. This position entails expert knowledge of and command of planning, scheduling, budgeting, procurement, financial management, contracts administration, and other relevant administrative policies. Most important, it also demands an overall responsibility of management and coordination of a wide range of stakeholders, and participation in high-level local and international meetings and conferences. AlMunifi also has extensive experience in coordinating and delivering management and consulting services in the areas of engineering, social development, staff development, capacity building, quality assurance in higher education, and in supplying training solutions & systems.

AlMunifi's current field of research is relevant to his speciality as a civil engineer as to his accumulative experiences in academic programs development, higher education management, quality assurance, engineering education, and Construction Engineering and Management. He has attended, participated and organized national and international technical sessions, conferences, and high level meetings. He is a member of the Imperial College, the American Society of Civil Engineers, the American Construction Engineering Institute, Charter member of the American Structural Engineering Institute, and member of a number of projects steering committees and local professional societies.
Dr. Umar Mustafa Al-Turki
Professor, Systems Engineering Department
Former Dean, College of Computer Sciences and Engineering
King Fahd University of Petroleum & Minerals
Dhahran, Saudi Arabia

IEOM Curriculum Improvement in view of Saudi 2030 Vision

Umar Al-Turki is a Professor of Industrial Engineering and Operations Research in the Department of Systems at King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. He obtained his Ph.D. in Decision Sciences and Engineering Systems from Rensselaer Polytechnic Institute in 1994. He obtained M.Sc. in Industrial Engineering and Management from Oklahoma State University in 1989. He served as the Dean of College of Computer Sciences and Engineering, the director of the center of excellence in maintenance research and the head of the Systems Engineering Department. Dr. Al-Turki’s research in production planning and scheduling is presented in many international conferences and published in highly prestigious international scientific journals. He is a senior member of the International Industrial Engineering Society, and a fellow and a member of the global advisory board of the Industrial Engineering and Operations Management Society International. He was involved in strategic planning for several national and international organizations in higher education and in water resource planning.

5:00 – 6:30 pm Poster Session

Wednesday, November 27, 2019

Global Engineering Education – III
8:30 – 10:00 pm, Wednesday, November 27, 2019, Room 2 - Auditorium C02
Session Chair: Nadeem Hassan, Albaha University, Kingdom of Saudi Arabia

Dr. Wahyudi Sutopo
Associate Professor, Department of Industrial Engineering
Faculty of Engineering
University of Sebelas Maret, Surakarta, Indonesia

Learning a Supply Chain Management Course by Problem Based Learning: Case Studies in the Newspaper Industry

Dr. Wahyudi is a Professional Engineer registered with Institute of Engineers Indonesia (PII). He obtained his Doctorate in the field of Industrial Engineering and Management from Institut Teknologi Bandung (Indonesia), Master of Science in Management from Universitas Indonesia and Bachelor of Engineering in Industrial Engineering from Institut Teknologi Bandung. He currently is the Head of Department of Industrial Engineering, Universitas Sebelas Maret (UNS). In UNS, he is Asset Auditor for Internal Audit Unit and Coordinator of Industrial Engineering and Techno-Economy (RITE) Research Group. He also as General Chairman of BKSTI (Agency for Cooperation of Higher Education of Industrial Engineering in Indonesia) FY 2017-2020. His research interests are Logistics & Supply Chain Management, Engineering Economy & Cost Analysis, and Technology Commercialization. He obtained 25 research grants and published 66 articles (Scopus indexed). He also has published 3 monographs and 7 book chapters. He co-supervised and graduated 1 doctorate student, supervised 7 Masters students (4 has graduated), and supervised 74 undergraduate students (67 graduated).

Eng. TaeYeual Yi
Lecturer, PMP®, PE, LEED®APs
USGBC Faculty, Department of Engineering Management
Prince Sultan University, Riyadh, KSA

Eng. TaeYeual Yi, a full-time lecturer in College of Engineering at PSU has been working as an instructor, a professional engineer, project manager and architect for about 21 years in the field of AEC industry. His main research fields, these days are BIM (Building Information Modeling) in construction management by using BIM tools such as Revit, Navisworks, ArchiCAD, Tekla Structure etc. and LEED (Leadership in Energy and Environmental Design) as Green Building strategies. Additionally, he has been studying and teaching digital algorithm design process by using Grasshopper & Dynamo in the field of architecture & interior design. Especially, he has five accredited professional LEED credentials (all LEED rating system) issued by Green Business Certification Inc., which are Building Design and Construction(BD+C), Interior Design and Construction(ID+C), Homes Design and Construction(HOMES), Neighborhood Developments(ND) and Building Operations and Maintenance(O+M). He is the 1st professional in KSA, 2nd professional in Middle East & North Africa, 34th professional in the world, who has five - all Accredited Professional Credentials in LEED Rating System. He is also a PMP®(Project Management Professional®) and PE(Professional Engineer) on the basis of his hands-on field experience in the construction management. He has been teaching various 3D Modeling tools, Siemens NX, Fusion360, AutoCAD for Production & Manufacture Area as well as Revit, Navisworks, Tekla Structure, Rhino, Sketchup for Construction & Architecture Field.
Dr. SukHee Yun  
Associate Professor, Department of Architectural Engineering  
Prince Sultan University  
Riyadh, KSA

Dr. SukHee Yun is an Associate Professor at Prince Sultan University since 2011. She also led architectural design studios in Abu Dhabi and Dubai from 2013 to 2016. She studied at Pratt Institute for her Bachelor of Architecture, Master at GSAPP in Columbia University, NYC and received the Ph.D. degree at GSAK in Kyonggi University, Korea with an architectural design thesis on John Hejduk’s Chronotope in 2007. Her researches focus on discovering the architectural design parameters of Riyadh. Her ongoing design research projects; '2030 Housing Prototype of Riyadh (2017)’ ‘University Town in Riyadh: Emancipating Urban elements from Doxiadis’ Grid (2018)’ ‘The Loop, a Bottom-Up Urban Design in Riyadh, (2016)’ ‘From the Rational to the Radical; a Future Architectural Scenario for Public Transportation oriented Residential Blocks in Riyadh (2017)’ and ‘Shadows as Fence Walls (2019)’ have been presented and published in numerous international conferences and journals since 2016. Currently, she is conducting design researches on hybridity in architecture.

Nadeem Hassan, Ph.D. CS  
Associate Professor of Computer Science  
College of Computer Science & Information Technology  
Albaha University (Main Campus)  
Al-Baha, Kingdom of Saudi Arabia

Dr. Suhail Mohammad Ghouse  
Assistant Professor of Marketing and Entrepreneurship  
College of Commerce and Business Administration  
Dhofar University, Oman

Entrepreneurial Students of the Oman University Students

Dr. Suhail Mohammad Ghouse (FCIM) is an Assistant Professor of Marketing and Entrepreneurship at the College of Commerce and Business Administration, Dhofar University, Oman. His area of expertise includes marketing, entrepreneurship and international business. Suhail's current research mainly focuses on internationalization strategy of the SMEs, entrepreneurial behavior of the GCC students, and consumer buying behavior of the Arab millennials. His research has been published in several high quality impact factor and ABDC listed research journals. He is in active research collaboration with the American, British and New Zealand researchers. He is a member of Academy of International Business (AIB), Chartered Institute of Marketing (CIM), American Council for Consumer Interests (ACCI) and Marketing Science Institute (MSI), and serves on the editorial/review boards of Inderscience and Emerald research journals. He has worked on teaching assignments in India, Kingdom of Saudi Arabia and presently in Oman

10:00 Networking/Coffee Break

10:15  Keynote: Dr. Mohammed Al-Majed, Senior Advisor to the Minister, Ministry of Industry and Mining, Saudi Arabia

11:00  Keynote: Eng. Suliman Almazroua, CEO at National Industrial Development & Logistics Program

11:45 Networking Buffet Lunch/ Dhuhr Prayer

Global Engineering Education IV: Business and Management Education  
1:00 – 2:30 pm, Wednesday, November 27, 2019, Room 2 - Auditorium C02  
Session Chair: Najmul Hoda, Umm Al-Qura University, Makkah Al-Mukarramah, Saudi Arabia

1:00 – 1:20 (Wednesday)

Najmul Hoda, PhD  
Faculty – Department of Business Administration  
College of Business  
Umm Al-Qura University  
Makkah Al-Mukarramah, Saudi Arabia

Business Students' Satisfaction with the Studio Classes in Saudi Universities

Dr. Najmul Hoda is currently working as an Assistant Professor at College of Business, Umm Al-Qura University in Saudi Arabia. He is also an adjunct faculty at Institute of Islamic Banking and Finance, India. He earned his doctorate in microfinance, and is passionate about research in social banking. Dr. Hoda has been associated with business education for more than a decade. He has been actively coordinating quality assurance services at his present institution, serving as a member of the various committees for quality and accreditation. He holds the honor of being the founder head of the quality and accreditation unit at the college and is the main coordinator for the institutional and program accreditation with AACSB and EFMD. He has been effectively using technology tools for quality teaching and has been conducting research on the effectiveness of technology in learning. He also possesses rich experience at managerial level in the banking and finance industry. He has worked as an Assistant Manager with The Federal Bank at its various branches in India, where he had the opportunity to be posted at the corporate and international banking branch. Later, he also worked as a Director in a start-up microfinance institution named Sahulat Microfinance in India. He was able to set-up a research unit, publish a quarterly journal, conduct two recruitment campaigns and organized several training sessions on interest free microfinance and general microfinance operations across the country. He has published
Dr. Abdul Talib Bon
Professor of Technology Management
Department of Production and Operations Management
Universiti Tun Hussein Onn Malaysia

Dr. Abdul Talib Bon is Professor of Technology Management in Department of Production and Operations Management, Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration major in Quality Management at the master’s level in the Universiti Kebangsaan Malaysia for which he was awarded the MBA in the year 1998. He’s bachelor degree and diploma in Mechanical Engineering which his obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He is Director of Teaching Factory and Manager of Centre for Technology (Furniture Innovation Technology) from 1 September 2016 and Head of Program Bachelor of Technology Management (Furniture Design and Manufacturing) with Honours from 2014 until 2017. Before this he was the Deputy Dean (Research and Development) at the Faculty of Technology Management and Business in the Universiti Tun Hussein Onn Malaysia from 2008 until December 2011. Dr. Abdul Talib Bon has had over 30 year experience of teaching in higher learning education. A major part of his teaching experience involves teaching mechanical engineering students in polytechnics. However, from the year 1999, he was given the opportunity to be jointed in the Institut Teknologi Tun Hussein Onn (ITTHO), Universiti Teknologi Malaysia as a lecturer in Mechanical Engineering Department. In this institute, he teaches engineering management and quality control at the under-graduate level. Dr. Abdul Talib Bon has multidisciplinary research interests that encompass industrial engineering, quality management and production and operation management. His completed 17 research grant projects as project leader include applications of forecasting in industries. His current research project is looking into developing process quality improvement (PQI) in manufacturing industries. He has supervised more than 90 undergraduate and postgraduate research projects. He has served as a reviewer for a number of engineering management and computer science conferences and journals as part of his expertise sharing initiatives. He had published more than 200 International Proceedings and International Journals and 8 books. He is also Fellow and President of Industrial Engineering and Operation Management Society (IEOMS, Malaysia), Professional Technologist of Malaysia Board of Technologists (MBOT), Council member of Management Science and Operation Research Society of Malaysia (MSORSM), member of International Association of Engineers (IAENG), member of Institute of Industrial Engineer (IIE), USA, member of International Institute of Forecasts (IIF), member of Technological Association of Malaysia (TAM) and associate member of Malaysian Institute of Management (AMIM).

Dr. Samar S. Khan
Dean
Effat College of Business
Effat University
Jeddah, Kingdom of Saudi Arabia

Dr. Samar S. Khan is an aspiring Saudi woman who lives by the creed that one should strive to serve a higher purpose by going above and beyond the call of duty. Born in 1983, Dr. Samar received all of her schooling in the Kingdom of Saudi Arabia and earned her Bachelor’s degree in English Literature from King Abdul-Aziz University. After graduating, she decided to pursue her Master’s degree in Economics and Administration from Nottingham Business School at Nottingham Trent University. As she continued living in the UK, she discovered her passion for economics and administration, so she decided to pursue her PhD degree in Energy Security and Renewable Energy from business perspective at the same university. Currently, Dr. Samar is an assistant professor in entrepreneurship department and Dean of College of Business at Effat University. She is a member in AACSB Middle East advisory committee.

