

IEOM

Fifth International Conference
on Industrial Engineering and Operations Management

March 3-5, 2015

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Welcome to Dubai and the 2015 IEOM Conference

To All Conference Attendees

On behalf of the IEOM Society, we would like to welcome you to Dubai and the **Fifth International Conference on Industrial Engineering and Operations Management (IEOM)** in Dubai. 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. Here we have an opportunity to collaborate and advance the theory and practice of major trends in Industrial Engineering and Operations Management. With a record number of attendees – over 500 – we will also have an excellent opportunity to network with the leading scholars and practitioners of our field. After a thorough peer review process, about 500 papers/abstracts have been accepted from about 750 submissions representing more than 70 countries. The proceeding includes many cutting edge topics of industrial engineering and operations management. Full papers will be published in the proceeding and in IEEE Xplore.

The challenge of continuous improvement will be significant in the 21st century and this conference will address the issue of continuous improvement for quality and service. Perhaps the most important example of this issue is the current financial crisis facing the world. This crisis represents extraordinary challenges, but it may also represent significant opportunities for future industrial growth and new directions. We have selected six outstanding keynote speakers to address these issues:

- Dr. Don Taylor, ISE Chair at Virginia Tech, and Past IIE President
- Moraya AlGahtani, Division Head of Operational Excellence Department at Saudi Aramco
- Chris Smith; Vice President & Managing Director of Boeing Saudi Arabia
- Dr. Chris Backhouse, Professor at Loughborough University, UK and ex-VP of the British University in Egypt
- Hulas King, Director GO PLM & Global Community Relations, SIEMENS
- Syed Mohammed Aumir, Senior Executive VP of Siemens Middle East
- Dr. Leland Blank, Professor and Dean of Engineering at American Univ. of Sharjah, UAE and Past IIE President.

With the success of the 2014 Global Engineering Education, we have 36 engineering educators who will be talking about the readiness level of the engineering graduates around the world for the workforce.

New features of the conference this year include industry solutions, an undergraduate senior design poster competition, pre-conference workshops on six sigma and entrepreneurship and sessions on job interviewing for faculty positions.

Two panel sessions have been organized. The first is on Global Engineering Education with a high level discussion on what Global Engineering means and how that skillset is being or can be included in our training of future engineers in the field of Global Engineering Education. The second panel will focus on Industry Solutions with a discussion on challenges and opportunities for how lean can be effective with new technologies and industry trends.

We are also very pleased to announce that this year we will be launching a new initiative - "Women in Industry" - to support the development of women leaders and strategists in the global industrial environment'

The IEOM Society would like to express our deep appreciation to our sponsors, exhibitors, authors, reviewers, keynote speakers and the many volunteers who have given so much of their time and talent to making this unique international conference an overwhelming successful event.

We would also like to thank the students who are participating in this event. Your Conference Planning Committee welcomes you to Dubai and wishes you an enjoyable learning experience at the conference and a safe and fun adventure exploring Dubai with its many outstanding attractions. A desert safari and city bus tours have been arranged for your convenience. A map of Dubai and a list of many of the attractions to visit are included.

Enjoy the conference, and the Dubai experience.



Mahad Ali - Conference Chair
Lawrence Technological University



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Resh Plaha - Industry Co-Chair
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"Achieving and Sustaining Operational Excellence"

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Provalis Research



United Arab Emirates University



KEYNOTE SPEAKERS**Opening Keynote (March 3, 2015): 8:30 – 9:30 am****G. Don Taylor, Ph.D., P.E.**

Charles O. Gordon Professor and Department Head
Grado Department of Industrial and Systems Engineering
Virginia Tech
Blacksburg, VA 24061, USA
and
Past IIE President

G. Don Taylor is the Charles O. Gordon Professor and Department Head in the Grado Department of Industrial and Systems Engineering at Virginia Tech. He is a Fellow and a Past-President and Member of the Board of Trustees of the Institute of Industrial Engineers. He is currently Chairperson of the Board of IIE Solutions, Inc. He is also a Fellow of the World Academy of Productivity Science and is a registered Professional Engineer. Dr. Taylor's research interests focus on the simulation of complex systems and the logistics of material flow and freight transportation. He has served as Principal Investigator or Co-Principal Investigator on more than 60 externally funded projects. His research has led to the publication of 10 edited books, more than 75 journal articles and book chapters, and more than 120 conference papers and technical reports. Prof. Taylor has made more than 200 formal presentations at conferences or seminars and has had research relationships with more than 50 different companies. Prior to his arrival at Virginia Tech, Taylor held the Mary Lee and George F. Duthie Endowed Chair in Engineering Logistics and was the director of the Center for Engineering Logistics and Distribution at the University of Louisville. Taylor earned his doctorate in industrial engineering and operations research from the University of Massachusetts in 1990. His earned his bachelor's and master's degrees in industrial engineering from the University of Texas at Arlington in 1983 and in 1985.

Tuesday Lunch Keynote (March 3, 2015): 1:00 – 2:00 pm**Moraya S. AlGahtani**

Division Head, Operational Excellence Department
Saudi Aramco

Moraya is a Division Head at the Saudi Aramco Operational Excellence Department. He holds a Master Degree from Ohio State University in engineering. He has 25 years of experience in Oil and Gas industry with Saudi Aramco. Most of his career was with Engineering Services, Operations, and project Management where he holds various technical and managerial positions. He is one of the key members who developed Saudi Aramco Operational Excellence Program since inception. He served in the board of King Abdulaziz National Quality Award, which the Saudi national award for excellence and has recently contributed to the Kingdom Operational Excellence strategy. Moraya is the ex-president of the Saudi Arabian Section of the American Society of Non Destructive testing (ASNT-SAS) and was the Vice President of the Saudi Quality Council.

Wednesday Morning Keynote (March 4, 2015): 8:30 – 9:30 am**Michael M. Kurth**

Senior Vice President, Boeing Saudi Arabia
Defense, Space and Security

Mike Kurth is the Boeing Defense, Space and Security (BDS) Senior Vice President of Saudi Arabia responsible for overall BDS business activity in the Kingdom. Prior to this he served as the Vice President and General Manager of Boeing Unmanned Systems preceded by a tour as Managing Director and chairman of the board of Boeing Defence UK (BDUK), Ltd., a Boeing wholly owned subsidiary from January 2008 until January 2013. He has held executive positions in Boeing Integrated Defense Systems and the Boeing Space and Communications business. He began his Boeing career working Apache programs in Mesa, Arizona and was responsible for Apache Asia Pacific business. Kurth is a graduate of the University of Wisconsin and holds a master's degree in National Security and Strategic Studies. He served with distinction for 24 years in the U.S. Marine Corps, retiring as a Colonel and was awarded the Navy Cross for actions during Operation Desert Storm. Kurth is based in Riyadh. He is a Fellow of the Royal Aeronautical Society, a Liveryman of the Guild of Air Pilots and Navigators, a Vice President of the British

Museum of Army Flying, a trustee of the Royal United Services Institute, a member of the Legion of Valor and a "Golden Eagle." He and Debbie like to travel, fish and white water raft.

Wednesday Lunch Keynote (March 4, 2015): 1:00 - 2:00 pm



Dr. Chris Backhouse

Professor of Product Innovation
School of Mechanical and Manufacturing Engineering
Loughborough University
Leicestershire, UK

Chris Backhouse is Professor of Product Innovation at Loughborough University, UK with extensive knowledge and experience of Higher Education in the Middle East and South East Asia. He is a regular international presenter in his field of innovation and entrepreneurship with extensive links with Universities in Singapore, Hong Kong, Malaysia, Indonesia, China, and Egypt. He advises on research and enterprise strategy and on taught curriculum content. He is a mechanical engineer by background having obtained his PhD whilst employed by Unilever Plc. In 1990 he joined Loughborough University where he has held various senior positions including Dean of the Faculty of Engineering (150 Faculty, 5000 students) and as Director of Internationalisation Strategy - responsible for the University's strategic international partnerships. He has consulted widely in industry and academe, especially in the Asia Pacific region. His research activities have focused on the human aspects of motivation, innovation and entrepreneurship within an industrial context. He has published widely in the academic press and presented at numerous international conferences.

Wednesday Conference Award Dinner Keynote, March 5, 2015, 7:00 pm



Hulas King

Director GO PLM & Global Community Relations
SIEMENS PLM Software

Hulas King manages the \$4B GO PLM (Global Opportunities in Product Lifecycle Management) program, nurturing strategic partnerships that provide significant added value for academic institutions, youth development programs and our global communities. These partnerships exemplify SIEMENS as the PLM Industry Leader are successful in developing technology environments where underutilized citizens of the world can work together to improve their economic conditions and promote peace. Hulas serves as an executive partner for numerous youth development and regional productivity programs throughout the U.S., Europe and Asia Pacific including: Partners for the Advancement of Engineering Education,

Focus: HOPE (Detroit, MI), The Manufacturing Partnership (Rochester, NY), Philadelphia Area Accelerated Manufacturing Education, Inc., Advantage SA (South Australia), and VIEWNET (Virtual Interactive East-West Network for Engineering and Technology) (Russia and Ukraine). Mr. King is a decorated Vietnam veteran, a Certified Manufacturing Engineer and a Certified NC Manager. He was inducted into the African-American Biographies Hall of Fame for outstanding contributions in Business and Engineering. He represents SIEMENS on several professional boards including Worldwide Youth in Science & Engineering, the Institute of Industrial Engineers, the Society of Manufacturing Engineers, the Society of Automotive Engineers, Advancing Minorities' Interest in Engineering, the Stone Soup Foundation, Doyle Center for Manufacturing Technology, Virginia Biosciences Development Center, the Accreditation Board for Engineering & Technology, the International Federation of Engineering Education Societies and the Professional Business Leadership Council. He has authored numerous publications on Product Life-cycle Management (PLM), enterprise integration and artificial Intelligence.

Mr. King is an Adjunct Professor at Southern Illinois University. He is often featured in international publications such as Ebony, PRISM and Black Engineer & Information Technology for his leadership in PLM Engineering and Technology Education. He has received many awards and honors, such as the 1988 Distinguished Alumni Award from Southern Illinois University for professional achievement, the St. Louis American 1989 "Salute to Excellence Award" for Science and Technology, the 1989 Engineering Person of the Year Award from the Gateway Engineers, the PBLC 1994 Outstanding Citizen Award, the 1997 Black Engineer of the Year Award for Corporate Promotion of Education (representing EDS), the 2010 Binghamton University Founders Award, the 2001 SHO ME State Business/Industry Leadership Award and the Auburn University 2011 Tower Award.. He travels extensively within the Americas, Europe, the Middle East and Asia Pacific, speaking at various technical seminars in support of Global Opportunities in PLM. Mr. King received AS, Data Processing, Belleville Area College (1970), BS in Management Science (1972), MBA (1974), MS in Government/International Relations (1975), MS in Management Science and Systems (1978) from Southern Illinois University, Edwardsville, and MS in Industrial Engineering (1983) from University of Missouri – Columbia, USA.

Thursday Morning Keynote Speaker (March 5, 2015): 8:30 – 9:30 am**Syed Mohammed Aumir**

Senior Executive Vice President
Digital Factory, Siemens Middle East

“Industrie 4.0”

Syed Mohammed Aumir is Senior Executive Vice President of Digital Factory for Siemens Middle East. Currently based in Dubai, United Arab Emirates, Aumir joined Siemens in 1991 in Jeddah, Kingdom of Saudi Arabia, as a project engineer on industrial projects. In 1997 Aumir joined the Siemens resident engineers' office in UAE, supporting all GCC countries and Yemen and developing partners for the company's automation business. After the formation of Siemens LLC UAE in 1999, in 2000 Aumir took over as Head of Automation and Drives in what was – at the time – the company's Lower Gulf region, and in October 2014 was appointed Head, Digital Factory, Siemens Middle East.

Aumir holds a degree in electrical engineering from Aligarh Muslim University, India.

Thursday Lunch Keynote Speaker (March 5, 2015): 1:00 - 2:00 pm**Dr. Leland Blank**

Professor and Dean of Engineering
American University of Sharjah, UAE
and Past IIE President

Lee Blank is dean and professor of industrial engineering with expertise in the areas of engineering economics, and international higher education development and assessment. He was dean of engineering at AUS from 2001-2005, after which he was awarded the title Dean Emeritus. He has returned to AUS to serve as dean to lead a period of major expansion for the engineering program.

Additionally, Dr. Blank is Professor Emeritus of Industrial and Systems Engineering at Texas A&M University. He is the recipient of several awards throughout his career, including the Wellington Award for long-term contributions to the field of engineering economics. Dr. Blank started his teaching career at the University of Texas-El Paso after earning his PhD and Master of Science in Industrial Engineering at Oklahoma State University. Undergraduate work was completed at St. Mary's University in Texas. He has worked in leadership roles in continuous improvement of academic systems, research center development, and strategic planning facilitation. His industrial experience includes Southwestern Bell Telephone as a plant engineer, GTE Data Services as a management scientist, and San Antonio Public Service as a rate designer and economic analyst.

