



IEOM Society International

2020 IEOM Awards – Harare, Zimbabwe

The 2nd African International Industrial Engineering and Operations Management Conference, December 7-10, 2020

Distinguished Excellency Award

Professor Mohammad Yunus, Nobel Peace Prize Recipient, Grameen Bank Founder, Professor of Econometrics, Social Business Co-founder, Social Society Leader, World Food Prize Recipient

IEOM Distinguished Leadership Award

Prof. Kuzvinetsa Peter Dzvimbo, Chief Executive Officer, Zimbabwe Council for Higher Education (ZIMCHE), Harare, Zimbabwe
Dr. Eng. Ben Rafemoyo, Chief Executive Officer, Engineering Council of Zimbabwe

IEOM Distinguished Excellency in Academia Award

Professor Paul Mapfumo, Vice Chancellor, University of Zimbabwe, Harare, Zimbabwe
Professor Mqhele Dlodlo, Vice-Chancellor, National University of Science and Technology (NUST), Ascot, Bulawayo, Zimbabwe
Prof. Quinton Kanhukamwe, Vice Chancellor, Harare Institute of Technology, Harare, Zimbabwe
Prof. Ephraim Tobela Gwebu, Vice Chancellor, Solusi University, Bulawayo, Zimbabwe
Professor David Simbi, Vice-Chancellor, Chinhoyi University of Technology, Chinhoyi, Zimbabwe

IEOM Distinguished Industry Achievement Award

Dr. Douglas Mboweni, Ph.D., Group Chief Executive Officer, Econet Wireless Zimbabwe Limited, Harare, Zimbabwe
Corrado La Forgia, VP Operations Manager and Managing Director, BOSCH VHIT – CR, Offanengo, Lombardy, Italy
Henk Viljoen, Siemens – Xcelerator, Portfolio Development Manager Siemens Digital Industries Software, Pretoria, South Africa

IEOM Distinguished Educator Award

Prof. Daniel J. Mashao, Executive Dean: Faculty of Engineering & the Built Environment, University of Johannesburg, South Africa
Professor Christian Amaechi Bolu, Professor of Mechatronics Engineering, Past Dean - College of Engineering, Covenant University, Ota, Ogun State, Nigeria & Executive Committee Member, Global Engineering Deans Council

IEOM Distinguished Professor Award

Prof. Nidhal Rezg, Professor & Director of LGIPM, Director General of UPS DITEX, University of Lorraine Metz, France
Professor Maneesh Kumar, Professor in Service Operations, Cardiff Business School, Cardiff University, UK
Dr. Marco Lübbecke, Professor of Operations Research, RWTH Aachen University, Aachen, Germany

IEOM Diversity and Inclusion Panel Speaker Award

Dr. Wilkistar Otieno, Associate Professor and Chair, Industrial and Manufacturing Engineering, Faculty Mentor of Preparing Engineers and Computer Scientist NSF-STEM Scholarship PI. & WiscAMP, University of Wisconsin-Milwaukee, USA

IEOM Distinguished Woman in Industry and Academia Award

Dr. Esther T. Akinlabi, Director, Pan African University for Life & Earth Sciences Institute (PAULESI), Ibadan, Nigeria - African Union Commission
Dr. Loice Gudukeyes, Senior Lecturer, Department of Mechanical Engineering, University of Zimbabwe, Harare, Zimbabwe
Dr. Fortunate Fariral, PhD (Pr. Eng.), Chief Executive Officer of Sustenergy Zimbabwe
Dr. Bupe Getrude Mwanza, Associate Director, Graduate School of Business, University of Zambia, Zambia

IEOM Global Engineering Education Award

Dr. Şirin Tekinay, Dean, College of Engineering, American University of Sharjah, Sharjah, UAE and Chair, Global Engineering Deans Council
Prof. Hannes van der Walt, Dean, Faculty of Engineering, Namibia University of Science and Technology, Windhoek, Namibia
Prof. Oswell Hapanyengwi, Dean: Faculty of Education, University of Zimbabwe, Mt Pleasant, Harare, Zimbabwe
Mrs. Barbara Nhemachena, Quality Promotion and Development Officer, Zimbabwe Council for Higher Education (ZIMCHE), Zimbabwe
Dr. Tamale T. Kambikambi, Deputy Vice Chancellor, University of Zambia and Board Member - Zambia Qualifications Authority