Dr. Abdulaziz T. Almaktoom, CSCA
Assistant Professor
Department of Operations and Information Management
Effat University, Jeddah, Saudi Arabia

Abdulaziz T. Almaktoom is an assistant professor in the Department of Operations and Information Management at Effat University, Jeddah, Saudi Arabia. He earned his PhD in Industrial Engineering from Wichita State University. Dr Almaktoom is a certified supply chain analyst. He has published journal and conference papers and his research interests include supply chain management and logistics, optimization under uncertainty, reliability based robust design optimization, resilience based design optimization, and lean supply chain management. He is a member of IIE, IEOM, INFORMS, CSCMP, ASQ, ISCEA and SME.
**Dr. Prakash Kumar Udupi, FIE**  
Faculty, Program Manager and Centre for Post Graduation Studies  
Middle East College, Muscat, Sultanate of Oman  

**Developing Lean Academic Initiatives for Flipped Teaching**  
Dr. Prakash Kumar Udupi is currently a Faculty, Program Manager and facilitate the delivery, conduct overall management of the academic programmes at Centre for Post-Graduation Studies, Middle East College, Muscat, Sultanate of Oman. Prof. Prakash is the Fellow of Institutions of Engineers (India) and has many years of teaching, research, training, industrial and administrative experiences in higher education. He is a designated Chartered Engineer from IEI for professional engineering practices and also a life member of QCFI (Quality Circle Forum of India). In order to enhance teaching and learning experiences in higher education institutes and as a world class trainer on ICT, project management tools Dr. Prakash organized many tailor made research, ICT and project management specific workshops for under graduate and post graduation students. He also conducted many workshops under Faculty Development Programmes and Management Development Programmes. He presented and published many papers in international conferences and journals. He is also a visiting faculty, external examiner and jury member of various institutes and universities. Prof. Prakash also involved in various research activities related to interactive learning, flipped learning and project based learning.

**Global Engineering Education – V: Industrial Engineering Education**  
3:00 – 4:30 pm, Wednesday, November 27, 2019, Room 2 - Auditorium C02  
Panel Chair: Dr. Hesham K. Alfares, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

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**3:00 – 3:20 (Wednesday)**

**Dr. Hesham K. Alfares**  
Chairman and Professor  
Systems Engineering Department  
King Fahd University of Petroleum & Minerals  
Dhahran, Saudi Arabia  

**Recent Trends in Industrial Engineering Education**  
Hesham K. Alfares is Chairman and Professor in the Systems Engineering Department at King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia. He has a PhD in Industrial Engineering from Arizona State University. He has more than 110 publications, including 56 journal papers and a U.S. patent. Dr. Alfares has been as a visiting scholar at MIT and the University of North Carolina in the USA, in addition to four universities in the UK. He won one research grant from the US Fulbright Foundation, and four grants from the British Council. He won the Almarai Prize for Scientific Innovation in Industrial Engineering. He has been a member in the editorial boards of three international journals and in the program committees of 30 international conferences.

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**3:20 – 3:40 (Wednesday)**

**Dr. Abdelhakim Abdelhadi**  
Associate Professor  
Department of Engineering Management  
College of Engineering  
Prince Sultan University, Riyadh, Saudi Arabia  

**Clustering Engineering Students into Groups According to their Learning Style**  
Dr. Abdelhakim Abdelhadi is an Associate Professor at the College of Engineering at Prince Sultan University-Saudi Arabia. Dr. Abdelhadi received his Ph.D. in Industrial and Manufacturing Engineering from University of Wisconsin –USA in 2010, M.S., in Industrial Engineering from University of Jordan, and his B.Sc. in Civil Engineering from Higher Education University-Jordan. He has 12 years of industry experience and more than 18 years of academic experience. His research and teaching interest include group technology, maintenance scheduling and lean manufacturing He is a fellow of the higher education academy, FHEA. Recently Dr. Abdelhadi published several researches in engineering education and authored an introduction in engineering economy book in Arabic Language.

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**3:40 – 4:00 (Wednesday)**

**Dr. Ajrina Hysaj**  
Lead English Language Instructor and Curriculum Designer  
Academic Study Skills Lead Instructor  
UOWD College  
University of Wollongong in Dubai  
Dubai, UAE  

**Analysing the Correlation between Tutors’ Support and Undergraduate Engineering Students’ Academic Satisfaction**  
Lead English Language Instructor, Academic Study Skills Coordinator and Curriculum Designer, UOWD College, University of Wollongong in Dubai. Ajrina is an advocate of continuous research in the field of education, culture and student mentoring. Her qualifications include BA in Language and Literature (Distinction) from Tirana University, Albania, CELTA (Certificate of English Language Teaching in Adults) from Cambridge University, UK, Master in Education from Murdoch University, Perth, Australia and Graduate Certificate in Teaching and Learning (Higher Education), Swinburne University, Australia. She is currently pursuing her Ph.D. in Education with University of Malaysia, Perlis, Malaysia. Mrs. Hysaj currently teaches Academic Study Skills to undergraduate students, design academic study
skills curriculum and coordinates all the academic study skills levels. She has been teaching English Language for more than a decade and is well equipped with the skills and knowledge to teach Academic, General and Business English at all levels.

Her approach to teaching is holistic and focuses on creating an inclusive, motivating, intriguing and nurturing classroom environment that maximises personal and academic growth. She is also keen on developing the interest of students to pursue further research in the areas of education, culture and multilingualism. Prior to relocating to the UAE in 2000, she has worked as a Curriculum Developer of ESL books in her native country. Mrs Hysaj's research interests include Efficiency of Feedback Methods in Academic Writing in Tertiary Education, Students and Instructors Mentoring Needs and Methods of Effective Communication in Multilingual and Multicultural classrooms.

Qualifications:

Ph.D. Candidate – University Malaysia Perlis, Perlis, Malaysia
M.ED – Murdoch University, Perth, Australia, 2014-2015
CELTA-Certificate of English Language Teaching to Adults, Cambridge, UK, 2008
BA– Language and Literature, University of Tirana, Tirana, Albania, 1996-2000

4:00 – 4:20 pm (Wednesday)

Dr. Mohammad Nurunnabi, CMA, FAIA(Acad), SFHEA, FRSA
Editor-in-Chief, PSU Research Review: An international Journal (PRR)
Aide to the Rector on Research & Internationalization
Chair, Department of Accounting
Prince Sultan University
Riyadh, Saudi Arabia

Dr. Mohammad Nurunnabi, PhD, CMA, SFHEA FRSA FAIA (Acad), CMBE is the Aide to the Rector on Research and Internationalization, Chair of the Department of Accounting, and an Associate Professor in Accounting at Prince Sultan University, Saudi Arabia. He is an Academic Visitor of St Antony’s College, University of Oxford, Oxford, United Kingdom. He holds a PhD with outright pass (no corrections) from the University of Edinburgh, UK. He is a senior fellow of Higher Education Academy (SFHEA), UK, a Chartered Management Accountant (CMA), an academic fellow of the Association of International Accountants (FAIA-Acad), a Certified Management & Business Educator (CMBE) and a fellow of the Royal Society of Arts (FRSA). His most recent book is The Role of the State and Accounting Transparency (Routledge: London and New York: 2016). He currently serves as Editor-in-Chief of PSU Research Review: An International Journal, Emerald, and Senior Associate Editor of Journal of the Knowledge Economy, Springer (SCOPUS Indexed). He serves on the editorial boards of twenty journals. He has published over 80 articles in international journals. His research primarily focuses upon policy and impact in Saudi Arabia. He has received numerous prestigious research and teaching awards including the IMA Faculty Leadership Award from Institute of Management Accountants (IMA), USA in 2017.

7:00 – 10:00 pm, Wednesday - Conference Awards Dinner

Thursday, November 28, 2019

Global Engineering Education – VI
8:30 – 10:00 pm, Thursday, November 28, 2019, Room 2 - Auditorium C02
Session Chair: Dr. Mohammad Ali Kadampur, Al-Imam Muhammed bin Saud Islamic University, Riyadh, Saudi Arabia

8:30 – 8:50 (Thursday)

Mohammad Nawab
Faculty, Civil Engineering
College of Engineering
Shaqra University
Dawadmi, Ar Riyadh
Saudi Arabia

8:50 – 9:10 (Thursday)

Dr. Fady S. Alnajjar, PhD.
Head of AI and Robotics Lab
Assistant Professor
Department of Computer Science and Software Engineering
College of Information Technology (CIT)
United Arab Emirates University
Al Ain, UAE

Title: An Autonomous Attention Assessment System for Smart Classroom

Bio: Dr. Fady received his MSc in Artificial Intelligence and his PhD in System Design Engineering at the University of Fukui, Japan in 2007 and 2010, respectively. Since 2010, Dr. Fady worked as a research scientist at Brain Science Institute (BSI), RIKEN, Japan. He conducted neuro-robotics study to understand the underlying mechanisms for embodied cognition and mind. From 2012, he started an interest in exploring the neural mechanisms of motor learning, adaptation, and recovery after brain injury from the sensory- and muscle-synergies perspectives. His research target is to propose an advance neuro-rehabilitation application for patients with brain injuries. Since 2016, he joined a three-year joint research group, including Nagoya University-Japan, and the University of Michigan-USA, to develop a bio-inspired prosthetic arm. from 2018, he became the director of AI and Robotics Lab at UAE University.
9:10 – 9:30 (Thursday)  

**Dr. Hamdi Hassen**  
Assistant Professor  
Department of Computer Science  
College of Science and Arts at Al-Ola  
Taibah University  
Medina, Saudi Arabia  

**Improving Performance of Robust and Efficient E-Learning Platform using Distributed Computing Technologies for Saudi Arabia institute**

Hamdi Hassen received his Master of computer Science, and Ph.D. degrees, respectively, from the University of Safx (Tunisia), in 2009 and 2016. He is currently assistant Professor of Computer Science at the Faculty of Science and Arts at Al-Ola, Taibah University, Saudi Arabia and a member of the MIRACL" Multimedia, InfoRmation Systems and Advanced Computing Laboratory”. His research interests include Arabic OCR, distributed systems, performance analysis, and networks security.

9:30 – 9:50 (Thursday)  

**Dr. Mohammad Ali Kadampur**  
Assistant Professor  
Department of Information Management  
College of Computer; Information Science  
Al-Imam Muhammed bin Saud Islamic University  
Riyadh, Saudi Arabia  

**Facilitating the Educator through academicutilities.com: Design and Development**

Dr. Mohammad Ali Kadampur is an Assistant Professor in the Department of Information Management, in the College of Computer and Information Sciences, Al Imam Muhammed Ibn Saud Islamic University, Riyadh, KSA. He earned his Bachelor of Engineering degree in Electronics and Communication Engineering, Master of Technology in Computer Science and Engineering from National Institute of Technology Surathkal, India, and Ph.D in Computer Science and Engineering from National Institute of Technology, Warangal. India. He has over 20 years of academic and industrial experience and has executed several grant projects in his career serving in different positions. He has published over 35 research papers in leading International journals including Springer, Inderscience and Elsevier publishers. His current research interests are web engineering, e-learning and deep learning applications. He is a member of ACM and serving as reviewer and editor in many International Journals.