He is past international president of the Institute of Industrial Engineers and is a Fellow of the Institute. Previous service includes significant involvement with honors student programs at Texas A&M University and as president of Alpha Pi Mu, the honorary society for industrial engineering. Dr. Blank served as a congressional appointee to the United States Department of Commerce, International Trade Administration's advisory committee. He is a licensed Professional Engineer in the state of Texas, USA. Besides technical journal and research articles, he has authored engineering textbooks for McGraw-Hill on the subjects of engineering economy and statistics. His latest texts are *Engineering Economy*, 7th edition (2013) and *Basics of Engineering Economy*, 2nd edition (2014). Full-range websites, including supporting podcasts, for these texts are available to students and faculty. In addition to his work in the UAE, he has served higher education internationally in Qatar, Kuwait, Australia, China, Japan, Mexico and South Africa.

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AFRICAN ENGINEERING EDUCATION ASSOCIATION (AEEA)

The African Engineering Education Association (AEEA) was established at University of Pretoria, South Africa in 2006 after the 3rd African Regional Conference on Engineering Education. The Association was registered in Nigeria in 2012. AEEA is a member of the International Federation of Engineering Education Societies (IFEES). It also has relationship with other national, regional and international organizations. The members of AEEA are from the five sub-regions (North, Southern, West, East and Central) of Africa.

Some of the objectives of the AEEA are to:

- Promote excellent quality engineering education in Africa and bridge the North-South divide
- Provide network opportunities of engineering educators through Regional Conference on Engineering Education
- Improve teaching and learning in educational institutions, through workshops for engineering educators.
- Enhance the development of next generation engineering educators with regional Postgraduate Training Centres
- Promote exchange of students across the continent through removal of international fee barriers.
- Promote technological careers for women, so as to increase the proportion of women in the engineering workforce.
- Collaborate with international organizations to promote research & development in engineering education in Africa.

AEEA's Activities

1st and 2nd African Regional Conference on Engineering Education (ARCEE) in 2002 & 2004 at the University of Lagos, Nigeria

3rd ARCEE in 2006 at Univ. of Pretoria, South Africa

4th ARCEE in 2008 at Dar es Salaam, Tanzania

In 2008, AEEA co-hosted the 7th American Society of Engineering education (ASEE) Global Colloquium on Engineering Education and 2nd Summit of the International Federation of Engineering Education Societies (IFEES) at Univ. of Cape Town, South Africa

China-AEEA Capacity Building Workshop was held in Tsinghua University, Beijing, China for AEEA members from the five African sub-regions in 2009.

5th ARCEE 2013 and Inauguration of the African Engineering Deans' Council (AEDC) at the University of Lagos, Nigeria.

The 6th African Regional Conference on engineering education has been scheduled in South Africa in 2016.

Prof. Funso Falade, President, AEEA

**Fifth International Conference on Industrial Engineering and
Operations Management (IEOM)
Dubai, United Arab Emirates (UAE)
March 3 – 5, 2015**

Hyatt Regency Hotel

Overall Conference Program

March 2, 2015 (Monday)

08:00 – 17:00 Pre-Conference Workshops: ABET Program Assessment, Lean Six Sigma Green Belt Certification and Entrepreneurship

07:00 – 21:00 Registration

March 3, 2015 (Tuesday)

07:00 – 17:00 Registration

08:00 – 08:30 **Welcome**

08:30 – 09:30 **Opening Keynote: Dr. G. Don Taylor**, Charles O. Gordon Professor and Department Head, Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, VA, USA and Past IIE President

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 **Lunch Keynote: Moraya S. AlGahtani**, Division Head, Operational Excellence Department, Saudi Aramco

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Break

15:45 – 17:15 Parallel Sessions

17:15 – 19:00 Poster Session

March 4, 2015 (Wednesday)

07:00 – 17:00 Registration

08:30 – 09:30 **Morning Keynote: Michael M. Kurth**, Senior Vice President, Boeing Saudi Arabia, Defense, Space and Security

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 **Lunch Keynote: Dr. Chris Backhouse**, Professor of Product Innovation, School of Mechanical and Manufacturing Engineering, Loughborough University, Leicestershire, UK (Box Lunches Provided)

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Break

15:45 – 17:15 Parallel Sessions

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

Award Keynote: Hulas King, Director GO PLM & Global Community Relations, SIEMENS PLM Software

March 5, 2015 (Thursday)

07:00 – 15:00 Registration

08:30 – 09:30 **Morning Keynote: Syed Mohammed Aumir**, Senior Executive Vice President, Siemens Middle East

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 **Lunch Keynote: Dr. Leland Blank**, Professor and Dean of Engineering, American University of Sharjah, UAE and Past IIE President (Box Lunches Provided)

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Break

15:45 – 17:15 Parallel Sessions

17:15 – 18:00 **Closing Keynote**

Program Matrix – IEOM 2015

Hyatt Regency Dubai, UAE

March 3 – 5, 2015

Tuesday, March 3

Time	Jade-Opal-Topaz	Emerald	Sapphire	Jawhar 1	Jawhar 2	Mehwar 1	Mehwar 2	Pearl 1	Pearl 2	Pearl 3
08:00	Welcome: Crystal Ballroom									
08:30	Opening Keynote: Dr. G. Don Taylor , Charles O. Gordon Professor and Department Head, Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, VA, USA and Past IIE President, Chrysler Ballroom									
09:45	Global Engineering Education I	Industry Solutions I	Student Paper Competition	Operations Management I	Quality Control Management I	Artificial Intelligence I	Modeling and Simulation I	Automation and Control	Sustainability I	Operations Excellence I
11:15	Break									
11:30	Global Engineering Education II	Industry Solutions II	Student Paper Competition	Operations Management II	Quality Control Management II	Artificial Intelligence II	Modeling and Simulation II	Facilities Planning and Management	Sustainability II	Operations Excellence II
13:00	Lunch Keynote: Moraya S. AlGahtani , Division Head, Operational Excellence Department, Saudi Aramco Crystal Ballroom (Box Lunches Provided)									
14:00	Global Engineering Education III	Industry Solutions III	Student Paper Competition	Operations Management III	Quality Control Management: III	Artificial Intelligence III	Modeling and Simulation III	Systems Engineering I	Sustainability III	Operations Excellence III
15:30	Break									
15:45	Global Engineering Education IV	Industry Solutions IV	Student Paper Competition	Operations Management IV	Quality Control Management: IV	Computers and Computing	Modeling and Simulation IV	Systems Engineering II	Sustainability IV	Student Paper Competition
15:15 – 19:00	Poster Session									

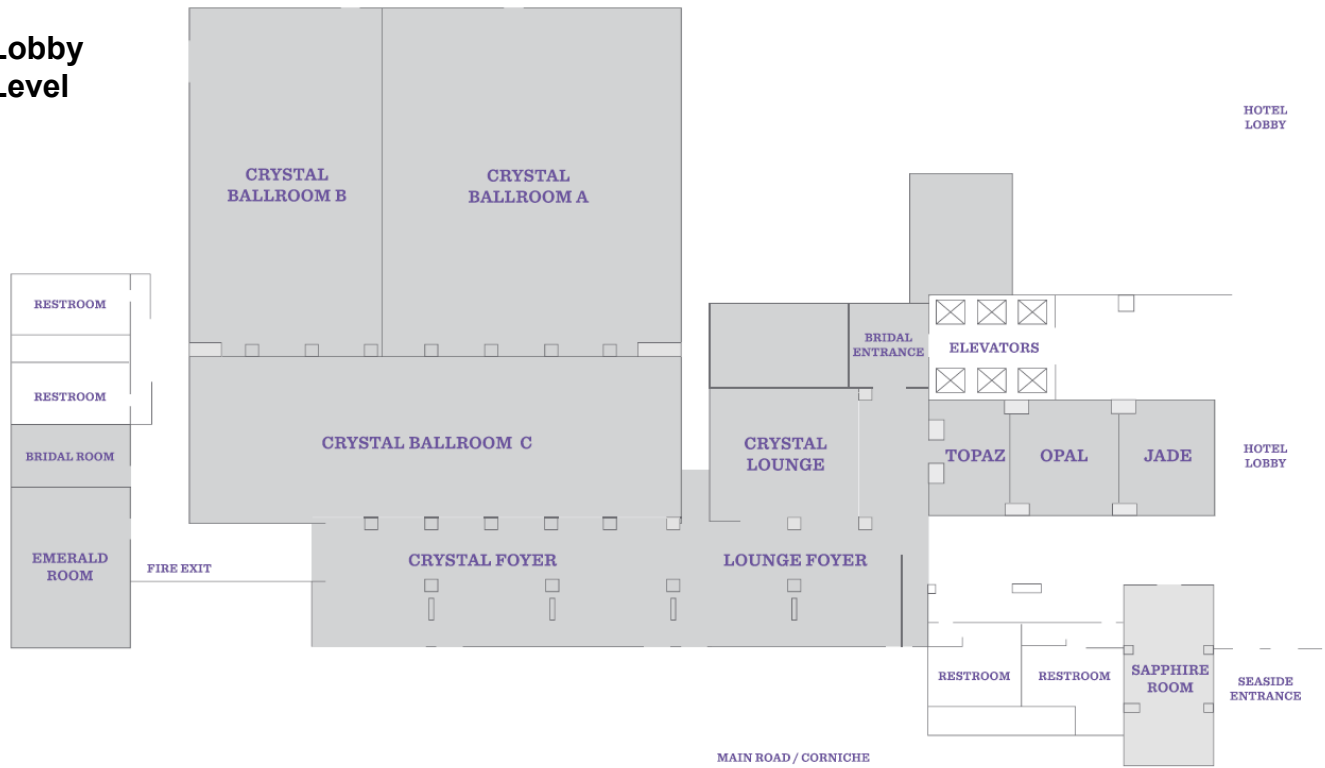
Wednesday, March 4

Time	Jade-Opal-Topaz	Emerald	Sapphire	Jawhar 1	Jawhar 2	Mehwar 1	Mehwar 2	Pearl 1	Pearl 2	Pearl 3
08:30	Morning Keynote: Mr. Chris J. Smith , Vice President & Managing Director of Boeing Saudi Arabia Crystal Ballroom									
09:45	Global Engineering Education V	Industry Solutions V	Supply Chain Management I	Operations Research I	Lean and Six Sigma I	Healthcare Systems I	Modeling and Simulation V	Manufacturing and Design I	Human Factors & Ergonomics I	Operations Excellence IV
11:15	Break									
11:30	Global Engineering Education VI	Industry Solutions VI	Supply Chain Management II	Operations Research II	Lean and Six Sigma II	Healthcare Systems II	Modeling and Simulation VI	Manufacturing and Design II	Human Factors & Ergonomics: II	Operations Excellence V
13:00	Lunch Keynote: Dr. Chris Backhouse , Professor of Product Innovation, School of Mechanical and Manufacturing Engineering, Loughborough University, Leicestershire, UK, Crystal Ballroom (Box Lunches Provided)									
14:00	Global Engineering Education VII	Industry Solutions VII	Supply Chain Management III	Operations Research III	Lean and Six Sigma III	Healthcare Systems III	Case Studies I	Manufacturing and Design III	Human Factors and Ergonomics III	Operations Excellence VI
15:30	Break									
15:45	Global Engineering Education VIII	Industry Solutions VIII	Supply Chain Management IV	Operations Research IV	Lean and Six Sigma IV	Healthcare Systems IV	Case Studies II	Manufacturing and Design IV	Service Systems and Management	Operations Excellence VII
19:00	Conference Award Dinner and Cultural Program <i>Award Keynote: Hulus King</i> , Director GO PLM & Global Community Relations, SIEMENS PLM Software									