IEOM Industry 4.0 Award

Dr. Joseph Sevilla, Director of the iLabAfrica Research Centre, Strathmore University, Nairobi, Kenya
Sanda, M.-A., University of Ghana Business School, P. O. Box LG 78, Legon, Accra, Ghana

IEOM Industry Solutions Award

Mr. Bathusi Makopo, Business Process Analyst, First National Bank of Botswana, First Place, (CBD), Gaborone, Botswana
Tassius Chigariro, Managing Director, Old Mutual Zimbabwe, Harare, Zimbabwe
Eng. ISRAEL RWODZI, Chairman, Engineering Council of Zimbabwe (ECZ)
Francis Masawi, Independent Energy Expert, Managing Director, Energy and Information Logistics Group Limited (EiL), Harare
Dr. Ephraim Havazvidi, Group Research Manager, Seedco, Zimbabwe
Nqobile Munzara, Executive Assistant to Group CEO, Financial Securities Exchange, Harare, Zimbabwe

Outstanding Teaching and Learning Award

Prof. Didier Nyembwe, Vice Dean: Teaching and Learning, Faculty of Engineering and the Built Environment, University of Johannesburg, RSA

Outstanding Teaching Award – IE

Dr. Abdellah Abouabdellah, Head, Modeling, Systems Optimization Director of Industrial and Logistics and Professor, University Ibn Tofail, Kenitra, Morocco

Outstanding Teaching Award – OM

Vali Issufo, Lecturer, Faculdade de Engenharia, Eduardo Mondlane University, Mozambique
Dr. Jean Robert Kala Kamdjoug, GRIAGES, Department of Management and Information Systems, Catholic University of Central Africa, Yaoundé, Cameroon

Outstanding Engineering Education Award

Dr. Mohamed Gaber Abou-Ali, Dean of the Faculty of Engineering, Pharos University in Alexandria, Egypt
Sackey, S.M., Department of Mechanical Engineering, Kwame Nkrumah University of Science and Technology, Ghana

Supply Chain Teaching Award

D. Essuman, Dept. of Supply Chain and Information Systems, Kwame Nkrumah University of Science and Technology, Ghana
Ms. Sebonkile Thaba, Lecturer in Transport and Supply Chain Management at University of Johannesburg, South Africa

Outstanding Professor Award – IE

Dr. Amr Eltawil, Associate Professor and Dept. Chair, Egypt-Japan University of Science and Technology, Alexandria, Egypt
Dr. George Mwaluko, Professor and Head, Dept. of Mechanical & Industrial Engineering, University of Dar es Salaam, Tanzania
Kizito Mubiru, Head and Senior Lecturer, Industrial Engineering and Management, Kyambogo University, Uganda

Outstanding Professor Award – Business Management

Dr. Salah BENABDALLAH, Professor of Business Computing, Tunis Business School, University of Tunis, Tunisia
Tšepiso A. Rantšo, Department of Development Studies, National University of Lesotho, Lesotho

Outstanding Professor Award

Prof. Sandile Motsa - Faculty Dean (Science and Engineering) - University of Swaziland, Eswatini
Moungomo, J.B.M., Ecole Normale Supérieure de l'Enseignement Technique (ENSET), Gabon

Outstanding Researcher Award

Dr. Callychurn Devkumar Sing, Head, Mechanical and Production Engineering Department (MPED), University of Mauritius
Dr. Nouara Ouazraoui, Laboratory of Research in Industrial Prevention (LRIP), Health and Occupational Safety - Institute, University of Batna, Road Med El-Hadi Boukhlouf, Batna 05000, Algeria
Dr. Clinton Aigbavboa, Director: Sustainable Human Settlement and Construction Research Centre, University of Johannesburg, South Africa

Outstanding Achievement Award

Roy, S.E.J Higher Institute of Technology Antsiranana, Department of Industrial Engineering, Madagascar
Ali, M.M., Laboratory of Research Applied to Renewable Energy (LRAER), University of Nouakchott Al Aasriya (UNA), Nouakchott, Mauritania

