



# 1st GCC International Conference on Industrial Engineering and Operations Management

NOVEMBER 26–28, 2019

Riyadh, Saudi Arabia

Host University



جامعة الامير سلطان  
PRINCE SULTAN  
UNIVERSITY



CE | كلية الهندسة  
COLLEGE OF ENGINEERING

# Sponsors and Partners



# Organizer



**IEOM Society**

*"Achieving and Sustaining Operational Excellence"*

[www.ieomsociety.org](http://www.ieomsociety.org)

**IEOM Society International**

# Welcome to the First GCC International Conference on Industrial Engineering and Operations Management

## To All Conference Attendees:

On behalf of Prince Sultan University and the IEOM Society International, we would like to welcome you to Riyadh, Saudi Arabia for the **First GCC International Conference on Industrial Engineering and Operations Management**. Under the theme of: [\*The Role of Industrial Engineering in the Realization of Saudi Vision 2030\*](#). This unique international conference provides a forum for academics, researchers and practitioners from many industries to exchange ideas and share recent developments in the field of industrial engineering and operations management. This diverse international event provides an opportunity to collaborate and advance the theory and practice of major trends in industrial engineering and operations management. After a thorough peer review process, 175 papers and abstracts are accepted out of more than 300 submissions from 35 countries. The program includes many cutting edge topics of industrial engineering and operations management.

This conference will address many of the issues concerning continuous improvement for quality and service. Our keynote speakers will address some of these issues:

- H.E. Eng. Osama Al Zamil, Deputy Minister at Ministry of Industry and Mineral Resources
- Dr. Andreas Schwer, CEO of the Saudi Arabian Military Industries-SAMI
- Eng. Suliman Almazroua, CEO – VPR Office of the National Industrial Development and Logistics Program
- Dr. Mohammed Al-Majed, Senior Advisor to the Minister, Ministry of Industry and Mining, Saudi Arabia
- Dr. Surendra M. Gupta, Professor of Mechanical and Industrial Engineering, Director of Laboratory for Responsible Manufacturing (LRM), Northeastern University, Boston, Massachusetts, USA
- Dr. Sami Alnuaim, The President of the Society of Petroleum Engineers International
- Eng. Saleh I Al-Shabnan, President Haffaz Industrial & Management Consultants

We will continue to offer special session on Global Engineering Education Series. This session will feature distinguished speakers who will discuss the workforce readiness. 30 featured speakers will address engineering education challenges and opportunities.

The Industry Solutions Track will address industry needs in order to survive in the competitive environment. Distinguished practitioners will share their experiences and journey.

The IEOM Society would like to express our deep appreciation to our sponsors, university partners, organization partners, exhibitors, authors, reviewers, keynote speakers, panelists, track chairs, advisors, the local committee and the many volunteers who have given so much of their time and talent to make this unique international conference an overwhelming successful event.

We would also like to thank the students who are participating in this event. Conference Organizing Committee wants to welcome you to Riyadh and wishes you an enjoyable learning experience at the conference and exploring Saudi Arabia. We hope you a safe and memorable adventure exploring Saudi Arabia.

Enjoy the conference!



**Dr. Abdulhakim A. Almajid**  
Conference Chair  
Dean, College of Engineering  
Prince Sultan University  
Riyadh, KSA



**Dr. Bandar A. AlKhayyal**  
Conference Co-Chair  
Director of Master in Engineering  
Management Program  
Prince Sultan University  
Riyadh, KSA



**Dr. Ahad Ali**  
Conference Co-Chair  
Associate Professor and Director of  
Industrial Engineering Program  
Lawrence Technological University,  
Michigan, USA

26 November 2019

A temperate welcome to you all to Riyadh and Prince Sultan University. November is a very good time to visit the Kingdom of Saudi Arabia. I am confident you will enjoy the warmth from the heart here, if not in the weather during your visit.

PSU is honored to be the first university in the GCC region to hold the first International Conference on Industrial Engineering and Operations Management. The overarching theme of the conference deals with *The Role of Industrial Engineering in the Realization of the Saudi Vision 2030*. Saudis have accepted the challenges and we have the drive and confidence to reify the Vision – a land distinguished by a vibrant society, thriving economy, and an ambitious nation.

PSU is ambitious too. It is known for the quality of its graduates and its role as a pioneer in higher education. We are the first private university in the Kingdom. As the turn of the century approached, there was a strong sense that change in higher education was needed. The focus had to lock in on meeting the needs of the labor market and opening the doors to the sons and daughters of expat families in Saudia. PSU was the first university, public or private, to offer a Bachelors of Law degree to women in 2006, the first private university to fully be accredited by the NCAAA - the national accreditation body in 2010, and the first school to offer BS degrees in Engineering Management in 2011. There is more to add, but you Engineers already know how to manage things.

With the warmest regards,



Dr Ahmed Yamani

Rector, Prince Sultan University



# Conference Program

## November 25, 2019 (Monday)

13:00 – 20:00 Registration

## November 26, 2019 (Tuesday)

08:00 REGISTRATION

09:00 Welcome Address: **Dr. Ahmed S. Yamani**, Rector, Prince Sultan University, Riyadh, Saudi Arabia

09:30 Opening Keynote I: **H.E. Eng. Osama Al Zamil**, Deputy Minister at Ministry of Industry and Mineral Resources

10:15 Opening Keynote II: **Dr. Andreas Schwer** (Saudi Arabian Military Industries-SAMI CEO)

11:00 Networking/Coffee Break

11:15 Keynote: **Dr. Sami Alnuaim**, The President of the Society of Petroleum Engineers International

12:15 Networking Buffet Lunch/ Dhuhr Prayer

01:30 Parallel Sessions & **PANEL SESSION: Tracks: Industrial & Manufacturing**

03:00 Networking/Coffee Break/Asr Prayer

03:30 Parallel Sessions & **PANEL SESSION: Tracks: Transport and Logistics**

05:00 – 6:30 pm: Poster Competitions

## IEOM Gulf Student Simulation Competition

Lab G-A11: Tuesday from 3 PM to 11 PM and Wednesday from 3 PM to 6 PM

Winners Announcement at the Awards Dinner

## November 27, 2019 (Wednesday)

08:30 Parallel Sessions

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

01:00 Parallel Sessions and **PANEL SESSION: Entrepreneurship and Innovation**

02:30 Networking/Coffee Break/Asr Prayer

03:00 Parallel Sessions

07:00 – 10:00 pm, **Conference Awards and Recognition Dinner** - Outdoor

## November 28, 2019 (Thursday)

08:30 Parallel Sessions

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

02:30 Networking/Coffee Break/Asr Prayer

03:00 Parallel Sessions

04:30 Closing Remarks

## Program Matrix - Building 105

### Tuesday, November 26, 2019

	Room 1 Auditorium G-C01	Room 2 Auditorium C02	Room 3 G-B06	Room 4 G-B19	Room 5 G-B21	Room 6 G-B23	Room 7 (Faculty Lounge)
8:00	REGISTRATION						
9:00 9:30	<i>Welcome Address: Dr. Ahmed S. Yamani</i> , Rector, Prince Sultan University, Riyadh, Saudi Arabia						
9:30 10:15	<i>Opening Keynote I: H.E. Eng. Osama Al Zamil</i> , Deputy Minister at Ministry of Industry and Mineral Resources, Saudi Arabia						
10:15 11:00	<i>Opening Keynote II: Dr. Andreas Schwer</i> (Saudi Arabian Military Industries-SAMI CEO)						
11:00	Networking/Coffee Break						
11:15 12:15	<i>Keynote: Dr. Sami Alnuaim</i> , The President of the Society of Petroleum Engineers International						
12:15	<i>Networking Buffet Lunch/ Dhuhr Prayer</i>						
1:30 3:00	<b>PANEL SESSION:</b> Tracks: Industrial & Manufacturing	Global Engineering Education I	Industry 4.0 / Industry Solutions I		Environmental & Sustainability	Operations Management	Undergraduate Student Paper Competition
3:00	<i>Networking/Coffee Break/Asr Prayer</i>						
3:30 – 5:00	<b>PANEL SESSION:</b> Tracks: Transport and Logistics	Global Engineering Education II	Industry 4.0 / Industry Solutions II		Energy and Water	Industrial and Manufacturing	Competitions
	5:00 – 6:30 pm: <i>Poster Competition</i>						

### IEOM Gulf Student Simulation Competition

Lab G-A11: Tuesday from 3 PM to 11 PM and Wednesday from 3 PM to 6 PM, Winners Annoucement at the Awards Dinner

### Wednesday, November 27, 2019

	Room 1 Auditorium G-C01	Room 2 Auditorium C02	Room 3 G-B06	Room 4 G-B19	Room 5 G-B21	Room 6 G-B23	Room 7 (Faculty Lounge)
8:30 10:00	Industry 4.0 / Industry Solutions III	Global Engineering Education III					Doctoral Dissertation Competition
10:00	Networking/Coffee Break						
10:15 11:00	<i>Keynote: Dr. Mohammed Al-Majed</i> , Senior Advisor to the Minister, Ministry of Industry and Mining						
11:00 11:45	<i>Keynote: Eng. Suliman Almazroua</i> , CEO at National Industrial Development & Logistics Program						
11:45	<i>Networking Buffet Lunch/ Dhuhr Prayer</i>						
1:00 2:30	<b>PANEL SESSION:</b> Entrepreneurship and Innovation	Global Engineering Education IV	Industry 4.0 / Industry Solutions IV	Industrial and Manufacturing	Operations Management	Transport and Logistics	
2:30	<i>Networking/Coffee Break/Asr Prayer</i>						
3:00 – 4:30	Industry 4.0 / Industry Solutions V	Global Engineering Education V	Environmental and Sustainability	Energy and Water	Entrepreneurship and Innovation	Industrial and Manufacturing	
	7:00 – 10:00 pm, <i>Conference Awards and Recognition Dinner - Outdoor</i>						

### Thursday, November 28, 2019

	Room 1 Auditorium G-C01	Room 2 Auditorium C02	Room 3 G-B06	Room 4 G-B19	Room 5 G-B21	Room 6 G-B23	Room 7 (Faculty Lounge)
8:30 10:00	Industry 4.0 / Industry Solutions VI	Global Engineering Education VI				Industrial and Manufacturing	Environmental and Sustainability
10:00	Networking/Coffee Break						
10:15 11:00	<i>Keynote: Dr. Surendra M. Gupta</i> , Professor of Mechanical and Industrial Engineering, Director of Laboratory for Responsible Manufacturing (LRM), Northeastern University, Boston, Massachusetts, USA						
11:00 11:45	<i>Keynote: Eng. Saleh I Al-Shabnan</i> , President Haffaz Industrial & Management Consultants, Riyadh						
11:45	<i>Networking Buffet Lunch/ Dhuhr Prayer</i>						
1:00 2:30		Global Engineering Education VII	Industry 4.0 / Industry Solutions VII		Energy and Water	Energy and Water	
2:30	<i>Networking/Coffee Break/Asr Prayer</i>						
3:00 – 4:30	Industry 4.0 / Industry Solutions VIII	Global Engineering Education VIII	Environmental and Sustainability	Operations Management	Energy and Water	Operations Management	

Keynote and Panel Sessions will be in auditorium

# Keynote Speakers

9:00 – 9:30 (Tuesday) Welcome Address



**Dr. Ahmed S. Yamani**  
Rector, Prince Sultan University  
Riyadh, Saudi Arabia

Dr. Ahmed S. Yamani is the rector of Prince Sultan University, the first private, non-profit university in the Kingdom of Saudi Arabia. He took up his post as Rector in June 2005. He has held a series of leadership roles (including Chairman, Vice Dean, Vice-Rector, and Rector) over a 25-year period. Dr. Yamani has a PhD in Structural Engineering from the University of Michigan, USA. He obtained his MSc and a BSc with summa cum laude (highest honor) from the University of North Carolina, USA. In addition, he earned a diploma in pre-Engineering from Gaston College, USA.

Prior to Prince Sultan University, Dr. Yamani started his academic career in the Department of Architecture and Building Sciences, College of Architecture and Planning, King Saud University, Saudi Arabia. Four years later, he became the chairman of the Department of Architecture and Building Sciences at the King Saud University.

He also held academic positions as the first Vice Dean to the newly founded Prince Sultan Private College, which evolved into the successful Prince Sultan University, Saudi Arabia; and as the acting Vice Rector of Prince Sultan University.

Dr. Yamani has played a major role in the development and implementation of academic strategy at Prince Sultan University, in both research and education. Under his leadership the University has consistently been rated the best private university in Saudi Arabia. He has an ongoing interest in Sustainable Higher Education more widely. Dr. Yamani has led the development of the university's internationalization, with the goal of creating a leading university locally and throughout the Middle East through stakeholder engagement, community service and a strong research impact in line with the 'Saudi Vision 2030'. Dr. Yamani is the founding editor of PSU Research Review: An International Journal (Emerald Group Publishing Limited, UK). He was the pioneer who brought forward the concept of this international journal and made it happen.

Dr. Yamani has chaired or has been a member of numerous academic, administrative and professional committees. He is a board member of Education Evaluation Commission – Higher Education Sector (EEC-HES) (formerly the National Commission for Academic Accreditation and Assessment – NCAAA), Ministry of Education, Saudi Arabia. He is a board member of National Center for Assessment in Higher Education (Qiyas), Ministry of Education, Saudi Arabia. He has been awarded various prestigious awards.

9:30 – 10:15 (Tuesday) Opening Keynote I



**H.E. Eng. Osama bin Abdul Aziz Al-Zamil**  
Deputy Minister of Industry and Mineral Resource  
Saudi Arabia

H.E. Eng. Osama bin Abdul Aziz Al-Zamil, Saudi Arabia's deputy minister of industry and mineral resources. He has also been the president of Zamil Group Holding Co. since December 2018, a global investment company with diverse interests and capabilities including shipbuilding and repair, port operations and maintenance, petrochemicals and chemicals, industrial investment and general construction. Al-Zamil was the vice president of the corporate business development department at Zamil Group from 2013 to 2016, and the group's vice president for almost five years between 2014 and 2018. He is also the chairman of the Saudi Industries Development Co. (Tatweer) based in Buraidah, Al-Qassim region. It is a diversified organization with its main investments in the industrial sector, real estate sector and financial investment. Al-Zamil received his

undergraduate education in systems engineering from King Fahd University of Petroleum and Minerals in Dhahran, Saudi Arabia. He also has a master's degree in business administration and management from the University of Houston-Clear Lake in Houston, Texas, US.

10.15 – 11:00 (Tuesday) Opening Keynote II



**Dr. Andreas Schwer**  
CEO, Saudi Arabian Military Industries (SAMI)

Dr. Andreas Schwer is the Chief Executive Officer of Saudi Arabian Military Industries (SAMI), spearheading efforts to drive forward the Kingdom's military industry and deliver world-class military products and services. He is responsible for the management of SAMI's operational business and achievement of the company's business strategy and targets. Dr. Schwer is working closely with the Board of Directors to attain the company's objective of becoming a top-25 global military company by 2030, drawing upon his wealth of experience and expertise in setting up and managing international defense and aerospace companies.

Prior to joining SAMI, Dr. Schwer was a member of the Executive Management Board of Rheinmetall Defense. Amongst his duties, he was President and CEO of Combat Systems Division, which is the core of the Rheinmetall enterprise with more than 7,000 staff in 16 countries. Dr. Schwer then served as the Chairman and President of Rheinmetall International AG where he was responsible for defining the company's internationalization strategy leading to the implementation of multiple operating companies and joint ventures in key strategic export markets such as the Middle East.

In 2008, Dr. Schwer served as Executive Vice President of Global Engineering and Innovation at The Manitowoc Company, Inc. with engineering centers in US, Europe and Asia. He was also appointed as the General Manager of the company's branch in Germany, where he led 2,000 employees.

Dr. Schwer began his career with Airbus Group Inc., where he held a number of leadership positions within their defense & space branch. Amongst those, he was one of the key industrial enabler of the Galileo Satellite Navigation Program founded by the European Union and the European Space Agency. In 1992, Dr. Schwer received his Master's degree in Aeronautics Engineering from the University of Stuttgart, Germany, and subsequently his Ph.D. in 1997. In 1998, Dr. Schwer accomplished a second Master's degree in Systems Engineering from Delft University of Technology in the Netherlands.

11:00 – 11:15 Networking/Coffee Break

11:30 – 12:15 (Tuesday) Keynote III



**Dr. Sami Alnuaim**  
President  
Society of Petroleum Engineers (SPE) International

Title: "Orchestrating the Future Energy Transition through Energy Sustainability & Environment Strategy"

Sami Alnuaim has been with Saudi Aramco for 30 years, where he has worked in reservoir engineering, production engineering, research and development, and at the upstream computer center. He currently serves as manager of the petroleum engineering application services department where he leads information technology support for all upstream operations, including exploration, drilling, production, reservoir engineering, and facility design. A current area of focus is reservoir simulation of giga cells and giga models using Saudi Aramco's GigaPOWERS simulator. Alnuaim has a long history of service to SPE and is currently a member of the SPE Middle East Board of Directors. He has won several local, regional, and international awards, including the SPE Regional Service Award for the Middle East in 2010 and the SPE Distinguished Service and SPE Distinguished Member awards in 2011. He recently served on the society's DeGolyer, Rand, and McConnell Awards Committee and the 2017 SPE Annual Technical Conference and Exhibition Executive Advisory Committee. Alnuaim obtained BS and MS degrees from King Fahd University of Petroleum and Minerals, and a PhD degree from the University of Texas at Austin, all in petroleum engineering. He completed the Wharton Advanced Management Program at the University of Pennsylvania and the Advanced Asian Business and Culture Program at Pennsylvania State University.

12:15 – 1:30 – Networking Buffet Lunch/ Dhuhr Prayer

**Wednesday, November 27, 2019**

10:15 – 11:00 (Wednesday) – KEYNOTE



**Dr. Mohammed Al-Majed**  
Senior Advisor to the Minister at Ministry of Industry and Mining  
Saudi Arabia

Dr. Mohammed Al-Majed is a Senior Advisor to the Minister at Ministry of Industry and Mining in Saudi Arabia, Leading Industry 4.0 Efforts, and an advisor- External Board, for the Mechanical Engineering Department, University of California, Berkeley. Dr. Mohammed has been shaping the digital transformation in Saudi Arabia through his various roles. Some of these roles include: Senior Advisor to HE Minister of Industry and Mineral Resources of Saudi Arabia, Senior Advisor to HH Taqnia Chairman of the Board, CEO of TDM that was officially incorporated for Industry 4.0 Technology Localization, COO at the College of Excellence and many other roles. He received a bachelor's degree in mechanical engineering in 1990. Subsequently, he joined the High Commission for the Development of Riyadh as a mechanical engineer. In 1992, Al-Majed left for the US, where he studied for a master's degree at the University of California in Berkeley, majoring in mechanical engineering and went on to receive his Ph.D. in the same major from the same university in 1997. From 2017 to 2018, Al-Majed was CEO of Taqnia Digital Manufacturing in Riyadh. He returned to KACST in 2018 as the IC14 director, before taking on his current role in 2019. He recently took part in the Saudi Arabia Energy Forum 2019 and spoke on the Saudi industrial revolution 4.0, as well as a keynote speaker at the Arab Conference at Harvard (Business Edition).

11:00 – 11:45 (Wednesday) Keynote



**Eng. Suliman Bin Khaled Almazroua**  
CEO  
VRP Office of the National Industrial Development and Logistics Program

Eng. Suliman Almazroua, CEO of the National Industrial Development and Logistics Program (NIDLP) VRP office. In recent roles he acted as Executive Director in the National Transformation Program, where he managed the ministries' portfolios with the 37 strategic objectives of Vision 2030 and a budget of over SAR 300 Billion. Almazroua also acted as the Director General of the Delivery and Rapid Intervention Center where he managed a team of over 90 professionals and a budget of over SAR 100 Million to support the delivery of Vision 2030 goals.

Eng. Almazroua received his Bachelor of Science degree in Systems Engineering from King Fahd University of Petroleum and Minerals in 2001 and his Master degree in Business Administration from Hull University (UK) in 2006. Since then, he has gained a wealth of experience in technical, managerial, and leadership roles in industry, most notably at Saudi Aramco. He started his career with highly technical positions such as a Communications Engineer at Saudi Aramco then a Control Engineer at Aruba Networks (USA). In 2008, he attained a managerial position in the Information Technology Department at Saudi Aramco where he improved business processes and developed manpower optimization studies. In 2011, Almazroua acted as Manager of International Operations for Saudi Aramco in Houston, USA

where he established North America Satellite Research and Development Centers, improved Cybersecurity defense in all Saudi Aramco international offices, among other accomplishments. Almazroua also played pivotal roles in the healthcare sector of Saudi Aramco, acting as Chief Technology Officer of Johns Hopkins Aramco HealthCare (JHAH), Dhahran. Where he led the transformation of JHAH by introducing new a Health Information System. In 2016, he was appointed as Director of IT Demand Planning at Saudi Aramco, where he notably implemented a new value creation model for technology planning, which resulted in benefits of up to \$93 Million in 2017 and around \$300 Million in 2018.

During his education and years of experience, Almazroua acquired the technical skills and industry knowledge that enabled him to build a unique problem-solving ability. Equipped with his skills and work ethics, Almazroua aspires to have a hand in the betterment of his country by playing a pivotal role in KSA's most prominent Vision Realization Program, NIDLP, which is focused on transforming Saudi Arabia into a pioneering industrial powerhouse and a global logistics hub by integrating growth in four key sectors: Mining, Industry, Logistics, and Energy (with focus on Industry 4.0) in line with Vision 2030.