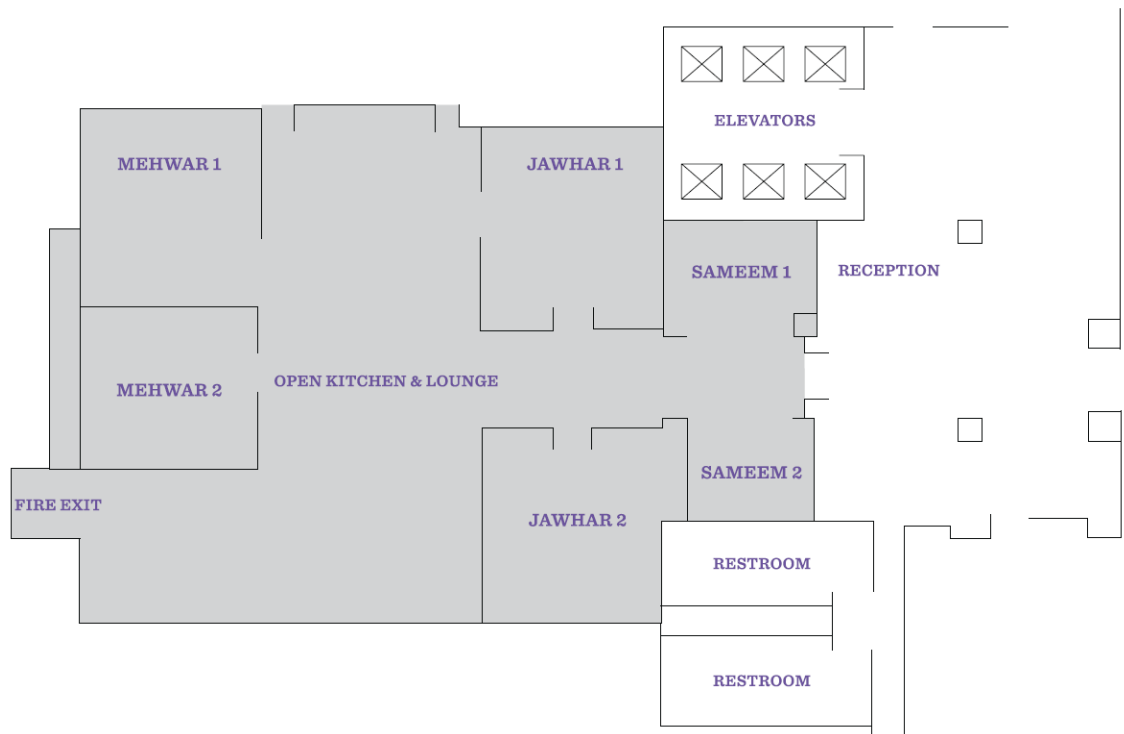
Thursday, March 5

Time	Jade-Opal-Topaz	Emerald	Sapphire	Jawhar 1	Jawhar 2	Mehwar 1	Mehwar 2	Pearl 1	Pearl 2	Pearl 3
08:30	Morning Keynote: Syed Mohammed Aumir , Senior Executive Vice President, Siemens Middle East, Crystal Ballroom									
09:45	Global Engineering Education IX	Information Technology I	Supply Chain Management V	Operations Research V	Reliability and Maintenance I	Engineering Education I	Case Studies III	Production Planning and Management I	Energy I	Operations Excellence VIII
11:15	Break									
11:30	Global Engineering Education X	Information Technology II	Supply Chain Management VI	Operations Research VI	Reliability and Maintenance II	Engineering Education II	Transportation	Production Planning and Management II	Energy II	Operations Excellence IX
13:00	Lunch Keynote: Dr. Leland Blank , Professor and Dean of Engineering, American University of Sharjah, UAE and Past IIE President, Crystal Ballroom (Box Lunches Provided)									
14:00	Global Engineering Education XI	Entrepreneurship and Innovation	Project Management I	Engineering Management: I	Reliability and Maintenance III	E-Business and Computing	Logistics Management I	Production Planning Management III	Energy III	Operations Excellence X
15:30	Break									
15:45	Global Engineering Education XII	Construction Management	Project Management II	Engineering Management: II	Reliability and Maintenance IV	Technology Management	Logistics Management II	Inventory Management	Energy IV	Operations Excellence XI
17:15	Closing Keynote: Crystal Ballroom									

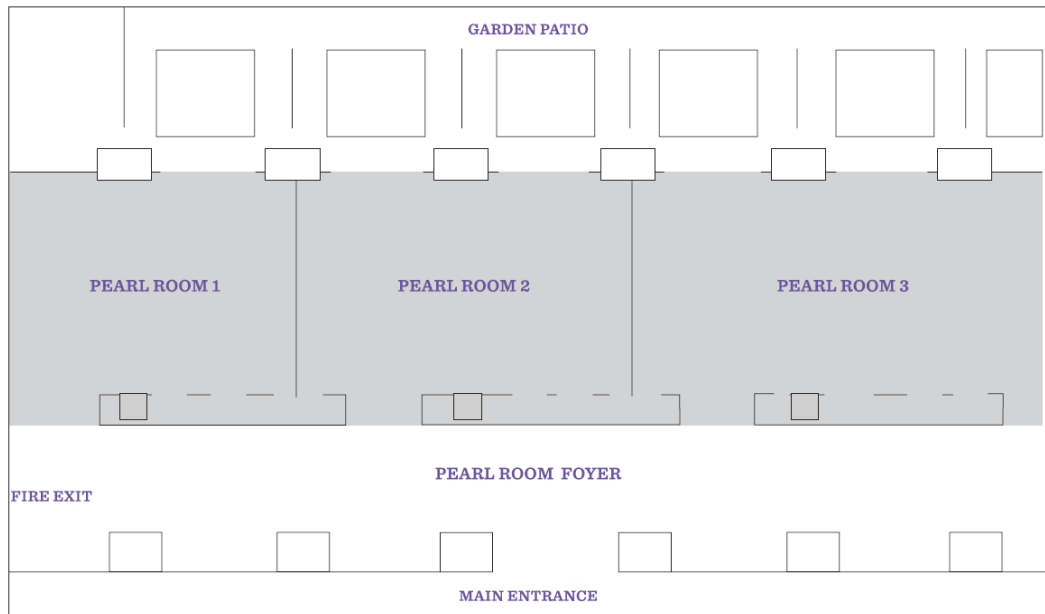
Lobby Level



Mezzanine Level – Al Markaz



Mezzanine Level – Pearl Room



IEOM International Conference on Operations Excellence and Service Engineering Orlando, Florida, USA September 10 – 11, 2015

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OPENING KEYNOTE

Dr. Helmut Ludwig
Executive Vice President
Digital Enterprise
Realization and Chief
Manufacturing Officer
SIEMENS PLM Software
Plano, Texas, USA

The Digital Enterprise

PRE-CONFERENCE WORKSHOPS

ABET Workshop – Fundamentals of Program Assessment

March 2, 2015, Monday: 8:30 am – 4:30 pm

ABET Workshop SPEAKER



Rochelle L. Williams, Ph.D.

**Director of Professional Development, Research and Meetings Services
ABET Headquarters in Baltimore, Maryland, USA**

Rochelle L. Williams is the Director of Professional Development, Research and Meetings Services at ABET Headquarters in Baltimore, MD. She oversees the planning, production, and execution of all ABET meetings and professional development offerings and is responsible for providing educational opportunities on program assessment for continuous improvement worldwide. Additionally, Dr. Williams is responsible for partnering with faculty and industry to conduct robust technical education research and currently serves on the ASEE Projects Board Committee. Dr. Williams has served as a paper reviewer and has made numerous presentations at various professional conferences, including ASEE Regional and Annual Conferences, ACOFI and MS&T. Dr. Williams received her BS in Physics from Spelman College, the Master of Engineering degree in Mechanical Engineering and her Ph.D. in Science and Mathematics Education from Southern University. Her research interests include assessment and quality assurance, teaching and learning styles in technical education, and project management.

Six Sigma and Lean Green Belt Certification

March 2, 2015, Monday: 8:00 am – 5:00 pm and March 3, 2015, Tuesday: 6:00 pm – 10:00 pm

Six Sigma Workshop SPEAKER



Jayant Trewn, ASQ Fellow, Ph.D.

**Lean Six Sigma Master black belt
Performance Coach and Advisor**

Jayant Trewn is an Industrial Engineer specializing in Quality Systems design, development, implementation and management. Jayant has accumulated over a decade of experience working in healthcare organizations such as Spectrum Health Medical Group, Beaumont Hospitals, and service organizations such as Thomson Reuters and Lason Systems, where he built healthcare and service delivery process improvement programs based on lean, Six Sigma and PDCA concepts. He also worked for two years at Thomson Reuters working as Director of Quality Assurance, IP and Science division, managing the quality of acquisition of data for scientific research. Jayant has been teaching quality engineering since 1997 in his roles as Adjunct Professor at Lawrence Technological University, Wayne State University and Oakland University, all in Michigan, in addition to giving quality engineering talks, seminars and workshops at numerous national and international conferences. Jayant has also served as a Research Analyst for Wayne State University, Center for Urban Studies and Office of Strategic Planning from 1993 to 1999. Jayant has written two books, Practical Lean Sigma

for Healthcare and Multivariate Statistical Methods in Quality Engineering and he has been published in international journals. Jayant is a Fellow of ASQ and he holds a Doctorate degree in Industrial Engineering from the College of Engineering, Wayne State University, Detroit, MI, USA. He earned his MBA in Information Systems at Wayne State University and his Bachelor of Engineering degree from Madras University, India. Connect with Jayant at LinkedIn

Entrepreneurship, Intrapreneurship and Engineering Innovation

Monday, March 2, 2015, 8:00 am – 5:00pm

Entrepreneurship Workshop SPEAKER

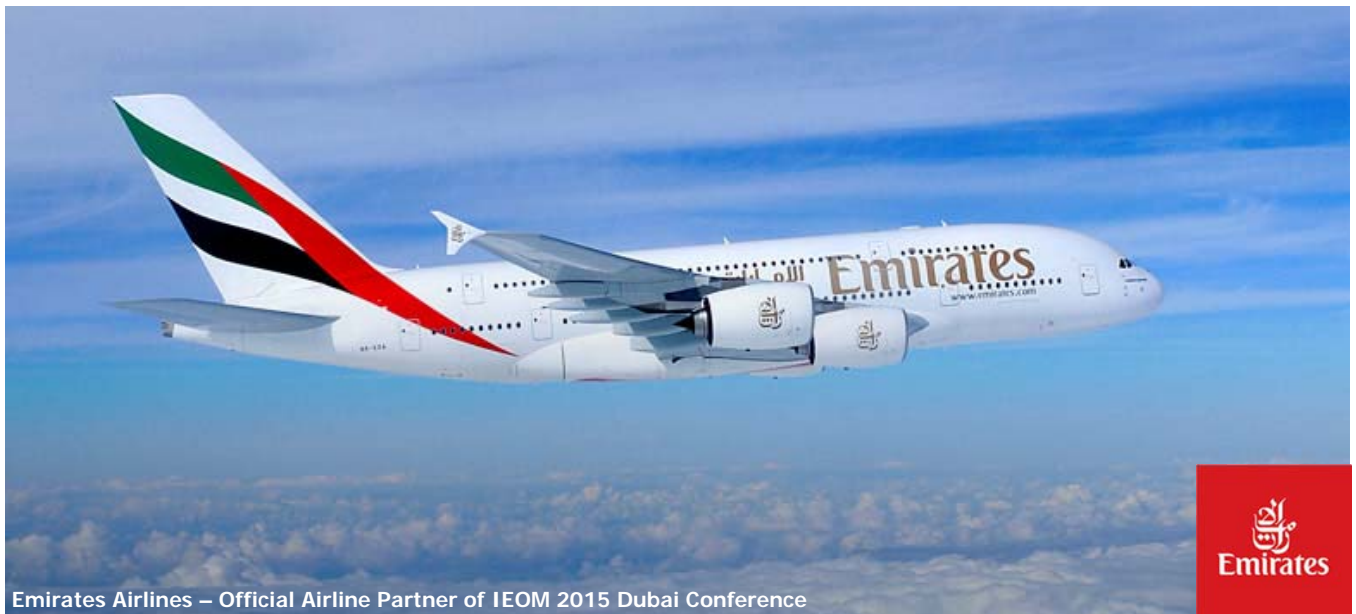


Professor Donald M. Reimer

**Director of Entrepreneurial Programs in College of Engineering
Lawrence Tech in Southfield, Michigan, USA**

Donald M. Reimer is currently a fulltime senior lecturer on entrepreneurship and serves as the Director of Entrepreneurial Programs in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs' Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs' Organization Faculty Advisory Council and is a member of the ASEE. Mr. Reimer has served as an adjunct faculty member at Lawrence Technological University for over twenty-years. He has operated his own consulting company – The Small Business Strategy Group for 23 years. He published numerous articles on small business, entrepreneurship

and strategic thinking. Mr. Reimer conducted workshops and seminars for trade associations, chamber of commerce organizations and private companies. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.