Outstanding Professor in Construction Management

Prof Didihuku Wellington Thwala, Faculty of Engineering and the Built Environment, Department of Construction Management and Quantity Surveying, Professor (SARChi Chair)

IEOM Distinguished Service Award

Professor Charles Mbohwa, Pro-Vice Chancellor Strategic Partnerships and Industrialisation, University of Zimbabwe, Harare, Zimbabwe

IEOM Conference Service Award

Dr. Perkins Muredzi, Dean, School of Industrial Sciences & Technology, Harare Institute of Technology, Zimbabwe
Dr. Londiwe Cynthia Nkiwane, Associate Professor and Chairperson, Department of Fibre and Polymer Materials Engineering, NUST, Zimbabwe
Dr. Wilbert Mtangi, Director: Institute of Materials Science, Processing & Engineering Technology, Chinhoyi University of Technology, Zimbabwe

IEOM Outstanding Service Award

Dr. Tawanda Mushiri, Department of Industrial and Mechatronics Engineering, University of Zimbabwe
Dr. Loice K Gudukeya, Department of Industrial and Mechatronics Engineering, University of Zimbabwe
Dr. Ignatio Madanhire, Department of Industrial and Mechatronics Engineering, University of Zimbabwe
Dr. Wilson R. Nyemba, Department of Industrial and Mechatronics Engineering, University of Zimbabwe
Dr. Bupe Mwanza, School of Business, University of Zambia
Prof. Michael Mutingi, Associate Professor of Industrial Engineering, Namibia University of Science and Technology, Windhoek, Namibia
Dr. William Msekiwa Goriwondo, Dean, Faculty of Engineering, National University of Science and Technology, Zimbabwe
Monica Mureriwa, Director for Public Relations and Marketing, Catholic University of Zimbabwe, Harare, Zimbabwe
Dr. Sam Takavarasha Jr., Dean, Faculty of Management and Entrepreneurial Sciences, Women's University in Africa

IEOM Society Service Award

Dr. Jerekias Gandure, Head and Associate Professor, Department of Mechanical Engineering, University of Botswana
 KAMGA TCHWAKET Ignace, Ingénieur en Chef de la Statistique, Chef du département d'Economie à l'ISSEA, Cameroon
 Abebayehu Abdela, Chair, EiTM – Ethiopian Institute of Technology Mekelle, Mek'ele, Ethiopia
 Felix Atsu Acquayi, Junior Chamber International (JCI) Ghana
 Saber Kh. Elmabrouk, School of Applied Sciences and Engineering, Libyan Academy for Graduate Studies, Janzour, Libya
 Dr. Santaram Venkannah, Associate Professor, Mechanical and Production Engineering Dept., University of Mauritius
 Dr. Adekunle Kolawole, Senior Lecturer Ergonomics/Human factor Engineering, University of Ibadan, Ibadan, Nigeria
 Dr. Safa Layeb Bhar, Maitre Assistante, Département Génie Industriel, Ecole Nationale d'Ingénieurs de Tunis, Tunisia,
 Blessed Sarema, Lecturer, Dept. of Industrial and Manufacturing Engineering, NUST, Bulawayo, Zimbabwe
 Dr. Abderrahmane Benbrik, University M'Hamed BOUGARA at Boumerdes, Algeria

Undergraduate Student Paper Competition Award Sponsored by SIEMENS

1st Place

ID 412 Developing a Maturity Model and an Implementation Plan for Industry 4.0 Integration

Samantha Melnik, Michael Magnotti, Cameron Butts, Carol Putman and Faisal Aqlan, Pennsylvania State University, The Behrend College, Erie, PA 16563, USA

2nd Place

ID 395 Improving the Efficiency and Stability of Centrifugal Pump Filtration System Using Membrane System

T.S. Lekalakala 1, P. B. Sob 2, A. A. Alugongo 3 and T. B. Tengen 4
 1,2,3 Department of Mechanical Engineering, Faculty of Engineering and Technology, Vaal University of Technology, Vanderbijlpark 1900, Private Bag X021, South Africa
 4 Department of Industrial Engineering and Operations Management, Faculty of Engineering and Technology, Vaal University of Technology, Vanderbijlpark 1900, Private Bag X021, South Africa