11:45 – 1:00 Networking Buffet Lunch/ Dhuhr Prayer

**7:00 pm – 10:00 pm (Thursday) Conference Awards Dinner**

## Thursday, November 28, 2019

10:15 – 11:00 (Thursday) Keynote



### **Dr. Surendra M. Gupta**

**Professor of Mechanical and Industrial Engineering  
Director of Laboratory for Responsible Manufacturing (LRM)  
Northeastern University  
Boston, MA, USA**

Dr. Surendra M. Gupta is a Professor of Mechanical & Industrial Engineering and Director of the Laboratory for Responsible Manufacturing at Northeastern University in Boston. He received his BE in Electronics Engineering from Birla Institute of Technology and Science, MBA from Bryant University and MSIE and Ph.D. in Industrial Engineering from Purdue University. Dr Gupta is a recipient of the Outstanding Research Award and the Outstanding Industrial Engineering Professor Award (in recognition of Teaching Excellence).

Dr. Gupta's research interests are in the areas of Production/ Manufacturing Systems and Operations Research. He is mostly interested in Environmentally Conscious Manufacturing, Electronics Manufacturing, MRP, JIT, and Queueing Theory. He has authored/co-authored well over 400 technical papers published in prestigious journals, books and international conference proceedings. He has traveled to all seven continents viz., Africa, Antarctica,

Asia, Australia, Europe, North America and South America and presented his work at international conferences there (except Antarctica). The journals where his publications have appeared include Annals of Operations Research, Computers and Electrical Engineering, Computers and Industrial Engineering, Computers and Mathematics with Applications, Computers and Operations Research, European Journal of Operational Research, International Journal of Advanced Manufacturing Technology, International Journal of Computer Integrated Manufacturing, International Journal of Environmentally Conscious Design and Manufacturing, International Journal of Flexible Automation and Integrated Manufacturing, International Journal of Industrial Engineering, International Journal of Integrated Supply Management, International Journal of Manufacturing Technology and Management, International Journal of Operations and Production Management, International Journal of Operations and Quantitative Management, International Journal of Production Economics, International Journal of Production Research, International Transactions in Operational Research, Journal of Electronics Manufacturing, Journal of Engineering Sciences, Journal of Fire Technology, Journal of Industrial Ecology, Journal of Intelligent Manufacturing, Journal of Operational Research Society, Journal of the American Society of Information Science, Microelectronics and Reliability, Omega, Opsearch, Perception and Psychophysics, Performance Evaluation, Performance Evaluation Review, Production and Inventory Management Journal, Production Planning and Control, and Transactions of Operational Research. His publications have been cited by thousands of researchers all over the world in journals, proceedings, books, and dissertations.

Dr. Gupta is the editor for the special issues of Journal of Electronics Manufacturing on "Environmental, Recycling and End of Life Issues in the Electronics Industry" and "Production, Planning and Scheduling in Electronics Manufacturing", editor for the special issue of International Journal of Operations and Quantitative Management on "Environmentally Conscious Manufacturing", senior editor of the Industrial Engineering Applications and Practice: Users' Encyclopedia, co-editor for the special issue of Computers and Industrial Engineering on "Operational Issues in Environmentally Conscious Manufacturing" and serves as an Area Editor for Environmental Issues of Computers and Industrial Engineering, Associate Editor for International Journal of Agile Systems and Management, as well as on the editorial boards of IIE Transactions on Design and Manufacturing and International Journal of Industrial Engineering. He has been involved as the Chairman of the International Conferences on Environmentally Conscious Manufacturing I (Nov. 2000), II (Oct. 2001), III (Oct. 2003), IV (Oct. 2004), V (Oct. 2005) and VI (Oct. 2006), track chair of Management Science and Operations Research for the NEDSI'2001, NEDSI'2002 and NEDSI'2003 Conferences, track chair of Production and Operations Management (Manufacturing) for the NEDSI'2005 Conference, Track chair of Environmental Issues and Reverse Logistics in Production/Manufacturing for POM2005 and POM2007 and the member of the Technical Committees of International Conferences of IEEE on ISEE'1998, ISEE'1999, ISEE'2000, ISEE'2001, ISEE'2002, ISEE'2003, ISATP2003 and ISATP2005, and DYCONS99, GT/CM'2000, GT/CM'2003, RETBE'2000, ICMFMDI'2000, ISLCE'2001, ITEE2005, ITEE2007, ICCIE2006, MHCL2006 and IAD2007. In addition, he is a regular reviewer for more than a dozen major journals in the field of Production/ Manufacturing Systems and Operations Research and has frequently reviewed proposals for National Research Council and National Science Foundation. He has been elected to the memberships of several honor societies and is listed in various Who's Who publications. He is a registered Professional Engineer in the State of Massachusetts and a member of ASEE, DSI, IIE, INFORMS and POMS.

He has taught a variety of undergraduate and graduate courses in the areas of Production/ Manufacturing Systems and Operations Research. He has more than 30 years of teaching experience and has consistently received high student ratings. He has been elected to memberships and chairmanships of dozens of University, College and Department Committees as well as an elected member of the Faculty Senate representing the College of Engineering.

11:00 – 11:45 (Thursday) Keynote

**Eng. Saleh I Al-Shabnan**

**President, Haffaz Industrial & Management Consultants  
Riyadh, Saudi Arabia**

Saleh Al-Shabnan is a graduate in Industrial Management from King Fahad University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia in 1982. He was trained at the National Gas & Industrialization Co. (GASCO) in Riyadh, Saudi Arabia and then Aramco Services Company (ASC) in Houston, Texas before joining (SABIC) upon his graduation. Throughout his career with SABIC, he has supervised and managed various projects, logistics, business development and sales & marketing functions.

Between 2007 & 2011, Saleh was the EMDAD Project Executive with the responsibility to head up a global transformation initiative to develop an industry leading supply chain capability for the Saudi Basic Industries Corporation (SABIC) reporting directly to SABIC's Vice Chairman and CEO. His mandate was to develop a globally integrated Supply Chain supported by a world class IT platform and global logistics network and infrastructure for SABIC's Chemicals, Polymers, Metals, Fertilizers, Specialties and Performance Chemicals. Upon the successful implementation of the project, he was appointed as a Vice President, Global Supply Chain Center of Excellence in 2011 till his retirement from SABIC in April 2014.

Saleh Al-Shabnan served as the Chairman of the Board of Directors for Sabic Terminal Services Co. (Sabtank), and the Jubail Chemical Storage & Services Co. (JCSSC) as well as a member of the Board of Directors of Petrokemya, Sadaf and National Chemical Carrier Company (NCC). He also served as the Vice Chairman of the Gulf Petrochemical & Chemicals Association (GPCA)'s Supply Chain Committee till June 2016 and was a member of Europe's LogiChem advisory board in Brussels. Saleh is a member of GPCA and the head of its Supply Chain Excellence Award. On the volunteering work side, Saleh was elected in October 2017 as the Chairman of the Board of Directors for the "Supply Chain & Procurement Society" - a none profit organization of 230 + SC & Procurement professional volunteers. The Society is sponsored by the General Authority for Small & Medium Enterprises (Monshaat) - Ministry of Commerce & Investment. He was also the Vice President of the National Committee for Cement Companies and a member of the Saudi Committee for Labor Market at the Council of Saudi Chambers as well as Vice Chairman of the newly formed Industrial Exporters' Society and the Chairman of the Cooperative Society for Agricultural and Environmental Studies & Services (under formation). Saleh is one of the founders of City Cement Company and was the company's Chief Executive Officer (CEO) and a member of the its Board of Directors till May, 2019. Through his office "Haffaz for Consultation & Business Development", Saleh Provides consultation and business development services in a number of fields including: Supply Chain & Logistics, Energy & Alternative Fuels, Healthcare & Medical Devices, Environment & Sites Rehabilitation and Cement & Mining.



## Continuous Innovation

At Eaton, we are continually pursuing new ideas with our current and future technologies to help customers meet their goals. Our valvetrain solutions such as cylinder deactivation and hollow engine valves that are engineered to deliver efficient performance while withstanding the extreme heat requirements. Our supercharger technologies for advanced boosting provide the instant throttle response and improved fuel efficiency customers desire. We are constantly innovating differentiated technologies to provide advanced solutions for the industry and our customers.

[www.eaton.com](http://www.eaton.com)



## Conference Committee

### Honorary Chair



**Dr. Ahmed S. Yamani**  
Rector - Prince Sultan University, Riyadh, Saudi Arabia

### Conference Chair



**Dr. Abdulhakim A. Almajid**  
Dean, College of Engineering  
Prince Sultan University

### Conference Co-Chair



**Dr. Bandar A. AlKhayyal**  
Prince Sultan University

### Conference Co-Chair



**Dr. Ahad Ali**  
Lawrence Tech University, USA

## Organizing Committee



**Dr. Bandar A. AlKhayyal**  
Prince Sultan University  
Chairman - Organizing Committee



**Dr. Ahmad Alkhaleefah**  
Dept. of Engineering Management  
Prince Sultan University



**Dr. Mohammed Alkahtani**  
College of Engineering  
King Saud University



**Dr. Hesham K. Al-Fares**  
Systems Engineering Dept.  
King Fahd University of  
Petroleum and Minerals



**Dr. Khaled A. Abuhasel**  
Dean, College of Engineering  
University of Bisha



**Dr. Abdulaziz T. Almaktoom**  
Operations and IM Department  
Effat University



**Dr. Ammar Y. Alqahtani**  
Industrial Engineering Department  
King Abdulaziz University



**Dr. Areej Malibari**  
Dean, College of Engg,  
Princess Nora Bint  
Abdulrahman University



**Dr. Hamad Al Jassmi**  
College of Engineering  
United Arab Emirates University



**Dr. Mahmood Al Kindi**  
Mechanical and Industrial Engg  
Sultan Qaboos University, Oman



**Prof. Majid M Aldaihani**  
Assistant Vice President for  
Planning, Kuwait University



**Dr. Osama Al Jamal**  
College of Engineering  
University of Bahrain



**Dr. Hemaïd Alsulami**  
Saudi Society for Industrial &  
Systems Engineering  
General Secretary



**Dr. Abdullah A. Alabdulkarim**  
Dean, College of Engineering  
Majmaah University  
Al Majma'ah, Saudi Arabia



**Dr. Umar Al-Turki**  
Systems Engineering Dept.  
King Fahd Univ. of Petroleum and  
Minerals, Dhahran, Saudi Arabia



**Dr. Ibrahim Falqi**  
Dean, College of  
Engineering  
King Khalid University

## Steering Committee

Dr. Abdulhakim A. Almajid, Dean, College of Engineering, Prince Sultan University  
Dr. Bandar A. Alkhayyal, College of Engineering, Prince Sultan University  
Dr. Ahd Ali, Lawrence Technological University, USA  
Dr. Rafed Abdul Wahab Zawawi, General Supervisor, Public Relations & Media Center, PSU

## Logistics Committee

Dr. Rafed A. Zawawi, General Supervisor, Public Relations & Media Center, PSU  
Mr. Abdulaziz H. Al-Obaid: Director, Human Resources, PSU  
Mr. Abdulrhman Al. Fehaid, Director, Public Relations & Events, PSU  
Mr. Ayman Al-Shaikh, Director for Protocol Unit, PSU  
Mr. Musharraf AlMuhanna, Director, Media Unit, PSU  
Mr. Anas Abdal Raziq, Director, Marketing & Publishing Unit, PSU  
Mr. Jabr Ahmed Aljabr, Operation And Maintenance Office, PSU  
Mr. Abdullah Saleh Alhashel, Government Relations Officer, PSU

## Design Committee

Eng. Sara A. AlOmran  
Ms. Shahad A. Alkhayyal

## IEOM Support Committee

Dr. Abdur Rahim, University of New Brunswick at Fredericton, Canada  
Dr. Abu Masud, Wichita State University, Kansas, USA  
Dr. Mohammed Khadem, Sultan Qaboos University, Oman  
Professor Don Reimer, IEOM Society international  
Dr. Anwar Rahman, Central Connecticut State University, USA  
Dr. Taufiq Islam, IEOM Society international

## GCC Academic Committee

Dr. Ahmad Yassin, Tabuk University, Saudi Arabia  
Dr. Abdelhakim Naif Abdelhadi, Prince Sultan University, Saudi Arabia  
Dr. Talal Al Sulaiman, Prince Sultan University, Saudi Arabia  
Dr. Ahmed Attia, Effat University, Saudi Arabia  
Dr. Ali A. Al-Matouq, Prince Sultan University, Saudi Arabia  
Dr. Ali M Al Samhan, Industrial Engineering Department, King Saud University  
Dr. Amir J. Majid, Ajman University of Science and Technology, United Arab Emirates  
Dr. Asif Haleem, Jazan University, Saudi Arabia  
Dr. Ateekh Ur Rehman Lateef ur Rehman, King Saud University, Saudi Arabia  
Dr. Balan Sundarakani, University of Wollongong in Dubai, United Arab Emirates  
Dr. Basil Al-Sasi, King Abdulaziz University, Saudi Arabia  
Dr. Dhekra Ben Sassi, Prince Sattam Bin Abdulaziz University, Saudi Arabia  
Dr. Emad Hashiem Abdullah Abualsauod, Taibah University, Medina, Saudi Arabia  
Dr. Fauzia Jabeen, Abu Dhabi University, United Arab Emirates  
Dr. Fikri Dweiri, University of Sharjah, United Arab Emirates  
Dr. Hamdi Bashir, University of Sharjah, United Arab Emirates  
Dr. Husam Arman, Kuwait Institute for Scientific Research, Kuwait  
Dr. Imad Jawhar, UAE University, United Arab Emirates  
Dr. Islam El-Ghonaïmy, University of Bahrain, Bahrain  
Dr. Jean-Paul Arnaout, Gulf University for Science & Technology, Kuwait  
Dr. Kamal Taha, Khalifa University, United Arab Emirates

Dr. Khalid Al-Ghamdi, King Abdulaziz University, Saudi Arabia  
Dr. Kudret Demirli, Khalifa University of Science, Technology & Research (KUSTAR), United Arab Emirates  
Dr. Mahmoud Al Kindi, Sultan Qaboos University, Oman  
Dr. Mehmet Savsar, Kuwait University, Kuwait  
Dr. Melfi Alrasheedi, King Faisal University, Saudi Arabia  
Dr. Mian Ajmal, Abu Dhabi University, United Arab Emirates  
Dr. Mohamed Ali Abdel-Fattah Mansour, King Khalid University, Saudi Arabia  
Dr. Mohammad Al-Saleh, Umm Al-Qura University, Saudi Arabia  
Dr. Mohammad Khadem, Sultan Qaboos University, Oman  
Dr. Mohammed AlKahtani, Industrial Engineering Department, King Saud University  
Dr. Mohammed Alsumiri, Yanbu Industrial College, Saudi Arabia  
Dr. Mojahid Saeed Osman, American University of Sharjah, United Arab Emirates  
Dr. Priyabrata Pal, The Petroleum Institute, United Arab Emirates  
Dr. Raed Rida Obaid, King Abdulaziz University, Saudi Arabia  
Dr. Saifullah Sadi, Al Yamamah University, Saudi Arabia  
Dr. Suat Kasap, American University of Middle East, Kuwait  
Dr. Umar Al-Turki, Systems Engineering Department, King Fahd University of Petroleum and Minerals  
Dr. Waleed Ahmed, UAE University, United Arab Emirates

## Technical and Scientific Committee

Dr. Ahmad S Alkhaleefah, Prince Sultan University, Riyadh, Saudi Arabia – Chair of the Scientific Committee	Dr. Md. Mamun Habib, Brac University, Bangladesh
Dr. A.O. Adewumi, University of KwaZulu-Natal, South Africa	Dr. Md. Mizanur Rahman, Universiti Malaysia Sabah (UMS), Sabah, Malaysia
Dr. Abdelaziz Berrado, The Ecole Mohammadia d'Ingénieurs, Rabat, Morocco	Dr. Mehran Doulat, UTM Kuala Lumpur, Malaysia
Dr. Abderrahmane Mellak, University of Boumerdes, Algeria	Dr. Michael Mutingi, University of Botswana, Botswana
Dr. Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia	Dr. Miguel Sanz Bobi, Comillas Pontifical University, Spain
Dr. Abdul-Rahman Al-Ali, American University of Sharjah, UAE	Dr. Mohammad Ishak Desa, Universiti Teknologi Malaysia, Johor Bahru, Malaysia
Dr. Abdussalam Shibani, Coventry University, UK	Dr. Mohd Abdur Rashid, University Malaysia Perlis (UniMAP), Malaysia
Dr. Ahm Shamsuzzoha, University of Vaasa, Finland	Dr. Motah Mahendrenath, University of Technology, Mauritius
Dr. Ahmad Taher Azar, Benha University, Benha, Egypt	Dr. Murat Caner Testik, Hacettepe University, Ankara, Turkey
Dr. Ahmed Kadhim Hussein, Babylon University, Iraq	Dr. Nani Kurniati, Institute of Technology Sepuluh Nopember (ITS), Indonesia
Dr. Amir Azizi, Universiti Malaysia Pahang, Malaysia	Dr. Nejib Chouaibi, Polytechnic School of Tunisia, Tunisia
Dr. Anand Kumar, M.S. Engineering College, Bangalore Karnataka, India	Dr. Noha Mostafa, Industrial Engineering Department, Zagazig University, Egypt
Dr. Arjun K. Gupta, Bowling Green State University, Ohio, USA	Dr. Norhamidi Muhamad, UKM, Malaysia
Dr. Arun N. Nambiar, California State University – Fresno, USA	Dr. Norzaidahwati Zaidin, Universiti Teknologi Malaysia, Johor, Malaysia
Dr. Balan Sundarakani, University of Wollongong in Dubai, UAE	Dr. Nubia Milena Velasco Rodriguez, Universidad de Los Andes, Colombia
Dr. Behnam Bahrami, Eastern Mediterranean University, Famagusta, Cyprus	Dr. Omar Elmabrouk, Benghazi University, Libya
Dr. Bhuvnesh Rajamony, University Malaysia Perlis (UniMAP), Malaysia	Dr. P. Sanjeevikumara, Dublin Institute of Technology, Ireland
Dr. Boudouda Malik, University of Champagne-Ardenne, France	Dr. Raja Kothandaraman, Alpha College of Engineering, Chennai, Tamilnadu, India
Dr. Bouloiz Hafida, ENSA, Ibn Zohr University, Agadir, Morocco	Dr. Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn Malaysia
Dr. Brigitte Jaumard, Concordia University, Canada	Dr. Ramakrishnan Ramamoorthy, Yanbu Industrial College, Yanbu, Saudi Arabia
Dr. Cecilia Nembou, Divine Word University, Papua New Guinea	Dr. Rami Harik, University of South Carolina, USA
Dr. D. K. Banwet, IIT-Delhi, India	Dr. Rashmi Jha, Gitarattan International Business School (GIBS), New Delhi, India
Dr. Dani Harmanto, University of Derby, UK	Dr. Ratri Parida, National Institute of Construction Management and Research (NICMAR), Pune, Maharashtra, India
Dr. Dinusha Gamage, University of Moratuwa, Sri Lanka	Dr. Ravi Gor, St. Kabir Institute of Professional Studies, Ahmedabad, India
Dr. Eui H. Park, North Carolina A&T State University, USA	Dr. Rodrigo Garrido, Universidad Adolfo Ibaez, Chile
Dr. Faieza Abdul Aziz, Universiti Putra Malaysia, Selangor, Malaysia	Dr. Ruchi Mishra, Institute of Management, Nirma University, Ahmedabad, India
Dr. Fernando González Aleu, Universidad de Monterrey, Mexico	Dr. Rushan Ziatdinov, Keimyung University, Daegu, South Korea
Dr. Francis Leung, City University of Hong Kong, China	Dr. Salah Haridy, University of Sharjah, Sharjah, UAE
Dr. Fulufhelo Masithulela, University of South Africa	Dr. Sarbjit Singh, National Institute of Technology, Jalandhar, Punjab, India
Dr. Gopalan Srinivasan, University of New Brunswick, Canada	Dr. Sawat Pararach, Thammasat University, Thailand
Dr. Haider Ali Biswas, Khulna University, Bangladesh	Dr. Shahrul B. Kamaruddin, Universiti Sains Malaysia
Dr. Hui-Ming Wee, Chung Yuan Christian University, Taiwan	Dr. Shahryar Sorooshian, University Malaysia Pahang, Malaysia
Dr. Ilias Mamat, Quest International University Perak, Ipoh, Perak, Malaysia	Dr. Sharan Shetty, Manipal International University, Putra Nilai, Malaysia
Dr. Indra Gunawan, The University of Adelaide, Australia	Dr. Suat Kasap, American University of the Middle East, Kuwait
Dr. Jahara bint Ghani, UKM, Malaysia	Dr. Suhaiza Hanim Zailani, University Malaya, Malaysia
Dr. Jaouad Boukachour, Université Le Havre, France	Dr. T. Ramayah, School of Management, Universiti Sains Malaysia
Dr. Jayakanth Srinivasan, MIT Sloan School of Management	Dr. Tan Chan Sin, Universiti Malaysia Perlis (UniMAP), Malaysia
Dr. Jiří Tupa, University of West Bohemia, Pilsen, Czech Republic	Dr. Theodore B. Trafalis, University of Oklahoma, USA
Dr. Kannan Govindan, University of Southern Denmark, Denmark	Dr. Vassilis Gerogiannis, Department of Project Management, Greece
Dr. Kondo H. Adjallah, Paul-Verlaine University, France	Dr. Vladimir Beresnev, Sobolev Institute of Mathematics, Russia
Dr. Kuchkarov Atamurat, Uzbekistan National University, Uzbekistan	Dr. Vladimir I. Tsurkov, Russian Academy of Sciences, Moscow, Russia
Dr. Lina Aboueljainane, École Nationale Supérieure des Mines de Rabat (ENSMR), Morocco	Dr. Vladimir Modrak, TUKE, Slovakia
Dr. Lina Gozali, Universitas Tarumanagara, Indonesia	Dr. Yong Yin, Yamagata University, Japan
Dr. Linda L. Zhang, IESEG School of Management, Lille-Paris, France	Dr. Zuraidah Sulaiman, Universiti Teknologi Malaysia
Dr. Mahmood Shafiee, Cranfield University, Bedfordshire, United Kingdom	
Dr. Maruf Hasan, University of New South Wales, Australia	
Dr. Md. Abdus Samad Kamal, Monash University, Sunway Campus, Malaysia	