Official Destination Partner

Submission Received from the Following Countries / Territories

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Azerbaijan	Indonesia	Nigeria	Thailand
Bangladesh	Iran	Norway	Trinidad and Tobago
Botswana	Iraq	Oman	Tunisia
Brazil	Italy	Pakistan	Turkey
Canada	Japan	Philippines	United Arab Emirates
China	Jordan	Portugal	United Kingdom
Colombia	Kuwait	Qatar	United States
Costa Rica	Latvia	Russian Federation	Vietnam
Denmark	Lebanon	Saudi Arabia	West Bank and Gaza
Egypt	Libya	Senegal	Zimbabwe
Finland	Malaysia	Singapore	
France	Malta	South Africa	
Germany	Mauritius	South Korea	

IEOM Global Engineering Education

PROGRAM

March 3, 2015 (Tuesday)

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

March 4, 2015 (Wednesday)

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

March 5, 2015 (Thursday)

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

IEOM Global Engineering Education

Readiness and Competence of Engineering Graduates

Global Engineering Education Chairs

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

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

DISTINGUISHED SPEAKERS

Tuesday (March 3, 2015)

Session I: ENGINEERING CURRICULUM

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

09:45 – 10:15 (Tuesday)



Dr. Funso Falade

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

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

Bio: Falade Funso Alphonsus is a Nigerian and a Professor of civil engineering at University of Lagos, Nigeria. He earned Diploma in Quantity Surveying at Yaba College of Technology, Nigeria, in 1978. He completed his M.Sc (Civil Engineering) at the Moscow Institute of Civil Engineering in the USSR in 1984 and obtained PhD in Civil Engineering, from University of Lagos in 1998. Prof. Falade has authored over 70 articles on innovative construction materials and engineering education published in locally and internationally reputable journals as well as in proceedings of learned conferences. He has also made

contributions to two (2) textbooks. In February, 2014, he made public presentation of a book titled 'Strengthening of Distressed Buildings'. He has researched into the structural properties of bamboo and developed the technology for its successful incorporation as replacement of steel reinforcement in some structural elements. He has also researched extensively on Foamed Aerated Concrete. Prof. Falade has presented over 45 papers at workshops and seminars on such topics as Project Management, Quality Control, Maintenance of Facilities, and Contract Procurement Processes etc. Prof. Falade is a member of some professional bodies both locally and internationally, including Fellow, The Nigerian Academy of Engineering, Fellow, Nigerian Society of Engineers, Fellow, African Engineering Education Association, Registered Engineers, Council for the Regulation of Engineering in Nigeria etc. He is a promoter of engineering education. He was the initiator of African Regional Conference on Engineering Education and the Chairman, Organizing Committee and the Editor of the Proceedings of the 1st, 2nd and 5th African Regional Conference on Engineering Education that were held at University of Lagos in 23rd – 25th September, 2002, 20th – 22nd September, 2004 and 9th -12th September, 2013 respectively. He is the President of the African Engineering Education Association (AEEA) and former Vice-President, international Federation of Engineering Education Societies (2009-20012). He was appointed UNESCO Consultant in 2005.

10:15 – 10:45 (Tuesday)



Dr. Raid Al-Aomar

Professor of Industrial Engineering
Director of Master of Engineering Management (MEM) program
Abu Dhabi University, UAE

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

Management, and Lean Six Sigma Systems.

10:45 – 11:15 (Tuesday)

**Dr. Soumaya Yacout**

Professor of Industrial Engineering and Operations Research
Department of Mathematics and Industrial Engineering
École Polytechnique de Montréal, Canada

Bio: Soumaya Yacout is Professor of Industrial Engineering and Operations Research in the Department of Mathematics and Industrial Engineering at École Polytechnique de Montréal, Canada. She received a D.Sc. in Operations Research from the Georges Washington University, U.S.A. in 1985, a B.Sc. in Mechanical Engineering in 1975 and a M.Sc. in Industrial Engineering in 1979 from Cairo University in Egypt, and also received Executive Training in Six Sigma, ISO9000 and in industrial auditing. She held the position of Dean of Engineering at the University of Moncton until 1999 and became the first woman to hold the position of Dean of Engineering for a Francophone University in Canada. She was appointed Academic Dean at École Polytechnique. From 2001 to 2004 she acted as member of the Higher Education and Research Committee of the Superior Council of Education of Québec. Since 1995, she has been a regular member of visiting teams for the accreditation of engineering programs by the Canadian Engineering Accreditation Board of the Canadian

Council of Professional Engineers, and in 2010, she was nominated as member of the Strategic Projects Selection Panel for Competitive Manufacturing and Value-Added Products and Processes of the National Sciences and Engineering Research Council of Canada. Dr. Yacout has been recipient of the Natural Science and Engineering Research grants since 1991. She designed and taught courses on quality engineering, reliability and maintenance for undergraduate, graduate, and professional engineers in Canada and internationally. She supervised more than 40 masters and doctoral students. Her research interests include Condition Based Maintenance and optimization of decision making for product quality. She has more than 60 publications in journals including Quality Engineering, International Journal of Production Research, Computers and Industrial Engineering, IEEE Transactions, and more than 40 papers presented in international conferences, some of which received the best paper award. She is the co-editor and the co-writer of a book. She received provisional patent of the software cbmLAD. She has been member of organizing committees of many international conferences such as the Canadian Operations Research Society Conference, the Industrial Engineering Conference, and the international Conference on industrial Engineering and Systems Management. She is a senior member of the American Society for Quality, and a member of the Institute of Industrial Engineering, and the Canadian Operational Research Society.

Session II: INDUSTRIAL ENGINEERING AND MANAGEMENT EDUCATION

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

11:30 – 12:00 (Tuesday)

**Dr. Khalid Hafeez**

Professor, College of Business Administration
Management, Marketing and Public Administration
University of Sharjah, UAE

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

Bio: Professor Khalid Hafeez is Professor in Operations Management at the University of Sharjah United Arab Emirates. Before coming to the UAE Professor Hafeez was a tenure track professor and Head of Management system group at the York Management School, University of York UK. Prior to that he has been teaching at the Bradford Management School UK Executive MBA, which has been frequently ranked amongst the top ten in Europe, where he was also the founding Director for Centre for Entrepreneurship. He has also taught on the Masters, PhD and DBA programs at the Sheffield Business school and Cardiff University UK.

In terms of management responsibilities he has served as the Dean of the e-School of Business and Quality Management at the Hamdan Bin Mohammed e University Dubai, Program Director for Executive MBA, Program Director for the MSc Organizational Development and Knowledge Management, and Project Management at the Sheffield Business School. He has served as technology transfer champion for the Yorkshire Universities for 7 years and in recognition of his services for education and community he was awarded Certificate of Merit from the House of Lord UK. Professor Hafeez has completed Executive Education Training programme at the Harvard Business School USA and is also a Certified Six Sigma Master Black Belt, and Certified Project Manager and EFQM European Assessor certified from Brussels and certified NLP trainer. Over the years he has supervised more than 12 PhD students to completion has published widely in key journals such as JORS, IJPE, IJPR and IEEE Engineering Management. Professor Hafeez is an internationally acclaimed researcher with over 900 worldwide citations. His publications in the area of "core competence" which he is going to speak about in this conference (IEOM 2014) have already attracted more than 600 citations.

12:00 – 12:30 (Tuesday)

**Dr. Hakan Butuner**

IIE Turkey Professional Chapter, President
IMECO, President

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

acting as the affiliates of several US companies in industrial management and engineering consulting, training and software solutions field. He is also acting as the founder-president of Institute of Industrial Engineers – Turkish professional chapter. During his career path, Dr. Bütüner has participated in several projects both in Turkey and abroad. Additionally, he is the board member of Institute of High Performance Planners in USA. Author has several publications and books, and at the same time honored by the decision sciences society Alpha Iota Delta.

12:30 – 13:00 (Tuesday)



Dr. José Antonio Heredia Álvaro
Industrial Systems Engineering and Design
University Jaume I, Spain

Teaching Manufacturing Management to Engineers

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

Session III: GLOBALIZATION OF ENGINEERING EDUCATION

Session Chair: Dr. Hans-Juergen Hoyer, Marquette University, USA

14:00 – 14:30 (Tuesday)



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

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

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

14:30 – 15:00 (Tuesday)



Dr. Berna Dengiz
Dean and Professor
Engineering Faculty
Baskent University – Baglica Campus
Ankara, Turkey

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

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

15:00 – 15:30 (Tuesday)

**Dr. Muhammad H. Zaman**

Associate Professor and Associate Chair for Undergraduate Affairs
Department of Biomedical Engineering
Associate Director, Kilachand Honors College
Boston University, USA

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

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

Session IV: ENGINEERING TEACHING AND LEARNING

Session Chair: Dr. Hongyi Sun, City University of Hong Kong

15:45 – 16:15 (Tuesday)

**Dr. Hongyi Sun**

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

National Culture and Innovation education for engineering students

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

16:15 – 16:45 (Tuesday)

**Dr. Amy Z. Zeng**

Professor, Director of Industrial Engineering
Assistant Dean of School of Business
Worcester Polytechnic Institute
Worcester, Massachusetts, USA

Cultivating Global Competency and Entrepreneurial Mindset for Engineering Students

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

16:45 – 17:15 (Tuesday)

**Dr. Ana Luísa Ferreira Andrade Ramos**

Assistant Professor and member of the Executive Board of the Department of Economics, Management and Industrial Engineering of University of Aveiro, Portugal

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

Bio: Ana Luísa Ferreira Andrade Ramos received the M.Sc. degree in Computers Engineering from the University of Coimbra, Portugal, in 2002 and the Ph.D. degree in Industrial Management from the University of Aveiro, Portugal, in 2011. She is currently an Assistant Professor of Management and Industrial Engineering (MIE) with the Department of Economics, Management and Industrial Engineering (DEGEI) of University of Aveiro, where she teaches since 1997 (Simulation, Operations Management and Logistics). Dr. Ramos is

member of the Executive Board of the Department and member of the Department Council. She was vice-director of the MIE undergraduate and graduate programs and coordinator of the Socrates/Erasmus program for the MIE area. Dr. Ramos is an integrated member of the Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP) of the University of Aveiro being the research work focused on systems engineering and modeling & simulation of complex systems, with applications in the industrial and transportation sectors. She has participated in several scientific research projects and industry-based projects. She co-authored book chapters and numerous scientific papers published in peer reviewed international journals and international conferences proceedings. Dr. Ramos received, in 2009, the international award "INCOSE Foundation/Stevens Institute Doctoral Awards for Promising Research in Systems Engineering and Integration". Dr. Ramos served as reviewer for many scientific journals such as Computers and Industrial Engineering, IEEE Transactions, and Research in Engineering Design. She is a member of the IEEE Society, the IEEE Systems, Man, and Cybernetics Society, the International Association of Computer Science and Information Technology, the Systems Engineering & Architecting Network for Research (SEANET), and the Portuguese Association for the Development of Operational Research (APDIO).

Wednesday (March 4, 2015)

Session V: ENGINEERING CURRICULUM

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

09:45 – 10:15 (Wednesday)

**Dr. Gulnara Abitova**

Professor, Department of System Analyses and Control
Eurasian National University, Astana City, Republic of Kazakhstan

Bio: Dr. Abitova holds Master's degree in Cybernetics of Technological Processes from Moscow State Univ. of Steel and Alloys at Moscow (Russian Federation), Ph.D degree in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science at Almaty (Kazakhstan) and she graduated Postdoctoral Program in Automation and Control from Eurasian National University at Astana (Kazakhstan). She has been an invited to the Computer and Electrical Engineering Department in State University of New York (SUNY) at Binghamton (NY, USA) for studying her research work. Dr. Abitova is Professor and Researcher in the Department of System Analyses and Control at the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Prior to this current position, she was General Director of the Kazakh Information Technology Research Institute (KITRI, Kazakhstan); Deputy

Director of the National Accreditation Center, Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Dr. Abitova was awarded the International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad at the USA (2011-2012) and the prestigious Diploma from the Administration of President of the Republic of Kazakhstan (OCSE, December 2010), as well as Awards and Diplomas from Minister of Education and Science of Kazakhstan for the Professionalism (2005-2009). Dr. Abitova was also the National Coordinator of UNESCO's Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan, 2008-2009), where she worked on the Project of National Report of the Kazakhstan for UNESCO (within the UN Decade of Education for Sustainable Development). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been an invited speaker at the International conferences (IEEE, SPIE, CSDM, (ICUMT) and published more than 30 research articles in the reputed international proceedings on mathematical and engineering sciences at the USA, Canada, France, Turkey, Malaysia, Bulgaria, and Hungary. Her papers became a basis for a chapter of a book published by Springer. She served as the Track Chair in the IEOM 2012 conference at Istanbul.

10:15 – 10:45 (Wednesday)

**Dr. Kailash Bafna**

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

Educating 21st Century Engineers

Bio: Dr. Kailash Bafna is a professor in Industrial and Entrepreneurial Engineering and Engineering Management at Western Michigan University. In the past, he has also served as an Assistant Dean in the College of Engineering and Applied Sciences and as a Chair of the Department of Industrial Engineering. He received his B.Sc. (Hons.) in Mechanical Engineering from Banaras Hindu University in India (now IIT-BHU), M.S. in Production Management from the University of Mississippi, and a Ph.D. in Industrial Engineering from Purdue University. He has also taught at the Georgia Institute of Technology and the University of Wisconsin.