10:00 Networking/Coffee Break

10:15 Keynote: Dr. Surendra M. Gupta, Professor of Mechanical and Industrial Engineering, Director of Laboratory for Responsible Manufacturing (LRM), Northeastern University, Boston, Massachusetts, USA

11:00 Keynote: Eng. Saleh I Al-Shabnan: President Haffaz Industrial & Management Consultants, Riyadh, Saudi Arabia

11:45 Networking Buffet Lunch/ Dhuhr Prayer

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**Global Engineering Education – VII**  
1:00 – 2:30 pm, Thursday, November 28, 2019, Room 2 - Auditorium C02  
Session Chair: Dr. Sayyad Zahid Qamar, Sultan Qaboos University, Al-Khodh 123, Muscat, OMAN

1:00 – 1:20 (Thursday)  

**Dr. Tayeb Brahimi**  
Assistant Professor  
Electrical and Computer Engineering Department  
Effat University  
Jeddah, Kingdom of Saudi Arabia  

**Learning Outside the Classroom: From MOOCs to Makerspace**

Dr. Tayeb Brahimi, Assistant Professor at the Department of Electrical and Computer Engineering (ECE), at Effat University, Jeddah, KSA, received his Ph.D. (1992) and Master Degree (1987) from Ecole Polytechnique, University of Montreal, Canada. He has worked as Research Scientist under Bombardier Chair/Canadair from 1992 to 1998. In 1998, he joined Jeppesen DataPlan in California, then Peregrine System (acquired by Hewlett-Packard in 2005), in Concord (CA), as a Technical Support Analyst. Then, as Quality Assurance Engineer and Consultant for Electronic data interchange (EDI) commercial software in Dallas, Texas, providing strategic support, guidance and technical resolution of problems related to EDI, ESD, and online web applications. Dr. Tayeb Brahimi is internationally recognized for his contribution to the development of teaching and research programs between university and government Institutions. He received internationally recognized awards and performed a leading role for a distinguished institution (Bombardier Chair/University of Montreal). He has been a consultant at IONPARA Inc. for wind energy and aeronautics. He published more than 80 articles in scientific journals, international conferences, and internal technical reports on novel methodologies of teaching and learning, renewable energy and sustainability, machine learning. Among other activities, Dr. Tayeb Brahimi is reviewer for many international journals, invited speaker by the Japan Society of Mechanical Engineering, Japan Turbo machinery Association (Ishikawajima-Harima Heavy Industries, Tokyo), The Gulf Educational Conference as well as the International Conference on Engineering Education & Research (FICEER2015). He also participated in Public Debate on Energy organized by the Government of Quebec, Canada (Public Debate on Energy).

Current research interest relates to renewable energy (solar, wind, wave, and waste to energy), sustainability, data mining, the use of technology to support learning, Engineering education, MOOCs, and Makerspace. Other areas of interest include social aspect of wind energy, testing and quality assurance, knowledge management, and integrating Islamic innovative heritage into the STEM.

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First GCC Conference
1:20 – 1:40 (Thursday)

Dr. Mohd Soperi
Associate Professor
Computer and Information Science Department
Universiti Teknologi PETRONAS (UTP), Perak, Malaysia

Machine Learning Education in Malaysia

Mohd Soperi is currently an Associate Professor in Computer and Information Science department at Universiti Teknologi PETRONAS (UTP). Before that he served as a faculty member at Universiti Teknologi Malaysia (UTM) from 1995 until 2017. He has been a member of the Malaysian Board of Technology (MBOT) as Professional Technologist since 2018. His research interests include Internet routing protocols, Opportunistic Network forwarding schemes, Software Defined Networks Failure Recovery and ECG Analysis with machine learning methods. He has published several journals and conference papers in these areas. Mohd Soperi has a Bachelor degree in Mathematics and Computer Science from New Mexico State University, a Master degree in Computer Integrated Manufacturing from Rochester Institute of Technology and a PhD in Computer Science from University of Wisconsin Milwaukee, USA.

1:40 – 2:00 (Thursday)

Dr. Sabah Al-Fedaghi
Associate Professor
Computer Engineering Department
Kuwait University, Kuwait

2:00 – 2:20 (Thursday)

Dr. Sayyad Zahid Qamar
Mechanical and Industrial Engineering Department, College of Engineering
Sultan Qaboos University, Al-Khodh 123, Muscat, OMAN

Dr. Zahid Qamar, Sayyad is currently associated with the Mechanical and Industrial Engineering Department, Sultan Qaboos University (SQU), Muscat, Oman. He has over 20 years of academic and research experience in different international universities. He has also worked as a professional mechanical engineer in the field for over 6 years in the heavy engineering and fabrication industry (Manager Research and Development; Deputy Manager Design; Production Engineer; Quality Control Engineer). On top of his experience as a researcher/academician, he has been actively involved in research and accreditation work related to engineering education. His technical research areas are applied materials and manufacturing; applied mechanics and design; Reliability engineering; and engineering education. As part of the Applied Mechanics and Advanced Materials Research group (AM2R) at SQU, he has been involved in different applied research funded projects in excess of 4 million dollars. He has around 200 research/technical publications to his credit (2 research monographs / books, 2 edited book volumes, 5 book chapters, 145 publications in refereed international journals and conferences, and 32 technical reports). He is currently editing one volume (Renewability of Synthetic Materials) for the Elsevier Encyclopedia of Renewable and Sustainable Materials. He has served as Associate editor, Guest editor, and Member editorial board for different research journals (including Materials and Manufacturing Processes, Journal of Elastomers and Plastics, the Journal of Engineering Research, American Journal of Mechanical and Industrial Engineering).

Dr Tasneem Pervez
Professor in the Department of Mechanical and Industrial Engineering
College of Engineering,
Sultan Qaboos University (SQU)
Muscat, Oman

Dr Tasneem Pervez is currently working as Professor in the Department of Mechanical and Industrial Engineering, Sultan Qaboos University (SQU). Received Ph.D. degree in Mechanical Engineering from University of Minnesota, USA in 1991. Served as Head of the Department and Assistant Dean for Postgraduate Studies and Research in SQU as well as other universities. Actively engaged in research and consulting work with various national and international organizations including Petroleum Development Oman, EGT, Swellfix, Ruma Rubbers, Brinkers, Maersk Oil Qatar, and PROTON, TNRD, AIROD, PERODUA and TNB of Malaysia. Current research interests are in Solid Expandable Tubulars, Swelling Elastomers, Composite Materials, Computational Mechanics, Computer Aided Engineering Analysis and Engineering Education. A part from teaching, research and consultancy, I have also actively participated in developing new engineering programs and accreditation of different engineering programs by ABET, a US accreditation agency.
Dr Mahmood Al-Kindi  
Associate Professor and Head  
Mechanical and Industrial Engineering Department (MIED)  
Sultan Qaboos University (SQU), Muscat, Oman  

Dr Mahmood Al-Kindi is an Associate Professor and Head of the Mechanical and Industrial Engineering Department (MIED), Sultan Qaboos University (SQU), Muscat, Oman. He is also Co-Director of the Academic Innovation Program at SQU. He has a PhD in systems and entrepreneurial engineering from University of Illinois in the USA. His research interests are in innovation, decision analysis, inventory management, and optimization.

ID 309 Engineering Education: Challenges, Opportunities, and Future Trends  
Sayyad Zahid Qamar, Tasneem Pervez and Mahmood Al-Kindi, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman

2:30 – 3:00 Networking/Coffee Break/Asr Prayer

Global Engineering Education – VIII  
3:00 – 5:00 pm, Thursday, November 28, 2019, Room 2 - Auditorium C02  
Session Chair: Prof. Sufian A. Forawi, British University in Dubai, United Arab Emirates

3:00 – 3:20 (Thursday)  
Prof. Sufian A. Forawi  
Professor of Science Education  
British University in Dubai  
United Arab Emirates  

ID 324 Meaningful STEM Education Frameworks  
Sufian A. Forawi is currently a professor of science education at the British University in Dubai. Prof. Sufian obtained an Ed.D. in Science Education from the University of Massachusetts Lowell, Massachusetts, USA. He obtained a bachelor degree in Biology from the University of Alexandria, Egypt and a master's degree in Education from Omdurman Islamic University, Sudan. His area of expertise spans through topics of the nature of science, STEM, school improvement, assessment & evaluation, and critical and creative thinking. He was awarded the distinguished US Fulbright scholar exchange at the UAE University. Prof. Sufian has many years of teaching and administrative higher education and high school experience. He has been supervising many master’s and doctoral students. He is a member of several science education organizations such as the National Association of Research on Science Teaching (NARST) and the European Science Education Research Association (ESERA). He was the editor of the International Journal of Excellence in eLearning (UAE) and the Missouri Academy of Science-Science Education (USA). He has published widely in peer-reviewed journals and participated in book publications. He has reviewed different research manuscripts, book chapters, grant proposals and promotion applications. He has a strong external grant record, e.g. NSF and Ohio State Department of Education and the Emirates Foundation.

3:20 – 3:40 (Thursday)  
Dr. Amal Abbas Abdelsattar  
Assistant Professor  
Department of Architecture  
College of Engineering  
Prince Sultan University  
Riyadh, Saudi Arabia  

Active Learning in Engineering Education  
Dr. Amal is currently working as an Assistant Professor at the College of Engineering, Prince Sultan University. Dr. Amal has received her Ph.D. in Environmental Engineering, from Ain Shams University, Egypt. She received her Master degree in construction management and her Bachelor in Civil Engineering from Cairo University, Egypt. She is a Fellow of the UK Higher Education Academy. She worked in the field of Geographic Information System and Remote Sensing applications for 12 years. Dr. Amal research interests include structural engineering, environmental engineering, and Higher education teaching and learning. Recently Dr. Amal published several researches in engineering education.

3:40 – 4:00 (Thursday)  
Dr. Wafa Labib  
Assistant Professor  
Department of Architecture  
College of Engineering  
Prince Sultan University  
Riyadh, Saudi Arabia  

Architectural students learning styles and their implications for teaching
Dr. Wafa Labib has MSc in Structural Analysis from University of Jordan, Jordan. She then worked for two years at a reputable engineering company in Dubai as Structural Engineer. Then she joined Liverpool John Moores University, UK as a researcher in the area of sustainability and environmental issues. Dr. Wafa was awarded her PhD in structural Engineering from Liverpool John Moores University, UK in 2008. The title of her thesis is "An Experimental Study and Finite Element Analysis of Punching Shear Failure in Steel Fibre-reinforced Concrete Pile-supported Floor Slabs". Dr. Wafa went on to become a lecturer in the Islamic Azad University and then an Assistant Professor in Bolton University. In 2012, she joined Prince Sultan University (PSU). She has 10 years of experience teaching structural analysis and structural design modules to Architectural, Civil and Interior Design students. In 2015, she became a Fellow of the Higher Education Academy (HEA) UK. Research Interest: Fibre Reinforced Concrete; Concrete Properties; Finite Element Analysis; Plant-based Natural Fibres; Engineering Education

Dr. Ali Rizwan
Assistant Professor
Department of Industrial Engineering
King Abdulaziz University
Jeddah, Saudi Arabia

Title of the Talk: Impact of Instructor’s Emotional Intelligence on the Academic Performance of Students

Dr. Ali Rizwan is an international trainer of human success. He is an Assistant Professor in the Industrial Engineering Department at King Abdul Aziz University Jeddah, Saudi Arabia. He is a Consultant in the Centre of Excellence for the Alignment of Educational Outcomes with Labour Market Needs (CEOLM), at King Abdulaziz University, Saudi Arabia. He is an Adjunct Faculty Member at the University of Engineering and Technology, Taxila, Pakistan. He has a PhD in Engineering Management with specialization in Knowledge Management and Educational Leadership. He is passionate about emotional intelligence, human success, personality refinement, pedagogy, and quality enhancement. He is a Certified International Trainer and a Certified Six Sigma Black Belt. He is a Career Counsellor of JIIG-CAL, Australia in Pakistan. He has published numerous research articles in ISI-JCR and Scopus indexed journals. He has authored a chapter in a book besides reviewing multidisciplinary research papers, book chapters and adjudicated researches. He has been extensively involved in supervising post graduate and undergraduate researches in the fields of Emotional Intelligence, Student Learning, Pedagogy, Human Development, Knowledge Management, Organizational Development, and Quality Enhancement. In more than two decades of teaching, research and training experience, Dr. Ali has offered Professional Development Trainings to senior executives, middle management and working professionals around the globe. He is a pioneer of an Inside-Out Approach that prevents extremist and radical mind-set among thousands of youth in one of the most volatile regions of the world. He is providing individual counselling and mentoring for more than 20 Years. He is an author, social activist and member of different humanitarian organizations. Dr. Ali is frequently invited as a guest speaker by the prestigious public and private sector organizations. He is a member of Pakistan Engineering Council and Co-founder of Knowledge Kottage.
17th IEOM Global Engineering Education
DISTINGUISHED SPEAKERS

Tuesday (March 10, 2020)

Session I: Global Engineering Education
Session Chair:
8:00 – 9:30 am (Tuesday)

8:00 – 8:30 (Tuesday)
Dr. Imad Alsyouf
Director of Sustainability Office
University of Sharjah
United Arab Emirates

Sustainability Circles the way to Sustainability Excellence in Institutes of Higher Education

8:30 – 9:00 (Tuesday)
Dr. César A. Collazos
Full Professor
Computer Science Department
Universidad del Cauca-Colombia
Popayán, Cauca, Colombia

Title of the Talk: Collaborative games as a mechanism to support collaborative learning processes

Bio: César A. Collazos, full professor computer science department at Universidad del Cauca-Colombia. Phd in computer science and head of IDIS research group at Universidad del Cauca. His main research areas include: Human Computer Interaction, Computer Supported Collaborative Learning, ICT in education.