### Simulation Competition Committee – IEOM Gulf Student Simulation Competition

Head of Organizing Committee	Abdulmajeed Althunayyan	King Fahd University of Petroleum and Minerals
Technical Committee Leader	Dr. Syed Mujahid	King Fahd University of Petroleum and Minerals
Technical Committee Member	Dr. Omar Alsawafy	King Fahd University of Petroleum and Minerals
Technical Committee Member	Dr. Talal Alsulaiman	Prince Sultan University
Leader Communication Committee Member	Mohammed Alzahrani	King Fahd University of Petroleum and Minerals
Ambassador	Yara Ali Alghamdi	Princess Nourah Bint Abdulrahman University
GSS Competition Coordinator	Abdod Saeed Omar Binsumaidea	Taibah University
Leader of Operations Committee	Firas Alrumaykhani	King Fahd University of Petroleum and Minerals
Communication Committee Member	Abdullah alabdulkarim	King Fahd University of Petroleum and Minerals
Leader of Marketing Team	Abdulelah Abdulaziz I Alswailem	King Saud University
Designer/ Member of Marketing Committee	Khalid Fawaz Alfawaz	King Saud University
leader of Logistics Committee	Abdullah Albathi	Prince Sultan University
Designer/ Member of Marketing Committee	Mohammed AlSara	King Saud University
Logistics Committee Member	Mohammed Al-Hoshan	Prince Sultan University
Logistics Committee Member	Faisal Aldebaikhi	Prince Sultan University

## Panel Sessions

### PANEL SESSION - Track: Industrial & Manufacturing (1:30 pm to 3:00 pm)

Panel Chair – Dr. Mohammed Al-Majed

#### Panel Speakers

<p><b>Dr. Hamad Alyousefi</b> CEO/DST: TAQNIA Defense and Security Technology (DST)</p>	<p><b>Dr. Mohammad Alkahtani</b> Chief Technology Officer Saudi Arabian Military Industries (SAMI)</p>
	



**Eng. Ziad Al Mulsallam**  
EVP Engineering & Operation  
Advanced Electronics Company

Mr. Ziad H. Al-Musallam is a senior technology executive with over thirty years of experience in strategically strengthening local hi-tech capabilities and localization of electronics manufacturing and software industries in Saudi Arabia. Mr. Ziad H. Al-Musallam is currently the Executive VP of Engineering & Operations (E&O) at AEC since 2017 and reports to the Chief Executive Officer; responsible for all core design, engineering, implementation & operational activities of the organization. Mr. Al-Musallam was previously the Senior VP of Engineering & Development from 2014 to 2017 where he was responsible for the technical and engineering function of the company in engineering management and development of its various sections. He was also the Senior VP & GM of the Energy Business Unit from 2015 to 2017 where he oversaw the study and adoption of industrial products in the Energy sector. Mr. Al-Musallam joined the Engineering and Development department at AEC as an Engineer in 1991 and has had an illustrious career rising through the ranks within the organization. Prior to AEC, he was a

Design Engineer at the National Information Center, Ministry of Interior where he started his career in 1988. Mr. Al-Musallam is member of the Local Content Committee, Chairman of the Cost Optimization Committee, member of Saudi Arabian Smart Grid Steering Committee, Appraisal Sponsor for CMMI Level 3 certification Software Engineering institute's (SEI) standard Capability Maturity Model and Member of the RFTONICS Scientific Committee (KACST). Mr. Al-Musallam has a Master Degree in Electrical Engineering and a Bachelor of Science Degree in Computer Engineering from King Saud University in Riyadh, Saudi Arabia. He has attended management programs from INSEAD as well as several other technical and management courses.

### PANEL SESSION - Tracks: Transport and Logistics (3:30 pm to 5:00 pm, Tuesday)

Panel Chair – Eng. Khalid Alghamdi

#### Panel Speakers

<p><b>Dr. Meshal Almofadhi</b> Logistics Consultant Saudi Industrial Development Fund – SIDF</p>	<p><b>Mr. Abdulrahman Al-Mubarak</b> Chief Ground Handling Officer Saudia Cargo</p>	<p><b>Mr. Rayan Qutub</b> CEO King Abdullah Port</p>	<p><b>Khalid Albakry</b> CEO Baas International Group</p>
			

### PANEL SESSION (1:00 pm to 2:30 pm, Wednesday)

Track: Entrepreneurship and Innovation

Panel Chair – Hitham Khalid

#### Panel Speakers

<p><b>Hattan Ahmed</b> Head of the Entrepreneurship Center King Abdullah University of Science and Technology</p>	<p><b>Mishal Alqasim</b> CEO of Masheed</p>	<p><b>Ibrhaem Alzuhimeel</b> CEO of OceanX</p>
---	---	--

**Diamond Sponsor**



**Sponsor of the IEOM Gulf Student Simulation (GSS) Competition**



**IEOM Gulf Student Simulation (GSS) Competition**



# 16<sup>th</sup> IEOM Global Engineering Education

Riyadh, Saudi Arabia, November 26-28, 2019

Global Engineering Education – I

1:30 – 3:00 pm, Tuesday, November 26, 2019, Room 2

Session Chair: Dr. Sidi M Ahmed Ghaly, Al Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

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.

3:00 – 3:30 Networking/Coffee Break/Asr Prayer

**Global Engineering Education – II**  
**3:30 – 5:00 pm, Tuesday, November 26, 2019, Room 2**

Session Chair: Dr. Umar Mustafa Al-Turki, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

3:30 – 3:50 (Tuesday)



**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.

3:50 – 4:10 (Tuesday) D



**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.

4:10 – 4:30 (Tuesday)



**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 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.

4:30 – 5:00 (Tuesday)



**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

8:30 – 8:50 (Wednesday)



**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 86 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).

8:50 – 9:10 (Wednesday)



**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, Rhinoceros, 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.

9:10 – 9:30 (Wednesday)

**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

9:30 – 9:50 (Wednesday)



**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

several articles in international peer-reviewed journals and conferences. He is also a member of review board for several international journals. His case study on Islamic Microfinance was published in "Islamic Microfinance: Shari'ah Compliant and Sustainable?" a book edited by Prof Malcolm Harper. His doctoral dissertation was published as a book titled, "Faith-based Microfinance: An Alternative Tool of Poverty Alleviation". He is also a mentor for the Nottingham Advantage Award module on Global Mentorship Program (NAA-GMP) of Nottingham University UK and Idea Gist, a US based virtual incubator.

1:20 – 1:40 (Wednesday)



**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 he 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 (MSORSRM), 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).

1:40 – 2:00 (Wednesday)



**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.

2:00 – 2:20 (Wednesday)



**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

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.

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 Yarmouk 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.

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

**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 application. 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.

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, College of 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

4:00 – 4:20 (Thursday)



**Dr. Ali Rizwan**  
 Assistant Professor  
 Department of Industrial Engineering  
 King Abdulaziz University  
 Jeddah, Saudi Arabi

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.

### Sponsors and Partners



# IEOM Society

*"Achieving and Sustaining Operational Excellence"*

[www.ieomsociety.org](http://www.ieomsociety.org)

---

## PARALLEL SESSIONS

---

### November 26, 2019 (Tuesday)

---

9:00 am – 9:30 am, Tuesday: WELCOME ADDRESS

**Dr. Ahmed S. Yamani**  
Rector, Prince Sultan University  
Riyadh, Saudi Arabia

9:30 am – 10:15 am, Tuesday: **OPENING KEYNOTE I**

**H.E. Eng. Osama Al Zamil**  
Deputy Minister at Ministry of Industry and Mineral Resources  
Saudi Arabia

10:10 am – 11:00 am, Tuesday: **OPENING KEYNOTE II**

**Dr. Andreas Schwer**  
CEO  
Saudi Arabian Military Industries-SAMI

11:00 am - 11:15 am: Networking Break

11:15 – 12:15 Keynote:

**Dr. Sami Alnuaim**  
President of the Society of Petroleum Engineers International

12:15 – 1:30 Networking Buffet Lunch/ Dhuhr Prayer

### **Simulation Competition – IEOM Gulf Student Simulation Competition**

Lab G-A11: Tuesday from 3 PM to 11 PM (*students can stay late*)

Wednesday from 3 PM to 6 PM

Winners Annoucement at the Awards Dinner

### **Teams Passed Second Stage and Selected for the Final Stage of the Competition**

Abdullah alothman, King Abdulaziz University  
Mohammad Ghannam, King Fahd University of Petroleum & Minerals  
Arwa Salem, King Abdulaziz University  
Linda Freih, King Abdulaziz University  
Arwaa Jamal Banabilah, King Abdulaziz University  
Emad Hasan Bin Suwedan, Prince Sultan University  
Firas Abdo, Prince Sultan University  
Osama Bha Aldeen, Prince Sultan university  
Abdullah Al-Bassam, King Abdulaziz University  
Abdullah Mushayt, King Abdulaziz University  
Sultan Bafageeh, King Abdulaziz University  
Muaaz Adra, American University of Sharjah  
Khaled Altamimi, King Fahd University of Petroleum & Minerals  
Abdulrahman Alaboudi, King Fahd University of Petroleum & Minerals  
Nuha Aloud, Princess Nourah University  
Reem Aseeri, Princess Nourah University  
Ammar Alobaid, Prince Sultan University  
Abdelaziz Ben Khadra, American University of Sharjah

## Session – Tuesday (November 26): 1:30 – 3:00 pm

**1:30 – 3:00, TUESDAY**

**PANEL SESSION: Tracks: Industrial & Manufacturing**

**Room 1**

Panel Chair – Dr. Mohammed Al-Majed

**Dr. Mohammad Alkahtani**

Chief Technology Officer  
Saudi Arabian Military Industries (SAMI)

**Dr. Hamad Alyousefi**

CEO/DST: TAQNIA  
Defense and Security Technology (DST)

**Eng. Ziad Al Mulsallam**

EVP Engineering & Operation  
Advanced Electronics Company

**1:30 – 3:00, TUESDAY**

**Global Engineering Education I**

**Room 2**

Session Chair: Dr. Sidi M Ahmed Ghaly, Al Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

1:30 – 2:00 (Tuesday)

**Dr. Anwar Ali Yayah 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**

2:00 – 2:30 (Tuesday)

**Dr. R.D. Senthilkumar**

Associate Professor, Department of Mathematics and Applied Sciences  
Middle East College, Al Rusayl, Sultanate of Oman

**Designing Dynamic Education for the 21st Century Students**

2:30 – 3:00 (Tuesday)

**Dr. Sidi M Ahmed Ghaly**

Assistant Professor, Electrical Engineering Department, College of Engineering  
Al Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

**Writing and Assessing Measurable Learning Outcomes of Engineering Program**

**1:30 – 3:00, TUESDAY**

**Industry 4.0 I**

**Room 3**

Session Chair: Dr. Mahmoud Alhader, Al Ain Distribution Company, Al Ain, United Arab Emirates

1:30 – 2:00 (Tuesday) November 26, 2019

**Ilya Simonov**

World Trade Center  
Manama, Kingdom of Bahrain

Leading expert in the development and integration of virtual and augmented reality content and supervisor of end-to-end VR and AR projects

2:00 – 2:30 (Tuesday)

**M Chairul Basrun Umanailo**

Department of Agricultural and Forestry  
University of Iqra Buru, Namlea, 97571, Indonesia

**ID 326 Structure of Social Change in Industrial Society**

M Chairul Basrun Umanailo, Department of Agricultural and Forestry, University of Iqra Buru, Namlea, 97571, Indonesia

2:30 – 3:00 (Tuesday)

**Dr. Mahmoud Alhader**

Asset Information Section Head  
Al Ain Distribution Company  
Al Ain, United Arab Emirates

**1:30 – 3:00, TUESDAY****Environmental and Sustainability****Room 5**

Session Chair: Hadeer Aboelnagah, Prince Sultan University, Riyadh, KSA

**ID 213 Infrastructure Deficiency and Economic Performance in some selected West African Countries**

Abdulsalam S. Ademola and Abdullahi Badiru, Department of Economics and Development Studies, Federal University Dutsinma, Nigeria

**ID 151 A review on cementitious building materials reinforced with date palm fibres**

Wafa Labib, Assistant Professor, Architecture Department, College of Engineering, PSU, KSA

**ID 278 Agile capabilities as necessary conditions for maximising sustainable supply chain performance: empirical evidence from oil and gas industry**

Yahaya Yusuf and Dan'Asabe Godwin Geyi, Lancashire School of Business and Enterprise, Preston PR1 2HE, United Kingdom

**ID 008 Analysis of the Progress in the Implementation of the SDGs in Saudi Arabia**Misaa Alkhayyat, Master student, Renewable Energy Engineering Effat University Jeddah, Saudi Arabia  
Maram Alqathami, Master student, Renewable Energy Engineering Effat University Jeddah, Saudi Arabia  
Tayeb Brahimi, Assistant Professor, Electrical and Computer Engineering Effat University Jeddah, Saudi Arabia**ID 210 Bamboo Bandals for the River Bank Erosion Protection**

Md. Lutfor Rahman, Director, Hydraulic Research Directorate, River Research Institute, Faridpur-7800, Bangladesh

**ID 265 Carbon Emissions and Energy Balance in the Design of a Sustainable Food Waste Network Model**Adel W. Fadhel, Department of Systems Engineering, King Fahd University of Petroleum and Minerals, Dhahran, 31261, Saudi Arabia  
Surendra M. Gupta, Department of Mechanical and Industrial Engineering, Northeastern University, Boston, Massachusetts 02115 U.S.A.**ID 112 Collaborative Learning in Practice; Enhancing Students' Involvement in Sustainability and 2030 Transformational Plan: PSU Go Green Campaign as an Example**Hadeer Aboelnagah, College of Humanities, Prince Sultan University, Riyadh, KSA  
Walaa Metwally, Architectural Engineering Program, Prince Sultan University, Riyadh, KSA**ID 103 Keeping Our Shores Clean; How to Move Towards a Safe Offshore Oil Industry in 21st Century**

Misbah Saboohi, College of Law, Prince Sultan University, Riyadh 11586 KSA

**1:30 – 3:00, TUESDAY****Operations Management****Room 6**

Session Chair: Mostafa F. Fawzy, University of Jeddah, Jeddah, Saudi Arabia

**ID 222 Improving Quality in Higher Education: Considering Surrounding Factors**

Suleman Alammary &amp; Bandar A. Alkhayyal, Dept. of Engineering Management, Prince Sultan University, Riyadh, Saudi Arabia

**ID 032 In Quest of Performance Measures' Golden Thread: A Case Study in Saudi Oil Company**

Abdullah Aldhafer, Michael Bourne, and Monica Franco-Santos, School of Management, Cranfield University, Bedford MK43 0AL, UK

**ID 224 Mathematical Modeling of Microbial Growth in Tilapia Sausage**Eddy Afrianto, Department of Fishery, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia  
Subiyanto, Department of Marine Science, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia  
Pramono Sidi, Department of Mathematics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia**ID 260 Measurement of Employees Resistance to Change using Balanced Scorecard: A Case Study of the Central Correspondence Department at Jeddah Municipality**

Mostafa F. Fawzy, Industrial and Systems Engineering Department, University of Jeddah, Jeddah, Saudi Arabia

**ID 014 Modelling and Mapping University Business Processes**

Bachtiar H. Simamora, Bina Nusantara University, Jakarta Barat, Indonesia

**ID 158 Overview and Applications of the Integrated Approaches of Maintenance and Process Quality Control**Mohammed A. Noman<sup>1,2</sup>, Adel AL-Shayea<sup>1</sup>, Emad Abouel Nasr<sup>1,3</sup>, Abdulaziz M. El-Tamimi<sup>1</sup>, and Husam Kaid<sup>1</sup><sup>1</sup>Industrial Engineering Department, College of Engineering, King Saud University, Riyadh 11421, Saudi Arabia<sup>2</sup>Industrial Engineering Department, College of Engineering, Taiz University, Taiz, Yemen<sup>3</sup>Faculty of Engineering, Mechanical Engineering Department, Helwan University, Cairo 11732, Egypt**1:30 – 3:00, TUESDAY****Undergraduate Student Paper Competition****Room 7 (Faculty Lounge)**

Session Chair: Judging Committee Chair

**ID 198 A multi-period inventory replenishment policy for ATM network**

Abdullah Alsagoor, Abdulrahman Alharbi, and Mohammad A. M. Abdel-Aal, Systems Engineering Department, King Fahd University of Petroleum and Minerals, 5063, Dhahran 31261, Saudi Arabia

**ID 125 Identifying Enablers of Supply Chain Alignments**

Abrar A. Alsharif and Abdulaziz T. Almaktoom, Department of Operations and Information Management, Effat University, Jeddah, Saudi Arabia

**ID 051 Tunelling Automated Guided Vehicle Mobility Optimization by Using Taguchi Method**

Amizi Noor, Sha'ri Mohd Yusof, Khairul Rijal Jamaludin, Razak Faculty Of Technology And Informatics, Universiti Teknologi Malaysia, Kuala Lumpur

**3:00 – 3:30: Networking Break**

## Session – Tuesday (November 26): 3:30 – 5:00 pm

**3:30 – 5:00, TUESDAY**
**PANEL SESSION: Tracks: Transport and Logistics**
**Room 1**

Panel Chair – Eng. Khalid Alghamdi

**Dr. Meshal Almofadhi**

 Logistics Consultant  
 Saudi Industrial Development Fund – SIDF

**Mr. Abdulrahman Al-Mubarak**

 Chief Ground Handling Officer  
 Saudia Cargo

**Mr. Rayan Qutub**

 CEO  
 King Abdullah Port

**Khalid Albakry**

 CEO  
 Baas International Group

**3:30 – 5:00, TUESDAY**
**Global Engineering Education II**
**Room 2**

Session Chair: Dr. Umar Mustafa Al-Turki, King Fahd University of Petroleum &amp; Minerals, Dhahran, Saudi Arabia

3:30 – 3:50 (Tuesday)

**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**

3:50 – 4:10 (Tuesday) D

**Salah Elaskari, Ph.D., IWE, P.Eng.**

 IE Accreditation Coordinator  
 Assistant Professor, Industrial Engineering Department  
 Faculty of Engineering  
 University of Tabuk, Saudi Arabia

**Reverse Engineering and 3D Printing Technology: A Case Study**

4:10 – 4:30 (Tuesday)

**Dr. Abdullatif AlMunifi**

 Associate Professor  
 Civil Engineering Department  
 Qassim University, KSA

4:30 – 5:00 (Tuesday)

**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**
**3:30 – 5:00, TUESDAY**
**Industry 4.0 / Industry Solutions II**
**Room 3**

Session Chair: Ahmed Alghamdi, Director of Quality and Internal Audit &amp; Program Manager, Riyadh, Saudi Arabia

3:30 – 4:00 (Tuesday)

**Majed Alsubiei**

Mechanical/Manufacturing Engineer

**PLM and Digital Manufacturing and Factory**

4:00 – 4:30 (Tuesday)

**Ahmed Alghamdi**

Director of Quality and Internal Audit & Program Manager  
Riyadh, Saudi Arabia

4:30 – 5:00 (Tuesday)

**Dr. Rahmat Nurcahyo**

Industrial Engineering Department, Faculty of Engineering  
Universitas Indonesia, Depok, 16424, Indonesia

**ID 102 Designing Quality Assurance System Using Gap Analysis Method on Automotive Spare Parts Company**

Rahmat Nurcahyo, Maga Arsena, and Muhammad Habiburrahman, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Depok, 16424, Indonesia

**3:30 – 5:00, TUESDAY**

**Energy and Water**

**Room 5**

Session Chair: Leher Farooq, United Arab Emirates University, Al Ain, Abu Dhabi, UAE

**ID 019 A hybrid Wind - Solar Power System for Remote areas of Saudi Arabia**

Mashaal Rajeh and Ahmed Bensenouci, Electrical and Computer Engineering Department, Effat University, Jeddah, KSA

**ID 105 A review on the Electrodeposition of CIGS Thin-Film Solar Cells**

Leher Farooq, Abdulrahman Alraeesi and Salem Al Zahmi, Department of Chemical and Petroleum Engineering, United Arab Emirates University, Al Ain, Abu Dhabi, UAE

**ID 130 Adaptive Cuckoo Search Algorithm for Solving Dynamic Economic Dispatch Large Scale System**

Rizka Abdullah and Farizal, Engineering, Industrial Engineering, University of Indonesia, Jalan Salemba Raya 4, DKI Jakarta, Indonesia

**ID 279 Bioadsorption of Mercury (Hg) in Aqueous Solution through Mexican Coasts' Macroalgae Pelagic Sargassum**

Andrea Paola Espinosa Treviño, Daniel Oliveira Galvão do Vale, José Orlando Alemán Valdés, Roberta Paola González Orozco, Sandra Tenorio Bolaños, Sheila Cassandra Coronel Sandoval, Basic Sciences, Universidad de Monterrey, San Pedro Garza García, Nuevo León, México

**ID 054 Peak Oil: to what extent is it a threat to Saudi Arabia energy security?**

Samar Khan, Assistant Professor at Effat University, Jeddah, KSA  
Hafez Abdo, Professor of Accounting at Sheffield Hallam University, Sheffield, UK

**3:30 – 5:00, TUESDAY**

**Industrial and Manufacturing**

**Room 6**

Session Chair: Thaier Alawadh, UAEU, Al Ain, United Arab Emirates

**ID 335 Innovation or Marketing: The Analysis of R&D and Advertising Budget of Indonesian Manufacturing Firms**

Evo Sampetua Hariandja, Universitas Pelita Harapan, Tangerang, Banten, Indonesia

**ID 281 Control and Measuring Consumption of Energy inside Mexican Households**

César H. Gutiérrez, Gerónimo González, Jorge Gandar, Carlo M. Orozco, Ricardo Tafich and Pedro Canto, Tecnológico de Monterrey, Mexico