He is a Fellow of the Institute of Industrial Engineers and is a Registered Professional Engineer in the State of Wisconsin. Over the past ten

years, Dr. Bafna has focused on improving undergraduate education through the gradual implementation of technology into his classes. As a result, today he can offer his courses in an online format, in a flipped classroom format, or as a hybrid class. One of his courses is even offered as a paperless class. Through all of these changes, he has been successful in improving the overall performance of the students in his class. In the past few years, he has made several presentations at national and international conferences on his developments. His innovative work was recently recognized by the Institute of Industrial Engineers (IIE) and he received two awards from them for excellence and innovations in teaching. Dr. Bafna has served several professional societies. He served IIE for 20 years in various capacities at the national, regional, local, and the university levels. He has also served the National Council of Examiners for Engineering and Surveying on their committee to prepare questions in Engineering Economy and the Michigan Society of Professional engineers on their Educational Credentials Review Committee, and has been a member of the College-Industry Council on Material Handling Education.

10:45 – 11:15 (Wednesday)



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

Challenges in Engineering Curriculum

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

Session VI: ASSESSMENT and ACCREDITATION

Session Chair: Dr. Pamela McCauley Bush, University of Central Florida, USA

11:30 – 12:00 (Wednesday)



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

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

12:00 – 12:30(Wednesday)



Dr. S. C. Naik
Professor
Bhubaneswar-751019, Odisha State, India

Engineering Education in India, its Assessment & Accreditation

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

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

12:30 – 13:00 (Wednesday)



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

Engineering Education in Great Britain: Engineering Education for Sustainability

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

Fellow of the Higher Education Academy (FHEA) and Fellow of the Royal Society of Arts (FRSA).

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

Session VII: ENGINEERING EDUCATION

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

14:00 – 14:30 (Wednesday)



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

Bio: Dr. Alaa K. Ashmawy is Professor of Civil Engineering and Dean of the School of Engineering at the American University in Dubai (AUD). Prior to joining AUD, he had held teaching and research appointments at the University of South Florida in Tampa, Florida, and the Georgia Institute of Technology in Atlanta, Georgia. His technical expertise is in geotechnical engineering, with interests in foundations and earth structures, environmental geotechnics, and earthquake engineering. Dr. Ashmawy's research has been funded by the US National Science Foundation, the US Department of State, and the Florida Department of Transportation. His professional experience also includes consulting on several engineering projects in the USA and the UAE, and a visiting professorship at the Universidad de las Americas in Puebla, Mexico. He is a licensed Professional Engineer (PE) in the State of Florida, USA. Dr. Ashmawy earned his Master's and Ph.D. degrees from Purdue University in West Lafayette, Indiana, USA, and his Bachelor's degree with Distinction

from Alexandria University in Egypt. He has been a member of the Global Engineering Deans Council (GEDC) Executive Committee since 2009, and was elected in 2011 as GEDC Secretary/Treasurer. He is a Program Evaluator (PEV) for ABET's Engineering Accreditation Commission, and an active member on numerous regional and international committees on engineering accreditation, curriculum, and professional licensure. He is also a member of the American Society of Civil Engineers, the American Society for Engineering Education, the

Deep Foundations Institute, and Sigma Xi – the Scientific Research Society. He is the recipient of the 2004 Jerome Krivanek Distinguished Teacher Award at the University of South Florida, and the ASCE Zone II Faculty Advisor Certificate of Commendation. He has authored three book chapters, and more than 50 technical papers in refereed journals and conferences.

14:30 – 15:00 (Wednesday)



Dr. Abdur Rahim

Professor, Faculty of Business Administration
University of New Brunswick, Fredericton, NB, Canada

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

15:00 – 15:30 (Wednesday)



Dr. Ho Thanh Phong

Associate Professor
Rector
International University - VNUHCM
Ho Chi Minh City, Vietnam

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

Session VIII: PANEL SESSION

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

Panelists



Dr. Funso Falade

Professor of Civil Engineering
University of Lagos, Nigeria
and
President, African Engineering
Education Association



Dr. Hans-Juergen Hoyer

Secretary General of the International
Federation for Engineering Education
Societies (IFEES)
Executive Secretary of the Global
Engineering Deans Council (GEDC)



Dr. Abu Masud, P.E.

Interim Dean of Graduate School
Boeing Global Engineering Professor
Professor of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

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

companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IIE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.



Dr. Ibrahim Mohammed Al-Harkan

Associate Professor of Industrial Engineering
Director of Applied Engineering Management Program
General Director of External Joint Supervision Program
Dean of Graduate Studies
King Saud University
Riyadh, Saudi Arabia

March 5, 2015 (Thursday)

Session IX: ENGINEERING EDUCATION

Session Chair: Dr. Eldon Caldwell, University of Costa Rica

10:15 – 10:40 (Thursday)



Dr.-Eng. Eldon Caldwell

Director, Industrial Engineering Department
Engineering School
University of Costa Rica

Inclusive Engineering Education for People with Disabilities: State of the Art in Central America

Bio: Eldon Caldwell, is full professor/ Cathedratricus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in *Lean Operations Engineering*. He developed new heuristic sequencing algorithms in order to reduce cycle times and received *Summa Cum Laude* in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/ University of Nevada, USA. Currently, he is doctoral researcher at the (Dr.Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013. Dr. Caldwell is "Lean Systems Certificated Specialist", MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prized. Also, Dr. Caldwell is Lead Auditor ISO 9001.2008 and Belbin Team Work Certified-UK. Dr. Caldwell earned his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earned a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at ITESM, México. He is author of many scientific articles and two books: "Marketing of Social Products and Services", UCR Pub. and "Lean Manufacturing: Fundamentals and techniques for cycle time reduction", Kaikaku Institute Press, USA. Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quirós & Cía-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panamá, Costa Rican Institute for Electricity, RTC- Perú, Young Electrical Signs, Nevada, USA, Air Care Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department, Engineering School at University of Costa Rica.

10:40 – 11:05 (Thursday)



Dr. C. B. Gupta

Professor, Department of Mathematics
Birla Institute of Technology & Science (BITS)
Pilani, India

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

11:05 – 11:30 (Thursday)



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

Industrial Engineering Education in India

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

Session X: HIGHER EDUCATION IN ENGINEERING

Session Chair: Dr. Abdel Magid Hamouda, Qatar University

11:30 – 12:00 (Thursday)



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

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

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

12:00 – 12:30 (Thursday)



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

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

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



Raul Sanano Chavez

Academic Coordinator of Applied in Engineering Management Program
Industrial Engineering Department
King Saud University
Riyadh, Saudi Arabia

Bio: Raul Sanano Chavez, is an Academic Coordinator of Applied in Engineering Management Program at King Saud University, Saudi Arabia. Lecturer in the collaborative MSEM between Missouri S&T and KSU. He hold a B. S. in Secretarial Administration major in Office Management from Manuel S. Enverga University Foundation, Lucena City, Quezon, Philippines. He earned a Master in Business Administration from San Pablo Colleges, San Pablo City, Laguna, Philippines and an online Master of Business and Management from Willington University, California, USA. Engineering Management and Distance Education became his research interest when he starts working with KSU in 2009 as Researcher. A former Human Rights Advocate of the Commission on Human Rights of the Philippines and a College Instructor at the San Pablo City Colleges, San Pablo City, Laguna, Philippines.

12:30 – 13:00 (Thursday)



Dr. Kudret Demirli

Professor & Chair, Industrial & Systems Engineering
Khalifa University, Abu Dhabi, UAE

Bio: Kudret Demirli received the B.Sc. and the M.Sc. degrees in Industrial Engineering from the Middle East Technical University, and the M.Sc. degree in Operations Research from Cornell University. He received his Ph.D. degree in Industrial Engineering from the University of Toronto. Dr. Demirli started his academic career as an Assistant Professor in the Department of Mechanical and Industrial Engineering, Concordia University where he became a Professor in 2011. He is currently the Chair of Industrial and Systems Engineering Department at Khalifa University of Science, Technology and Research, UAE. Dr. Demirli has had a number of industrial collaborations with aerospace companies such as Pratt & Whitney Canada, Bombardier Aerospace, Bell Helicopter, and CMC Electronics. Currently he is involved in a CRIAQ Project (Consortium for Research and Innovation in Aerospace in Quebec) in Lean Supply Chain and Operations. His main research focus is in

Lean Manufacturing and Supply Chain.

Session XI: STUDENT CENTERED ENGINEERING EDUCATION

Session Chair: Dr. Chee-Ming Chan, Universiti Tun Hussein Onn Malaysia

14:00 – 14:30 (Thursday)



Dr. Chee-Ming Chan

Associate Professor and Deputy Dean (Academic and Research)
Centre for Graduate Studies
Universiti Tun Hussein Onn Malaysia
Batu Pahat, Johor, Malaysia

Geo-disasters in Relation with Climate Change: Student's Perspective via a Course-embedded Project

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

auditor for the Malaysian Qualification Agency (MQA). From 2009-11, Dr. Chan served as a Postdoctoral Research Fellow at the Port and Airport Research Institute (PARI), Japan.

14:30 – 15:00 (Thursday)



Edward Williams

Adjunct Professor
University of Michigan - Dearborn, USA

Bio: Edward J. Williams holds bachelor's and master's degrees in mathematics (Michigan State University, 1967; University of Wisconsin, 1968). From 1969 to 1971, he did statistical programming and analysis of biomedical data at Walter Reed Army Hospital, Washington, D.C. He joined Ford Motor Company in 1972, where he worked until retirement in December 2001 as a computer software analyst supporting statistical and simulation software. After retirement from Ford, he joined PMC, Dearborn, Michigan, as a senior simulation analyst. Also, since 1980, he has taught classes at the University of Michigan, including both undergraduate and graduate simulation classes using GPSS/HO, SLAM II, SIMAN, ProModel, SIMUL8, Arena®, and Simio®. He is a member of the Institute of Industrial Engineers [IIE], the Society for Computer Simulation International [SCS], and the Michigan Simulation Users Group [MSUG]. He serves on the editorial board of the International Journal of Industrial Engineering –

Applications and Practice. During the last several years, he has given invited plenary addresses on simulation and statistics at conferences in Monterrey, México; Istanbul, Turkey; Genova, Italy; Riga, Latvia; and Jyväskylä, Finland. He served as a co-editor of Proceedings of the International Workshop on Harbour, Maritime and Multimodal Logistics Modelling & Simulation 2003, a conference held in Riga, Latvia. Likewise, he served the Summer Computer Simulation Conferences of 2004, 2005, and 2006 as Proceedings co-editor. He was the Simulation Applications track coordinator for the 2011 Winter Simulation Conference and the 2014 Institute of Industrial Engineers Conference.

15:00 – 15:30 (Thursday)



Slobodan Urdarevik

Master Faculty Specialist, Industrial and Manufacturing Engineering
Western Michigan University
Kalamazoo, Michigan, USA

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

Session XI: ENGINEERING EDUCATION

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

15:45 – 16:15 (Thursday)



Dr. Peter Toth

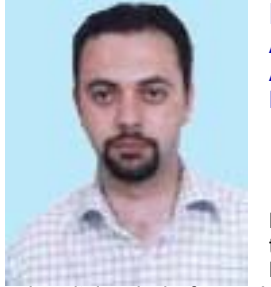
Principle Director of Trefort Ágoston
Centre for Engineering Education
Obuda University
Budapest, Hungary

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

Bio: Peter Toth is a professor of Trefort Agoston Centre for Engineering Education at Obuda University, Hungary where he is participating in technical initial teacher training and in-service training courses. Currently he is a principle director of the Centre. He earned his MSc in Engineering Education at the Budapest University of Technology and Economics, and Peter Toth has Ph.D and habil degree in Educational Research from Eotvos

Lorand University. He plays leading role in planning, development and managing traditional and virtual engineering programs. Dr. Toth is doing research on pedagogy of virtual learning environment, improvement of problem-solving thinking and analyzing of spatial abilities in engineering education. He is member of Committee for Teacher Training of Hungarian Rectors' Conference and secretary of Informatics Section of Pedagogical Committee of Hungarian Academy of Sciences.

16:15 – 16:45 (Thursday)



Dr. Seifedine Kadry

Associate professor of computing and department head
American University of the Middle East
Kuwait

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

Bio: Seifedine Kadry is an Associate professor of computing and department head at the American University of the Middle East, Kuwait. Dr. Seifedine Kadry received his B.Sc. in Computer Science and Applied Math in 2000 at Lebanese University, Lebanon. He got M.Sc. in Computer Science and Applied Math in 2002 from Agence

universitaire de la francophonie, Lebanon. Dr. Seifedine Kadry obtained Ph.D. from Blaise Pascal University, France in 2007 in Applied Mathematics. Dr. Seifedine Kadry's current research interests are physical science engineering, xml technology, system prognostic, stochastic differential equation, and reliability analysis.