9:00 – 9:30 (Tuesday)
Dr. Mohammad Alhaj
Assistant Professor
Department of Computer Engineering
Faculty of Engineering
AIAhliyya Amman University
Amman, Jordan

Session II: Global Engineering Education
Session Chair:
2:30 – 4:00 pm (Tuesday)

2:30 – 3:00 (Tuesday)
Professor Assem Tharwat
Professor at the College of Business Administration
American University in the Emirate
Dubai, UAE

Prof Assem Tharwat earned his master’s degree in mathematical Statistics and his bachelor’s degree in mathematics from Cairo University, Egypt, and his Ph.D. in Operations Research from Charles University, Czech Republic. He accumulated more than 35 years of academic experience in different universities in both the public and privat sectors in Egypt and in UAE. He taught both basic and advanced courses in many fields in Operations Research and Management Sciences. Prof Assem supervised about forty Ph.D. and M.Sc. thesis during the past 20 years and he published about 100 articles in International/National Journals and conferences during the past 30 years. In addition, he accumulated more than ten years’ experience in the accreditation field in Egypt and UAE, moreover he is working as a member in the AACSB team for almost three years in AUE. Prof Assem has a very good experience in the academic positions for more than 15 years and he served as a dean between 2011 and 2013 in CIC, Egypt & between 2017 and 2019 in COBA, AUE, UAE.
Dr. Waleed K. Ahmed

Assistant Professor
Engineering Requirements Unit
College of Engineering
United Arab Emirates University
Al Ain, UAE

Merging 3D Printing Technology to Enhance Engineering Pedagogical Process: Applications and Challenges

Originally from Mesopotamia, Dr. Waleed K. Ahmed obtained B.Sc. in Mechanical Engineering from the University of Baghdad in 1992. Served over 6 years in the manufacturing and quality control industrial sector. In 2000, obtained M.Sc. in Applied Mechanics from the University of Technology, Baghdad. Appointed as a lecturer in 2001 at the Materials Engineering Department, Al-Mustansiriya University, Baghdad. In 2006 completed Ph.D. from Al-Mustansiriya University joint venture with the University of Nottingham. Worked as a consultant for many industrial companies. Dr. Waleed moved to work at United Arab Emirates University in 2006. From 2009 to 2019, worked as an instructor in the Engineering Requirements Unit as well as serving the Mechanical Engineering Department. Published more than 50 journals and conference papers. The main interest in renewable energy, nanomaterials, failure analysis, FEA, fracture mechanics, forensic engineering, composite recycling, as well as e-Learning. Awarded UAEU Chancellor Innovation Award for 2017 and 2018. Has four granted patents and 3 under examination. Granted AUA (Asian Universities Alliance) Fellowship Award 2019 conducting research at Nanotechnology and Catalysis Research Centre in UM, Malaysia. Nowadays focusing on 3D printing technology in material, manufacturing, and education. Recently has been appointed as an Assistant Professor in the Engineering Requirements Unit.

3:30 – 4:00 (Tuesday)

Dr. Heba Y. M. Soliman

Associate Professor
Electrical Engineering Department
Port Said University
Egypt

Electrical Engineering Education in both Egyptian NARS and Pearson BTEC Higher Nationals Standards

Dr. Soliman is an Associate Professor in the area of wireless communications and signal processing at Electrical Engineering department, Port Said University. She is the Executive manager of the Entrepreneurship, Innovation and sustainable environment unit of Faculty of Engineering, Port Said University. She is the Vice Executive manager of Quality and Accreditation Unit of Faculty of Engineering, Port Said University. She is responsible for the Wireless Antennas Laboratory, Faculty of Engineering, Port Said University. She has also a special interest in the methodologies, quality and accreditation standards of the electrical engineering education. Her Continuous learning and training interests are in the filed of Smart cities technologies and Smart cities management.

Dr. Soliman got her MSc (2004) and PhD (2010), Suez Canal University, Egypt. She got a training in Connected Vehicles Cloud Computing for Smart Cities, with Electrical and Computer Engineering department and a training about Smart Poles and Smart Cities, with Sustainable Smart Cities research center, UAB, Alabama, USA, 2018.

Her contributions related to efficient use of power and frequency resources in wireless communication systems included 15 publications. Since 2010, she has participated in international conferences and workshops in Qatar, Poland, USA and Dubai. She has supervised 7 MSc and 3 PhD at Port Said and Suez Canal Universities. She is a referee in ELSEVIER, Computer Standards and Interfaces Journal.

Dr. Soliman is a member in the research project “Geometric Algebra based Electromagnetic waves simulator”, funded by the ministry of communication (ITIDA-ITAC).

Session III: Global Engineering Education – Panel Session

Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA

4:30 – 6:00 pm (Tuesday)

Dr. Abu Masud, P.E.

Emeritus Professor, Department of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

Dr. Abu Masud is an emeritus professor of industrial and manufacturing engineering at Wichita State University. He was named the Boeing Global Engineering Professor at Wichita State University. Dr. Masud advanced the College of Engineering’s strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering. Previously he was held various positions at Wichita State including dean and associate dean of graduate school (2008-2013), coordinator, college ABET affairs (2008-2008), associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IIE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.
Panel Speaker II
Panel Speaker III
Panel Speaker IV

Session IV: Global Engineering Education

Session Chair:
8:00 – 9:30 am (Wednesday)

Professor Charles Mbohwa
Professor
Faculty of Engineering and the Built Environment
University of Johannesburg
South Africa

Professor Charles Mbohwa is a full professor in Faculty of Engineering and the Built Environment, University of Johannesburg. He was formerly the Vice-Dean for postgraduate studies research and innovation and Acting Dean of the faculty. He obtained B. Sc. Honours in Mechanical Engineering in 1986 from Department of Mechanical Engineering, University of Zimbabwe, Harare, Zimbabwe. He later bagged M. Sc. in Operations Management and Manufacturing Systems in 1992, with a distinction from Department of Manufacturing Systems Engineering, University of Nottingham, UK. He obtained PhD in Engineering (Production Systems focusing on Energy and life cycle assessment) from Tokyo Metropolitan Institute of Technology, Tokyo, Japan in 2004. Professor Mbohwa is an NRF-rated established researcher. In January 2012 he was confirmed as an established researcher making significant contribution to the developing fields of sustainability and life cycle assessment. In addition, he has produced high quality body of research work on Southern Africa. He is an active member of the United Nations Environment Programme/Society of Environmental and Toxicology and Chemistry Life Cycle Initiative, where he has served on many taskforce teams.

8:30 – 9:00 (Wednesday)

Dr. Md. Mizanur Rahman, CEng, Chartered Energy Engineer
Senior Lecturer (Thermo Fluid)
School of Mechanical Engineering
University Technology Malaysia (UTM)
Skudai, Johor Bahru, Malaysia

Title: Energy technology education in engineering programs: paradigm shift from technology-centred to multidisciplinary focus

Bio:
Md. Mizanur Rahman is currently a Senior Lecturer at Thermo-Fluids Panel, School of Mechanical Engineering, Universiti Teknologi Malaysia UTM, Johor Bahru, Malaysia. Dr. Mizanur is a certified Chartered Energy Engineer by Energy Institute UK. Before joining at UTM, he has served as a Postdoctoral Researcher at Aalto University School of Engineering, Finland. Mizanur also has more than 12-year working experience in a government statutory body namely Bangladesh Rural Electrification Board (BREB), Bangladesh. During his tenure in BREB, Mizanur has gathered practical experiences in dealing with techno-economic and sociocultural challenges faced by rural electrification program. He has accumulated deep insights towards the solution pathways for the Global Mega-challenge of having 1.2 billion people without access to electricity yet. Mizanur has sound understanding into the global energy sector challenges and its societal implications. He has received his Ph.D. in Energy Economics and Power plant Engineering from Aalto University, Finland, M.Sc. in Sustainable Energy Engineering from Royal Institute of Technology KTH, Sweden, and B.Sc. in Mechanical Engineering from Khulna University of Engineering and Technology, Bangladesh. His research interests include Thermodynamics, low temperature Kalina cycle, energy economics, energy management, energy efficiency and system, sustainable and renewable energy, energy system modelling, Life-Cycle analysis, distributed power generation, multicriteria evaluation etc. Mizanur has several publications in International referred journals in energy engineering domain.
Dr. Jafri Mohd Rohani
Head of the Industrial Engineering Programme
Department of Materials, Industrial and Manufacturing Engineering
Faculty of Mechanical Engineering
Universiti Teknologi Malaysia
Skudai, Johor, Malaysia

Enhancing Outcome Based - Education Industrial Engineering Curriculum at Universiti Teknologi Malaysia

Jafri Mohd Rohani is a Senior Quality and Statistical Engineering Lecturer. He is also Head of the Industrial Engineering Programme at the Department of Materials, Industrial and Manufacturing Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Skudai, Johor. Currently, he is the President of JohorCost and Quality Engineers Society. He is a member of the American Society for Quality (ASQ) and Human Factor Society of Malaysia.

Session V: Business and Management Education – Teaching and Learning
Session Chair:

Dr. Ghada El Khayat
Professor and Head of Department
Department of Information Systems and Computers
Alexandria University
Alexandria, Egypt

Dr. Guilherme Frederico
Professor of Operations, Supply Chain and Project Management
Universidade Federal do Paraná (UFPR)
Curitiba, Paraná, Brazil

Bio

Title of the talk:

Dr. Abdul Talib Bon
Professor of Technology Management
Department of Production and Operations Management
Universiti Tun Hussein Onn Malaysia

Teaching Factory Based Learning IR 4.0: New Paradigm in Engineering Education

Dr. Abdul Talib Bon is Professor of Technology Management in Department of Production and Operations Management, Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration major in Quality Management at the master’s level in the Universiti Kebangsaan Malaysia for which he was awarded the MBA in the year 1998. He’s bachelor degree and diploma in Mechanical Engineering which his obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He is Director of Teaching Factory and Manager of Centre for Technology (Furniture Innovation Technology) since 1 September 2016. Dr. Abdul Talib Bon has had over 30 year experience of teaching in higher learning education. He has supervised more than 100 undergraduate and PhD research students. He has served as a reviewer for a number of engineering management conferences and journals as part of his expertise sharing initiatives. He had published more than 300 International Proceedings and International Journals and 8 books. He is also Fellow and President of Industrial Engineering and Operation Management Society (IEOMS, Malaysia), Professional Technologist of Malaysia Board of Technologists (MBOT), Council member of Management Science and Operation Research Society of Malaysia (MSORSM), member of International Association of Engineers (IAENG), member of Institute of Industrial Engineer (IIE), USA, member of International Institute of Forecasters (IIF), member of Technological Association of Malaysia (TAM) and associate member of Malaysian Institute of Management (AMIM).
Session VI: Global Engineering Education
Session Chair: Dr. Eldon Caldwell, University of Costa Rica
4:30 – 6:00 pm (Wednesday)

Dr. Albertus Retnanto
Professor of the Practice
Petroleum Engineering
Texas A&M University at Qatar

Preparing International Engineering Programs for Accreditation

Dr. Albertus Retnanto is Professor of the Practice of Petroleum Engineering at Texas A&M University at Qatar and has been in the Petroleum Engineering program since 2009. He received his Ph.D. degree in Petroleum Engineering (1998) from Texas A&M University. He teaches undergraduate courses in numerical methods, well testing, petroleum production system, production engineering, petroleum technical presentation, natural gas engineering, and integrated asset development and makes significant curriculum enhancements to several courses. He held a Principal position with Schlumberger and has more than 18 years of experience worldwide in both technical and management positions in the area of well testing, field development, and production enhancement. He has received the Performed by Schlumberger Bronze Award four times. He has served as the Review Chairman of SPE Drilling & Completion Journal and chair on several committees on SPE. He received the A Peer Apart SPE Award, which is dedicated to the technical excellence of authors to the industry. He received the AFS College-level Distinguished Achievement Award in Teaching in 2016, SGA Educator Award, SEC Best Faculty Award, and the Faculty of the Year Award in five times, and the Distinguished Teaching Award. He has authored and co-authored over 35 papers. He is a PETE undergraduate advisor, and ABET/SAC coordinator. He serves as an ABET Program Evaluator (PEV) for the Engineering Accreditation Commission representing the Petroleum Engineering.