3rd Place

ID 257 Blockchain-Enabled Campus Wine Supply Chain

Hannah Casper, Allison Jung, Aria Saberi and Mohamed Awwad, Department of Industrial and Manufacturing Engineering, California Polytechnic State University, San Luis Obispo, CA 93407, USA

4th Place

ID 331 Incorporation and Design of a New Facility in a Country-wide Logistics Network

Oscar E. Ricaño, Héctor A. Lozano, José C. Moreno and Jenny Díaz-Ramírez, Universidad de Monterrey, San Pedro Garza García, Nuevo León, 66238, Mexico

Graduate Student Paper Competition Award sponsored by EATON Corporation

1st Place

ID 292 Blockchain and the Internet of Things: A Literature Review

Ashutosh Devulkar and Mohammed Awwad, Industrial and Manufacturing Engineering Department, California Polytechnic State University, San Luis Obispo, CA 93407, USA

2nd Place

ID 684 The Effectiveness Working Capital Management Small and Medium Enterprises (SMEs) Surabaya

Falentino Heydi Sanda, Mohammed Fateh Alrahman Ali Rabbad, Ani Wulandari, Rizal Bahaswan, Elok Damayanti and Agus Sukoco, Faculty of Economics and Business, Narotama University Surabaya, East Java, Indonesia
 Talib Bin Bon, Department of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Johor Bahru, Malaysia

3rd Place

ID 660 The Impact of Internet of Things on Supply Chain Performance

Maha Abdel Hamid Morssi, Hussein Magdy Elhusseiny and Dina Adel Hamad, Logistics and Supply Chain Management Department, Transport and Logistics Management Department, College of International Transport and Logistics, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

Senior Design Project Competition Award sponsored by Tooling Tech Group

ID 210 Effective Conversion of Waste Cotton Textile by Acid Hydrolysis to Produce Ethanol Using *Saccharomyces Cerevisiae*.

Maud Gracious Fuko and Itai Mutadza, School of Engineering and Technology, Department of Chemical and Process Systems Engineering, Harare Institute of Technology, Belvedere, Harare, Zimbabwe

Doctoral Dissertation Award

ID 420 The Assessment and Characterization of Critical Thinking Skills of Upper Division Technology Students Using the Critical Thinking Assessment Test (CAT)

Matthew Harvey, Department of Agricultural and Biosystems Engineering, Iowa State University, Ames, IA 50011, USA

Master Thesis Competition Award

ID 213 Multifactor Algorithm for Evaluating Applicability of Preventive Maintenance: Case of ABInBev NamibiaGeser

Hityasha Okahandja, Otjozondjupa, Master of Industrial Engineering, Department of Mechanical and Marine Engineering, School of Engineering, Namibia University of Science and Technology, Namibia

COVID-19 Competition Award

1st Place

ID 453 Simulation of an extraction system using an Internet of Things (IoT) device for automatic control and alarm management for a Hospital Airborne Infectious Hospital Isolation Rooms (AIIR)

L.A. Roy, F.K Tekweme, Department of Mechanical Engineering, University of Johannesburg, Johannesburg, South Africa

2nd Place

ID 534 MOBILISE-UTHM Resilient Tracker (RITTER) for Resilient Educational Communities in Malaysia

Noralfishah Sulaiman, Umber Nazir, Sheikh Kamran Abid, Siti Kursiah Kamalia Abdul Latib, Haridzah Fathini Muhammad Hafidz, Nur Putri Najwa Mahmud, KANZU Research: Resilient Built Environment (RBE), Faculty of Technology Management and Business (FPTP), Universiti Tun Hussein Onn Malaysia (UTHM) 86400 Parit Raja Batu Pahat Johor, Malaysia
Terrence Fernando, THINKlab, University of Salford, Greater Manchester, UK

High School and Middle School STEM Competition Award

1st Place

ID 641 STEAMS Methodology of Sports Science and Injury

Lily Sun and Mason Chen, Stanford Online High School, Redwood City, CA, USA
Patrick Giuliano, Abbott Structural Heart, Menlo Park, CA, USA

2nd Place

ID 542 Emotion and Correlations to Time (Applications of EEG)

Arhan Surapaneni, Stanford OHS, Redwood City, CA 94063, USA

3rd Place

ID 634 Statistical Modeling of Stock Investment during COVID-19

Chi-hong Ho, Junior, Henry M. Gunn High School, Palo Alto, CA, USA
Mason Chen, Sophomore, Stanford University OHS, Palo Alto, CA, USA