16:45 – 17:15 (Thursday)



Dr. David Koonce

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

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

Bio: David A. Koonce is the Program Director of the Ohio University online Master of Engineering Management degree program, and he led the proposal effort to create this degree program. He holds three degrees from Louisiana State University, including a Doctorate of Philosophy in Engineering Science, a Master of Science in Industrial Engineering, and a Bachelor of Science in Industrial Engineering. His dissertation focused on: "An Integrated Multiple Manufacturing Data Source Blackboard Control Architecture". In addition to his teaching, Dr. Koonce applied his engineering skills as a software engineer for swissinfo / Swiss Radio International in Bern, Switzerland. He has also represented the Institute of Industrial Engineers as the regional vice president, and he is also a member of the American Society for Engineering Education, Alpha Phi Mu – Industrial Engineering Honor

Society and Tau Beta Pi – Engineering Honor Society. Dr. Koonce currently teaches courses focusing in engineering statistics, data analysis and integration, design of experiments, information systems engineering, database information systems, and system modeling. He focuses on the processes of software integration, computer integrated manufacturing and data mining, which ultimately lead engineers to build better systems resulting in more cost-effective and more reliable results.



The International Federation of Engineering Education Societies (IFEES)

IFEES was founded in 2006, at the American Society for Engineering Education's Global Conference in Rio de Janeiro, Brazil. Engineering education leaders from around the world had gathered the previous year to explore the possibilities of creating an international organization for engineering education societies. IFEES is proud to be leading the effort in connecting the world's engineering education societies and leveraging our members' collective strengths in order to improve engineering education worldwide. IFEES members represent a diversity not only in cultures, but in engineering education interests, from quality assurance to engineering education, from pedagogy to the role of technology in the classroom. IFEES member societies are expanding their global reach, and new relationships and collaborations are created all the time through IFEES' global network.

Through the collaboration of its member societies, IFEES will work to establish effective engineering education processes of high quality around the world to assure a global supply of well-prepared engineering graduates. IFEES will strengthen member organizations and their capacity to support faculty and students. It will attract corporate participation, helping to connect engineering graduates with international corporations that have a pressing need for well-trained engineers who can work in a global environment. IFEES will also enhance the ability of engineering faculty, students and practitioners to understand the varied cultures of the world and work effectively in them.



Global Engineering Deans Council (GEDC)

Recognizing the global need for a world-wide forum of engineering deans and rectors, a group of over 20 leaders of engineering education institutions and corporate partners first met in Rio de Janeiro, Brazil, on 9 October 2006 and in Istanbul, Turkey, on 30 September 2007. Encouraged by IFEES and modeled after the ASEE Engineering Deans Council (EDC), the Global Engineering Deans Council (GEDC) was created on 9 May 2008 in Paris, France. The main goal of the GEDC is to provide engineering deans and rectors with ideas, tools, and "best" practices necessary to become innovative leaders of engineering education.

The GEDC holds annual meetings surrounding four strategic objectives: Institutional Leadership, Curriculum Leadership, Policy Leadership and Accreditation Leadership. Accommodating for its diverse membership, the GEDC has met in Argentina, Brazil, Turkey, France, Singapore, People's Republic of China, United States of America, Hungary, the United Arab Emirates, and will meet in Italy and Australia in 2015.

Represented by Dr. Hans J Hoyer (Secretary General, IFEES and Executive Secretary, GEDC)



أرامكو السعودية
Saudi Aramco



Represented by:
Moraya AlGahtani
Division Head
Operational Excellence Department
SAUDI ARAMCO

IEOM Industry Solutions

Achieving and Sustaining Operational Excellence

IEOM Industry Solutions Chairs

Majid Abab, The Boeing Company, USA

Resh Plaha, Crystal Quality, UK

DISTINGUISHED SPEAKERS

Tuesday (March 3, 2015)

Session I Chair: Dr. Zola Mbanguta, African Engineering Education and Business Association

09:45 – 10:15 (Tuesday)



Dr. Zola Mbanguta

President of African Engineering Education and Business Association

Founder of CDIO Institute for Africa (A UNESCO-UNEVOC Partner Agency in South Africa)

Pretoria, South Africa

Engineering Education for Industrialization in the African Region

Bio: Dr. Zola Mbanguta completed his post-doctoral research in Conceive-Design-Implement-Operate engineering education reform theory at Linköping University in Sweden in 2004. He was appointed to chair the South African UNESCO Science Commission in 2005 to 2007. He is the president of the African Engineering

Education and Business Association which is a member of the South African delegation to BRICS Business Forum, a member of the African National Congress Progressive Business Forum and Black Business Council of SA. He is Founder of China-Africa Engineering Programme and Europe-Africa Engineering Programme which aim to first intensify the highest engineering education and training levels of Africans and thereafter create business opportunities for them. He is the Founder of the CDIO Institute for Africa and is Head and Director of its UNESCO-UNEVOC Partner Agency Wing.

10:15 – 10:45 (Tuesday)



Dr. Mark Hodgkinson

Operational Excellence

Bapco Refinery (Bahrain Petroleum Company)

Kingdom of Bahrain

Rapid OE by Technology Assisted Governance

Biography: Dr. Mark Hodgkinson has over 25 years' experience in the oil Industry in various roles such as Research and Development, Analytical Chemistry, Chemometrics & Multivariate Statistical Process Control, Business Process Improvement, Environmental Analytical Chemistry, Environment Health and Safety, Quality and Operational Excellence. He is currently in his 4th year of implementing a comprehensive Operational Excellence Management System based upon Chevron's OEMS. He holds a PhD and an Applied Degree in Chemistry. Previous to the oil

Industry he was a biologist in the ecology and applied microbiology disciplines.

10:45 – 11:15 (Tuesday)



Anandhi Dhukaram

Researcher

University of Cambridge

England, United Kingdom

Cognitive Engineering Approach for Creating Sustainable Solutions to Complex Industrial Design Challenges

Biography: Anandhi Dhukaram is a researcher at the University of Cambridge, researching on the application of Cognitive Engineering and interface design for humans. Her major research emphasis is to see: how cognitive engineering and socio-technical thinking can help drive both incremental and radical innovation within the company. Anandhi has a Master's degree in Computer Science from the University of New South Wales, Australia and is currently pursuing PhD at the School of Electronic, Electrical and Computer Engineering, University of Birmingham. Her PhD research is funded by the European Union project titled "Pervasive Technology for Cardiac care". Before entering academia, Anandhi had a distinguished career for more than a decade working for various clients including Accenture, Barclays, ACNielsen and more. She has also gained experience working across the globe like: India, Australia, Canada, USA and UK! Moreover, she has been a speaker at the Oxford Symposium for higher education and Entrepreneurs network. She has also presented in many conferences including British HCI, IEEE Pervasive Healthcare (Dublin), Mobile Data Management (India), and IEEE International Conference on Healthcare Informatics (USA).

Session II Chair: Dr. Janos Pinter, Pinter Consulting Services, Inc., Canada

11:30 – 12:00(Tuesday)

**Derek Middlemas**

Group Operations Director
AVEVA Solutions
Dubai, UAE

Improve Operations Performance with Visual Thinking

Bio: A Chartered Engineer with a degree in Naval Architecture and a Masters in Project Management Derek spent the early part of his career involved in the design and installation of floating and fixed offshore installations, before moving into project management. Derek worked for several large EPC firms, including Foster Wheeler and Bechtel, where he ran the Regional Engineering and IT Departments, and was responsible for leading and driving forward the use of innovative engineering software on their projects, especially 3D CAD and Engineering Data Management. With a passion for improving business through the use of information Systems Derek joined software supplier AVEVA in 2000 to drive the expansion of the business into a broader portfolio of Engineering IT Solutions and he has held several senior positions in AVEVA. As EVP Business Strategy, he provided effective leadership to the overall product/business strategy before taking up the position of Group Operations Director in 2008 responsible for Sales, Strategy and Marketing. As a member of the AVEVA Solutions Board Derek's current responsibility is to lead the Enterprise Solutions business, and develop solutions for the plant operations market.

12:00 – 12:30 (Tuesday)

**Dr. Ayham Jaaron**

Director of Quality Assurance Unit
An-Najah National University, Nablus, Palestine

The Art of Innovative Quality Assurance Tools: The Case of ABET Accreditation

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

12:30 – 13:00 (Tuesday)

**Dr. Janos D. Pinter**

Proprietor & Research Scientist
Pinter Consulting Services, Inc., Canada

János D. Pintér is a researcher and practitioner with four decades of work experience. His professional interests are primarily related to nonlinear optimization, including algorithm and software development, and a broad range of applications. He received M.Sc. (Eötvös University of Sciences), Ph.D. (Moscow State University), and D.Sc. (Hungarian Academy of Sciences) degrees in Mathematics, with specializations in Operations Research, Stochastic and Global Optimization.

Dr. Pintér is the owner of PCS Inc. (Canada), a consulting company. In this capacity, he is the principal developer of several professional nonlinear optimization software products for compiler platforms, spreadsheets, modeling languages, and integrated scientific-technical computing systems. These software products are used at hundreds of academic, business and research organizations worldwide. Dr. Pintér wrote 4 books and he is editor / technical editor of 5 other volumes. (Several further book projects are in progress.) He is also author / co-author of more than 200 research articles, book chapters, proceedings contributions, book reviews, and technical reports. His book titled Global Optimization in Action received the 2000 INFORMS Computing Society Prize for Research Excellence. Among other professional affiliations, he has served or serves on the editorial board of the Journal of Global Optimization, the Journal of Applied Mathematics and Decision Sciences (now Advances in Decision Sciences), Algorithmic Operations Research, and the International Journal of Modeling, Identification and Control. He is a past or present member of the Canadian and Hungarian Operations Research Societies, the Institute for Operations Research and the Management Sciences (INFORMS), the Mathematical Programming Society, and the Society for Industrial and Applied Mathematics. He served as Vice-Chair of the INFORMS Optimization Society, and as Chair of the Managing Board of EUROPT, the Continuous Optimization Working Group of EURO. Dr. Pintér has worked and presented lectures in about 40 countries of the Americas, Europe, the Middle East, and the Pacific Region.

Session III: Sponsors and Exhibitors Presentations
14:00 – 15:00 (Tuesday)



Normand Péladeau

President and CEO
Provalis Research
Montreal, Canada

Normand Péladeau is the president and CEO of Provalis Research, a software company based in Montreal. He has a doctorate degree in psychology and more than 30 years of experience as a social science researcher and as a consultant in research methodology for large corporations, governmental agencies, and international organization. He trained hundreds of people to text analysis techniques for a wide range of applications such as business intelligence, market research, urban planning, aviation safety, media analysis, survey research, international crime analysis.



Dr. Mahmoud Awad

Assistant Professor, Industrial Engineering
American University of Sharjah
American Society of Quality – Middle East and North Africa
Dubai, UAE

Dr. Mahmoud Awad received his PhD in Industrial Engineering from Wayne State University, Michigan, USA. He worked for many years at Ford Motor Company as a quality and reliability engineer, Case New Holland (CNH) as a Six Sigma MBB, and Schlumberger Technology Incorporation as a reliability manager. Dr. Awad also worked as an assistant professor in the Industrial Engineering Department at AlHosn University in Abu Dhabi. His research interests include Design for Six Sigma (DFSS), quality engineering, reliability allocation, Prognostic Health Management (PHM), and Centered based Maintenance (RCM). Currently he is an assistant professor of industrial engineering at American University of Sharjah (AUS).

15:00 – 15:30 (Tuesday)



Madhu P Pillai

Projects Director
Kentz Engineering International Co. Ltd.
Al Khobar, Saudi Arabia

Relating Estimating and Cost Control to Project Success

Bio: Mr. Madhu P. Pillai is an Electrical Engineer with post graduate degrees in Human Resources Management (India) and Business Management (UK). He is also a graduate of PMI's coveted Global Project Management Leadership Development Program (USA). He is currently pursuing his Ph D in the area of "Strategic Project Management Leadership". He is Certified Cost Consultant (CCC)®, Project Management Professional (PMP)®, and an Associate Value Specialist (AVS)®. He has 28 years of broad-based Oil & Gas, Petrochemical and Power industry experience in Operations and Project Management, and has worked in India, Nigeria, USA, Bahrain, Qatar and Saudi Arabia. He is associated as Projects Director with Kentz Engineering International Ltd, a Multinational EPC company. Mr Pillai has spoken at more than 20 International conferences; organized by OMAINTEC, PMI, IPMA, AACEI, QAI, European Cost Congress to name a few, and was a Keynote & Invited Speaker for many events. He also chaired few international conferences in Project Management and has been a frequent speaker for various professional associations for motivating and inspiring their membership in different areas of professional development. Mr Pillai was awarded the O T Zimmerman Founder's award by AACEI in 2008 for his contribution to the 'Global Cost Management Professional Community', and is a recipient of the Millennium Achiever Award of International Institute of Success Awareness. An ex-member of the international forum of PMI on enhancing the professional certification programs around the world, Mr. Pillai has also served on the nominations committee of PMI for the International Board election. He had served on the International Board of Directors for AACEI and Chaired the International Marketing Advisory Committee of AACEI. Mr. Pillai is elected as the Association's next Vice President covering Asia-Pacific, Europe, Africa and South America; and will be assuming office in June 2014. He currently serves on the Director Board of International Cost Engineering Council (ICEC).