**ID 133 CZTS Study Using Electrodeposition**

Thaier Alawadh, UAEU, Al Ain, United Arab Emirates

**ID 318 Availability of Clean Water, Sanitation and Electricity towards Economic Growth in Indonesia with 500 regencies and cities**

John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia  
Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia

**ID 021 Exploring Performance Indicators of Small and Medium Enterprises**

Nor Mahirah Mustapha, Universiti Malaysia Pahang, Gambang campus, Pahang, Malaysia  
Shahryar Sorooshian, School of Business, Economics and Law, University of Gothenburg, Gothenburg, Sweden  
Noor Azlinna Azizan, College of Business Administration, Prince Sultan University, Riyadh, Saudi Arabia

**3:30 – 5:00, TUESDAY**

**Competitions**

**Room 7 (Faculty Lounge)**

Session Chair: Judging Committee Chair

**GRADUATE STUDENT PAPER COMPETITION**

**ID 104 Multi-Criteria Group Decision-Making for Fire Station Staffing**

Abdulaziz S. Alzahrani and Hesham K. Alfares, Systems Engineering Department, King Fahd University of Petroleum & Minerals  
Dhahran 31261, Saudi Arabia

**ID 160 Design and implementation of deadlock control for automated manufacturing systems**

Husam Kaid, King Saud University, Riyadh, Saudi Arabia

**LEAN SIX SIGMA COMPETITION**

**ID 154 A Case of Eliminating Wastes using 5S for a Household Electrical Appliance Warehouse**

Ghalia W. Zagzoog, Mawadda M. Samkari, and Abdulaziz T. Almaktom, Department of Operations and Information Management, Effat University  
PO Box 34689, Jeddah 21478, Kingdom of Saudi Arabia

**LOGISTICS AND SUPPLY CHAIN COMPETITION****ID 077 Criminal Supply for the Generated Organ Demand**

Zeeahan Asim, Sir Syed University of Engineering and Technology, Karachi, Pakistan  
Shahryar Sorooshian, University of Gothenburg, Gothenburg, Sweden

**MASTERS THESIS COMPETITION****ID 157 Design and Implementation of Deadlock Control in Manufacturing Systems**

Husam Abdu Ghaleb Kaid, Industrial Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia

**ID 131 Supply Chain Network Redesign, Case Study in Lubrication Industry**

Khalid Al-Khodhairi and Ahmad Al Hanbali, Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM)  
Dhahran, Saudi Arabia

## 5:00 – 6:30 pm, Tuesday: Poster Competition

### 5:00 – 6:30 pm (Tuesday, November 26): Poster Session

**ID 015 Smart Stick for Blind Persons**

Hammad Ur Rehman, Bahria University, Karachi, Pakistan

**ID 016 Real Time Car Engine Condition Monitoring By Using Instantaneous Angular Speed Analysis (IAS)**

Abdullrhman Sait and Jamal Alfifi, Mechanical Engineering Technology Department, Yanbu Industrial College, Yanbu, Kingdom of Saudi Arabia

**ID 021 Exploring Performance Indicators of Small and Medium Enterprises**

Nor Mahirah Mustapha, Universiti Malaysia Pahang, Gambang campus, Pahang, Malaysia  
Shahryar Sorooshian, School of Business, Economics and Law, University of Gothenburg, Gothenburg, Sweden  
Noor Azlinna Azizan, College of Business Administration, Prince Sultan University, Riyadh, Saudi Arabia

**ID 022 Categorization of Indicators for Performance of Small and Medium Enterprises**

Nor Mahirah Mustapha, Universiti Malaysia Pahang, Gambang Campus, Pahang, Malaysia  
Shahryar Sorooshian, School of Business, Economics and Law, University of Gothenburg, Gothenburg, Sweden  
Noor Azlinna Azizan, College of Business Administration, Prince Sultan University, Riyadh, Saudi Arabia

**ID 106 Biometrics based on human traits and characteristics appearing on tongues among individuals to be used as a print**

Nora Abood El-Manhali, D-Magbola Mamon, Fatimah El-Manhali and Fatimah El-Zaebi, Nora Al-Rashed, Saudi Arabia

**ID 153 Inventory and Quality Management: the Case of Dairy Industries**

Lujain T. Jan, Jumana K. Alqurashi, Hanan H. Masood, Joud T. Alnounou, Leen E. Koshak, and Abdulaziz T. Almaktoom, Department of Operations and Information Management, Effat University, PO Box 34689, Jeddah 21478, Kingdom of Saudi Arabia

**ID 196 Analysis of Causality Relationship between the Composite Stock Price Index (CSPI) Jakarta with Large Companies in Indonesia**

Sukono, Endang Soeryana and Natasa Belladina, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
Agus Santoso, Department of Statistics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
Puspa Liza Ghazali, Faculty of Business and Management, Universiti Sultan Zainal Abidin, Terengganu, Malaysia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 197 ARIMA-GARCH Model for Estimation of Value-at-Risk and Expected shortfall Some of Stocks in Indonesian Capital Market**

Sukono, Endang Soeryana and Alberto Simanjuntak, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
Agus Santoso, Department of Statistics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
Puspa Liza Ghazali, Faculty of Business and Management, Universiti Sultan Zainal Abidin, Terengganu, Malaysia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 199 The Validation of New Formula of Islamic Home Financing Among Finance Expertise**

Puspa Liza Ghazali, Sharifah Arni Syed Jaaffar, Hazimi Foziah and Roslida Abdul Razak, Faculty of Business and Management, Universiti Sultan Zainal Abidin, 21300 Kuala Nerus, Terengganu, Malaysia  
Lazim Omar, Faculty of Contemporary Islamic Studies, Universiti Sultan Zainal Abidin, 21300 Kuala Nerus, Terengganu, Malaysia  
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 200 Disabled Learning Students Before, During, and After the Rehabilitation Tools: A Case Study**

Puspa Liza Ghazali, Hazimi Foziah and Abdul Malek A. Tambi, Faculty of Business and Management, Universiti Sultan Zainal Abidin, 21300 Kuala Nerus, Terengganu, Malaysia  
Mustafa Mamat, Faculty of Informatic & Computing, Universiti Sultan Zainal Abidin, Terengganu, Malaysia, 22000 Besut, Terengganu, Malaysia  
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 201 An Enumerative Algorithm for the Maximum Clique Problem**

Mochamad Suyudi, Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Tembila Campus, 2200 Besut, Terengganu, Malaysia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Johor, Malaysia

**ID 202 Find The Maximum Clique by Graph Coloring Using Heuristic Greedy**

Mochamad Suyudi, Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia

Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Tembila Campus, 2200 Besut, Terengganu, Malaysia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Johor, Malaysia

**ID 203 Estimation of Aggregate Claim Risk Model on Insurance for Damage to Buildings Due to Flooding of the Citarum River in Bandung Indonesia**

Pramono Sidi, Department of Mathematics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Agus Santoso, Department of Statistics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Malaysia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Subiyanto, Department of Marine Science, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 204 Measuring the Level of Ability to Pay Flood Insurance Premiums and the Factors That Influence It by Using the Contingent Valuation Method**

Pramono Sidi, Department of Mathematics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Agus Santoso, Department of Statistics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Malaysia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Subiyanto, Department of Marine Science, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 205 Analysis of Factors Influencing Students' Decisions to Choose Universitas Terbuka**

Agus Santoso, Department of Statistics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Tina Ratnawati, Department of Urban and Regional Planning, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Mulyatno, Department of Mathematics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 206 Differences in Academic Achievement of Male and Female Students in the Faculty of Sciences and Technology Universitas Terbuka**

Agus Santoso, Department of Statistics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Tina Ratnawati, Department of Urban and Regional Planning, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Mulyatno, Department of Mathematics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 211 Modeling and Forecasting Daily Temperature in Bandung**

Solichatus Zahroh, Yuyun Hidayat and Resa Septiani Pontoh, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Agus Santoso, Department of Statistics, Faculty of Sciences and Technology, Universitas Terbuka, Indonesia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 212 Effect Contextual Factor toward Entrepreneurial Intention among Young Educated**

Dedi Iskanto, Puspa Liza Ghazali, Asyraf Aftanorhan, Faculty of Business and Management, Universiti Sultan Zainal Abidin, Terengganu, Malaysia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 214 Estimation Models of the Impacts of the Economic and Population Growth to Changes in CO2 Emissions in Indonesia using the Cobb-Douglas Production Function**

Ruly Budiono and Muhamad Nurzaman, Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Hafizan Juahir, East Coast Environmental Research Institute (ESERI), Universiti Sultan Zainal Abidin, Malaysia  
 Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Malaysia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 215 Analysis of Determination of Adjusted Premium Reserves for Last Survivor Endowment Life Insurance Using the Gompertz Assumption**

Riaman, Sukono, and Sudradjat Supian, Dept. of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Parit Raja, Johor, Malaysia

**ID 216 Classical Assumption Test for Testing the Influence of The Composite Stock Price Index, Inflation Level, BI Rate, and Rupiah Exchange Rate Toward Stock Price in Indonesia**

Riaman, Sukono, Sudradjat Supian, Dept. of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Parit Raja, Johor, Malaysia

**ID 223 Operations and Quality Management: the Case of Hospitality Industry**

Shumokh A. Faqeeh, Raghad M. Bafageeh, Rawan A. Salah, and Abdulaziz T. Almaktoom, Department of Operations and Information Management, Effat University, PO Box 34689, Jeddah 21478, Kingdom of Saudi Arabia

**ID 231 Improvement in the Quality of Water Contaminated with Mercury through a Filtering Material Made with Mango Seed**

Robertha Rosas, Ángel Alberto Castro Casales, Alejandra Cantú Ulibarri, Francisco Valdés de la Garza, Maricarmen Gutierrez Faustro, Francisco Treviño Ordaz, Industrial Engineering Department, Tecnológico de Monterrey, Monterrey, Nuevo Leon, 64849, MX, Mexico

**ID 232 Study on the Use of Alternative Concrete Mix Materials on Hollow Precast Foundations**

Nawir Rasidi, Department of Civil Engineering, Politeknik Negeri Malang, Malang, INDONESIA  
 Sri Wiyoho Mudjanarko, Department of Civil Engineering, Narotama University, Surabaya, 60117, INDONESIA  
 Dadang Supriyanto, Department of Civil Engineering, Universitas Negeri Surabaya, Surabaya, INDONESIA

Firdaus Pratama Wiwoho, 4 Department of Civil Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, 60117, INDONESIA  
 Mohd Haziman Wan Ibrahim, 5 Fakulti Kejuruteraan Awam Dan Alam Sekitar, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia  
 Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

**ID 236 Analysis of the Effect of Career Planning, Training and Career Development on Employee Job Performance**

Muhamad Djufri

Akademi Keuangan dan Bisnis Indonesia Internasional (AKBII), Bandung, Indonesia  
 Abdul Malek Bin A. Tambi, Faculty of Economics and Management Science, Universiti Sultan Zainal Abidin, Malaysia  
 Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Malaysia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Rully Budiono, Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 237 Dynamical Analysis of Carbon Concentration Model Due to the Interaction with Biomass Production Based on Predator-Prey**

Rully Budiono, Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Jatinangor, Sumedang, Jawa Barat, Indonesia

Hafizan Juahir, East Coast environmental Research Institute (ESERI), Universiti Sultan Zainal Abidin, Kuala Terengganu, Terengganu, Malaysia  
 Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, 21300 Kuala Terengganu, Terengganu, Malaysia  
 Sukono, Dept. of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Jatinangor, Sumedang, Jawa Barat, Indonesia  
 Adam Sukma Putra, Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Gajah Mada, Sekip Utara, Yogyakarta, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 262 Sargassum-based filter as a water decontaminant of heavy metals in Mexico**

Christofer James Cárdenas Millán, Tecnológico de Monterrey, Monterrey, Mexico

**ID 266 Removal of Mercury in Water using Sargasso Sea**

Ana Priscila León Guadiana, María Fernanda Manllo Saide, Daniela Leal Arrambide, Rene Lozano Acosta, María de la Luz Giovana Díaz Alemán, Daniela Alejandra Díaz González, Luis Andrés Martínez Dávalos, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Nuevo León, Mexico

**ID 267 The Influence of Loyalty, Education & Training and Performance on Job Promotions**

Muhamad Djufri, Akademi Keuangan dan Bisnis Indonesia Internasional (AKBII), Bandung, Indonesia  
 Abdul Malek Bin A. Tambi, Faculty of Economics and Management Science, Universiti Sultan Zainal Abidin, Malaysia  
 Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Malaysia  
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Rully Budiono, Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 268 Purification of Mercury in Water with Lime Peel**

Alejandro Souza Sánchez, Sergio Alejandro Morado Frausto, Jose Adrian R. Bours Gandara and Yael Prieto González, ITESM, Monterrey, Mexico

**ID 282 Analysis of Factors Affecting Consumer Decisions to Make a Purchase**

Bab Foster, University of Business and Informatics Indonesia, Sukapura, Kiaracandong, Bandung City, West Java 40285, Indonesia  
 Muhamad Deni Johansyah, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 283 The Influence of Online Marketing Against Interest in Buying SMEs Products**

Muhamad Deni Johansyah, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
 Bab Foster, University of Business and Informatics Indonesia, Sukapura, Kiaracandong, Bandung City, West Java 40285, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 290 Reduction in Rejection Rate of Polypropylene Bags via Six Sigma**

Muhammad Hamad Sajjad, Industrial Engineering Department, College of Engineering, Alfaisal University, Riyadh, Saudi Arabia

**ID 310 Multi Agent Systems in Concurrent and Collaborative Engineering: A Review**

Wadea Ameen<sup>1,2</sup> and Saber Darmoul<sup>1</sup>

<sup>1</sup>Industrial Engineering Department, College of Engineering, King Saud University, Riyadh, 11421, Saudi Arabia

<sup>2</sup>Advanced Manufacturing Institute, King Saud University, Riyadh, Saudi Arabia

**ID 315 Potential of Parabolic Trough Solar Concentrator for Electric Energy Production**

Abed AlrzaqAlshqirate<sup>1,2</sup>, and Adel Alblawi<sup>1</sup>, M. Asfer<sup>1</sup>

<sup>1</sup> Department of Mechanical Engineering, Engineering College, Shaqra University, KSA

<sup>2</sup> Al-Balqa Applied University, Jordan

**ID 328 The Bioregional Principal at Banyuwangi Region Development in the Context of Behavior Maintenance**

Ratna Darmiwati, Catholic University of Darma Cendika, Surabaya, Indonesia

**ID 331 Legality of Electronic Business Actor Registration Regulations (E-Commerce)**

Wening Nalurita, Student of Magister Kenotariatan, Faculty of Law, Universitas Narotama, Surabaya, Indonesia  
 Nynda Fatmawati Octarina, Faculty of Law, Universitas Narotama, Surabaya, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 332 Legalization of Rules for Determination of the Fake News Spreading Suspect As Seen From Law on Electronic Information and Transaction**

Nynda Fatmawati, Faculty of Law, Universitas Narotama, Surabaya, Indonesia  
 Anissatul Ulfa, Faculty of Law, Universitas Narotama, Surabaya, Indonesia  
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 333 Legalization of Human Rights Violations**

Nynda Fatmawati Octarina, Faculty of Law, Universitas Narotama, Surabaya, Indonesia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 337 Ethics in Artificial Intelligence**

Ghada Al-Omran, Sarah Al-Abdulahadi and Roohi Jan, Prince Sultan University, Riyadh, Saudi Arabia

**ID 342 Sustainable Mobility and Transportation Research in Indonesia**

Muhammad Ikhsan Setiawan, Department of Civil Engineering, Narotama University, Surabaya, Indonesia  
Mohd Adib Bin Mohammad Razi, Faculty of Civil and Environmental Engineering, University Tun Hussein Onn Malaysia, Johor Malaysia  
Ronny Durrotun Nasihien, Department of Civil Engineering, Narotama University, Surabaya, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 343 Indonesia Research in Tourism and Digital Tourism**

I Nyoman Sudapet, Department of Management, Narotama University, Surabaya, Indonesia  
Agus Sukoco, Department of Management, Narotama University, Surabaya, Indonesia  
Mohd Haziman bin Wan Ibrahim, Faculty of Civil and Environmental Engineering, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia  
Muhammad Ikhsan Setiawan, Department of Civil Engineering, Narotama University, Surabaya, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 344 Fish and Solar Cell Technology Research Trend**

Muhammad Ikhsan Setiawan, Department of Civil Engineering, Narotama University, Surabaya, Indonesia  
Dahlan Abdullah, Department of Informatics, Universitas Malikusaleh, Aceh, Indonesia  
Veronika Nugraheni Sri Lestari, Fakultas Ekonomi dan Bisnis, Universitas Dr. Soetomo Surabaya, Indonesia  
Yuniningsih, Fakultas Ekonomi dan Bisnis, Universitas Pembangunan "Nasional" Jawa Timur, Indonesia [yuniningsih@upnjatim.ac.id](mailto:yuniningsih@upnjatim.ac.id)  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 345 Tourism, Maritime Research in the World and its impact in Indonesia**

I Nyoman Sudapet, and Agus Sukoco, Department of Management, Narotama University, Surabaya, Indonesia  
Muhammad Ikhsan Setiawan, Department of Civil Engineering, Narotama University, Surabaya, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 346 Sigit Trimayanto, Mukhamad Rojib Aminudin, and Laila Rezty Hertiwi**

Department of Chemistry, State University of Surabaya, Ketintang Street, Surabaya 60231, Indonesia

**Undergraduate Student Paper Poster Competition****ID 338 Design and development of smart door closer mechanism**

Khaled Musleh, Walid Aljadaan, Omar Almansour, Saud Sweidan, Emad Sweidan, and Tamer A. Sebaey, Engineering Management Department, College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

**Undergraduate Research Poster Competition****ID 339 Design and development of a novel multifunctional travelling pillow**

Mohammed ALGharably, Abdullah Albathi, Mohammed ALhoshan, Mohammed ALajlan, Ammar kachoua and Tamer A. Sebaey, Engineering Management Department, College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

**ID 340 Design and development of a water gallons flipper for the Saudi market**

Yazan Faroun, Khaled Al-Hindawi, Mohammed Al-Mulki, Hassan Al-Smadi, Kusai Saad, and Tamer A. Sebaey, Engineering Management Department, College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

**ID 341 Development of a multifunctional hand watch to store and organize pills for elderly people**

Nawaf AlMehemeed, Faisal AlDebaikhi, Jaser AlJaser, Abdulelah AlMoudayfer, Fahad AlRobaian, and Tamer A. Sebaey, Engineering Management Department, College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

---

## November 27, 2019 (Wednesday)

---

### Session: 8:30 – 10:30 am

**8:30 – 10:00, WEDNESDAY**

**Industry 4.0 / Industry Solutions**

**Room 1 (Auditorium 1)**

Session Chair: Md. Abdullah Al Mahmud, Manarat International University, Dhaka, Bangladesh

8:30 – 9:00 (Wednesday)

**Mr. Md. Abdullah Al Mahmud**

Founder & CEO, Thriving Skills Limited Assistant Professor of MIS  
Manarat International University, Dhaka, Bangladesh

**Skills Focused Self-education for Industry 4.0**

9:00 – 9:30 (Wednesday)

**Ali Akbar**

Industrial IoT Expert  
Siemens Malaysia Appointed Trainer for IIOT  
IOT SATA PVT. LTD. Subang Bestari, Shah Alam  
Selangor, Malaysia  
9:30 – 10:00 (Wednesday)

**M Chairul Basrun Umanailo**

Department of Agricultural and Forestry  
University of Iqra Buru  
Namlea, 97571, Indonesia

**ID 327 Negative Impact of Industry on Society Using Ralph Dahrendorf's Conflict Theory**

M Chairul Basrun Umanailo, Department of Agricultural and Forestry, University of Iqra Buru, Namlea, 97571, Indonesia  
Rita Dwi Pratiwi, Stikes Widya Dharma Husada, Tangerang, Indonesia  
Fenita Purnama Sari Indah, Stikes Kharisma Persada, Indonesia

**8:30 – 10:00, WEDNESDAY**

**Global Engineering Education**

**Room 2 (Auditorium 2)**

Session Chair: Nadeem Hassan, Albaha University, Kingdom of Saudi Arabia

8:30 – 8:50 (Wednesday)

**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

8:50 – 9:10 (Wednesday)

**Eng. TaeYeual Yi**

Lecturer, PMP®, PE, LEED®APs, USGBC Faculty  
Department of Engineering Management  
Prince Sultan University, Riyadh, KSA

**Dr. SukHee Yun**

Associate Professor, Department of Architectural Engineering  
Prince Sultan University, Riyadh, KSA

**ID 357 Interdisciplinary Approach in Engineering Education: Case studies of the elective course “Additive Manufacturing” and the special training course “Algorithm Architecture Design Workshop” in Prince Sultan University.**

9:10 – 9:30 (Wednesday)

**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

9:30 – 9:50 (Wednesday)

**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**

**8:30 – 10:00, WEDNESDAY**

**Doctoral Dissertation Competition**

**Room 7 (Faculty Lounge)**

Session Chair: Judging Committee Chair

**ID 084 A review on the current status of facility management practices in building industry and prospective BIM intervention to manage the facilities effectively during its service life**

Abdulaziz Aldowayan, University of Sharjah, UAE

**ID 162 Application of Modified NSGA II (M-NSGA II) Algorithm to large Scale problems**

Mohamed H. Gadallah and Abdel Rahman Ali M. Ahmed, Mechanical Design & Production Department, Faculty of Engineering, Cairo University

**ID 053 Breach of Psychological Contracts and Discretionary Behaviours among Academic Staff in Nigerian Universities**

Mustapha Olanrewaju Aliyu, Department of Industrial Relations and Personnel Management, Faculty of Management Sciences, University of Ilorin, Nigeria