ID 23 Preparing International Engineering Programs for Accreditation
Albertus Retnanto, Texas A&M University at Qatar, Doha, Qatar

Dr. Kapil Gupta
Associate Professor
Department of Mechanical and Industrial Engineering Technology
University of Johannesburg
South Africa

Some Insights on Engineering Education 4.0

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing from Indian Institute of Technology Indore, India in 2014. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. He has authored several SCI/ISI Journal and International Conference articles. He also authored and edited 10 international books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing, and sustainable manufacturing with the renowned international publishers. He has also successfully guest edited special issues of a Scopus indexed journals and he is currently editing a series of handbooks on Advanced Manufacturing as a series editor. He is a recognized reviewer of many international journals and in the advisor/technical committees of international conferences. He has also delivered invited speeches in international conferences and symposiums, and seminar talks at international universities. Kapil Gupta is a NRF [National Research Foundation] rated Researcher in South Africa. Currently, he is supervising 8 Masters and 4 Doctorate students who are busy conducting research in advanced manufacturing and industrial engineering fields. He is also conducting research in engineering education. He also obtained PG Diploma in higher education. He is working on implementation of innovative teaching techniques for the enhanced learning of engineering students. Recently, he also developed a manufacturing engineering virtual lab.

ID 512 Some Insights on Engineering Education 4.0
Kapil Gupta, University Of Johannesburg, South Africa

Alma Arcelia Gonzalez Lozano
Escuela Superior de Comercio y Administración Unidad Santo Tomás
Instituto Politécnico Nacional
Ciudad de México, Mexico

Alma Arcelia Gonzalez Lozano, Ph.D. is currently completing a master’s degree by research in Education Management and Development at Escuela Superior de Comercio y Administración, Instituto Politécnico Nacional (Mexico). She holds a MSc in International Political Economy and a PhD in Strategic Studies from the Nanyang Technological University (Singapore). As a Senior Consultant at STRATHA Learning Corporation, a global training company, Dr. Gonzalez Lozano works as an education and training consultant for multinational corporations in high-tech sectors. She is a member of the US-based Association for Talent Development.

ID 41 The Professional Profile of Aerospace Engineers for Industry 4.0
Alma Arcelia Gonzalez Lozano, Instituto Politécnico Nacional, Gustavo A. Madero, Ciudad de Mexico, Mexico

Dr. Luiz Pinheiro da Guia
Professor, Departamento de Mecatrônica
Centro Federal de Educação Tecnológica de Minas Gerais
Avenida dos Imigrantes, 1000, Bairro Vargem, Varginha, MG, BRASIL

Luiz Pinheiro da Guia is a professor of civil engineering and teacher in the technical course of mechatronics and Doctor in civil engineering in the Department of Mechatronics of CEFET-MG, Varginha, Brazil. He earned a Bachelor’s degree in Mechanical Engineering from Gama Filho University, Rio de Janeiro, and a Doctorate and master’s degree in Civil Engineering from the Fluminense Federal University, Niteroi, Brazil. He published it in
newspapers and conference papers. Worked of the Navy Arsenal of Rio de Janeiro and worked in several companies. Dr. Da Guia completed research projects with various Institutions in Brazil and published a book in 2015.

ID 583 The use of computational simulation, finite element analysis and digital models to improve the practice and teaching of linear structural analysis
LUÍZ DA GUIA, Centro Federal de Educação Tecnológica de Minas Gerais, VARGINHA, Minas Gerais, Brazil

Dr. Ankesh Mittal
Department of Mechanical Engineering
Sant Longowal Institute of Engineering and Technology
Longowal, Sangrur (Punjab), India

ID 35 To Investigate the Relationship between TQM Enablers Applicable In Indian Engineering Education Institutes
Ankesh Mittal SLIET, Sunam, Punjab, India

Glyda Aricon B. Marquez
Industrial Engineering Department
Technological Institute of the Philippines
Quiapo Metro Manila, Philippines

Glyda Aricon B. Marquez has published and been a co-author of case studies and research papers such as “A Study of the Design for Trolley School Bag of Elementary Children in Grades 1-3 Using the National Institute for Occupational Safety and Health (NIOSH) Lifting Equation” which has been published in Scopus indexed journal and “A Comparative Study on Different Checkout Counters of a Grocery Store using Queuing Theory and ProModel Simulation” for Operations Research course. She is a current member of the Junior Philippine Institute of Industrial Engineers (JPRIIE), current vice-president of Inhinyera, a women in engineering organization, and a former member of the Student council for the Industrial engineering department. She is a certified Lean Six Sigma Yellow Belt title holder.

ID 439 Unravelling the Stereotypes of Women in Industrial Engineering
Glyda Aricon Marquez, Technological Institute of the Philippines, Manila, Philippines

Session VII: Global Engineering Education (Room 1)
Session Chair:
8:00 – 9:30 am (Thursday)

Julio-Mario Daza-Escorcia
Professor and Researcher
Department of Industrial Engineering
America University Foundation

Julio-Mario Daza-Escorcia is an Industrial Engineer who graduated in Corporación Universitaria de la Costa (CUC), with a Masters in Industrial Engineering in Universidad del Norte, Barranquilla, Colombia, and is doctoral student at Statistical Optimization in University of Valencia, Spain. He is a professor and researcher in the Department of Industrial Engineering at America University Foundation. His research interests are in combinatorial optimization and operational research.

ID 528 A MIP Approach for Capacity Planning in Higher Education: Case of Study of Timetabling Problems at the Industrial Engineering Departments in Bogotá, Colombia
JULIO MARIO, Konrad Lorenz University Foundation BOGOTÁ, Colombia

Dr. Yogi Tri Prasetyo
Associate Professor
School of Industrial Engineering and Engineering Management
Mapúa University
Philippines

Yogi Tri Prasetyo is currently an associate professor in the School of Industrial Engineering and Engineering Management, Mapúa University, Philippines. He received a Bachelor of Engineering in Industrial Engineering from Universitas Indonesia (2013). He also studied for one year (2011-2012) at Waseda University, Japan, during his junior year as an undergraduate exchange student. He received an MBA (2015) and a Ph.D. (2019) from Department of Industrial Management National Taiwan University of Science and Technology (NTUST), with a concentration in human factors and ergonomics. He was awarded as NTUST Outstanding Youth with a perfect GPA 4.00. He has a wide range of research interests including human-computer interaction particularly related to eye movement, color optimization of military camouflage, strategic product design, usability analysis, and now he is currently doing accident analysis and prevention. He published several SCI journals in Displays, Color Research and Application, Journal of Eye Movement Research, several non-SCI journals, and several conference proceedings. In addition, Dr. Yogi has contributed to several international conferences as co-chair, chair session, and even committee members. Apart from academics, Dr. Yogi likes playing flute, judo, swimming, and hiking. He has two black belts (1st dan black belt judo and 1st dan black belt taekwondo), an international certified lifeguard, and a certified advanced diver. He speaks Indonesian, English, Chinese, Japanese, and currently, he’s working hard for his Filipino.

ID 379 Comparative Assessment of Ergonomic Education for Industrial Engineering in the Philippines
Yogi Tri Prasetyo, Mapúa University, Manila, Philippines

Zanariah Ahmad
Universiti Tun Hussein Onn Malaysia
Batu Pahat, Johor, Malaysia
ID 87 Does Smartphone usage linked to Technical Students’ Anxiety and Declining Academic Performance?
ZANARIAH AHMAD, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

Dr. KAPIL Gupta
Associate Professor
University of Johannesburg
South Africa

ID 511 Evaluation and Analysis of Students Feedback on Industry 4.0 Virtual Lab developed for Manufacturing Engineering Education
KAPIL Gupta, University of Johannesburg, South Africa

Nancy Lucero Tapia Ruiz
Division of Extension, Consulting and Research
Universidad de Monterrey
Mexico

Nancy Lucero Tapia Ruiz is currently assisting a Master in Product Engineering in Universidad de Monterrey, México. As a scholarship holder, she works part time as a research assistant with the Dean of the Division of Extension, Consulting and Research from Universidad de Monterrey. Lucero has worked in the manufacturing area with companies like LG Electronics and John Deere. She also used to work for Universidad Autónoma de Nuevo León in the division of manufacturing. Her research interests are lean manufacturing and operational excellence.

ID 255 Methodological development for the analysis of the viability of projects with organic waste
Nancy Tapia, Universidad de Monterrey, Nuevo León, Mexico

Dr. Albertus Retnanto
Professor of the Practice of Petroleum Engineering
Texas A&M University at Qatar

Dr. Albertus Retnanto is Professor of the Practice of Petroleum Engineering at Texas A&M University at Qatar and has been in the Petroleum Engineering program since 2009. He received his Ph.D. degree in Petroleum Engineering (1998) from Texas A&M University. He teaches undergraduate courses in numerical methods, well testing, petroleum production system, production engineering, petroleum technical presentation, natural gas engineering, and integrated asset development and makes significant curriculum enhancements to several courses. He held a Principal position with Schlumberger and has more than 18 years of experience worldwide in both technical and management positions in the area of well testing, field development, and production enhancement. He has received the Performed by Schlumberger Bronze Award four times. He has served as the Review Chairman of SPE Drilling & Completion Journal and chair on several committees on SPE. He received the A Peer Apart SPE Award, which is dedicated to the technical excellence of authors to the industry. He received the AFS College-level Distinguished Achievement Award in Teaching in 2016, SGA Educator Award, SEC Best Faculty Award, and the Faculty of the Year Award in five times, and the Distinguished Teaching Award. He has authored and co-authored over 35 papers. He is a PETE undergraduate advisor, and ABET/SAC coordinator. He serves as an ABET Program Evaluator (PEV) for the Engineering Accreditation Commission representing the Petroleum Engineering.

ID 24 Building Communication Strengths and Skills for Non-native English Speaking Engineering Students
Albertus Retnanto, Texas A&M University at Qatar, Doha, Qatar

Session VII: Global Engineering Education (Room 1)
Session Chair: Professor Eui H. Park, North Carolina A&T State University, Greensboro, North Carolina, USA
2:30 – 4:00 pm (Thursday)

2:30 – 2:50 (Thursday)

Dr. Luiz Pinheiro da Guia
Professor of Civil Engineering
Department of Mechatronics of CEFET-MG
Varginha, Brazil

Luiz Pinheiro da Guia is a professor of civil engineering and teacher in the technical course of mechatronics and Doctor in civil engineering in the Department of Mechatronics of CEFET-MG, Varginha, Brazil. He earned a Bachelor’s degree in Mechanical Engineering from Gama Filho University, Rio de Janeiro, and a Doctorate and master’s degree in Civil Engineering from the Fluminense Federal University, Niteroi, Brazil. He published it in newspapers and conference papers. Worked of the Navy Arsenal of Rio de Janeiro and worked in several companies. Dr. Da Guia completed research projects with various Institutions in Brazil and published a book in 2015.