Qatar and Saudi Arabia. He is associated as Projects Director with Kentz Engineering International Ltd, a Multinational EPC company. Mr Pillai has spoken at more than 20 International conferences; organized by OMAINTEC, PMI, IPMA, AACEI, QAI, European Cost Congress to name a few, and was a Keynote & Invited Speaker for many events. He also chaired few international conferences in Project Management and has been a frequent speaker for various professional associations for motivating and inspiring their membership in different areas of professional development. Mr Pillai was awarded the O T Zimmerman Founder's award by AACEI in 2008 for his contribution to the 'Global Cost Management Professional Community', and is a recipient of the Millennium Achiever Award of International Institute of Success Awareness. An ex-member of the international forum of PMI on enhancing the professional certification programs around the world, Mr. Pillai has also served on the nominations committee of PMI for the International Board election. He had served on the International Board of Directors for AACEI and Chaired the International Marketing Advisory Committee of AACEI. Mr. Pillai is elected as the Association's next Vice President covering Asia-Pacific, Europe, Africa and South America; and will be assuming office in June 2014. He currently serves on the Director Board of International Cost Engineering Council (ICEC).

Session III: ISO Seminar and IEOM Town Hall Meeting

15:45 – 16:15 (Tuesday)



Ms. Resh Plaha BSc (Hons), IoD, IRCA, ACQI
Crystal Quality UK Ltd

The Implications of the new ISO 9001: 2015 Standard on Quality Management Systems

Ms. Resh Plaha sits on the UK's Chartered Quality Institute ISO9001:2015 Review Panel which reports directly into the ISO Geneva Head Office, ISO Technical Committee 176: Quality Management and Quality Assurance. Resh is also a member of the International Register of Certificated Auditors (IRCA) Advisory Panel responsible for providing thought leadership on the development, promotion and publication of audit methodologies, auditor competencies, auditor training and continuous professional development. Resh is a registered Lead Auditor with IRCA and a Member of the Institute of Directors. She is Managing Director of Crystal Quality UK Ltd, a private company offering bespoke project management consultancy and training services to organisations seeking registration to international standards in Quality Management Systems, Environmental, Health and Safety Systems including Food Safety. Major clients include Mercedes-Benz UK Ltd; the Ministry of Defence; Food and Beverage suppliers to Marks and Spencer plc; Central

and local UK Government; Aerospace and other capital goods manufacturing organisations. Resh has a wealth of industrial and management experience that spans over 30 years in Quality Management Systems, commencing in the Food Industry before joining SGS, the international leading certification company. She is a highly experienced trainer and international speaker having personally delivered numerous short public IRCA approved training courses to delegates worldwide. Resh has presented at international conferences, delivered entrepreneurial and quality training at Singapore Nanyang Technological University, Hong Kong Polytechnic University and is a guest lecturer at Loughborough University, United Kingdom. She is a strong advocate of women's business roles in society and believes in leading by example.



16:15 – 16:45 (Tuesday)

Dr. Mohammad Ahsanullah

Professor, Department of Management Sciences
Rider University, New Jersey, USA

Record Values and Their Applications

Bio: Dr. Mohammad Ahsanullah is a Professor of Statistics at the Rider University, New Jersey, USA. He received Ph.D. from North Carolina State University. Dr. Ahsanullah is a Fellow of American Statistical Association, Fellow of Royal Statistical Society and Elected Member of International Statistical Institute. He is Editor-in-Chief of Journal of Statistical Theory and Applications. Dr. Ahsanullah publishes more than thirty books in Statistics and more than three hundred statistical research papers.

16:45 – 17:15 (Tuesday)

TOWN HALL MEETING for IEOM Society

Professional Chapters, Student Chapters, Country Representatives and Technical Divisions

Wednesday (March 4, 2015)

Session V Chair: Dr. Zain Tahboub, Dubai Aviation Engineering Projects (DAEP), UAE

09:45 – 10:15 (Wednesday)



Dr. Zain Tahboub

VP Research and Strategy / Industrial Engineer
Dubai Aviation Engineering Projects (DAEP)
United Arab Emirates (UAE)

Strategy and Competitiveness for Aviation Engineering Projects

Dr. Zain Elabideen Tahboub got his Ph.D. and M.Sc. in Industrial and Systems Engineering from Ohio State University. Immediately after, he joined hands with three colleagues to form the Industrial Engineering department at the University of Jordan in 1987. He lead the M.Sc. program in Engineering Management for several years where it came became a leading program for the University of Jordan. The graduates of the department became among the most respected and demanded professionals in many positions, Dubai is no exception where a number of IE's are among the top decision makers of the Executive Council and many other government entities. At the same time, he was working with industry in many important programs; he was the Corporate Adviser for Royal Jordanian Airlines 1994-1998 where he helped in the recovery of the Airline to become profitable again. During his work at the University of Jordan, he assumed several roles to bring industry and academia together; he was the director of the Outreach Program, the chairman of the National Committee on Relationship between Academia and Industry which lead to forming new partnership and models in new universities. In 2005, he left the University of Jordan to be the Dean of Majan University College in Oman. In 2009, he joined Dubai Aviation Engineering Projects as Specialist Adviser, then assuming other roles and responsibilities including strategy, research, knowledge management and innovation where he is working on building new concepts and models for innovation. Recently, Zain was an active member in developing Dubai Plan 2021.

10:15 – 11:15 (Wednesday)



Martin Nazareth

President, OpEx Solutions Inc.
Round Rock, Texas, USA

Special Talk: Strategy Linked to Mission and Vision is Key to Significant Gains

Bio: Martin Nazareth, President – OpEx Solutions, is a global consultant in operational excellence involving the strategic application of lean manufacturing (Lean), total productive maintenance (TPM), quality, and industrial engineering (IE). He has led strategic consulting, training and execution at over 100 plants in the USA, Canada, Australia, India, Latin America and Europe. Nazareth's background spans several industries, including automotive, metals and mining, oil and gas, ship building, electrical systems, information systems, and healthcare. Nazareth is the founder of OpEx Solutions. Prior to OpEx Solutions, he was a senior manager for Lean and TPM deployment at Alcoa. He led program quality for all North American programs at Delphi Thermal & Interior. Before Delphi, he consulted through EDS, Tata Consulting Services, and independently. Nazareth successfully led change through four successful corporate- and division-wide initiatives including Lean, TPM, FMEA/PCP and error-proofing at two Fortune 500 companies. Nazareth has two master's in industrial engineering and a bachelor's in mechanical engineering. He is a certified Project Management Professional (PMP) and a Six Sigma Green Belt. Martin Nazareth served on the board of AME's Southwest Region and is a Director of IIE's Lean Division and Industry Advisory Board. With over twenty-five years of

professional experience, Nazareth is well recognized for his passion for excellence and strategic execution through accomplishments of flawless new product launches, successful implementation of initiatives and demonstration of bottom-line results.

11:30 – 13:00 (Wednesday)

WORKSHOP: Smart Manufacturing to Reduce Decision Lead Time



Dr. Rupy Sawhney

Heath Fellow in Business and Engineering
Professor, Industrial and Systems Engineering
University of Tennessee, Knoxville, USA

The Center for Productivity and Innovation (CPI) is actively engaged in smart manufacturing, the application of intelligent algorithms to production and manufacturing environments. We have research expertise in analysis of production systems, development of sensing algorithms, and modeling the hierarchy of decision making in an organization. We have leveraged this expertise to develop a new paradigm in decision making, called the right information-right time-right person paradigm. Operational metrics, which improve upon traditional production KPIs, are designed to assess the health of a production system. Computer vision algorithms use

information-rich, low-cost imaging technology, resulting in a robust and versatile sensing system for operational metrics. Finally, graph theoretical decision models are used in understanding and improving the flow of information in an organization. The overall effect of such a system is to reduce decision lead times while simultaneously improving production output.

Bio: Rupy Sawhney is a Professor & Heath Fellow in Industrial and Systems Engineering at the University of Tennessee, Knoxville. He earned B.S. and M.S. in Industrial Engineering and Ph.D. degrees in Engineering Science and Mechanics from the University of Tennessee, Knoxville in 1981, 1984 and 1991 respectively. He was a Weston Fulton Professor and Department Head during 2010-2013. He is also a faculty for the newly created Center for Interdisciplinary Research and Graduate Education (CIRE) in Energy. His current research focuses on trying to use technology and innovation to enhance organizational productivity. Dr. Sawhney has assembled a team over the past five years that has a greatest critical mass within the history of the Industrial Engineering department to compete with other academic institutions in the lean area. His research group at this moment consists of 40 Postdocs, Ph.D. and Master students. He has published significant journal papers, conference papers and has submitted for 5 patents. He has graduated more than 50 Master's and 8 Ph.D. students. His funded research projects are in the millions of dollars. He has worked with over 200 companies and is a recipient of various awards (Boeing Welliver Fellow, Alcoa Faculty Award, IIE Lean Teaching Award, Reuben Harris Award, and Accenture Teaching Excellence Award).

Panel Session on LEAN

Panel Chair: Dr. Rupy Sawhney, University of Tennessee, Knoxville, USA
14:00 – 15:30 (Wednesday)

Panel Members



Majid Abab

Industrial Engineering Manager
The Boeing Company, USA

Mr. Majid Abab is an Industrial Engineering Manager at the Boeing Company. He has advanced education in the field of industrial engineering and over 36 years of solid industrial engineering experience in the aerospace industry including 30 years in management and leadership roles at the Boeing Commercial Airplane Company. Currently Mr. Abab is leading the BCA core industrial engineering organization supporting the Boeing Enterprise IE community. Responsibilities include developing and deploying process improvements, strategic planning (for utilization, growth and career planning of IE's), strategic staffing, university relations and external technical affiliations, simulation, and process

integration initiatives (People, Processes, and Tools). He has served in the various professional board and leading international conferences including Member of the Boeing Enterprise Process Action Team – Leadership, Chair of IIE – IAB (industry advisory board), Chaired many IIE conferences tracks, Current chair of the IIE Annual Conference, A IIE Fellow, Co-Chair of the IEOM conferences, and active member of several universities Industry Advisory Board. Mr. Abab received the IIE-UPS Diversity Award, the Boeing Diversity Award, the Boeing Educational award, the Boeing knowledge sharing award. He is a lifelong mentor and a coach for many universities' students and professional colleagues.



Dr. Kudret Demirli

Professor & Chair, Industrial & Systems Engineering
Khalifa University
Abu Dhabi, UAE

Kudret Demirli received the B.Sc. and the M.Sc. degrees in Industrial Engineering from the Middle East Technical University, and the M.Sc. degree in Operations Research from Cornell University. He received his Ph.D. degree in Industrial Engineering from the University of Toronto. Dr. Demirli started his academic career as an Assistant Professor in the Department of Mechanical and Industrial Engineering, Concordia University where he became a Professor in 2011. He is currently the Chair of Industrial and Systems Engineering Department at Khalifa University of Science, Technology and Research, UAE. Dr. Demirli has had a number of industrial collaborations

with aerospace companies such as Pratt & Whitney Canada, Bombardier Aerospace, Bell Helicopter, and CMC Electronics. Currently he is involved in a CRIAQ Project (Consortium for Research and Innovation in Aerospace in Quebec) in Lean Supply Chain and Operations. His main research focus is in Lean Manufacturing and Supply Chain.



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Dr. Rupy Sawhney
Heath Fellow in Business and Engineering
Professor, Industrial and Systems Engineering
University of Tennessee
Knoxville, USA

Session VIII Chair: Mr. Shailendra Shukla

15:45 – 16:15 (Wednesday)



Dr. Mickael Gardoni

Professor and Director, Innovation Management Program
Engineering Department of Automated Production
ÉTS Engineering Industry, Québec, Canada
Acting Director of the PhD School

New Method of Risks Management for End-Of-Life of Large-Scale Projects: Case of Extraction Projects

Bio: Dr. Mickael Gardoni is professor and director of the innovation management program at ÉTS (Québec - Canada) and acting director of the PhD school. He was professor at INSA de Strasbourg and INP Grenoble (France) and Co-Director of the "French-Chinese PLM Centre for Innovation" in Tsinghua University, Beijing, China. He is engineer in industrial engineering and has done his PhD in EADS (European Aeronautic Defence and Space Company). His research interests include methodologies of creativity-innovation and knowledge management."