10.00 – 10.15 – Break

10:15 – 11:00 am: **Wednesday Morning Keynote I**

**Dr. Mohammed Al-Majed**  
Senior Advisor to the Minister, Ministry of Industry and Mining  
Saudi Arabia

11:00 – 11:45 am: **Wednesday Morning Keynote II**

**Eng. Suliman Almazroua**  
CEO  
National Industrial Development & Logistics Program

---

**11:45 – 1:00 – Networking Buffet Lunch / Dhuhr Prayer**

---



---

## Session – Wednesday (November 27): 1:00 – 2:30 pm

<b>1:00 – 2:30, WEDNESDAY</b>	<b>PANEL SESSION: Entrepreneurship and Innovation</b>	<b>Room 1</b>
-------------------------------	---	---------------

Panel Chair –

Panel Speakers

**Hattan Ahmed**

Head of the Entrepreneurship Center  
King Abdullah University of Science and Technology

**Deemah AlYahya**

Digital Economy Advisor

<b>1:00 – 2:30, WEDNESDAY</b>	<b>Global Engineering Education IV</b>	<b>Room 2</b>
-------------------------------	--	---------------

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

1:20 – 1:40 (Wednesday)

**Dr. Abdul Talib Bon**

Professor of Technology Management  
Department of Production and Operations Management  
Universiti Tun Hussein Onn Malaysia

1:40 – 2:00 (Wednesday)

**Dr. Samar S. Khan**

Dean, Effat College of Business  
Effat University  
Jeddah, Kingdom of Saudi Arabia

**Dr. Abdulaziz T. Almaktoom, CSCA**

Assistant Professor

Department of Operations and Information Management  
Effat University, Jeddah, Saudi Arabia

**ID 336 Saudi Universities Education System: A Combination of Practical and Theoretical Knowledge**

2:00 – 2:20 (Wednesday)

**Dr. Prakash Kumar Udipi, FIE**  
Faculty, Program Manager  
Centre For Post Graduation Studies  
Middle East College  
Muscat, Sultanate of Oman

**Title of the Talk: Developing Lean Academic Initiatives for Flipped Teaching**

**1:00 – 2:30, WEDNESDAY**

**Industry 4.0 / Industry Solutions IV**

**Room 3**

Session Chair: Mohammed Khurshed Akhtar, King Abdulaziz University (KAU), Jeddah, Saudi Arabia

1:00 – 1:30 (Wednesday)

**Mohammed Khurshed Akhtar, Ph.D.**  
Data Scientist at KAU-Web Observatory for Web Studies  
King Abdulaziz University (KAU)  
Jeddah, Saudi Arabia

1:30 – 2:00 (Wednesday)

**Dr. Vijey Thayanathan**  
Associate Professor  
Department of Computer Science  
Faculty of Computing and Information Technology  
King Abdul-Aziz University  
Jeddah, Saudi Arabia

**IoT for Industry 4.0 with Photonic Technology**

2:00 – 2:30 (Wednesday)

**Jalal Al-Muhtadi, PhD**  
Assistant Professor, College of Computer & Information Sciences,  
Center of Excellence in Information Assurance (CoEIA), Director,  
King Saud University, Riyadh, Saudi Arabia

**1:00 – 2:30, WEDNESDAY**

**Industrial and Manufacturing**

**Room 4**

Session Chair: Wadea Ameen, King Saud University, Riyadh, 11421, Saudi Arabia

**ID 136 A Design of Enterprise Systems View on A Retailer Cashiers Shifts Scheduling**

Mubarak Hakami, Abdulaziz Almoabdi, Abdullah Almoabadi and Mohammed Mahfouz, Industrial Engineering Department, King Abdulaziz University, Jeddah, Makkah, KSA

**ID 291 Achieving sustainability in manufacturing systems: A quantities study**

Reda Nujoom, Maintenance Department, Transport Ministry, King Abdul Aziz Rd, Riyadh 11178, Saudi Arabia  
Ahmed Mohammed, Faculty of Transport & Logistics, Muscat University, Al Ghubra North, Muscat, Oman

**ID 013 An Assessment of Occupational Health and Safety (OHS) Standard at RMG Production Sewing Floor in Bangladesh**

Mohammad Morshed, Department of Mechanical and Production Engineering, AUST, Dhaka, Bangladesh  
Fazle Rabbi Zaber, Department of Materials and Production, Aalborg University, Copenhagen, Denmark  
Abu Hamja, Department of Mechanical and Production Engineering, AUST, Dhaka, Bangladesh

**ID 156 Deadlock Control Design and PLC Implementation of Automated Manufacturing Systems**

Husam Kaid<sup>1</sup>, Abdulaziz M. El-Tamimi<sup>1</sup>, Abdulrahman Al-Ahmari<sup>1</sup>, Zhiwu Li<sup>3,4</sup>, Emad Abouel Nasr<sup>1,2</sup>, and Mohammed A. Noman<sup>1</sup>  
<sup>1</sup> Industrial Engineering Department, College of Engineering, King Saud University, Riyadh, 11421, Saudi Arabia  
<sup>2</sup> Mechanical Engineering Department, Helwan University, Cairo, Egypt  
<sup>3</sup> Institute of Systems Engineering, Macau University of Science and Technology, Taipa, Macau  
<sup>4</sup> School of Electro-Mechanical Engineering, Xidian University, Xi'an 710071, P. R. China

**ID 209 Design the support structures for fused deposition modeling 3D printing**

Wadea Ameen<sup>1,2</sup>, Syed Hammad Mian<sup>2</sup>, Hisham Alkhalefah<sup>1,2</sup>  
<sup>1</sup> Industrial Engineering Department, College of Engineering, King Saud University, Riyadh, 11421, Saudi Arabia  
<sup>2</sup> Advanced Manufacturing Institute, King Saud University, Riyadh, Saudi Arabia

**ID 289 Development of a CAPP System for Prismatic Parts in Hybrid Manufacturing**

Osama Abdulhameed<sup>1</sup> and Abdulrahman Al-Ahmari<sup>1,2</sup>

<sup>1</sup> Industrial Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia

<sup>2</sup> Princess Fatima Alnijiris's Research Chair for Advanced Manufacturing Technology (FARCAMT Chair), Advanced Manufacturing Institute, King Saud University, Saudi Arabia

**1:00 – 2:30, WEDNESDAY****Operations Management****Room 5**

Session Chair: Rahmat Nurcahyo, Universitas Indonesia, Depok, Indonesia

**ID 080 The Impact of Entrepreneurial Leadership, TQM Practices, and Innovation Management on Organizational Performance of SMEs in Kuwait**

Khairul Anuar Mohd Ali and Fahad Sawaeen, Graduate School of Business, Universiti Kebangsaan Malaysia, UKM Bangi, Selangor, Malaysia

**ID 034 The Role of Quality Control and Management with Good Corporate Governance on Fraudulent Financial Reporting: Evidence in Indonesia**

Imam Ghozali, Mochammad Chabachib and Sugeng Wahyudi, Department of Management Faculty Economics and Business, Diponegoro University, Semarang, Indonesia

Imang Dapit Pamungkas, Ph.D Student Department Accounting Faculty Economics and Business, Diponegoro University, Semarang, Indonesia

**ID 208 Use of Fractional Factorial Design and AHP to Determining the Best Marketing Strategy for a Lubricant Company**

Anas Al-Dawalibi and Ibrahim H. Al-Dali, Systems Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia  
Bandar A. Alkhayyal, Department of Engineering Management, College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

**ID 234 Using Agent-Based Modeling for IoT Application A Case Study of Retail Pharmacy in Saudi Arabia**

Amr Alghamdi, Bader Bugshan, Khalid Al-Ghafeer, Abdulkareem Alshammari, and Mohammed Basingab, Industrial Engineering Department, King Abdulaziz University, Jeddah, 22252, Saudi Arabia

**ID 005 Using Industrial Engineering Tools in the Realization of Saudi Vision 2030 for Supporting Local Industry**

Said Ali Hassan Elkality, Operations Research and Decision Support Department, Faculty of Computers and Information, Cairo University, Egypt  
Wael Salah Al-Saeed Hassanein, Department of Industrial Engineering, King Abdulaziz University, Jeddah, Saudi Arabia

**ID 083 The Comparison of Student Satisfaction Between Certified and Non-Certified ISO 9001 Schools**

Rahmat Nurcahyo, Asih Meiliana, Zulfadlillah, and Muhammad Habiburrahman, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, Indonesia

**1:00 – 2:30, WEDNESDAY****Transport and Logistics****Room 6**

Session Chair: Asad Ullah, Department of Management studies, Middle East College, Muscat, Oman

**ID 218 A Multi-Objective Mathematical Model for Closed Loop Supply Chain Design**

Awsan Mohammed\*, Salih Duffuaa\*\* and Ahmed M. Ghaithan\*  
Systems Engineering Department\*  
Construction Engineering and Management Department\*  
King Fahd University of Petroleum & Minerals, Dhahran, 31261, Saudi Arabia

**ID 110 - Evaluation of performance in the supply chain of t-shirts in the north of Ecuador**

Neyfe Sablón – Cossío, Postgraduate Institute, Production and Services Group, Technical University of Manabi, Portoviejo, Ecuador  
Erik Orozco – Crespo, Career Industrial Engineering, North Technical University, Ibarra, Ecuador  
José Armando Pancorbo – Sandoval, Equinoctial Technical University, Santo Domingo, Ecuador  
Leonardo Manuel Cuétara – Sánchez, Technical University of Manabi, Portoviejo, Ecuador  
Sonia Emilia Leyva – Ricardo, Equinoctial Technical University, Santo Domingo, Ecuador  
Andrés Marcelo Moreno – Monge, Career Industrial Engineering, North Technical University, Ibarra, Ecuador

**ID 207 Identifying the Logistic Collaboration in SCM: A Study of Indian Automobile Manufacturing Companies**

Asad Ullah, Department of Management studies, Middle East College, Muscat, Oman

**ID 311 System Dynamics Modeling for Mitigation Strategies of the Energy Use and Greenhouse Gas Emissions in Lebanon's Road Transport Sector**

Marc Haddad, Charbel Mansour and Jad Diab, Department of Industrial and Mechanical Engineering, Lebanese American University, Byblos, Lebanon

**ID 111 – The Recycling of Fire Extinguisher; First Step Toward a Circular Economy**

Ana Julia Acevedo - Urquiaga, University Foundation of San Mateo, European-Latin American Center for Logistics and Ecological Projects (CELALE), Bogotá, Colombia  
José Antonio Acevedo - Suarez, Logistic and Production Management Laboratory (LOGESPRO), Havana Technical University "José Antonio Echevarría" (CUJAE), Havana, Cuba  
Neyfe Sablón – Cossío, Postgraduate Institute, Production and Services Group, Technical University of Manabi, Portoviejo, Ecuador  
Stefan Köhler, Institute of Agricultural and Urban Ecological Projects (IASP), Humboldt University of Berlin, Germany  
Sebastiana del Monserrate Ruíz – Cedeño, University Cooperation Unit, Technical University of Manabi, Portoviejo, Ecuador  
Erik Orozco – Crespo, Career Industrial Engineering, North Technical University, Ibarra, Ecuador

**ID 329 Norm's Violence as a Strategy of the Violin Group in Maintaining Economic Resources in the Road**

Adelita Paramanti, Departmen of Sociology Faculty of Social and Political Science Universitas Nasional Jakarta  
Alifa Pangastika Kuswara, Departmen of Sociology Faculty of Social and Political Science Universitas Nasional Jakarta  
Syamsiah Badruddin, Departmen of Sociology Faculty of Social and Political Science Universitas Nasional Jakarta, Surabaya, East Java, Indonesia

2:30 – 3:00 pm – Networking Break

## Session – Wednesday (November 27): 3:00 – 4:30 pm

**3:00 – 4:30, WEDNESDAY**

**Industry 4.0 / Industry Solutions**

**Room 1**

Session Chair: Dr. Olayan Alharbi, Majmaah University, Saudi Arabia

3:00 – 3:30 (Wednesday)

**Olayan Alharbi, PhD**

Lead Data Science at Obeikan Digital Solution  
Assistant Professor  
Majmaah University  
Saudi Arabia

3:30 – 4:00 (Wednesday)

**Dr. Ahmed Aljabr**

Operational Excellence Department  
Saudi Aramco

**Topics” Challenges and Opportunities for Business Excellence Performance: Lean Six Sigma Approach”**

4:00 – 4:30 (Wednesday)

**Dr. Raja Sreedharan V.**

Assistant Professor in Supply Chain Management  
Rabat Business School  
Morocco

**AI in logistics and supply chain management**

**3:00 – 4:30, WEDNESDAY**

**Global Engineering Education V**

**Room 2**

Panel Chair: Dr. Hesham K. Alfares, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

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**

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**

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**

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

**3:00 – 4:30, WEDNESDAY****Environmental and Sustainability****Room 3**

Session Chair: Amal AbdelSattar, Prince Sultan University, Riyadh, Saudi Arabia

**ID 137 Life of a Worker: A Case of Construction Industry**

Shabir Hussain Khahro, Prince Sultan University, Riyadh, Saudi Arabia

**ID 221 Measurement of Mosques Inner and Outer Sound Levels**

Saad Alabdulkarim, Saud Almahfud, and Ahmed Almutairi, Industrial Engineering Department, King Saud University, Riyadh, Saudi Arabia

**ID 126 Monitoring Air Pollution Using Satellite Data**

Amal AbdelSattar, Prince Sultan University, Riyadh, Saudi Arabia

**ID 135 Natural lighting and sustainability in traditional environmental architecture**

Salma Dwidar, Architectural Engineering Department, Prince Sultan University, Riyadh, KSA

**ID 049 Sustainable Waste Management through Waste to Energy Technologies in Saudi Arabia: Opportunities and Environmental Impacts**

Tayeb Brahimi, Electrical and Computer Engineering, Effat University, Jeddah, KSA

Mohamed Abdulamjid, Electrical and Computer Engineering, Effat University, Jeddah, KSA

**ID 152 Thermal and Acoustic Characteristics of Promised Hybrid Insulation Wasted Materials Made of Apple of Sodom and Palm Tree Surface Fibers as New Insulation Materials for Buildings**

Mohamed E. Ali and Abdullah Al-Abdulkarem, King Saud University, College of Engineering, Mechanical Engineering Dept., Riyadh, Saudi Arabia

**ID 330 The Risk of Commercialization Local Culture and Digital Community Growth of Rural Environment**

Adilita Pramanti and Paisal Halim, Department Sociology Universitas Nasional Jakarta, Indonesia

Angga Sulaiman, Department of Public Administration Universitas Nasional Jakarta, Indonesia

**3:00 – 4:30, WEDNESDAY****Energy and Water****Room 4**

Session Chair: Hasan Mousa, Sultan Qaboos University, Muscat, Oman

**ID 058 Simulating the Dynamic Behavior of Renewable Energy Patents**

Alberto Méndez and Milton M. Herrera, Centre Research in Economic Sciences, Universidad Militar Nueva Granada, Bogotá, Colombia

**ID 317 Solar Irradiation Prediction Using Machine Learning Techniques: The Case of Saudi Arabia**

Tayeb Brahimi, Energy and Technology Lab, College of Engineering, Effat University, Jeddah 22332, KSA

Ahmed Bensenouci, Electrical and Computer Engineering, College of Engineering, Effat University, Jeddah 22332, KSA

Budoor Alwateed, Master Student, Master in Energy Engineering, College of Engineering, Effat University, Jeddah 22332, KSA

Fatima Alhebshi, Bachelor Student, Electrical and Computer Engineering, College of Engineering, Effat University, Jeddah 22332, KSA

**ID 227 Study to Improve Productivity in Decontamination of Mercury in Water through the Ananas Comosus**

José Alfredo Anibal Badillo, Nidia Patricia Félix Rivera, Fernanda Alcalde Herrera, Graciela Hurtado Montoya, Paola Hernández Zapata and Ana Paula Christy Gonzalez, Department of Basic Sciences, Universidad De Monterrey, San Pedro Garza García, NL 66238, Mexico

**ID 031 Using Artificial Intelligence Techniques for Solar Irradiation Forecasting: The Case of Saudi Arabia**

Fatima Alhebshi, Master student, Renewable Energy Engineering, Effat University, Jeddah, Saudi Arabia

Heba Alnabils, Master student, Renewable Energy Engineering, Effat University, Jeddah, Saudi Arabia

Ahmed Bensenouci, Professor, Electrical and Computer Engineering, Effat University Jeddah, Saudi Arabia

Tayeb Brahimi, Assistant Professor Electrical and Computer Engineering, Effat University Jeddah, Saudi Arabia

**ID 009 Using Artificial Intelligence to Analyse Wind Energy Production**

Fatima Alhebshi Master student, Renewable Energy Engineering, Effat University, Jeddah, Saudi Arabia

Heba Alnabils Master student, Renewable Energy Engineering, Effat University, Jeddah, Saudi Arabia

Tayeb Brahimi Assistant Professor, Electrical and Computer Engineering, Effat University, Jeddah, Saudi Arabia

**ID 002 Using PCM as energy storage material in water tanks: Theoretical and experimental investigation**

Hasan Mousa<sup>1,2</sup>, Jamil Naser<sup>1</sup> and Omar Houche<sup>1</sup>

<sup>1</sup> Department of Petroleum and Chemical Engineering, Sultan Qaboos University, P.O. Box 33 Al-Khod, PC 123, Muscat Oman

<sup>2</sup> Department of Chemical Engineering, Jordan University of Science and Technology, Irbid, Box 330, PC 1110, Jordan

**3:00 – 4:30, WEDNESDAY****Entrepreneurship and Innovation****Room 5**

Session Chair: Sabah Al-Fedaghi, Kuwait University, Kuwait

**ID 306 Enhancing Students' Learning in Construction Management Courses at PSU**

Basel Sultan, Engineering Management Department, Prince Sultan University, Riyadh, Saudi Arabia  
Ihab Katar, Engineering Management Department, Prince Sultan University, Riyadh, Saudi Arabia

**ID 035 Financial Leverage and Financial Performance of Oil and Gas Companies in Nigeria**

Ahmadu Abubakar, Department of Business Management, Federal University Dutsin-Ma, Katsina State, Nigeria

**ID 155 Impact Analysis of Violent Conflict and Enabling Business Environment on Entrepreneurial Performance in North East Zone of Nigeria**

OLADEJO Lukman Gbolagade, OLUSEGUN Kazeem Lekan, ABDULRAHAMAN Abdulrazaq Morenikeji, Department of Business Management, Faculty of Management Sciences, Federal University Dutsinma, Katsina, P.M.B.5001, Katsina State, Dutsinma Nigeria

**ID 124 Predicting Employee Attrition Using Machine Learning**

Imtinan F. Alsuaheim, Feddah A. Alotaibi, Malak A. AlAsiri, Munirah S. Alkharji, and Shahad A. Alharthi, School of Computing, Dublin City University, Dublin, Ireland

**ID 134 Project-Based Learning in Engineering Education: Advantages, Challenges, and Implementation Strategies**

Dr Wafa Labib & Dr Amal Abdelsattar, Architecture Department, College of Engineering, PSU, Riyadh, Saudi Arabia

**ID 220 Do Incubator Specialization and Networking Affect Achievement of Technological Outcomes of Institution Incubated Startups?**

Muralidharan Loganathan and MH Bala Subrahmanya, Department of Management Studies, Indian Institute of Science, Bangalore, India

**3:00 – 4:30, WEDNESDAY**

**Industrial and Manufacturing**

**Room 6**

Session Chair: Razan Maglad, Effat University, Jeddah, Kingdom of Saudi Arabia

**ID 109 Furniture Manufacturing from Conventional to Automation System**

Abdul Talib Bon, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia, Johor, MALAYSIA

**ID 030 Adoption of Point Of Sales Technology in Nigerian Retail Industry: A Partial Least Squares Approach**

Faruq Muhammad Abubakar, Department of Business Administration, Bauchi State University Gadau, Bauchi State, 740001, Nigeria  
Hartini Ahmad, School of Business Management, Universiti Utara Malaysia, Sintok, Kedah, Malaysia

**ID 288 Impact of Initial Public Offering on the Financial Performance of Petrochemical Industry in Saudi Arabia**

Razan Maglad, Finance Department, Effat College of Business, Effat University, Jeddah, Kingdom of Saudi Arabia  
Rozina Shaheen, Assistant Professor, Finance Department, Effat College of Business, Effat University, Jeddah, Kingdom of Saudi Arabia  
Mawadda Samkari, Department of Operations and Information Management, Effat College of Business, Effat University, Jeddah, Kingdom of Saudi Arabia

**ID 235 Manufacturing Systems based on Petri Nets: A bibliometric Analysis**

Abdulmajeed Dabwan, Husam Kaid and Mohammed A. Noman, College of Engineering, Industrial Engineering Department, King Saud University, Riyadh 11421, Saudi Arabia

**ID 061 Mathematical Modeling of Friction during High-Speed End Milling**

Sunday Ojolo, University of Lagos, Akoka Yaba, Nigeria

**ID 334 SEM Analysis of the Impacts of Job Demands on Employees' Work Engagement**

Abdul Talib Bon and Abdirahman Mohamad Shire, Faculty of Technology Management, Business and Entrepreneurship, University Tun Hussein Onn Malaysia, Parit Raja, 86400, Malaysia

**Senior Design / FYP Poster Competition (4:30 – 6:00 pm, Wednesday, November 27)**

**ID 017 Automatic Seed Sowing Machine**

Muhammad Akram Akhund<sup>1</sup>, Nafees Ahmed Memon<sup>1</sup>, Tauha Hussain Ali<sup>1</sup>, Aftab Hameed Memon<sup>2</sup> and Hafiz Usama Imad<sup>1</sup>

<sup>1</sup> Civil Engineering Department, Mehran University of Engineering and Technology, Jamshoro, Pakistan

<sup>2</sup> Civil Engineering Department, Quaid-e-Awam University of Engineering Science and Technology, Nawabshah, Pakistan

**7:00 – 10:00 pm (Wednesday)  
Conference Awards and Recognition Dinner  
Outdoor**

## November 28, 2019 (Thursday)

### Session: 8:00 – 9:30 pm

**8:30 – 10:00, THURSDAY**
**Industry 4.0 / Industry Solutions VI**
**Room 1**

 Session Chair: Majed Alsubiei, Mechanical/Manufacturing Engineer
 

---

8:30 – 9:00 (Thursday)