ID 582 The use of mobile robotics to pre-mapping areas for Orienteering Competition – “Projeto Azimute Norte Varginha” – Uso of drones
LUIZ DA GUIA, Centro Federal de Educação Tecnológica de Minas Gerais, VARGINHA, Minas Gerais, Brazil
Dr. Jiří Tupa  
Vice Dean for Faculty Development  
Faculty of Electrical Engineering  
University of West Bohemia  
Pilsen, Czech Republic  

J. Tupa received his MSc (2002) and PhD (2006) in Electrical Engineering from Faculty of Electrical Engineering, University of West Bohemia in Pilsen in Czech Republic. He is a Vice-dean of faculty and Senior Lecturer at Department of Technologies and Measurement. Dr. Tupa is member of executive management at Regional Innovation Centre for Electrical Engineering of the Faculty of Electrical Engineering at the University of West Bohemia in Pilsen. He is also PhD supervisor, reviewer of journal and conference publications and co-organizer of conferences. His research interests include Business Process Management, Quality Management, Risk and Performance Management in Electrical Engineering Industry, Industrial Engineering, Electronics Manufacturing and Diagnostics, Financial and Project Management, Copyrights and patents law, information law and transfer of IPR. Jiri Tupa is responsible for several international research and development projects with industrial and University partners.

The project RiMaCon – Risk Management Software System for SMEs in the Construction Industry is one of the important international projects. This project has received funding from the European Union’s Seventh Framework Program for research; technological development and demonstration (2013-2017). The RiMaCon project’s main goal is to implement a collaborative effort to promote the sharing of knowledge and competencies in a long-term strategic research partnership around the development, testing and validation of a cost effective and user-friendly risk management system for SMEs in the construction sector.

Dr. S. Balamurugan  
Director-Research and Development, Intelligent Research Consultancy Services (iRCS)  
Coimbatore, Tamilnadu, India  


Dr. Balamurugan won the CSI Young IT Professional Award. He is also the recipient of the Best Researcher Award, Certificate of Exceptionalism, Young Scientist Award, Best Young Researcher Award and Outstanding Scientist Award. His biography is listed in "Marquis WHO'S WHO", New Jersey, USA. His professional activities include roles as Editor-in-Chief/Associate Editor/ Editorial Board Member for more than 500+ International Journals/Conferences of high repute and impact. He has been invited as Chief Guest/Resource Person/Keynote Plenary Speaker in many reputed Universities and Colleges at National and International Levels. His research interests include Artificial Intelligence, Augmented Reality, Internet of Things, Big Data Analytics, Cloud Computing, and Wearable Computing. He is a life member of ACM, ISTE and CSI.

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Session IX: Global Engineering Education (Room 1)

4:30 – 6:00 pm (Thursday)

Behzad Beigpourian
Engineering Education
Purdue University
West Lafayette, USA

ID 563 Using CATME to Improve Team Effectiveness in Engineering Classrooms
Behzad Beigpourian, Purdue University, West Lafayette, USA

Dr. Adedeji Badiru
Dean, Graduate School of Engineering and Management
Air Force Institute of Technology
Wright-Patterson AFB, Ohio, USA

Integrating A Systems Model into Global Engineering Education Pedagogy

Dr. Deji Badiru is the Dean and senior academic officer for the Graduate School of Engineering and Management at the Air Force Institute of Technology (AFIT). Dr. Badiru was previously Professor and Head of Systems Engineering and Management at AFIT, Professor and Department Head of Industrial & Information Engineering at the University of Tennessee in Knoxville, and Professor of Industrial Engineering and Dean of University College at the University of Oklahoma, Norman. He is a registered professional engineer (PE), a certified Project Management Professional (PMP), a Fellow of the Institute of Industrial Engineers, and a Fellow of the Nigerian Academy of Engineering. He holds BS in Industrial Engineering, MS in Mathematics, and MS in Industrial Engineering from Tennessee Technological University, and Ph.D. in Industrial Engineering from the University of Central Florida. His areas of interest include mathematical modeling, systems efficiency analysis, and high-tech product development. He is the author of over 30 books, 35 book chapters, 75 journal articles, 115 conference proceedings and presentations. He also has published 30 magazine articles and 20 editorials and periodicals. He is a member of several professional associations and scholastic honor societies. Deji Badiru has won several awards for his teaching, research, and professional accomplishments. He is the recipient of the 2009 Dayton Affiliate Society Council Award for Outstanding Scientists and Engineers in the Education category with a commendation from the 128th Senate of Ohio. He also won 2010 IIE Joint Publishers Book-of-the-Year Award from the Institute of Industrial Engineers. He also won 2010 ASEE John Imhoff Award for his global contributions to Industrial Engineering Education, the 2011 Federal Employee of the Year Award in the Managerial Category from the International Public Scientists and Engineers in the Education category with a commendation from the 128th Senate of Ohio. He also won 2010 IIE Joint Publishers Book-of-the-Year Award from the Institute of Industrial Engineers. He also won 2010 ASEE John Imhoff Award for his global contributions to Industrial Engineering Education, the 2011 Federal Employee of the Year Award in the Managerial Category from the International Public Management Association, Wright Patterson Air Force Base, the 2012 Distinguished Engineering Alumni Award from the University of Central Florida, and the 2012 Medallion Award from the Institute of Industrial Engineers for his global contributions in the advancement of the profession. In February 2013, he was selected as a finalist for the Jefferson Science Fellows (JSF) program by the US National Academy of Sciences and the US Department of State. Dr. Deji was the leader of the AFIT team that won the 2013 Air Force Organizational Excellence Award for Air University C3 (Cost Conscious Culture). His most recent award is the 2015 National Public Service Award at the overall US Air Force level. Deji Badiru has served as a consultant to several organizations around the world including Russia, Mexico, Taiwan, Nigeria, Ghana, and Canada. He has conducted customized training workshops for numerous organizations including Sony, AT&T, Seagate Technology, U.S. Air Force, Oklahoma Gas & Electric, Oklahoma Asphalt Pavement Association, Hitachi, Nigeria National Petroleum Corporation, and ExxonMobil. He holds a leadership certificate from the University Tennessee Leadership Institute. He has served as a Technical Project Reviewer, curriculum reviewer, and proposal reviewer for several organizations including The Third-World Network of Scientific Organizations, Italy, National Science Foundation, National Research Council, and the American Council on Education. He is on the editorial and review boards of several technical journals and book publishers. He is also a program evaluator for ABET, the international engineering and technology accreditation body. In 2011, Prof. Badiru led a research team to develop analytical models for Systems Engineering Research Efficiency (SEER) for the Air Force acquisitions integration office at the Pentagon. He has led a multi-year composite manufacturing collaborative research between the Air Force Institute of Technology and Wyle Aerospace Group. He is the founder of the Association of Military Industrial Engineers (AMIE).

ID 269 Integrating A Systems Model into Global Engineering Education Pedagogy
Adedeji Badiru, Air Force Institute of Technology, Dayton, Ohio, USA
Prof. Dr. Banu Y. Ekren  
Full Professor  
Department of Industrial Engineering  
Yasar University  
Izmir, Turkey  

Engineering Education Towards Industry 4.0

Banu Y. Ekren is a full professor in the department of Industrial Engineering, at Yasar University, in Izmir, Turkey. She got her Ph.D., from University of Louisville in the Dept. of Industrial Engineering, in Kentucky, USA. Her research focus is on future of education, warehousing, stochastic and simulation modelling, supply chains, simulation-based optimization, and design of automated warehousing. Banu Y. Ekren holds associate professor position at her university and teaches simulation, stochastic modelling and facility logistics courses at the undergraduate level. She has several journal and book chapter publications.

Prof. Vikas Kumar  
Professor of Operations and Supply Chain Management  
Director of Research  
Bristol Business School  
University of the West of England  
Bristol, UK

Vikas Kumar is a Professor of Operations and Supply Chain Management and Director of Research at Bristol Business School, University of the West of England, UK. He holds a PhD degree in Management Studies from Exeter Business School, UK and a Bachelor of Technology (first class distinction) degree in Metallurgy and Material Science engineering from NIFFT, India. He has published more than 170 articles in leading International journals and International conferences including the International Journal of Production Research, International Journal of Production Economics, Journal of Business Research, Supply Chain Management: an International Journal, Expert System with Applications, Computers & Industrial Engineering, and Production Planning & Control. He serves on the editorial board of a number of international journals and sits on the advisory committees of several international conferences. His current research interests include Supply Chain 4.0, Sustainability, Food Supply Chains, Blockchains, and Operational Excellence.

Dr. Kapil Gupta  
Associate Professor  
Department of Mechanical and Industrial Engineering Technology  
University of Johannesburg  
South Africa

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing from Indian Institute of Technology Indore, India in 2014. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. He has authored several SCI/ISI Journal and International Conference articles. He also authored and edited 10 international books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing, and sustainable manufacturing with the renowned international publishers. He has also successfully guest edited special issues of a Scopus indexed journals and he is currently editing a series of handbooks on Advanced Manufacturing as a series editor. He is a recognized reviewer of many international journals and in the advisor/technical committees of international conferences. He has also delivered invited speeches in international conferences and symposiums, and seminar talks at international universities. Kapil Gupta is a NRF [National Research Foundation] rated Researcher in South Africa. Currently, he is supervising 8 Masters and 4 Doctorate students who are busy conducting research in advanced manufacturing and industrial engineering fields. He is also conducting research in engineering education. He also obtained PG Diploma in higher education. He is working on implementation of innovative teaching techniques for the enhanced learning of engineering students. Recently, he also developed a manufacturing engineering virtual lab.

ID 565 Engineering Education Towards Industry 4.0
Banu Y. Ekren, Department of Industrial Engineering, Yasar University, Izmir, Turkey
Vikas Kumar, Bristol Business School, University of the West of England, Bristol, Somerset, United Kingdom

ID 510 On Effectiveness Evaluation of Innovative Teaching Techniques- A Case Study in Engineering Education
KAPIL Gupta, University of Johannesburg, South Africa
Continuous Innovation

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August 10, Monday
Global Engineering Education I, 4:00 – 5:00 pm
Session Chair:

4:00 pm – 4:30 pm (Monday, August 10)

Dr. John Blakemore
Adjunct Professor at University of Newcastle
Blakemore Consulting International
Sydney, Australia
Industry 4.0 and Its Vision

Dr. Professor John Blakemore originally completed a part time BSc in Metallurgy while working in the steel industry. Later he won an International Scholarship to study a PhD on the electronic structure of metals and alloys and the effect of nuclear irradiation and hydrogen. He was then employed as a Research Scientist at the Atomic Energy Commission and later Chief Metallurgist (R&D). His team developed numerous world first ideas and processes and also the first advanced quality system for defence purposes in Australia in 1981. Earlier work with his team led and assisted in the successful commercialisation of Zincalume coated steel called Colorbond. He set up his own company in 1982 and then developed and helped commercialise a range of processes including two new galvanizing processes, and a new process for Aluminium filtration. He has successfully improved concrete manufacture plastic extrusion, Aluminium casting, welding operations and structural steel manufacture. He had a wide range of International clients including, Panasonic, Canon, Honda, Speedo, CSIRO, BHP, Alcatel, Duracell, Cochlear, Pirelli and others. He wrote the first course in Lean Manufacturing in Australia in 1991, and the first course in Industrial Arts in 1977 and has authored 6 books. He has taught part time at various universities from 1964. His most recent work was leading a team of mathematicians and scientists and engineers successfully prototyping a new scanning device for cervical cancer. He also invented a new surgical procedure to save his own eyesight in 1991. He was the National President of the Australian Manufacturing Society, and has served on numerous boards and is the fellow of numerous professional societies. Currently he is working at the University of Newcastle and assisting a company developing a new tufting process for carpet and researching his next book.

4:30 pm – 4:50 pm (Monday, August 10)

Dr. Jenny Díaz-Ramírez
Engineering Department Professor
Universidad de Monterrey
Monterrey, N.L., Mexico
Gamification of an Engineering Course

Dr. Jenny Díaz-Ramírez is an industrial engineer, graduated from Universidad del Valle, in Cali, Colombia. She studied master programs at Universidad de Los Andes, in Bogotá and at Georgia Institute of Technology, in Atlanta, US. In2007 she obtained her Ph.D. in industrial engineering from Tecnológico de Monterrey, in Mexico. She has been a professor at Tecnológico de Monterrey, and Pontificia Universidad Javeriana, Cali, Colombia, and currently, is a researcher professor in the Department of Engineering at the University of Monterrey. She teaches courses in industrial engineering at undergraduate, graduate, continuing education, and doctoral levels. She is the author and co-author of scientific articles on optimization and statistics applied to transportation, fuel consumption reduction strategies, operations and logistics, gamification, and air quality. She is a member of the National System of Researchers of Mexico -SNI, level 1 since 2015.