4th Place

ID 544 "STEAMS" Methodology of NBA Draft Player Position

Mason Chen, Stanford OHS, Academy, Redwood City, CA 94063, USA

High School STEM Presentation Skill Award

1. Mason Chen
2. Soloni Patel
3. Arhan Surapaneni
4. Logeshwari Chandramohan
5. Takiyah Ali

Simulation Competition Award

First Place

ID 124 Simulation of Manchester Triage System in a Brazilian Hospital

Alan Vitor Cunha, Franklin Leonardo dos Santos, Henrique Ewbank de M. Vieira and Rodrigo Luiz Gigante, Production Engineering Department, Facens University, Sorocaba, Brazil

Second Place

ID 334 Agent-Based Modeling for Internet of Things (IoT) Application in a Retail Pharmacy Industry

Mohammed Basingab, Usamah Balamesh, Rayan Bafaqih, Osama Alamoudi, Abdulbari Hesiki and Abdulrhaman Alghafari, Industrial Engineering Department, King Abdulaziz University, Jeddah, 22252, Saudi Arabia

Supply Chain and Logistics Competition Award

1st Place

ID 418 A Modified Firefly Algorithm for Global Optimization of Collaborative Supply Chain Networks under Stochastic Demand

Abdulhadi Altherwi, Department of Industrial Engineering, Jazan University, Jazan, Saudi Arabia and Department of Industrial & Systems Engineering, Oakland University, Rochester, MI 48309, USA
Daw Alwerfalli, A Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Tech, MI 48075, USA

2nd Place

ID 679 Examination of Supply Chain Challenges in Large Scale Exterior Building Panels from the Perspective of an ETO Fabricator

Andrew T. Rener, President of Bouma Group, Managing Member of Centerline Prefab, LLC, Grand Rapids, MI, USA

3rd Place

ID 095 Review and Parameterization of Make to Stock Items

Laura Stuart Lamarca Soares, Rodrigo Luiz Gigante and Henrique Ewbank de M. Vieira, Facens University, Sorocaba, SP, Brazil

The Relationship between Enterprise Resource Planning and Supply Chain Management

Kayla Akey, Masters of Engineering Management Program, Lawrence Technological University, Southfield, MI 48075, USA

Lean Six Sigma Competition Award sponsored by Tooling Tech Group

1st Place

ID 658 Using Statistical Process Control to improve the quality in Utility plant

Marwan Al Obaidi and Jinendra Ijari, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

Best Track Papers Awards

Business Management

ID 271 The Effect of Green Human Resources Management on Service Quality in the Pandemic Time of Covid-19 On State-Owned Enterprise Hospitals the Republic of Indonesia

Asep Saifudin, Student of the Mercu Buana University Doctoral Program, Jakarta, Indonesia
 M. Havidz Aima, Professor and Head of the Doctoral Program at Mercu Buana University, Jakarta, Indonesia
 Achmad Hidayat Sutawidjaya and Sugiyono, Postgraduate Lecturer at Mercu Buana University, Jakarta Indonesia

Construction Management

ID 225 Minimization of Yarn Breakage Rate in Looming Process Using Parameter Optimization Techniques

Muluken Abebe, M.Sc., Faculty of Mechanical and Industrial Engineering, Bahir Dar Institute of Technology, Bahir Dar, Ethiopia

Data Analytics

ID 415 Predicting Congenital Heart Diseases Using Machine Learning

John Tinashe Meda and Tawanda Mushiri, Department of Industrial and Mechatronics Engineering, Faculty of Engineering and the Built Environment, University of Zimbabwe, Harare, Mt Pleasant, 630 Churchill Avenue, Zimbabwe

Design and Analysis

ID 123 Design of Electro-Hydraulic Circuits of Tri-adjustable Automated Heavy-Duty Industrial Handling System

S.Z. Mafokwane and D.V.V. Kallon, Department of Mechanical Engineering Technology, University of Johannesburg, South Africa

E-Business/E-Service

ID 306 Addressing Covid-19 in Higher Learning Institutions through Implementing Cryptocurrency Payments Based on Blockchain Technologies