**ID 022 Categorization of Indicators for Performance of Small and Medium Enterprises**

Nor Mahirah Mustapha, Universiti Malaysia Pahang, Gambang Campus, Pahang, Malaysia  
 Shahryar Sorooshian, School of Business, Economics and Law, University of Gothenburg, Gothenburg, Sweden  
 Noor Azlinna Azizan, College of Business Administration, Prince Sultan University, Riyadh, Saudi Arabia

9:00 – 9:30 (Thursday)

**Majed Alsubiei**

Mechanical/Manufacturing Engineer

Automation and Robotics

9:30 – 10:00 (Thursday)

**Hamiru Hamiru**

Department of Economy  
 University of Iqra Buru  
 Namlea 97571, Indonesia

**ID 325 Public Relations Management Strategy through Management by Objective (MBO) of PT Kereta Api Operational Area 7 Madiun Indonesia Tulungagung Station**

Hamiru Hamiru, Department of Economy, University of Iqra Buru, Namlea 97571, Indonesia  
 M Chairul Basrun Umanailo, Department of Agricultural and Forestry, University of Iqra Buru, Namlea, 97571, Indonesia

**8:30 – 10:00, THURSDAY**
**Global Engineering Education VI**
**Room 2**

 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

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

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

**8:30 – 10:00, THURSDAY**

**Industrial and Manufacturing**

**Room 6**

Session Chair: Mohammed Alkahtani, King Saud University, Riyadh 11421, Saudi Arabia

**ID 057 Mathematical Modeling of Friction in the Cutting Zone during Orthogonal Machining**

Ojolo Sunday Joshua, Sobamowo Gbeminiyi Musbau, Adedayo Mercy, Department of Mechanical Engineering, University of Lagos, Lagos. Nigeria

**ID 263 Performance Measures for Turnaround Maintenance**

Umar Al-Turki and Salih Duffuaa, Systems Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia

**ID 238 Supply Chain in the Era of Additive Manufacturing**

Mohammed Alkahtani, Industrial Engineering Department, College of Engineering, and Raytheon Chair for Systems Engineering (RCSE), Advanced Manufacturing Institute, King Saud University, Riyadh 11421, Saudi Arabia  
Mustufa Haider Abidi, Raytheon Chair for Systems Engineering (RCSE), Advanced Manufacturing Institute, King Saud University, Riyadh, Saudi Arabia

**ID 129 The Analysis of Market Concentration of Indonesian Automotive Industry**

Evo Sampetua Hariandja, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang, Indonesia

**ID 356 Ergonomics Effects of Arid Environment in Human Performance**

Ibtihaj Al-Harrasi, and Mohammad Khadem, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Oman

**ID 358 The Analysis of Adaptive Delta-Modulator in Sliding Mode Control**

Dhafer Almkhles, Prince Sultan University, Riyadh, Saudi Arabia

10:00 – 10:15 break

10:15 – 11:10 am - Thursday Morning Keynote I

**Dr. Surendra M. Gupta**

Professor of Mechanical and Industrial Engineering  
Director of Laboratory for Responsible Manufacturing (LRM)  
Northeastern University  
Boston, Massachusetts, USA

11:00 – 11:45 am - Thursday Morning Keynote II

**Eng. Saleh I Al-Shabnan**

President Haffaz Industrial & Management Consultants  
Riyadh, Saudi Arabia

11:45 – 1:00 Networking Buffet Lunch/ Dhuhr Prayer

**Session – Thursday (November 28): 1:00 pm – 2:30 pm**

**1:00 – 2:30, THURSDAY****Global Engineering Education VII****Room 2**

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**

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**

1:40 – 2:00 (Thursday)

**Dr. Sabah Al-Fedaghi**

Associate Professor  
 Computer Engineering Department  
 Kuwait University, Kuwait

**ID 269 Thining MATLAB for Computer Engineering**

Sabah Al-Fedaghi, 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 Tasneem Pervez  
 Professor in the Department of Mechanical and Industrial Engineering,  
 College of Engineering,  
 Sultan Qaboos University (SQU)  
 Muscat, Oman

Dr Mahmood Al-Kindi  
 Associate Professor and Head  
 Mechanical and Industrial Engineering Department (MIED)  
 Sultan Qaboos University (SQU), Muscat, Oman

**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

**1:00 – 2:30, THURSDAY****Industry 4.0 / Industry Solutions VII****Room 3**

Session Chair: Mohammad Fakhruddin, Dolf Technologies Co. Ltd. , Khobar, Saudi Arabia

1:00 – 1:30 (Thursday)

**Ahad Ali, Ph.D.**

Associate Professor  
 Director, Bachelor of Science in Industrial Engineering (BSIE)  
 Director, Master of Science in Industrial Engineering (MSIE)  
 Director, Smart Manufacturing and Lean Systems Research Group  
 Coordinator, Siemens Electro-Matic Industrial Engineering Lab  
 A. Leon Linton Dept. of Mechanical Engineering  
 Lawrence Technological University  
 Southfield, Michigan, MI 48075, USA

**MSV of Industry 4.0 Tech Report**

1:30 – 2:00 (Thursday)

**Mohammad Fakhruddin**  
Senior Manager  
Dolf Technologies Co. Ltd.  
Khobar, Saudi Arabia

**Augmented Reality for Manufacturing: Bringing Digital Transformation to Skilled Workers**

2:00 – 2:30 (Thursday)

**1:00 – 2:30, THURSDAY****Energy and Water****Room 5**

Session Chair: Hadi Hamad Alyami, College of Technology in Tabuk, Tabuk, Saudi Arabia

**ID 292 Mercury decontamination in water based fluid through the core of the fruit of the tree Mangifera indica**  
Anacecilia Juárez, Andrea González, Arantza Solis, Alejandra Ortiz, Daniela Juárez, Lilian Esparza y Roberta Faudoa.  
Universidad de Monterrey, México

**ID 280 MIDE-W**  
Geronimo Gonzalez Martinez, ITESM, Monterrey, Mexico

**ID 312 New Energy Source and Alternative Fuel in Saudi Arabia**  
Hadi Hamad Alyami, Electrical and Renewable Energies Department, College of Technology in Tabuk, Tabuk, Saudi Arabia

**ID 132 Optimization of Gas Pipeline Route Selection with Goal Programming Considering Environmental Aspects**  
Soufyan Maliki and Farizal, Department of Industrial Engineering, Universitas Indonesia, Depok – West Java, 16424, Indonesia

**ID 050 Renewable Energy Support Policy in Malaysia: A Comparative Analysis with Two Successful Countries**  
Siti Masyita Noraziman, Md. Mizanur Rahman, Hasan Mohd Faizal, Aminuddin Saat and Mazlan Abdul Wahid  
School of Mechanical Engineering, Universiti Teknologi Malaysia, 81310 UTM, Johor Bahru, Malaysia

**ID 261 Contribution of infrastructure assets integrity management strategy to a sustained quality water service delivery in an urban municipality**  
Mabaso Emmaculate Nicolas Jobe and Antoine F. Mulaba-Bafubiandi, Mineral Processing and Technology Research Centre, Department of Metallurgy, School of Mining, Metallurgy and Chemical Engineering, University of Johannesburg, Doornfontein 2028, Johannesburg, South Africa

**1:00 – 2:30, THURSDAY****Operations Management****Room 6**

Session Chair: Ghada Elnaggar, King Abdulaziz University, Jeddah, Saudi Arabia

**ID 195 Convex Optimization Collaborative Filtering to Find Causality in Market Indices**  
Talal Al-Sulaiman and Ali Al-Matouq, Department of Engineering Management, Prince Sultan University, Riyadh, 12435, Saudi Arabia

**ID 082 Dynamical Behavior of Terrorist Mathematical Model in the Present of Fuzzy Parameters**  
Asep K. Supriatna, Department of Mathematics, Padjadjaran University, Bandung 45363, Indonesia  
Hennie Husniah, Department of Industrial Engineering, Langlangbuana University, Bandung 40261, Indonesia  
Aprillya R. Lanz, College of Humanities and Social Sciences, Grand Canyon University, Phoenix, AZ 85017, USA and School for Engineering of Matter, Transport and Energy, Arizona State University, Tempe, AZ 85287, USA

**ID 161 Effect of Operator Skill Level on Assembly Line Balancing in Apparel Manufacturing: A Multi-Objective Simulation Optimization Approach**  
Ghada Elnaggar, Industrial Engineering Department, King Abdulaziz University, Jeddah KSA

**ID 225 Ergonomics Intervention for Increasing Productivity and Safety in Garment Industry**  
Farheen Bano, Industrial Engineering Department, King AbdulAziz University, Jeddah, Saudi Arabia

**ID 075 Identification of Key Risks Impacting Project Completion Time in UAE's Building Projects- Towards Developing a BIM Solution**  
Deena Badran, Doctoral Student in Engineering Management, University of Sharjah, Sharjah, United Arab Emirates  
Prof. Radhi AlZubaidi, Department of Civil & Environmental Engineering, University of Sharjah, Sharjah, United Arab Emirates  
Dr. Senthilkumar Venkatachalam, Civil Engineering Department, Indian Institute of Technology Palakkad, Palakkad, India

**2:30 – 3:00 pm – Networking/Coffee Break/Asr Prayer****1:40 – 2:00 pm Lunch Keynote****Session – Thursday (November 28) – 3:00 – 4:30 pm****3:00 – 4:30, THURSDAY****Industry 4.0 / Industry Solutions VIII****Room 1**

Session Chair: Mohammad Ali Shalan, Aqarat Real Estate Development Company, Jeddah, Saudi Arabia

3:00 – 3:30 (Thursday)

**Dr. Kashif Saleem**

Associate Professor, Center of Excellence in Information Assurance (CoEIA)  
King Saud University, Riyadh, Saudi Arabia and Visiting Fellow at Macquarie University, Sydney, Australia

### IIoT Security Challenges and Recommendations

3:30 – 4:00 (Thursday)

#### Abdulrahman Hamam

QHSE Manager (ISO, Lean, Six Sigma, Risk Management, CQM, TQM, Compliance), Saudi Arabia

4:00 – 4:30 (Thursday)

**Dr. Fahad A Alfifi**, (SMP, OMP, PMI, BSC, KPI) - Certified Trainer  
Corporate Strategic and Business Planning Consultant, Saudi Railway Company

**3:00 – 4:30, THURSDAY**

**Global Engineering Education VIII**

**Room 2**

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 Forawi, British University in Dubai, United Arab Emirates

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

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

4:00 – 4:20 (Thursday)

#### 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

4:20 – 4:40 (Thursday)

**3:00 – 4:30, THURSDAY**

**Environmental and Sustainability**

**Room 3**

Session Chair: Tariq Megahed Aid, South Delta Electricity Distribution Co., Riyadh, Saudi Arabia

#### ID 060 Conception of Critical Success Factors for Corporate Social Responsibility Initiatives in Industry

Anat Anaqie Zahidy, Shahryar Sorooshian and Fazeeda Mohamad, Uniersiti Malaysia Pahang, Gambang, Pahang, Malaysia

#### ID 107 Construction Waste Management Techniques: Merits and Challenges for Recycling and Reusing

Muhammad Akram Akhund<sup>1</sup>, Nafees Ahmed Memon<sup>1</sup>, Tauha Hussain Ali<sup>1</sup>, Aftab Hameed Memon<sup>2</sup> and Hafiz Usama Imad<sup>1</sup>

<sup>1</sup>Civil Engineering Department, Mehran University of Engineering and Technology, Jamshoro, Pakistan

<sup>2</sup>Civil Engineering Department, Quaid-e-Awam University of Engineering Science and Technology, Nawabshah, Pakistan

#### ID 264 Environmental Impact Analysis of the Activated Biochar Production from Macadamia Husks

Antoine F. Mulaba-Bafubiandi, Mineral Processing and Technology Research Centre, Metallurgy Department, School of Mining, Metallurgy and Chemical Engineering, Faculty of Engineering and The Built Environment, University of Johannesburg, South Africa

#### ID 018 Environmental Remediation through the Application of the Vermicomposting Technology for Bio waste Management

M. M. Manyuchi and C. Mbohwa, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

E. Muzenda, Department of Chemical Engineering Technology, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa and Department of Chemical, Materials and Metallurgical Engineering, Faculty of Engineering and Technology, Botswana International University of Science and Technology, P Bag 16, Palapye, Botswana.

**ID 059 Extracting Cellulose Whiskers from Fully Cotton-Based Textile and Apparel Wastage**

Riasat Zaman, Dept. of Apparel Engineering, Bangladesh University of Textiles, Tejgaon Industrial Area, Dhaka 1208  
Hosne Ara Begum, Faculty of Textile Engineering, Bangladesh University of Textiles, Tejgaon Industrial Area, Dhaka 1208

**ID 076 Fire Resistant halogen-free Cables industry Promising prospects for sustainable technology**

Tariq Megahed Aid, South Delta Electricity Distribution Co., Riyadh, Saudi Arabia

**3:00 – 4:30, THURSDAY**

**Operations Management**

**Room 4**

Session Chair: Khalid Al-Khodhairi, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia

**ID 079 Simple Accurate Approximations of the Two-Threshold Control Limit Policy in Condition Based Maintenance**

Ahmad Al Hanbali, Noman Ullah Noman Ullah, Systems Engineering Department, College of Computer Science & Engineering, King Fahd University of Petroleum & Minerals, KSA

**ID 128 Single-Asset Portfolio Allocation Using Markov Decision Process – A Case from the Saudi Stock Market**

Khalid Al-Khodhairi, Abdualziz Ben Baz, Mohammad AlDurgam, Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia

**ID 081 The Equilibrium Solution of Word-of-Mouth Marketing Strategy**

Hennie Husniah, Department of Industrial Engineering, Langlangbuana University, Bandung 40261, Indonesia  
Aprillya R. Lanz, College of Humanities and Social Sciences, Grand Canyon University, Phoenix, AZ 85017, USA and School for Engineering of Matter, Transport and Energy, Arizona State University, Tempe, AZ 85287, USA  
Asep K. Supriatna, Department of Mathematics, Padjadjaran University, Bandung 45363, Indonesia

**ID 316 Critical Factors Influencing Sustainable Infrastructure Projects Financing in Nigeria**

Ademilade Aboginije, University of Johannesburg, Johannesburg, South Africa

**3:00 – 4:30, THURSDAY**

**Energy and Water**

**Room 5**

Session Chair: Mashael Abdullah Rajeh, Effat University Jeddah, Saudi Arabia

**ID 228 Decontaminating Effect of Sifted Watermelon Rind Applied In Water with Mercury**

Valeria Cárdenas Morales, Dayan Alondra Garza Cantú, Aleyda Herrera Melgoza, Leslia María Sánchez Franco, Emilio Sánchez Torres, Julia Michel Tijerina Fernández, Astrid Vega Domínguez, Extension, Consulting, and Research Division, Universidad de Monterrey, San Pedro Garza García, Nuevo León, México

**ID 229 Decontamination of Water Polluted with Hazardous Materials Using Bio-adsorbent Local Waste Products**

Ana Paula Guerra, Diego Pérez, Maria Fernanda Lozano, Marcela Moreno, Pablo Torres, and Yanelly Estefanía Castruita, Health Academy department, University of Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

**ID 226 Decontamination of Water with Mercury through Mango Seed**

Andrea Teniente Torres, Fernanda López Lozano, Kassandra Sarahí Baca Sánchez, Martha Angélica Solís Martínez, Ana Cristina Montiel Lara, Gabriela Anahí González Tamez, Jonathan Eduardo Gaytan Cavazos, Extension, Consulting, and Research Division, Universidad de Monterrey San Pedro Garza García, Nuevo León, México

**ID 293 Design a Hybrid Wind-Solar Power System for Remote Areas of Saudi Arabia**

Mashael Abdullah Rajeh and Ahmed Bensenouci, Electrical and Computer Engineering Department, Effat University Jeddah, Saudi Arabia

**ID 233 Filtro sargazo**

José Luis Rodríguez González, Oscar Marcelo Garza Garcia, Emiliano Saucedo Jiménez, Victor Camarillo, Mónica Valle Vicente Valdez Cantú, Raúl Salinas, Universidad de Monterrey, San Pedro Garza García, Nuevo León, México

**ID 217 Flow simulation inside an axial turbine stage**

Khaled Sahnoune and A. Benbrik, Laboratory of Petroleum Equipment Reliability and materials, Université M'Hamed Bougara, Boumerdes, Algeria

**3:00 – 4:30, THURSDAY**

**Operations Management**

**Room 6**

Session Chair: Ali AlMatouq, Prince Sultan University, Riyadh, Saudi Arabia

**ID 150 Analysis and Prediction of students' absence using Educational Data Mining**

Souad Larabi-Marie-Sainte, College of Computer and Information Sciences, Price Sultan University, Riyadh, KSA  
Jan Roohi, College of Computer and Information Sciences, Price Sultan University, Riyadh, KSA  
Ali Ahmed Al-Matouq, College of Engineering, Price Sultan University, Riyadh, KSA  
Sarah Al-Abdulhadi, College of Computer and Information Sciences, Price Sultan University, Riyadh, KSA

**ID 020 Application of Lean Manufacturing to Hospitality Sector; Case Study, Ritz-Carlton Hotel, Riyadh, Kingdom of Saudi Arabia**

Ziad Alhisan, Nasooh Alrifae, Alwaleed K. Dhabban, Osama A. Samour, and Abdelhakim Abdelhadi, Prince Sultan University, Saudi Arabia

**ID 056 Applying immersive technologies to production digitalization and personnel training**

Ilya Simonov, CROC VR Director, Moscow, Russia

**ID 055 Business Excellence Models Implementation in Saudi Nonprofit Organizations: Critical Success Factors and Key Barriers Hindering Adaptation**

Osama Mohamed Salih, Sha'ri Mohd Yusof, and Rozzeta Dolah, Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia, KL

**ID 052 Condition Based Monitoring of Gearbox Transmission Using Wear Particle Analysis Technique**

Sayed Y. Akl, Hesham A. Abou El Anein and Sherif El-Soudy, The British University in Egypt, Cairo, Egypt

**ID 127 A convex programming approach for university timetabling**

Ali AlMatouq, Prince Sultan University, Riyadh, Saudi Arabia

## Industry 4.0 / Industry Solutions

### Industry Solutions I – Industry 4.0 – Room 3

1:30 – 3:00 pm, Tuesday, November 26, 2019

Session Chair: Dr. Mahmoud Alhader, Al Ain Distribution Company, Al Ain, United Arab Emirates

1:30 – 2:00 (Tuesday)



**Ilya Simonov**  
World Trade Center  
Manama, Kingdom of Bahrain

Leading expert in the development and integration of virtual and augmented reality content and supervisor of end-to-end VR and AR projects. Mr. Ilya Simonov is an expert in development and integration of virtual and augmented reality solutions. A manager of integrated development projects based on immersive technologies (VR, AR, XR). Coordinates development team activities with 14 qualified engineers and project management teams. Responsible for their continuous professional development. Builds partnerships with leading developers and manufacturers of the industry. Under his leadership, the team of the Virtual Reality Center successfully implemented projects for the companies in GCC, including Saudi Aramco, STC, Sharjah Government, and for multiple industrial customers (including oil and gas, energy and petro chemistry industries) in Russia: SIBUR Holding, Roskosmos, Gazprom Neft, Rosatom, Delaval, Mosoblغاز, Helicopters of Russia.

2:00 – 2:30 (Tuesday)

**M Chairul Basrun Umanailo**  
Department of Agricultural and Forestry  
University of Iqra Buru, Namlea, 97571, Indonesia

M Chairul Basrun Umanailo is a lecturer at the Faculty of Agriculture at Iqra Buru University with specifications of rural sociology and research methodology. It has an M.Sc degree in sociology Obtained from March University. In 2016 Began doctoral education at the University of Brawijaya. Currently still completing a dissertation on the issue of urbanization because of village development that is focused on the Central Java region

#### ID 326 Structure of Social Change in Industrial Society

M Chairul Basrun Umanailo, Department of Agricultural and Forestry, University of Iqra Buru, Namlea, 97571, Indonesia

2:30 – 3:00 (Tuesday)



**Dr. Mahmoud Alhader**  
Asset Information Section Head  
Al Ain Distribution Company, Al Ain, United Arab Emirates

Dr. Mahmoud Al-Hader has over 16 years of experience in the information technologies specially related to satellites applications, smart cities & civil engineering applications. He obtained his Bachelor of Science degree in Civil Engineering in 2003. Master of Science in Geomatics Engineering (Honor Degree) in 2007 and PhD in GIS and Geomatics Engineering (Honor Degree) in 2011. He used to work as a senior researcher in Bahrain Centre for Studies and Research in Bahrain for 4 years. In 2007, he joined the Geomatics Information Department as a head of the engineering section in Limitless, Dubai World. In 2009, he joined the Asset Management Directorate as an Asset Information Section Head in AADC and in parallel assigned as a chairman of the innovation & creativity council. Dr. Mahmoud Al-Hader has several national and international awards in R&D, registered four PATENTS, in US Patent office, and invented several engineering applications & tools in different engineering aspects and information technologies. He achieved the crown prince Medal in innovation 2018, achieved the innovation medal across the energy sector 2017, and achieved the innovation of sustainable energy award on the national level 2018. Published a book in 2015 for the smart cities monitoring technologies.