4:50 pm – 5:10 pm (Monday, August 10)

Dr. KAPIL GUPTA
Associate Professor
Department of Mechanical and Industrial Engineering Technology
University of Johannesburg
Johannesburg- Republic of South Africa
Some Insights on Industry 4.0

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. He has authored several SCI/ISI Journal and International Conference articles. He has also authored and edited 15 international books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing, spark erosion machining, and sustainable manufacturing etc. that have been published by the renowned international publishers such as Elsevier, CRC Press, and Springer. He is serving on the editorial boards of the Scopus-indexed journals, Journal Européen des Systèmes Automatisés and Mathematical Modelling of Engineering
Problems; and international journals, Journal of Micromanufacturing (Sage publications UK) and Int. Journal of Precision Technology (Inderscience). He has delivered keynote and distinguished speeches in several international conferences and symposiums. He is a Y rated researcher by National Research Foundation ‘NRF’ (Science Agency) of South Africa. He has secured funding from international agencies such as Royal Academy of Engineering (UK) and involved in national and international research projects. He is a registered with Engineering Council of South Africa as a professional engineering technologist. He is also a member of South African Institute of Mechanical Engineering (SAIMechE) and South African Institute of Industrial Engineering (SAIIIE). Currently, he is hosting two postdoctoral research fellows, and supervising some masters and PhD students who are busy conducting research in advanced and sustainable manufacturing areas. He obtained PG Diploma in Higher Education and also working towards sustainable university and engineering education 4.0.

August 11, Tuesday
Global Engineering Education II, 4:00 – 5:00 pm
Session Chair:

4:00 pm – 4:20 pm (Tuesday, August 11)

Dr. Sarbjit Singh
Hanford, California, USA
Former Associate Professor and Head
Department of Industrial & Production Engineering
Dr. B.R. Ambedkar National Institute of Technology (NIT)
Jalandhar, Punjab, India
Vice President, NITJ Alumni Association

Dr. Sarbjit Singh has obtained PhD in the Industrial & Production Engineering with specialization in Sustainable Supply Chain Management from National Institute of Technology (NIT), India and has his undergraduate and Graduate in Industrial Engineering. He is having 24 years of Teaching, Administrative and Consulting Experience as Associate Professor, Associate Professor, Associate Dean, Deputy Dean, Environment Engineer, Department Chair and Chartered Engineer. During this period he was involved in Teaching & Learning, Academic Advising, Academic writing, Research and Consultancy, Student Affairs, Recruiting, Lab development, Curriculum design, ERP System Management, Exam evaluations, Startup incubation mentoring, Faculty development, Library affairs, Alumni affairs, Fund raising, Student admissions, Student Housing, International students facilitation, Industrial consultancy, Organizing Convocations / Conferences / workshops / skill development courses. He is a continuous learner and earned the executive education certifications from elite institutions like Harvard Business School (USA); Indian Institutes of Management (IIM Ahmedabad, IIM Bangalore, IIM Kozhikode-India). He has traveled as speaker across the world in different international conferences. He also published more than 50 research papers in journals/proceedings/book chapters manuscipts. He has supervised Three PhD research dissertations, thirty-five Post-Graduate Thesis dissertations and twenty undergraduate projects. He is actively involved in International Ergonomics association as co-Chair of ECEE technical committee and also life member of various professional organisations.

4:20 pm – 4:40 pm (Tuesday, August 11)

Dr. Jean Ann Larson, FACHE, LFHIMSS, FIIESE, DSHS
Chief Leadership Development Officer
The University of Alabama at Birmingham (UAB) Health System & Senior Associate Dean for Leadership Development at UAB’s School of Medicine
Birmingham, Alabama

Challenges for Leaders in Healthcare during the Pandemic and Beyond

4:40 pm – 5:00 pm (Tuesday, August 11)

Prof. Vitor Mendes Caldana
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus
Sorocaba, Sao Paulo, Brazil

Began his academic career with a technician course in Electronics from Liceu de Artes e Oficios (1999) followed by an undergraduate degree in Electronic Engineering from Universidade Presbiteriana Mackenzie in 2004. In 2016, finished his Masters (M.Sc.) course in Industrial Engineering with the Quality of Engineering Education and its Relation to Regional Development as his area of research. In the industry, from 1999 until 2016, started in Caltronic Automação Industrial, a service-based company in Brazil that represents American and European automation equipment for the printing industry. His last position at the company was Service and Projects Manager. Was responsible for managing not only Brazil but the whole of South America, with services performed also in USA and China. During his professional career in the Industry, took several courses in USA and Europe in Automation and dedicated equipment maintenance. In 2016 left the industry for full-time dedication to teach. In 2014 began his teaching career in FIEB as a substitute teacher for the Electronics Technical Course. In 2016 moved to IFSP to implement the Electronics Technical Course in the city of Sorocaba and has been engaged with this project since, teaching a variety of courses in electronics. In 2018 began his Research Group in Industry 4.0 and in 2019 was nominated to the Global Council of IEOM for South America.
1:00 pm – 1:20 pm (Wednesday, August 12)

**Dr. Shaligram Pokharel**
Professor
Department of Mechanical and Industrial Engineering
Qatar University
Doha, Qatar

Shaligram Pokharel is a Professor of Industrial and Systems Engineering program at the Department of Mechanical and Industrial Engineering, in Qatar University. Prior to joining this university, he held academic positions in Nanyang Technological University, Singapore. He holds B.E.(Honors) in Mechanical Engineering from the Regional Engineering College (Kashmir, India) and M.A.Sc. and Ph.D. in Systems Design Engineering from the University of Waterloo, Ontario, Canada. His research areas are focused in energy planning and modeling, low carbon supply chains, engineering management, reverse logistics, and emergency and humanitarian logistics. Dr. Pokharel has obtained more than US$ 2,000,000 research grant in various areas of engineering management. He has published more than 100 papers in journals and conferences.

1:20 pm – 1:40 pm (Wednesday, August 12)

**Dr.-Ing. Patrick Dallasega**
Assistant Professor
Industrial Engineering and Automation
Faculty of Science and Technology
Free University of Bozen-Bolzano
Bozen-Bolzano Italy

**Industry 4.0 Implications for Future Engineering Education**

Patrick Dallasega is an Assistant Professor of Factory Planning and Project Management at the Faculty of Science and Technology of the Free University of Bolzano (Italy). He studied at the Free University of Bolzano (Italy), at the Polytechnic University of Turin (Italy) and got his PhD at the University of Stuttgart (Germany). From 2005 until 2010, he worked in the fields of plant and factory planning in a local food processing industry. Later, from 2012 until 2015, he was employed as Research Associate at Fraunhofer Italia Research where he managed and executed several research projects for private and public customers. Since 2016, he has been employed as Assistant Professor at the Free University of Bozen-Bolzano. His main research interests are in, supply chain management, Industry 4.0, lean construction, lean manufacturing and production planning and control in MTO and ETO enterprises.

1:40 pm – 2:00 pm (Wednesday, August 12)

**Dr. Ilham Kissani**
Assistant Professor of Engineering & Management Science
School of Science & Engineering
Al Akhawayn University
Ifrane, Morocco

Dr. Ilham Kissani is an assistant professor in the field of engineering management for the School of Science and Engineering at Al Akhawayn University in Ifrane, Morocco. She has served as the main advisor and lead instructor for the undergraduate and MS programs in Engineering and Management Systems since 2010. She has helped create very close ties with the AUI School of Business Administration, which allows both schools to leverage our resources and deliver a greater diversity of courses to students, such as supply chain management and operations management. Her background is diverse and includes industrial experience as well as academic. Her degrees are from INSEA, Morocco (Engineer) and Université Laval, Canada (Master and Ph.D). She has worked with Royal Dutch Shell as a project manager and with Modellium Québec, where she consulted in logistics and supply chain issues. Additionally, Dr. Kissani contributes in research in supply chain management, planning, and operations research. She is a member of ASEM, IEEE, IEOM, IIE, and INFORMS.
Dr. Sibrina N. Collins, Ph.D.
Executive Director
The Marburger STEM Center
Lawrence Technological University
Southfield, Michigan

Dr. Collins is an inorganic chemist and STEM administrator. She began her college career at Highland Park Community College (Highland Park, Mich.), where she earned an associate of science degree in 1990. Dr. Collins later earned a B.A. in chemistry (cum laude) in 1994 from Wayne State University (Detroit, Mich.). She earned her M.S. (1996) and Ph.D. (2000), both in the field of inorganic chemistry, from The Ohio State University under the direction of Professor Bruce Bursten.

As a graduate student at OSU, she received significant training as a photochemist, where she used light to study chemical reactions and photochemically reactive molecules. She later completed a postdoctoral appointment at Louisiana State University (Baton Rouge, Louisiana) with Professor Isiah Warner, where she focused on heart disease research.

Between 2003 and 2006, Dr. Collins was an assistant professor of chemistry at Claflin University, an HBCU (Historically Black Colleges and Universities) in Orangeburg, South Carolina. Her research efforts at Claflin University focused on the crystal-engineering of metal-organic frameworks (MOFs), which have many potential applications as electronic materials. Dr. Collins has also worked as a writer and editor for the American Association for the Advancement of Science (AAAS) in Washington, DC.

From May 2006 to May 2008, she served as the Director of Graduate Diversity Recruiting for the University of Washington (Seattle, Wash.). In this role, she focused on building effective partnerships between STEM (Science, Technology, Engineering, Mathematics) faculty at minority-serving institutions (MSIs) and the University of Washington.

Dr. Collins served as a faculty member in the Department of Chemistry at The College of Wooster (Wooster, Ohio) from 2008–14. At Wooster, her research focused on developing a detailed understanding of the molecular structures, electronic structures, photophysics and reactivity of a selection of late transition metal complexes and exploit this understanding to design effective anticancer agents. The transition metal complexes contained ruthenium (Ru), rhenium (Re), gold (Au) and copper (Cu) metal centers.

Dr. Collins has mentored 17 undergraduate chemistry students and published peer-reviewed articles in high-impact journals such as Inorganic Chemistry, Acta Crystallographia, Journal of Chemical Education, and the Bulletin for the History of Chemistry.

She most recently served as the Director of Education at The Charles H. Wright Museum of African American History, which is the leading cultural institution focused on the African American experience. In this new role, she focused on the science education and social studies programming for the Wright Museum.

Dr. Collins is currently the Executive Director of the Marburger STEM Center (MSC) at Lawrence Technological University. The Marburger STEM Center is the intellectual home of campus-wide STEM initiatives at LTU, which promote inclusiveness, excellence, creativity and innovation.
He has published in his areas of expertise – Philosophy and Education. He has been working – for about a decade – as a pre-publication professional reviewer of books published by Oxford University Press, McGraw-Hill Higher Education, and Routledge: Taylor and Francis Group. He is a K-12 educational administrator certified by Michigan Department of Education, and a certified Quality Assurance Review Team Chair of NCA (North Central Accreditation). He served as a panelist (along with two other panelists: David Schmidt, V.P. of Connections Education Inc; and Mack Moore from National Heritage Academies) on a symposium on ESPs, EMOs, and CMOs: What are these education management organizations, and what is it like to work for one at Central Michigan University: The Governor John Engler Center for Charter Schools in April 2014.

Dr. Rashid offered professional development workshops for Michigan Department of Education, Detroit Public Schools, Metro Detroit are Private Schools, APIAVote, Michigan Institute of Professional Psychology, Michigan Association of Public School Academies, Wayne State University, Wayne County Community College, Bangladesh University Grants Commission, Universities in Bangladesh: Brac University, Dhaka University, Chittagong University, Jahangir Nagar University, and CCN University – Comilla.