ChimukaMoonde, Jackson Phiri, Computer Science Department, University of Zambia, Lusaka, Zambia

Energy

ID 402 Towards Decentralised Water Access, A Primer Solar PWS Design Solution to Aid The COVID-19 Fight

Hilton Chingosho, Roy N Mushonga, TauyanasheChikuku, Wilson R Nyemba, and LoiceGudukeya, Department of Mechanical Engineering, University of Zimbabwe, Harare, P.O Box MT 167 Mount Pleasant, Zimbabwe

ID 401 Bioenergy Efficiency Evaluation for Sustainable Optimization in Sub-Saharan Africa

Katundulmasiku, Africa Centre of Excellence in Energy for Sustainable Development, College of Sciences and Technology, University of Rwanda, Nyarugenge, 1109, Kigali, Rwanda
 Valerie M. Thomas, School of Industrial and Systems Engineering, Georgia Institute of Technology, 755 Ferst Drive NW, Atlanta, GA 30332-0205, USA and School of Public Policy, Georgia Institute of Technology, Atlanta, GA 30332-0345, USA

Engineering Education

ID 320 Competencies in the Digitalized Working Environment: A Concept for Engineering Education in Higher Education Institutions

Corina Pacher, Resources Innovation Center, Montanuniversitaet Leoben, Franz Josef-Strasse18, 8700 Leoben, Austria
 Manuel Woschank, Chair of Industrial Logistics, Montanuniversitaet Leoben, ErzherzogJohann-Strasse3/1, 8700 Leoben, Austria

Engineering Management

ID 231 The Decision Model of Internet of Things (IoT) Solutions for Healthcare based on Risk and Challenge Factors

M Dachyar and Nabila Alya Zahra, Industrial Engineering Dept., Universitas Indonesia, Depok, Indonesia

Environmental Engineering

ID 490 Performance Comparison and Indoor Air Quality Exposure Assessment of a Fan-Powered Cook Stove

Dustin Mariel G. Cabangal, Daniel Joshua N. Festin, Neil Darren P. Marasigan and Mark Christian E. Manuel, School of Mechanical and Manufacturing Engineering, MapuaUniversity, Intramuros, Manila, Philippines
 Ma. Janice J. Gumasing, School of Industrial Engineering and Engineering Management, MapuaUniversity, Intramuros, Manila, Philippines

Healthcare Systems

ID 419 Aluminium and Mercury Preservatives Accumulated In the Brain from Vaccines

Kelsey Catania and Carrieann Towne, Department of Biomedical Engineering, Lawrence Technological University, Southfield, MI 48075, USA
 George Pappas and Michael McGrath, Electrical and Computer Engineering Department, Lawrence Tech University, Southfield, MI 48075, USA

Industry Practices

ID 166 The Relationship between Kaizen Philosophy and Organizational Performance Empirical Investigation: A Case of Ethiopian Manufacturing Industries

Haftu Hailu, Fasil Taddese and Kinfe Tsegay, Department of Industrial Engineering, Ethiopian Institute of Technology, MekelleUniversity, Mekelle, Tigray, Ethiopia
 Kassu Jilcha, Industrial Engineering Department, Addis Ababa Institute of Technology (AAiT), Addis Ababa University, Addis Ababa, Ethiopia
 Tewodros Hailu, Mechanical Engineering Department, Axum University (AU), Axum, Tigray, Ethiopia

Information Systems

ID 214 Factors affecting the Level of ICT innovation in Tanzania

Edison Wazoel Lubua, Senior Lecturer and Certified Information Systems Auditor, Department of Informatics, Institute of Accountancy Arusha, Njiro Hill, Arusha-Tanzania

Lean

ID 197 Contradictions and Complements of Lean Administration and Digitalization

Christoph Szedlak, Kristin Wagner and Bert Leyendecker, University of Applied Sciences Koblenz, Faculty of Operations Management, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

Logistics

ID 321 Ant Colony Optimization for Solving Capacitated Vehicle Routing Problem in a Carton Manufacturing Company

Basit Mahmud Shahriar, Dept. of Industrial & Production Engineering, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

Manufacturing

ID 198 Optimization of Cutting Parameters in Turning of AISI 201 Stainless Steel to Reduce Chip Reduction Coefficient in both Dry and Wet Condition