### Industry Solutions II – Industry 4.0 – PLM & Digital Manufacturing – Room 3

3:30 – 5:00 pm, Tuesday, November 26, 2019

Session Chair: Ahmed Alghamdi, Director of Quality and Internal Audit & Program Manager, Riyadh, Saudi Arabia

3:30 – 4:00 (Tuesday)



**Majed Alsubiei**  
Mechanical/Manufacturing Engineer

#### PLM and Digital Manufacturing and Factory

Majed Alsubiei is a Mechanical/Manufacturing Engineer. He earned B.S. in Manufacturing and B.S. in Mechanical Engineering from California State University, Los Angeles. Also, he earned M.S. in Mechanical Engineering from the same school. Engineer Majed has done research projects with General Motors (GM), 6D Helmets, California Adaptive Rowing Program (CARP), Invent for Humanity Organization, CSULA Forensic Anthropology Department and many more projects that varies in their technical maturity and scaled by Technology Readiness Level (TRL), which was developed by NASA, and also varies in their manufacturing maturity and scaled by Manufacturing Readiness Level (MRL), which was developed by United States Department of Defense. He is a member of American Society of Mechanical Engineers (ASME), and National Mechanical Engineering Honor Society (Pi Tau Sigma).

4:00 – 4:30 (Tuesday)



**Ahmed Alghamdi**  
Director of Quality and Internal Audit & Program Manager  
Riyadh, Saudi Arabia

4:30 – 5:00 (Tuesday)



**Dr. Rahmat Nurcahyo**  
Industrial Engineering Department, Faculty of Engineering  
Universitas Indonesia  
Depok, 16424, Indonesia

Rahmat Nurcahyo is currently active as academic staff in Industrial Engineering Department, Universitas Indonesia. Mr. Rahmat was born in Jakarta, June 2nd 1969. He started his higher education in Mechanical Engineering, Universitas Indonesia and graduated in 1993. Then, he continued his study in University of New South Wales and earned his master degree (M.Eng.Sc.) in 1995 and doctoral degree in Faculty of Economics, Universitas Indonesia. Mr. Rahmat has taught several courses in Industrial Engineering UI, including Industrial Psychology, Industrial Economy, and Total Quality Management. Mr. Rahmat is International Register of Certificated QMS Auditors.

**ID 102 Designing Quality Assurance System Using Gap Analysis Method on Automotive Spare Parts Company**

Rahmat Nurcahyo, Maga Arseno, and Muhammad Habiburrahman, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Depok, 16424, Indonesia

**Industry Solutions III – Industry 4.0 - Room 1 (Auditorium 1)**

**8:30 – 10:00 am, Wednesday, November 27, 2019**

Session Chair: Md. Abdullah Al Mahmud, Manarat International University, Dhaka, Bangladesh

8:30 – 9:00 (Wednesday)



**Mr. Md. Abdullah Al Mahmud**  
Founder & CEO, Thriving Skills Limited Assistant Professor of MIS  
Manarat International University  
Dhaka, Bangladesh

**Skills Focused Self-education for Industry 4.0**

Mr. Md. Abdullah Al Mahmud is Assistant Professor of MIS at the Manarat International University, Dhaka. He served as Coordinator of MBA Program, Department of Business Administration, MIU. Mr. Mahmud received BBA and MBA degree from the University of Dhaka. He is the founder of the Thriving Skills Limited, skills focused self-education platform in Bangladesh. He is skilled in Analytical Skills, Lecturing, Decision-Making, Instructional Design, Data Science, Blockchain Technology, Digital Marketing and Public Speaking. Mr. Mahmud received numerous professional certifications from IBM, Google, LinkedIn Learning, Udemy and many more. Mr. Mahmud launched digital promotional platform of MIU and play vital role in bringing ERP in the organization. Mr. Mahmud has exposed his leadership capacity by organizing Seminars and Leadership Development Program. He has introduced and organized university's first talent search competition "Scholar of MIU" and first presentation competition "MIU Master Presenter". His recent research activities include Business Professionals' Digital competency in the Fourth Industrial Revolution Era, Digital Competency focused higher education for achieving SDG, Effects of Handheld devices on millennials reading habit, Challenges to implement Information Systems in the Business Organization, Perceptions of Blockchain Technology by Banking Professionals and many others. Mr. Mahmud served as a Humanitarian in Global Goodwill Ambassador. Mr. Mahmud demonstrated his research contribution in distinguished National Conferences in divergent Universities and International Conferences in India, Nepal, Bhutan and Malaysia.

9:00 – 9:30 (Wednesday)



**Ali Akbar**  
Industrial IoT Expert  
Siemens Malaysia Appointed Trainer for IIOT  
IOT SATA PVT. LTD.  
Subang Bestari, Shah Alam, Selangor, Malaysia

Mr. Akbar is a Co-Founder & CTO of IOT SATA PVT. LTD., with vast field & research experience in Electronics, Electrical Automation, IT Systems Power Plants Development, Project Management and Smart Factory Development. Akbar is fueled by his passion in industrial digitalization or Smart Manufacturing and he is fully geared up with the upcoming Industry 4.0 (I4.0) development. He holds a master's degree in Mechatronics Engineering with focused research on I4.0 – Industrial IoT. He has successfully contributed the I4.0 contents in engineering curriculum and developed several Industrial IoT (IIoT) Training Systems for education sector. On the professional side, he is a Professional Trainer for Automation, IIoT & Industrial IoT since 2014 and trained over 200 trainees internationally which includes Pakistan, UAE and Malaysia. He was involved in dozens of Industrial Projects and

currently, he is involved in implementing several Industrial IoT projects, case studies, talks, seminars, workshops & trainings.

### 9:30 – 10:00 (Wednesday)

#### **M Chairul Basrun Umanailo**

Department of Agricultural and Forestry  
University of Iqra Buru  
Namlea, 97571, Indonesia

M Chairul Basrun Umanailo is a lecturer at the Faculty of Agriculture at Iqra Buru University with specifications of rural sociology and research methodology. It has an M.Sc degree in sociology Obtained from the March University. In 2016 Began doctoral education at the University of Brawijaya. Currently still completing a dissertation on the issue of urbanization because of village development that is focused on the Central Java region.

#### **Rita Dwi Pratiwi**

Stikes Widya Dharma Husada  
Tangerang, Indonesia

Rita Dwi Pratiwi is a lecturer at the Widya Dharma Husada College of Health Sciences at the Faculty of Nursing. She completed her Bachelor of Nursing Education at Gadjah Mada University and graduated from Nursing for Children Department in Akdeniz University, Turkey. She is currently studying a postgraduate degree in Public Health Department at Lincoln University, Malaysia. She is the head of a Research and Community Service Institute (LPPM) at Widya Dharma Husada Tangerang School of Health science.

#### **Fenita Purnama Sari Indah**

Stikes Kharisma Persada  
Indonesia

Fenita Purnama Sari Indah is a lecturer at the Kharisma Persada School of Health Science who teaches several subject in public health studies program. The author was born at Bandar Lampung, Lampung, Indonesia on June 12, 1991. The author received a Bachelor's degree in 2013 and a master's in Public Health study in 2015 at Diponegoro University, Semarang, Central Java, Indonesia. Interested in Statistic health, epidemiology, environmental health and others pattern about health. The author also actively writes in several accredited and non-accredited national scientific journals and has written international journals and books.

#### **ID 327 Negative Impact of Industry on Society Using Ralph Dahrendorf's Conflict Theory**

M Chairul Basrun Umanailo, Department of Agricultural and Forestry, University of Iqra Buru, Namlea, 97571, Indonesia  
Rita Dwi Pratiwi, Stikes Widya Dharma Husada, Tangerang, Indonesia  
Fenita Purnama Sari Indah, Stikes Kharisma Persada, Indonesia

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

### **Industry 4.0 / Industry Solutions IV – Room 3**

**1:00 – 2:30 pm, Wednesday, November 27, 2019**

Session Chair: Mohammed Khursheed Akhtar, King Abdulaziz University (KAU), Jeddah, Saudi Arabia

1:00 – 1:20 (Wednesday)



#### **Mohammed Khursheed Akhtar, Ph.D.**

Data Scientist at KAU-Web Observatory for Web Studies  
King Abdulaziz University (KAU)  
Jeddah, Saudi Arabia

Dr. Mohammed Khursheed Akhtar has more than 30 years' experience in the field of Teaching, Research, Consulting and IT Business Development. He has 2 PhDs, one from Atlantic International University, Hawaii, USA in 2004-2007 in GIS and another from Singhanian University Rajasthan, India in 2011-2015 in ERP. He has Master Degree in Applied Mathematics with Honors. He has diploma in Islamic Finance and Insurance. He attended several seminars and speaker of more than 10 conferences. Dr. Akhtar is currently working as an Assistant Professor/Senior Advisor at Research and Studies Unit of Strategic Center to Kingdom Vision Realization of King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia. He worked as a Data Scientist at KAU Web Observatory for Web Studies from 2017 to 2019, as a Research Fellow at Strategic Department of KAU from 2013 to 2017, as

a Deputy Project Manager at KAU-ERP Implementation Project from 2011 to 2012, as a Faculty Member from 2008 to 2011 at Faculty of Computing and Information Technology and as a GIS Head at Projects and Proposal Department from 2005 to 2008 in King Abdulaziz University. His research interests are in application of Big Data, Machine Learning, Artificial Intelligence, Statistical Modelling, ERP (SAP) Architecture and Computer Component-Based Development (CBD). Software Development Methodologies, Risk Management. Geographical Information systems (GIS), Relational Database Development & Project Management. Author of 5 books (under publication), more than 25 published articles and co-author of more than 20 articles and conference publications.

1:20 – 1:40 (Wednesday)



**Dr. Vijey Thayanathan**  
Associate Professor  
Department of Computer Science  
Faculty of Computing and Information Technology  
King Abdul-Aziz University  
Jeddah, Saudi Arabia

#### IoT for Industry 4.0 with Photonic Technology

Vijey Thayanathan is an Associate Professor at Computer Science Department in the King Abdulaziz University, Jeddah, KSA. He obtained his Ph.D. in Engineering (Digital communication engineering) from Department of Communication Systems, University of Lancaster, UK, in 1998. Further, he had worked as Postdoctoral research Fellow in Department of Computer Science, Glasgow/Sterling University and Communication division, Department of Electrical and Electronic Engineering, Strathclyde university, UK for 2 years. Since 2000, he had been working as a Research engineer and senior algorithm development engineer in Advantech Ltd, Southampton University Science Park, UK and Amfax Ltd, UK respectively. His research interests include wireless communication algorithm design with photonics technology, security management of communication network and big data, computer security, Internet of Things for Industry 4.0 and wireless sensor network. He has been a full-time member of the Institution of Engineering Technology (IET), UK since 2005.

1:40 – 2:00 (Wednesday)



**Jalal Al-Muhtadi, PhD**  
Assistant Professor  
College of Computer & Information Sciences,  
Center of Excellence in Information Assurance (CoEIA), Director,  
King Saud University, Riyadh, Saudi Arabia

Dr. Jalal Al-Muhtadi is the Director of the Center of Excellence in Information Assurance (CoEIA) and a cybersecurity consultant. He is also an Associate Professor at the Department of Computer Science at King Saud University. He received his PhD and MS degrees in Computer Science from the University of Illinois at Urbana-Champaign, USA. He has over 50 scientific publications in the areas of cybersecurity, information assurance, privacy and IoT security.

2:00 – 2:20 (Wednesday)



**Eng. Ahmed Hafez**  
Systems Manager  
alfanar  
Saudi Arabia

Mr. Ahmed holds a B.Sc. in Production Engineering from Alexandria University, Egypt. He has 15 years of experience as an operational excellence professional within the manufacturing sector in several industries namely: FMCG, automotive, home appliances, glass and metal manufacturing. In addition to his experience in the manufacturing sector he has also worked in Business Process Improvement & Re-engineering within the sales and marketing operations (B2B and B2C). Mr. Ahmed is a certified Six Sigma Black Belt (CSSBB) from the American Society for quality, and a certified Lean practitioner in compliance with Toyota Production System (TPS) by Toyota Corporation in Japan, he is also a certified EFQM assessor by the European Foundation of Quality Management and a certified Project Management Professional (PMP) by the Project Management Institute as well as being a certified work measurement practitioner from The Harry Mitchel College in U.K. Along the past 15 years Mr. Ahmed successfully led a large number of improvement projects using Lean, Six Sigma, Industrial Engineering and Project Management approaches and techniques.

### Industry 4.0 / Industry Solutions V - Industry 4.0 – Room 1 (Auditorium 1)

**3:00 – 4:30 pm, Wednesday, November 27, 2019**

Session Chair: Dr. Olayan Alharbi, Majmaah University, Saudi Arabia

3:00 – 3:30 (Wednesday)



**Olayan Alharbi, PhD**  
Assistant Professor  
Majmaah University

#### Industry 4.0: the journey of AI and data analytics adoption

Olayan Alharbi is an assistant professor at Majmaah University and the data science team leader at ODS. He adopts design science to develop solutions for existing business and operation problems. He earned his PhD from Claremont Graduate University. He worked in local and international academic institutes such as Claremont graduate university, TVTC, Majmaah University. Also, he performed many research projects for private sectors such as Microsoft, ODS, ZID, and UtilityAPI.

3:30 – 4:00 (Wednesday)



**Dr. Ahmed Aljabr**  
Operational Excellence Department  
Saudi Aramco

Topics” Challenges and Opportunities for Business Excellence Performance: Lean Six Sigma Approach”

Dr. Ahmed Aljabr is a Master Blackbelt Certified and his experience span industries in the areas of Lean Six Sigma, Continuous Improvement, Quality Management, Lean Manufacturing, and Process Optimization. He currently serves as operational excellence specialist at Operational Excellence Department Saudi Aramco where he is effectively engaged in deploying operational excellence across various departments of Aramco. Dr. Aljabr has a history of community services and Professional Organizations engagement, he is currently a president of IEOM-KSA Chapter, and he is a member of ASQ, PMI, IISE, and ASME. He received an Exemplary Leadership Award, Best leader of the year from Lawrence Technological University, and Outstanding Leadership Award from Saudi Arabian Cultural Mission, Saudi Embassy at Washington D.C. Dr. Aljabr obtained BS in Mechanical Engineering, MS in Manufacturing System Engineering, MS in Engineering Management, and he is PhD in Manufacturing System Engineering at Lawrence Technological University. He completed an Executive Strategy and Leadership Program at Harvard University and Post Degree at the Industrial Engineering Program at LTU.

### Industry 4.0 / Industry Solutions VI - Industry 4.0 – Room 1

**8:30 – 10:00 am, Thursday, November 28, 2019**

Session Chair: Majed Alsubiei, Mechanical/Manufacturing Engineer

8:30 – 9:00 (Thursday)

9:00 – 9:30 (Thursday)



**Majed Alsubiei**  
Mechanical/Manufacturing Engineer

**Automation and Robotics**

9:30 – 10:00 (Thursday)

**Hamiru Hamiru**  
Department of Economy  
University of Iqra Buru  
Namlea 97571, Indonesia

Hamiru is a lecturer in economics faculty at Iqra Buru University with economic specifications of development. To date has had 2 publications describing the social change in society. M.Si was successfully found in the postgraduate study of Hasanuddin University. Today while completing research on community behavior.

**M Chairul Basrun Umanailo**  
Department of Agricultural and Forestry  
University of Iqra Buru  
Namlea, 97571, Indonesia

M Chairul Basrun Umanailo is a lecturer at the Faculty of Agriculture at Iqra Buru University with specifications of rural sociology and research methodology. It has an M.Sc degree in sociology Obtained from March University. In 2016 Began doctoral education at the University of Brawijaya. Currently still completing a dissertation on the issue of urbanization because of village development that is focused on the Central Java region

#### **ID 325 Public Relations Management Strategy through Management by Objective (MBO) of PT Kereta Api Operational Area 7 Madiun Indonesia Tulungagung Station**

Hamiru Hamiru, Department of Economy, University of Iqra Buru, Namlea 97571, Indonesia

M Chairul Basrun Umanailo, Department of Agricultural and Forestry, University of Iqra Buru, Namlea, 97571, Indonesia

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

**Industry 4.0 / Industry Solutions VII** - Industry 4.0 – MSV, VR and AR – Room 3**1:00 – 2:30 pm, Thursday, November 28, 2019**

Session Chair: Mohammad Fakhruddin, Dolf Technologies Co. Ltd., Khobar, Saudi Arabia

1:00 – 1:30 (Thursday)



**Ahad Ali, Ph.D.**  
 Associate Professor  
 Director, Bachelor of Science in Industrial Engineering (BSIE)  
 Director, Master of Science in Industrial Engineering (MSIE)  
 Director, Smart Manufacturing and Lean Systems Research Group  
 Coordinator, Siemens Electro-Matic Industrial Engineering Lab  
 A. Leon Linton Dept. of Mechanical Engineering  
 Lawrence Technological University  
 Southfield, Michigan, MI 48075, USA

**MSV of Industry 4.0 Tech Report**

Ahad Ali is an Associate Professor and Director of Industrial Engineering Program and Director of Smart Manufacturing and Lean Systems, A. Leon Linton Department of Mechanical Engineering at the Lawrence Technological University, Southfield, Michigan, USA. He earned B.S. in Mechanical Engineering from Khulna University of Engineering and Technology, Bangladesh, Masters in Systems and Engineering Management from Nanyang Technological University, Singapore and Ph.D. in Industrial Engineering from University of Wisconsin-Milwaukee. Dr. Ali was Assistant Professor in Industrial Engineering at the University of Puerto Rico – Mayaguez, Visiting Assistant Professor in Mechanical, Industrial and Manufacturing Engineering at the University of Toledo, and Lecturer in Mechanical Engineering at the Bangladesh Institute of Technology, Khulna. He received an Outstanding Professor Award of the Industrial Engineering Department, University of Puerto Rico -Mayaguez, (2006-2007). He has published 50 journal and 121 conference papers. Dr Ali has done research projects with Chrysler, Ford, DTE Energy, New Center Stamping, Whelan Co., Delphi Automotive System, GE Medical Systems, Harley-Davidson Motor Company, International Truck and Engine Corporation (ITEC), National/Panasonic Electronics, and Rockwell Automation. His research interests include manufacturing systems modeling, simulation and optimization, intelligent scheduling and planning, artificial intelligence, predictive maintenance, e-manufacturing, and lean manufacturing. He has successfully advised seven doctoral students. Dr. Ali has involved with many international conference committees. He has served as an Executive Director of IEOM Society International and Conference Co-Chair of the International Conference on Industrial Engineering and Operations Management and hold events in Dhaka, Kuala Lumpur, Istanbul, Bali, Dubai, Orlando, Detroit, Rabat, UK, Bogota, Paris, Washington, DC, Pretoria and Bangkok. Dr. Ali has visited 20 countries for professional events. He is a member of IEOM, INFORMS, SME and IEEE.

1:30 – 2:00 (Thursday)



**Mohammad Fakhruddin**  
 Senior Manager  
 Dolf Technologies Co. Ltd.  
 Khobar, Saudi Arabia

**AR, IoT, AI, ML Powered Learning Solutions for Digital Transformation and Industry 4.0**

Mohammad Fakhruddin is Saudi Arabia-based senior e-learning and learning technology executive focused on strategy, innovation, effective execution, and team culture. Previously, he has been a goal-driven project manager and entrepreneur. Mohammad has been in Saudi Arabia for last 7 years working on digital transformation projects in the education and training space. Currently, he operates in a multi-faceted role consisting of elements of Business

Analysis, Solution Architecture, Project Management, and Organizational Development. Mohammad is project director for industry 4.0 service line at his organization and is driving the development of next generation of visualization, training, and interaction tools for Industry 4.0. He is passionate about emerging immersive and wearable technologies (AR, VR, IoT) and the corresponding learning interventions and process transformations, leading to Industry 4.0.

2:00 – 2:30 (Thursday)



**Eng. Mohammed I. Alobaid**  
 Marine Offshore Operations and Logistics - Jubail, Ras Al Khair  
 Kanoo Shipping - A division of Yusuf Bin Ahmed Kanoo Co Ltd  
 Jubail, Saudi Arabia

**Talk Title: Offshore Pipeline Operations and Engineering**

Mohammed I. Alobaid is a technical engineer with a Bachelor of Science Degree in Mechanical and Manufacturing Engineering Technology from Lawrence Technological University, Southfield, Michigan. In addition, he has an Associate's Degree in Computer Technology, Programming, from Alahsa College of Technology, Alahsa, Saudi Arabia. Mohammed works for Yusuf Bin Ahmed Kanoo Group, one of the largest companies in GCC. He is a member of the Marine and Offshore Operations Team of the Shipping Division in Jubail and Ras Alkhair, Saudi

Arabia. Since he joined the company, he contributed to develop the marine and offshore projects management. Furthermore, he worked on several Aramco projects and teamed up with some marine principles such as: Snamprogetti (Saipem), National Petroleum Construction Company (NPCC), HUTA Marine Works LTD, McDermott, Allianz, Topaz Marine, Britoil, Algozaibi Diving & Marine Services, etc. He is in charge of all needed services of the vessels once they reach the port including supervising the loading and discharging activities of all offshore materials such as: heavy coated pipes, scaffolding, giant reels, platforms generators, loose cement, engineering spare parts, supplying crafts, chemical and hazardous materials, Pipeline equipment, etc. Moreover, he is an author. He has three books. Two in English and one in Arabic. Plus, he wrote many stage-plays and short movies.

3:00 – 3:30 (Thursday)



**Dr. Kashif Saleem**  
 Associate Professor  
 Center of Excellence in Information Assurance (CoEIA)  
 King Saud University, Riyadh, Saudi Arabia  
 Visiting Fellow at Macquarie University, Sydney, Australia

**IIoT Security Challenges and Recommendations**

Dr. Kashif Saleem is an Associate Professor at the Center of Excellence in Information Assurance (CoEIA), King Saud University, Riyadh, Saudi Arabia and a Visiting Fellow at Macquarie University, Sydney, Australia. Dr. Saleem received his Master and PhD in Electrical Engineering from University Technology Malaysia in 2007 and 2011. Acquired his PGD in Computer Technology & Communication from GC University, Lahore, Pakistan back in 2004. Dr. Saleem took professional certifications from MIT (USA) in Cybersecurity, IBM in Security Intelligence Analyst, University of the Aegean in Information & Communication Security, Microsoft, Cisco. He has authored and coauthored over 100 scientific research papers in refereed international journals and conferences. He is the editorial board member of high impact journals, and the committee member of numerous international conferences and workshops. Dr. Saleem secured several national and international research grants. His research interests are Bioinformatics, Ubiquitous Computing, Biological Inspired Optimization Algorithms, Computer Networks Security.