He has offered professional development workshops for all levels of educators and educational administrators on Differentiated Instruction; Sheltered Instruction Observation Protocol (SIOP); Quality School and Choice Theory; Effective Classroom Management; Learning Styles and Multiple Intelligences; Brain-based Learning; School Improvement; Teaching Critical Thinking; Reach Them Before You Teach Them; How to Get Parents on Your Side; Response to Intervention; Live Event Learning; and High Performing Teacher; Brain Based Ways We Think and Learn; Building Communication and Team Work in the Classroom; Classroom Management: Orchestrating a Community of Learners; Coaching Skills for Successful Teaching; Discovering the Power of Live Event Learning; Meaningful Activities to Generate Interesting Classrooms; Professional Refinements in Developing Effectiveness; Purposeful Learning through Multiple Intelligences; Successful Teaching for Acceptance of Responsibility; Teaching the Skills of the 21st Century; and Cognitive Coaching: Making Faculty Better, NOT Bitter.

4:30 pm – 4:50 pm (Wednesday, August 12)

Dr. Saman Hassanzadeh Amin
Assistant Professor
Mechanical and Industrial Engineering Department
Ryerson University
Toronto, Ontario, Canada

Dr. Saman Hassanzadeh Amin is an Assistant Professor in the Department of Mechanical and Industrial Engineering at Ryerson University. Prior to joining Ryerson University, he was an Assistant Professor of Supply Chain Management at Cape Breton University in Nova Scotia. Dr. Amin has taught several courses at the University of Windsor, Cape Breton University, and Ryerson University in both business schools and engineering faculties. He has developed some courses at those universities. Dr. Amin’s research expertise includes Supply Chain Management, Operations Research, Optimization, Information Technology, and Decision Support Systems. He has published 30 articles in well-known journals, such as “Journal of Cleaner Production”, “Expert Systems with Applications”, “International Journal of Production Economics”, and “International Journal of Production Research”. His publications have received over 1,900 citations to date in Google Scholar. Dr. Amin’s research is externally supported by both NSERC and SSHRC, and includes NSERC Discovery, NSERC Engage, and SSHRC Insight Development grants, displaying his ability to cross disciplines effectively. He has received a number of awards for his work (e.g., Administrative Sciences Association of Canada Conference in 2016).

4:50 pm – 5:10 pm (Wednesday, August 12)

Dr. Fernando Monroy
Student STEAM Success Coordinator
The University of Texas at El Paso
El Paso, Texas, USA

August 13, Thursday
Global Engineering Education VI, 7:00 – 9:00 pm
Session Chair:

7:00 pm – 7:20 pm (Thursday, August 13)

Aaron Rubel, MSEM
Head of Aircraft Maintenance Programs Engineering
Airbus Americas
Mobile, Alabama

Aaron Rubel is married with two children and has over 30 years of combined professional aerospace and automotive experience in areas of product development, risk analysis, problem solving, manufacturing, product sustainability, and team leadership. Mr. Rubel currently serves as Head of Aircraft Maintenance Programs Engineering at Airbus Americas in Mobile, Alabama. He is a certified Lean Six Sigma Black Belt and has two patented inventions.
Mr. Rubel has earned a Master of Science in Engineering Management from the University of Tennessee at Chattanooga, and a Bachelor of Science in Engineering Technology from Lawrence Technological University. Each of these schools have recognized him with honors including the University of Tennessee at Chattanooga Dr. Ron Cox Graduate Engineering Management Student Award, and induction into the Lawrence Technological University College of Engineering Hall of Fame.

Aaron has served in various functions at Airbus Americas in the aerospace industry since 2009 including contributions toward sustainability of the global aircraft fleet. Previous to making the transition to aerospace, he spent 20 years in the automotive industry in product development and manufacturing roles at Chrysler and Faurecia. Service in the community is a priority for Mr. Rubel. He previously participated on a Mobile County (Alabama) Public School Area Education Foundation STEM strategic planning committee, and contributed for three years on the board of directors of a private school in Baldwin County, Alabama. This past school year, he began volunteering in an aerospace mentorship program in a partnership between Airbus and an urban city middle school in Mobile, Alabama.

Aaron Rubel looks forward to sharing about what sustainability looks like in the aerospace industry with Lawrence Tech graduate students on April 22nd, as well as some thoughts about how recent events in the world may change what this means in the future.

7:20 pm – 7:40 pm (Thursday, August 13)

Dr. Matthew W. Ohland
Professor and Associate Head of Engineering Education
Purdue University
West Lafayette, Indiana, USA

Matthew W. Ohland is Professor and Associate Head of Engineering Education at Purdue University. He has degrees from Swarthmore College, Rensselaer Polytechnic Institute, and the University of Florida. His research on the longitudinal study of engineering students, team assignment, peer evaluation, and active and collaborative teaching methods has been supported by the National Science Foundation and the Sloan Foundation and his team received Best Paper awards from the Journal of Engineering Education in 2008, 2011, and 2019 and from the IEEE Transactions on Education in 2011 and 2015. Dr. Ohland is an ABET Program Evaluator for ASEE. He was the 2002–2006 President of Tau Beta Pi and is a Fellow of the ASEE, IEEE, and AAAS.

7:40 pm – 8:00 pm (Thursday, August 13)

Dr. Rajeev Agrawal
Associate Professor
Mechanical Engineering Department
Associate Dean (Research)
Malaviya National Institute of Technology Jaipur
Rajasthan 302017, India

Dr. Rajeev Agrawal is Fellow of The Institution of Engineer’s (IEI), India. He received his M.E. from MNNIT,Allahabad and Doctorate from BIT,Mesra. He is presently working as an Associate Professor in MNIT,Jaipur. Dr. Rajeev Agrawal is having more than 20 years of Professional Experience. He is a Member Editorial Board in the International Journal of Business and Systems Research (IJBSR) (Inderscience Publishers). He is actively involved in bringing industry orientation to the engineering education system in India working with several industries, statutory bodies and other R&D organizations. Demonstrating Research capabilities in terms of research papers published/presented (Including IEEE Explore Proceeding, Springer, Emerald and Science Direct and Inderscience Publishers) and currently having various sponsored and Industrial consultancy. Dr. Rajeev Agrawal is currently managing a Research projects includes engaged in automatically, Lean Six Sigma, Supply chain Design and Reconfigurable manufacturing system (RMS). One of the objective of his current research is to address convert quickly for the production of new product by providing customized flexibility and can be improved, upgraded and reconfigured in response to fluctuating demands in automotive companies.

8:00 pm – 8:20 pm (Thursday, August 13)

Jihoong Yan, Ph.D.
Professor in Industrial Engineering
Deputy Dean of School of Mechatronics Engineering
Head of intelligent Manufacturing Scientific Research Team
Harbin Institute of Technology
Harbin, China

Pathways to Success: Innovation and Entrepreneurship Education at HIT

Dr. Jihoong Yan is a Professor (since 2005) in Industrial Engineering at Harbin Institute of Technology (HIT), she is also the deputy dean of School of Mechatronics Engineering and head of intelligent manufacturing scientific research team at HIT. She received her PhD from Harbin Institute of Technology in 1999. Then she joined Tsinghua University (from 1999 to 2001), the University of Wisconsin (from 2001 to 2004) and Pennsylvania State University (from 2004 to 2005) as a postdoctoral researcher. Dr. Yan is the director of National High-end Equipment Manufacturing Virtual and Simulation Experiment Teaching Center, head of Research Oriented Teaching Innovation Team for High-end Equipment Manufacturing of the Ministry of Industry and Information Technology of China, vice chairman of Production System Special Committee of Chinese Mechanical Engineering Society, and chairman of Industrial Engineering Professional Committee of the Mechanical Engineering Society of Heilongjiang Province.
Her main area of research is industrial big data, sustainable manufacturing, intelligent logistics and advanced maintenance of machinery. As a PI, Dr. Yan has worked on and accomplished 15 projects in intelligent manufacturing and sustainability related areas, funded by the NSF of China(NSFC), NSF-NSFC joint-project funding, National key R&D plan project funding, National High-tech project funding, National “863” project funding, EU EPSRC project funding, High-tech funding from industries, and so on. She has authored and co-authored over 100 research papers and published 3 books, two papers were ranked ESI high cited articles. Currently there are 17 professors and engineers with her research team, the team dedicates to theoretical research and system implementation in the fields of intelligent operation optimization theory and methods of manufacturing systems, manufacturing IoT technologies and devices, and equipment health monitoring, etc.

8:20 pm – 8:40 pm (Thursday, August 13)

Dr. Gajanand Gupta, Ph.D (BITS Pilani)
Assistant Professor (Sr.)
School of Mechanical Engineering (SMEC)
VIT University, Chennai Campus
Chennai, Tamil Nadu – 600127

Gajanand Gupta is an Senior Assistant Professor, School of Mechanical Engineering, Vellore Institute of Technology, Chennai, Tamil Nadu, India. He earned B.E. in Mechanical Engineering from University of Rajasthan, India, Masters in Production Engineering from National Institute of Technology, Rourkela, India and Ph.D. in the field of Reliability Centered Maintenance from Birla Institute of Technology & Science, Pilani, Rajasthan, India. Dr. Gupta was an Assistant Professor in Mechanical Engineering, BITS Pilani, Pilani Campus. He has published more than 20 research papers in international journals and conferences. His research interest include Reliability and Maintenance, Risk and Criticality Analysis, Decision-making, FMECA, Maintenance Management. Dr. Gupta visited Singapore, Indonesia and Nepal for professional events. He is a reviewer of many international journals. He is a member of Institute of Engineers, India and IEOM society.

8:40 pm – 9:00 pm (Thursday, August 13)

Dr. Gulnara (Gulya) Abitova
Business-Trainer, Lecturer, and Science Advisor
Professor at Almaty Management University (AlmaU)
Astana, Kazakhstan

Dr. Abitova graduated Postdoctoral Program in Control Systems from State University of New York (Binghamton, NY, USA). She has been an invited to Computer and Electrical Engineering Department at State University of New York at Binghamton (NY, USA) for study. Gulnara Abitova was Invited Professor at the Savonia University of Applied Sciences and Technology (Kuopio, Finland).

Dr. Abitova holds Ph.D. Degree in Automation and Control from Eurasian National University named by L.N. Gumilyov (Kazakhstan), Ph.D. Degree (Doctor of Technical Sciences) in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science (Almaty, Kazakhstan), and Master’s Degree in Cybernetics of Technological Processes from Moscow State University of Steel and Alloys (Moscow, Russian Federation).

She is Holder of Several International Grants and Scholarships: International Scholarship from State University of New York for Doctoral Research Work (USA); International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad (USA); Erasmus+ Program (Staff Mobility for Teaching Mobility Program) for giving the Lectures at Savonia University of Applied Sciences (Kuopio, Finland); International Grant from Erasmus Mundus Program for Staff Mobility Program (Bilbao, Spain, June); International Grant for the Educational Program (Singapore Management University – Chong Kong Chinese University); International Scholarship for Government Employees (KOICA, South Korea);

Gulnara Abitova is Business-Trainer, Lecturer, Science Advisor, Ass.Professor at Almaty Management University (AlmaU); Professor of Polylingual Education and Researcher in the School of Government Policy at the AlmaU (Almaty); Head of the Project Group and Ass. Professor at the Kazakh-Russian International University (Aktobe). Prior to this current position, she was Director and Executive Director of two Business-Companies (Group-Independent LLP: Best-Group NS LLP, Nur-Sultan); Vice-President of the Kazakh-Russian International University; Head of the System Analyses and Management Department, Director of the Department of International Cooperation, Director of the Science Department at the L.N. Gumilyov Eurasian National University (Astana, Kazakhstan); General Director of the Kazakh Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center. Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N.Gumilyov Eurasian National University (ENU, Kazakhstan).

Gulnara Abitova was also the National Coordinator of UNESCO’s Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been the Distinguished Speaker at Global Engineering Education Forum of IEOM, Invited Speaker at the International Conferences (IEEE, SPIE, CSDM, ICUMT) and published more than 80 research articles in the reputed international proceedings and journals. She served as the Track Chair in the IEOM conferences.

Dr. Abitova’s current research interest includes: control systems and industrial automation; online technology and digital education; project management and green energy; simulation and design of control systems; cybernetics and cloud technology; business management and education and science policy.

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