Tareq Ahmad, Toukir Ahmed, Md. Didarul Alam and Md. Ariful Islam, Department of Industrial & Production Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, Bangladesh

Operations Management

ID 229 Application of Ant Colony Optimizer (ACO) for effective path planning in a big-box store or retail facility

Modestus O. Okwu1, 2, Justice Afenogho1, and Tartibu K. Lagouge 2

1 Department of mechanical Engineering, Federal University of Petroleum Resources Effurun, Delta State, Nigeria

2 Department of Mechanical and Industrial Engineering, University of Johannesburg, South Africa

PPC

ID 357 A Stochastic Programming Model for Production Planning and Sequencing of multi-grade petrochemicals

Ahmed M. Ghaithan, King Fahd University of Petroleum & Minerals, Construction Engineering and Management Dept., Dhahran, Saudi Arabia

Optimization

ID 547 Search Space Restriction for UCSP in Genetic Algorithms via a Novel Random-Key Decoder

Ian Smith, Computer Science Department, Cranbrook Kingswood Upper School, Bloomfield Hills, MI, USA

George Pappas, Electrical and Computer Engineering Department, Lawrence Technological University, Southfield, MI 48075, USA

Product Development

ID 489 Design and Development of Sound Absorbing Panels using Biomass Materials

Peter Gabriel C. Buot, Rayson M. Cueto, Andrei A. Esguerra, Ron Irwin C. Pascua and Engr. Sherwin S. Magon, School of Mechanical and Manufacturing Engineering, Mapua University, Intramuros, Manila, Philippines

Ma. Janice J. Gumasing, School of Industrial and Engineering Management, Mapua University, Intramuros, Manila, Philippines

Production Management

ID 260 A Bi-Objective Lot of Sizing and Scheduling Problem Dealing with Reworking the Perishable Items in a Parallel Machine System

Elham Taghizadeh, Department of Industrial and System Engineering, Wayne State University, Detroit, MI 48035, USA

Setareh Torabzadeh and Abdollah Mohammadi, Systems Engineering and Engineering Management Department, University of North Carolina at Charlotte, Charlotte, NC, 29223, USA

Quality Control

ID 295 Implementation of a Semi-Automated Model to Accelerate the Rate of Kaizen in Film Packaging Industry

Matshidiso Moso, Oludolapo A. Olanrewaju and Mendon Dewa, Dept. of Industrial Engineering, Durban University of Technology, Durban, RSA

Supply Chain Management

ID 396 Impact of Accounting Methods on Supply Chain Contracts: Analysis Based on E-tailer Supply Chain Costs

Sahani Rathnasiri and Sardar Islam, Sustainable Industries and Livable Cities, Victoria University, Melbourne, Australia

Pritee Ray, Department of Operations Management, Indian Institute of Management Ranchi, Jharkhand, India

Sustainability and Green Systems

ID 324 Sustainability Assessment in Aviation Industry: A Mini-Review on the Tools, Models and Methods of Assessment

Eman R. Elhמוד, Engineering Management Program, College of Engineering, Qatar University, Doha, Qatar

Adeeb A. Kutty, Mechanical and Industrial Engineering Department, College of Engineering, Qatar University, Doha, Qatar

Transportation and Traffic

ID 224 Intelligent Traffic Light Control

Mohammed A. Khasawneh & Anjali Awasthi, Concordia Institute for Information Systems Engineering, Concordia University, Montreal, Canada

Waste Management

ID 120 Research and Development Team of Sustainable Green Environment Initiative

Olowosile J. Sanmi, Olowosile O. Ruth, Adeleke E. Olubunmi, Odiase E. Titus, Adedokun A. Victoria, Ogunsole A. Oluwatosin, Makinwa

Olusegun and Orisabinone Toluwalase, Research and Development Team, Sustainable Green Environment (SGE) Initiative, Lagos, Nigeria

ID 078 Design and Modelling of a Waste Heat Recovery System for a 250KW Diesel Engine for Cereal Drying

Moses Jeremiah BarasaKabeyi and Oludolapo Akanni Olanrewaju, Department of Industrial Engineering, Faculty of Engineering and the Built Environment, Durban University of Technology, Durban, South Africa