3:30 – 4:00 (Thursday)



**Abdulrahman Hamam**  
 QHSE Manager (ISO, Lean, Six Sigma, Risk Management, CQM, TQM, Compliance)  
 Saudi Arabia

**Quality & Excellence presentation & it's relation with Industrial Engineering**

Eng. Abdulrahman Hamam is quality expert who's dedicate his all experience in quality. He earned B.S. in Industrial Engineering from King Khalid University (Abha Saudi Arabia). Eng. Hamam is classified as a Professional Industrial Engineer from Saudi Council of Engineers. He is a Certified IRCA Lead Auditor for ISO 9001:2015 and a Professional member in American Society for Quality (ASQ) and a Professional member for Saudi Society for Quality (SSQ). He is certified as Six Sigma Black belt. He certified as Quality Manager from ASQ. With (+12) years accredited experience in quality industry, this experience including

- Full capability to create an organizational high level governance system.
- Full capability to create all required documents for fulfilling ISO 9001:2015, IATF 16949, ISO 14001:2015, OHASA 45001:2018, HACCP and BRC requirements.
- Review last revision of International Standards & Implement them.
- All Type of Lab testing & Inspections in piping & Plastic Manufacturing systems.
- ISO 9001, IATF 16949, ISO 14001, OHASA 18001, HACCP, ISO 2531, BS EN 545,

- BS EN 598, CE, BRC & FM Internal & External Audits (Expert).
- Review & approve Estimation and Manufacturing Drawings.
- Creating VDDL (Vendor drawings & Data List).
- Reducing customer Complaints & enhanced Customers Satisfaction.
- Suppliers Managements (Audits & Evaluate Vendors).
- Create ITP's (Inspection Test Plans).

4:00 – 4:30 (Thursday)



**Dr. Fahad A Alfifi, (SMP, OMP, PMI, BSC, KPI) - Certified Trainer**  
 Corporate Strategic and Business Planning Consultant  
 Saudi Railway Company

- Executive Director of the National statistical Strategic at General Authority for Statistics
- Director of Information Technology & Strategic Management Office at Gulf Cooperation Council Standardization Organization (GSO)
- PMO Director at King Abdullah Public Education Development Project – Director of Information Center at Riyadh Chamber of Commerce & Industry
- Doctor of Science (D.Sc.) in Information Systems and Communications, Robert Morris University, 2015.
- Master of Science in Information Systems (MSIS), Lawrence Tech University, 2009.
- Bachelor of Science in Information Systems, Virginia Commonwealth University, 2008.

# IEOM

## International Journal

### of Industrial Engineering and Operations Management



## IEOM Student and Professional Chapter Activities

[www.ieomsociety.org/chapters/](http://www.ieomsociety.org/chapters/)



IEOM KFUPM Student Chapter



King Saud University, Riyadh, Saudi Arabia



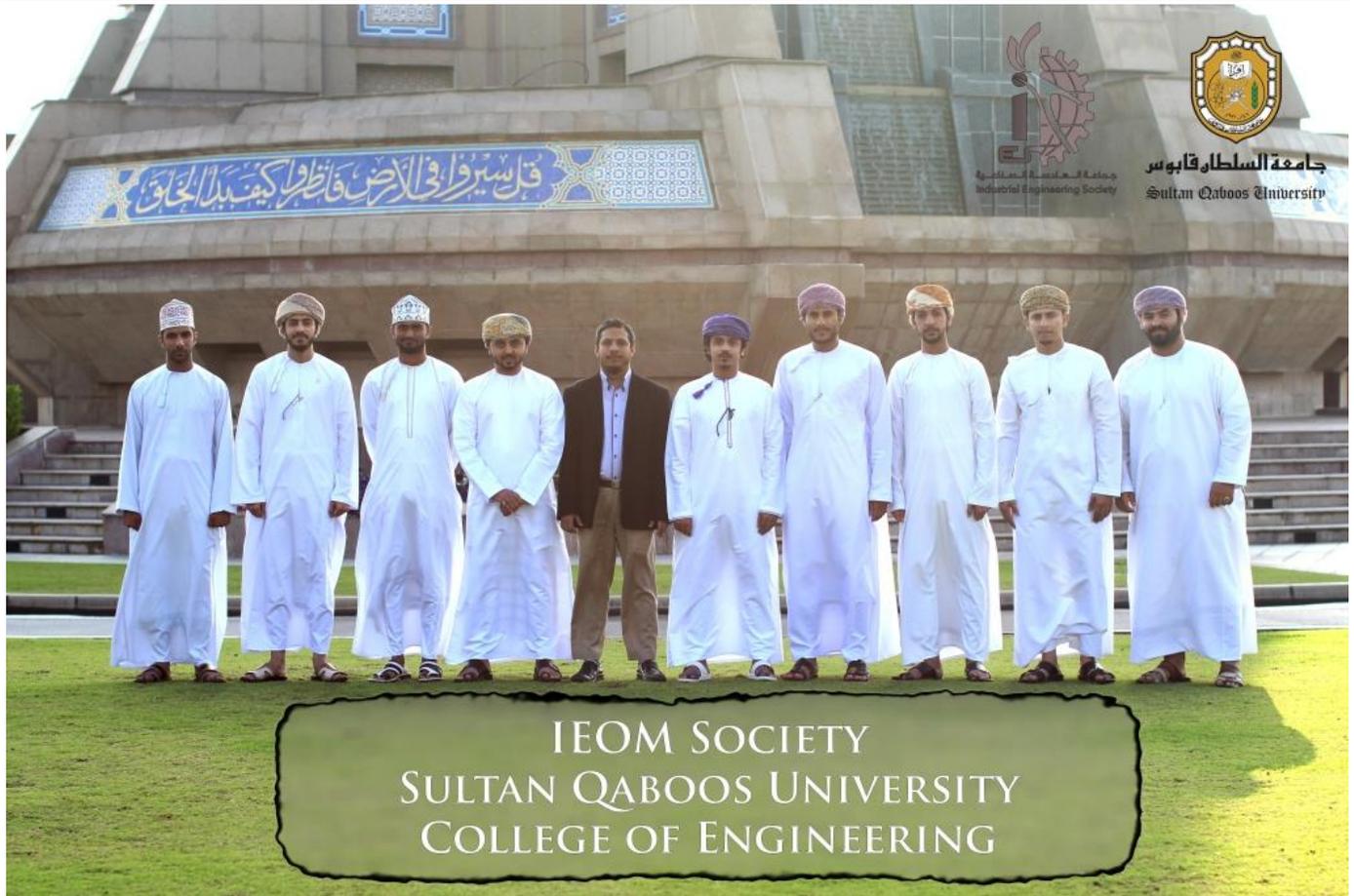
IEOM Effat University Student Chapter



IEOM PSU Student Chapter



IEOM KAU-Rabigh Student Chapter



IEOM SQU Student Chapter



Facens Student Chapter, Sorocaba, Brazil



Bulacan State University, Philippines



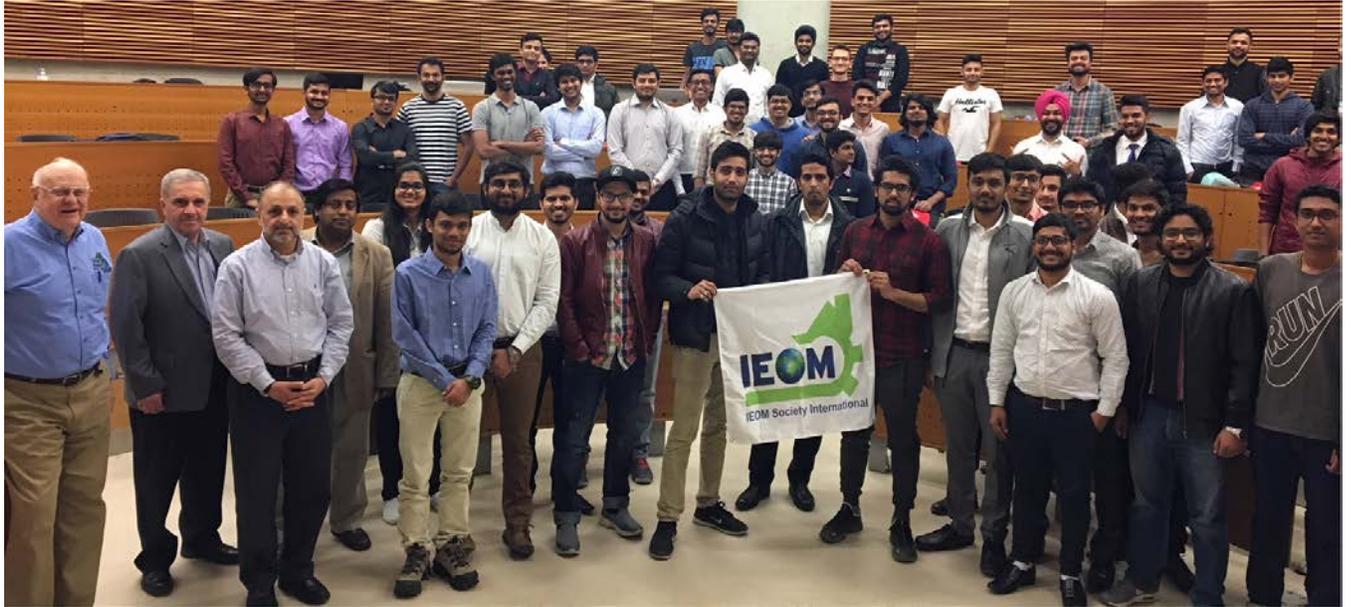
Guru Nanak Dev Engineering College, Punjab, India



Universitas Tarumanagara, Indonesia



University of Malaysia, Sabah



University of Windsor, Canada



Lawrence Technological University



University of New Brunswick at Fredericton, Canada



Government College University Faisalabad (GCUF), Pakistan



**IEOM Student Chapter at Universiti Tun Hussein Onn Malaysia (UTHM)**



**Khulna University, Bangladesh**



**IEOM Michigan Chapter**



**IEOM Botswana Chapter**



IEOM University of Johannesburg Student Chapter



Zagazig University, Egypt



Sheridan College, Brampton, Ontario, Canada



**IEOM Student Chapter at Sudan University of Science and Technology, Khartoum**



**IEOM Student Chapter at Ecole Mohammadia d'Ingénieurs (EMI), Mohammed V University of Rabat, Morocco**

**IEOM Student Chapter at King Abdulaziz University (KAU), Jeddah, Saudi Arabia**

**Faculty Advisor**

Dr. Ammar Al-Qahtani, Department of Industrial Engineering

**Chapter Officers**

President: Linah Khalid Hussain  
 Vice President: Rawan Hasan Baik  
 Director of Administration: Walaa Othmani  
 Director of Finance: Sara Yahya  
 Director of Programs: Malak Mously  
 Director of Webmaster and Social Media: Shahad Al Malki  
 Director of Communications: Bushra Alkhalidi  
 Director of Membership: Dania Memish

**IEOM Student Chapter for College of Engineering at Princess Nourah University**

**Faculty Advisors**

Dr. Kaouther Mohamed Ghachem  
 Dr. Mariam Ali Alasmari

**Chapter Officers**

President: Sara Alsalman  
 Vice President: Hessa Alshunaybir  
 Secretary: Renad Bin Roshod  
 Treasurer: Nuha Aloud  
 Director of Social Media: Reem Aseeri  
 Director of Program/Activities: noura Alghurayr  
 Director of Membership: Saja al-sultan  
 Director of Communication: Reema Altuwaijri and Yara Alghamdi

**IEOM Student Chapter at Taibah University, Medina, Saudi Arabia**

**Faculty Advisor**

Dr. Rayan Omar, Assistant Professor at Industrial Engineering Department

**Chapter Officers**

President: Abbod Sumaidea  
 Vice President: Khaled Hejazy  
 Secretary: Hamzah Amar  
 Treasurer: Osamah Awamah  
 Director of Program/Activities: Sufian Al- Muhammady  
 Director of Membership: Muhammad Babukair  
 Director of Communication: Mahmud Al-Basuny

**IEOM Student Chapter at University of Science & Technology of Fujairah (USTF), Fujairah - United Arab Emirates (UAE)**

**Faculty Advisor**

Dr. Amir J. Majid, Associate Professor, College of Engineering

**Chapter Officers**

Vice President: Dr. Amir J. Majid  
 Director of Social Media: Ahmed Sameer Issam Abdullatif  
 Director of Membership: Osama Ahmad Alnablsi  
 Director of Communication: Nouf Obaid Alzaabi

**4<sup>th</sup> North American IEOM Conference, October 23-25, 2019**



**Third European IEOM Conference in Pilsen, Czech Republic, July 23-26, 2019**



**First Central American Symposium on Industry 4.0, Logistics 4.0 and Manufacturing 4.0, San Jose, Costa Rica, June 12-13, 2019**



**Annual Production Engineering Week of Sorocaba (XI SEPS), May 22 - 23, 2019, Faculdade de Engenharia de Sorocaba (FACENS), The Sorocaba Engineering School, Sorocaba/SP, Brazil**



**8th IEOM Annual International Conference, Bangkok, Thailand, March 5-7, 2019**



**Second IEOM Fellows Induction at the IEOM Bangkok Conference on March 6, 2019**



**First African IEOM Conference, Pretoria, South Africa, October 30 – November 1, 2018**



**Third North American IEOM Conference, Washington, DC, USA, September 27-29, 2018**



**IEOM International Conference (Bandung, Indonesia, March 6-8, 2018)**



**University of Monterrey (UEM), Mexico Visit, May 29-30, 2018**



**Faculty of Civil and Industrial Engineering of Sapienza – University of Rome, Italy**



# IEOM Student Chapters around World

## Australia

1. Queensland University of Technology (QUT), Brisbane

## Bahrain

2. University of Bahrain

## Bangladesh

3. Ahsanullah University of Science & Technology, Dhaka
4. Bangladesh Univ. of Engineering and Technology (BUET)
5. Islamic University of Technology (IUT)
6. International Islamic University of Chittagong (IIUC)
7. Jessore University of Science and Technology (JUST)
8. Khulna University
9. Khulna University of Engineering and Technology (KUET)
10. Military Institute of Science and Technology (MIST)
11. Bangladesh Institute of Management (BIM)

## Botswana

12. University of Botswana

## Brazil

13. Federal University of Sao Carlos (UFSCar)
14. Federal University of Santa Catarina (UFSC)
15. Univeristy of Sao Paulo (USP) – Sao Carlos
16. Federal Institute of Sao Paulo (IFSP) – Sorocaba
17. Faculdade de Engenharia de Sorocaba (FACENS)

## Canada

18. Concordia University
19. University of New Brunswick at Fredericton
20. University of Windsor

## Colombia

21. Fundación Univ. Tecn. Comfenalco, Cartagena, Bolívar
22. University of Rosario, Bogota
23. University of Quindío
24. Universidad de San Buenaventura, Cali, Valle

## Costa Rica

25. University of Costa Rica

## Czech Republic

26. University of West Bohemia, Pilsen

## Ecuador

27. Technical University of Ambato

## Egypt

28. Zagazig University

## Finland

29. University of Vaasa

## France

30. IESEG School of Management
31. Lorraine University, Metz

## Greece

32. Accra Technical University

## Ghana

33. Technological Education Institute (TEI), Thessaly, Larissa

## India

34. College of Engineering and Technology, Bhubaneswar, Odisha, India
35. College of Engineering Guindy (Anna University), Chennai
36. Guru Nanak Dev Engineering College, Ludhiana, Punjab
37. Pandit Dendayal Petroleum Univ., Ahmedabad, Gujrat
38. P.D.A. College of Engineering, Gulbarga, Karnataka, India
39. Vellore Institute of Technology
40. Vidya Jyothi Institute of Technology, Hyderabad

## Indonesia

41. Bina Nusantara University (Binus), Indonesia
42. Institut Teknologi Bandung
43. Institut Teknologi Sepuluh Nopember (ITS)
44. Sampoerna University, Jakarta
45. Shipbuilding Institute of Polytechnic Surabaya
46. Universitas Diponegoro (Undip)
47. University of Indonesia
48. Universitas Sebelas Maret (UNS), Surakarta
49. Tarumanagara University

## Iran

50. MehrAstan University, Guilan
51. University of Eyvanekey

## Iraq

52. Babylon University

## Italy

53. University of Salento

## Japan

54. Ashikaga University

## Kenya

55. Kenyatta University, Nairobi

## Libya

56. Libyan Academy

## Malaysia

57. Universiti Malaysia Sabah (UMS)
58. Universiti Putra Malaysia (UPM)
59. Universiti Teknologi Malaysia (UTM)
60. Universiti Tun Hussein Onn Malaysia (UTHM)

61. Universiti Utara Malaysia (UUM)

## Morocco

62. Akhawayn University
63. Ecole Mohammadia d'Ingénieurs (EMI)

## Namibia

64. National Univ. of Sci. and Tech. in Windhoek, Namibia

## Nepal

65. Kathmandu University
66. Tribhuvan University

## Nigeria

67. Covenant University
68. University of Ibadan

## Oman

69. Sultan Qaboos University

## Pakistan

70. Dawood University of Engineering and Technology, Karachi
71. Government College University Faisalabad
72. Mehran University of Engineering and Technology, Jamshoro, Sindh
73. University of Lahore

## Paraguay

74. National University

## Peru

75. National University of San Antonio Abad, Cusco, Peru

## Philippines

76. LPU Laguna
77. Bulacan State University, Malolos City, Bulacan

## Qatar

78. Qatar University

## Saudi Arabia

79. Alfaisal University
80. Effat University
81. King Abdulaziz University (KAU)
82. King Abdulaziz University, Rabigh
83. King Fahd University of Petroleum and Minerals (KFUPM)
84. King Saud University (KSU)
85. Princes Nourah University (PNU)
86. Prince Sultan University
87. Taibah University

## South Africa

88. Durban University of Technology (DUT)
89. Tshwane University of Technology (TUT)
90. University of Johannesburg (UJ)
91. University of South Africa (UNISA)
92. Vaal University of Technology (VUT)

## Sri Lanka

93. University of Kelaniya
94. University of Peradeniya

## Sudan

95. Sudan University of Science and Technology, Khartoum

## Thailand

96. Chulalongkorn University, Bangkok
97. Chiang Mai University

## UAE

98. University of Science & Technology of Fujairah (USTF)

## UK

99. University of Derby
100. University of the West of England (UWE), Bristol

## USA

101. Central Connecticut State University
102. Eastern Michigan University
103. Lawrence Technological University, Michigan, USA

## Venezuela

104. Catholic University Andrés Bello (UCAB), Caracas

## Zambia

105. University of Zambia
106. Copperbelt University
107. Evelyn Hone College

## Zimbabwe

108. University of Zimbabwe, Harare
109. National University of Science and Technology

# IEOM Global Council



**Professor Charles Mbohwa, Ph.D.**  
Professor, Faculty of Engineering and the Built Environment (FEBE)  
University of Johannesburg (UJ)  
Johannesburg, South Africa



**Professor Abdul Talib Bon, Ph.D.**  
Professor of Technology Management, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia



**Prof. Vitor Mendes Caldana**  
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus  
Sorocaba, Sao Paulo, Brazil



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



**Prof. Jose Arturo Garza-Reyes, Ph.D.**  
Professor of Operations Management  
Head of the Centre for Supply Chain Improvement  
College of Business, Law and Social Sciences, Derby Management School  
University of Derby, UK



**Dr. Umar Al-Turki**  
Professor  
Systems Engineering Department  
King Fahd University of Petroleum and Minerals  
Dhahran, Saudi Arabia



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



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



**Professor Abu Masud, Ph.D., P.E.**  
Emeritus Professor  
Department of Industrial and Manufacturing Engineering  
Wichita State University  
Kansas, USA



**Dr. Abdur Rahim**  
Professor, Faculty of Business Administration  
University of New Brunswick  
Fredericton, NB, Canada



**Professor Hamid Parsaei, Ph.D., PE**  
Professor, Industrial and Systems Engineering and Mechanical Engineering  
Texas A&M University (College Station)



**Professor Bernardo Villarreal, Ph.D.**  
Professor, Department of Engineering  
Universidad de Monterrey  
San Pedro Garza Garcia, NL  
Mexico

## Executive Committee

Director of Membership and Chapter



**Professor Donald M. Reimer**  
President, The Small Business Strategy Group  
Detroit, Michigan, USA  
Adjunct Faculty – Lawrence Tech  
Southfield, Michigan, USA

Director of Program



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

Director of Publication



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

Executive Director



**Dr. Ahad Ali**  
Associate Professor  
Director of IE Program  
A. Leon Linton Dept. of Mechanical Engineering, Lawrence Technological University, Southfield, Michigan, USA

# Upcoming Events

## 10<sup>th</sup> IEOM International Conference

Hyatt Regency, Dubai, United Arab Emirates (UAE)  
March 10-12, 2020

Conference Website: [www.ieomsociety.org/ieom2020/](http://www.ieomsociety.org/ieom2020/)



2<sup>nd</sup> South American Conference on  
**Industrial Engineering &  
Operations Management**  
São Paulo, Brazil, April 14-16, 2020  
Venue: Maksud Plaza Hotel, São Paulo



[www.ieomsociety.org/brazil2020/](http://www.ieomsociety.org/brazil2020/)

## 4<sup>th</sup> IEOM European Conference

Rome, Italy, July 22-24, 2020

Venue: The Faculty of Civil and Industrial Engineering of Sapienza –  
University of Rome, Italy

Conference Website: [www.ieomsociety.org/rome2020/](http://www.ieomsociety.org/rome2020/)



5<sup>th</sup> North American Conference on  
**Industrial Engineering &  
Operations Management**  
Monterrey, Mexico, Sept. 30-Oct. 2, 2020  
Venue: CINTERMEX-Monterrey Convention Center



[www.ieomsociety.org/monterrey2020/](http://www.ieomsociety.org/monterrey2020/)