16:15 – 16:45 (Wednesday)



Shailendra Shukla

Renewable Energy Development Agency
Govt. of Chhattisgarh & Chhattisgarh Biofuel Development
Raipur, Chhattisgarh, India

Roof top Solar Systems – Best Alternative for Developing Countries

Bio: Shailendra Shukla is CEO cum Director of Chhattisgarh of Renewable Energy Development Agency (CREDA), Govt. of Chhattisgarh & Executive Director, Chhattisgarh Biofuel Development Authority, India. Mr. Shukla was awarded "ENGINEER OF THE YEAR" by practicing engineer's welfare association, Chhattisgarh in the year 2005 for outstanding achievement and dedication in the field of engineering for the benefit of the society. He is amongst Four Indians Shortlisted for International level "Zayed Future Energy Prize" a prestigious and internationally recognised award for innovation, performance and leadership in sustainable and renewable energy projects. He attended several international seminars and workshops and presented technical papers in USA, UK, Belgium, Netherlands, Germany, France, Spain, Austria, Australia, Japan, Korea, Singapore, Malaysia, Hong Kong, Thailand, UAE, Kenya, Lithuania, Qatar, Sweden and Finland.

16:45 – 17:15 (Wednesday)



Ahmed Al-Jabr, CMBB

President, Saudi IEOM Society
Dhahran, Saudi Arabia

Challenges and Opportunities of Lean and Six Sigma for Saudi Industries

Ahmed Aljabr is a President of IEOM Society – Saudi Arabian Chapter, as quality engineer and Six Sigma Mater Blackbelt Certified, his experience span most industries and operational areas including working in different successful project, such as working win the International Automotive Components (IAC) to install a solar photovoltaic panel system within their facility, Whitlam Label Company (WLC) to layout the travel distance to minimize the non-value added transportation time on their factory, and Shiloh Industries Inc. through a Six Sigma project with an annual cost savings of over \$500,000, figured how the process was mapped, characterized, analyzed, improved and controlled, and explore which tools were used to quantify the amount of variation within the process as well as the cost of that variation. He is an expert in the areas of Lean Six Sigma, Continues Improvement, Quality Management, Lean Manufacturing, Operational Excellence, Optimization, Strategy, Project Management, Supply Chain Management, Public Relation, and Global Leadership. He is an active member of SAE, IIE, ASQ, ASME, LEI, IEOM, and SME. He was a president of the Saudi Student Union at LTU, President of Arab American Association of Engineers and Architects (AAAEEA), 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. He has BS in Mechanical Engineering, MS in Manufacturing System Engineering, MS in Engineering Management, and he is PhD Candidate Manufacturing System Engineering at Lawrence Technological University.

Track Program

Tuesday (TU), March 3, 2015

08:00 **Welcome:** Crystal Ballroom

08:30 **Opening Keynote:** **Dr. G. Don Taylor**, Charles O. Gordon Professor and **Department Head**, Grado Department of Industrial and Systems Engineering, **Virginia Tech**, Blacksburg, VA, USA and **Past IIE President**, Crystal Ballroom

TU 9:45 – 11:15 **Global Engineering Education I - ENGINEERING CURRICULUM** **Jade-Opal-Topaz**

Session Chair: Dr. Funso Falade, University of Lagos, Nigeria

Dr. Funso Falade, University of Lagos, Nigeria and President, African Engineering Education Association [ID 625]
Dr. Raid Al-Aomar, Professor of Industrial Engineering, Abu Dhabi University, UAE
Dr. Soumaya Yacout, École Polytechnique de Montréal, Canada

TU 9:45 – 11:15 **Industry Solutions I** **Emerald**

Session Chair: Dr. Zola Mbanguta, African Engineering Education and Business Association, South Africa

Dr. Zola Mbanguta, President of African Engineering Education and Business Association, South Africa
Dr. Mark Hodgkinson, Operational Excellence, Bapco Refinery (Bahrain Petroleum Company, Kingdom of Bahrain)
Anandhi Dhukaram, University of Cambridge, England, United Kingdom

TU 9:45 – 11:15 **Student Paper Competition** **Sapphire**

Session Chair: Dr. Ahm Shamsuzzoha, Sultan Qaboos University, Oman

ID 082 Detrimental effects of poor Human Resources Management: Case study from Sri Lanka
Chanjief Chandrakumar, Gowryathan Jeyanthinathasarma and Asela K.Kulatunga, University of Peradeniya, Sri Lanka
Ramesh Aravind Kesavan, Faculty of Science, University of Peradeniya, Peradeniya, Central, Sri Lanka
Chanthujan Chandrakumar, Faculty of Engineering, University of Moratuwa, Colombo, Western, Sri Lanka

ID 685 A Recommender System for the Optimal Combination of Energy Resources with Cost-benefit Analysis
Hsiao-Fan Wang and Li Kung, National Tsing Hua University, Hsinchu, Taiwan

ID 662 Design of X-bar&R Control Charts for Monitoring Quality of Care for Hypertension
Tamador Albloushi, Aisha Suwaidi, Noura Zarouni, Asma Abdelrahman and Mohammad Shamsuzzaman, University of Sharjah, UAE

ID 241 Implementing Lean Six Sigma to Improve the Ratio of Admissions to Placements in an Academic Year: Statistical and Psychological Case Study of a Technical Institute
Shyam Tenali, Vijay Bhaskar, Taranikanth Kamma and Ram Subhash Ganti, GITAM University, Vishakapatnam, Andhra Pradesh, India

ID 659 Applying Variance Performance Measures for Variable Service-Rate Queueing Simulation Models
Paul Babin, Mississippi State University, Dusseldorf, NRW, Germany
Allen Greenwood, Prince Sultan University, Riyadh, Saudi Arabia

TU 9:45 – 11:15 **Operations Management I** **Jawhar 1**

Session Chair: Eldon Caldwell, University of Costa Rica, San Jose, Costa Rica

ID 033 Developing a Two-Stage Procedure for Estimating Origin-Destination Matrix Based On Routes and Traffic Volume
Abbas Mahmoudabadi, and Mahdieh Mahmoudabadi, Mehrastan University, Gilan, Iran

ID 516 Performance Double Prism: A Performance Measurement System for Exploration and Exploitation Innovations in Manufacturing SMEs
Ickael Gardoni and Lado Nogning, Florent, ETS, Montreal, Quebec, Canada

ID 714 Solving IFRI Transportation Problem: A Case Study
Abdelouhab Aloui, Megdouda Ourbih-Tari, Nessma Maameri, Soraya Saghi and Kamal Amroun, University of Bejaia, Algeria

ID 236 A Preliminary Proposal based on Hybrid Systems and Linear Programming for Including Capacity Constraint in the EOQ model
Tommaso Rossi and Rossella Pozzi, Cattaneo University – LIUC, Castellanza, Italy
Mariapaola Testa, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA

ID 040 GTBM: An Alternative Theoretical Model to Drum Buffer Rope System Evaluation
Eldon Caldwell, University of Costa Rica, San Jose, Costa Rica

TU 9:45 – 11:15

Quality Control and Management I

Jawhar 2

Session Chair: Imad Alsyouf, University of Sharjah, United Arab Emirates

ID 247 The Impact of Quality Maintenance Pillar of TPM on Manufacturing Performance of a Process Industry
Sachit Vardhan, Pardeep Gupta and Vaibhav Gangwar, Sant Longowal Institute of Engineering & Technology, Longowal, Sangrur, Punjab, India

ID 376 Implementing Quality Management in Construction Projects
Ahmad Rashed and Mohammad Othman, An-Najah National University, Nablus, West Bank and Gaza

ID 627 Relationships between Total Quality Management Critical Techniques in Automotive Industry
Amir Azizi, Universiti Malaysia Pahang, Pekan, Pahang, Malaysia

ID 067 Efficiently Serving Customers at a Call Center
Chih-Chin Liang, Department of Business Administration, National Formosa University, Huwei Township, Yunlin County, Taiwan

ID 353 Design of Control Chart for Monitoring Time-Between-Failures of a Repairable System: A Case Study
Imad Alsyouf and Mohammad Shamsuzzaman, University of Sharjah, United Arab Emirates
Mohammed Al-Taha, Dammam, Saudi Arabia
Gasim Abdelrahman, University of Sharjah, United Arab Emirates

TU 9:45 – 11:15

Artificial Intelligence I

Mehwar 1

Session Chair: Balan Sundarakani, University of Wollongong in Dubai, UAE

ID 324 Neural Network Usage in Structural Crack Detection
Mohamed Gaith, M. El Haj Assad, Ahmad Sedaghat, Mohammad Hiyasat and Saddam Alkhatib, Australian College of Kuwait, Kuwait

ID 490 Design of a Fuzzy Logic Control System for Monitoring Gearbox Jamming in a Bottle Washer Machine
Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 683 Artificial Intelligence based Approach for Daily Peak Electricity Demand Forecasting in Algeria
Mohamed Bouabaz, Mordjaoui Mourad, and Abderrezak Laouafi, University of 20 August 1955 – Skikda, Algeria

ID 473 A Hybrid Grey-based KOHONEN and Multi-Objective Genetic Algorithm to Robot Selection
Farshad Faezy Razi, Islamic Azad University, Semnan, Iran

ID 211 Simulation Optimization with GA and OCBA for Semiconductor Back-End Assembly Scheduling
James Lin and Chien-Ming Chen, NTHU, Hsinchu, Taiwan

TU 9:45 – 11:15

Modeling and Simulation I

Mehwar 2

Session Chair: Ibarhim Alharkan, Mageed Ghaleb and Umar Syarif, King Saud University, Riyadh, Saudi Arabia

ID 293 Airport Baggage Handling System Simulation Modeling Using SysML
James Lin and Ping-His Shih, NTHU, Hsinchu, Taiwan
Edward Huang, Fairfax, Virginia, USA
Chun-Chih Chiu, Hsinchu, Taiwan

ID 476 A Queuing Model for Health care Pharmacy Using Software Arena
Mohamed Hatem Mohamed Alhaag, Tariq aziz, Ibrahim M. Alharkan, King Saud University, Riyadh, Kingdom of Saudi Arabia (KSA).

ID 587 Modeling Dispatching Buses with High Service Level
Ilham Kissani, Al Akhawayn University, Ifrane, Morocco

ID 439 Simulation and Analysis of a Bank Queuing System
Michael Mutingi, University of Botswana, Gaborone, Botswana
Charles Mbohwa, University of Johannesburg, South Africa
Herbert Mapfira, Gaborone, South East, Botswana
Nosi P K Moakofi and Ambrosia Moeng, University of Botswana, Gaborone, Botswana

ID 076 Modeling and Simulation of Queuing Systems Using Arena Software: A Case Study
Ibarhim Alharkan, Mageed Ghaleb and Umar Syarif, King Saud University, Riyadh, Saudi Arabia

TU 9:45 – 11:15

Automation and Control

Pearl 1

Session Chair: Poomyos Payakkawan, Bangkok Thonburi University, Bangkok, Thailand

ID 401 Evaluation of Deadlock Control Design s in Automated Manufacturing Systems
Abdulrahman M. Al-Ahmari, and Husam Kaid, King Saud University, Riyadh, Saudi Arabia
Emad Abouel Nasr, King Saud University, Riyadh, Saudi Arabia and Helwan University, Cairo, Egypt
Abdulaziz El-Tamimi, King Saud University, Riyadh, Saudi Arabia
Zhiwu Li, Xidian University, Xi'an, China

ID 441 Autonomous Messenger Using Propeller LED Display
Santaram Venkannah and Damien E B Mallet, University of Mauritius, Reduit, Mauritius

ID 734 Network Violator Detection Problem with Flow and Node Base Customers
Amber Shafiq, Department of Industrial and Systems Engineering, Korea Advanced Institute of Science and Technology (KAIST), South Korea

ID 736 Implementation of Kalman Filter and Sonar Image Processing on FPGA platform
Radha Guha, Prince Mohammad bin Fahd University (PMU), Saudi Arabia

ID 563 Fuzzy Strategy with Anti-Overshoot Technique for Electronic Throttle Control
Poomyos Payakkawan, Bangkok Thonburi University, Taweewatana, Bangkok, Thailand

TU 9:45 – 11:15

Sustainability and Green Systems I

Pearl 2

Session Chair: Chih Wang, National Chiao Tung University, Hsinchu, Taiwan

ID 052 Enhancing Sustainability Performance through Implementing Green Rating System (LEED): A Case Study
Imad Alsyounf, Abrar Alhammadi and Samah Alfadeil, University of Sharjah, United Arab Emirates

ID 218 CAD Tools for Sustainable Design
Abe Zeid, Northeastern University, Boston, MA, USA

ID 509 Eco-Labeling Programs and Their Successful Design
Xu Yang, San Jose State University, San Jose, CA, USA

ID 096 A Systematic Approach to Select the Optimal Project Portfolios for Green Manufacturing: An Empirical Study on TFT-LCD Fabrication Processes
Chih Wang, National Chiao Tung University, Hsinchu, Taiwan

TU 9:45 – 11:15

Operations Excellence I

Pearl 3

Session Chair: Belaid Aouni, Qatar University, Doha, Qatar

ID 285 Analysis of Quantitative Models of Horizontal Collaboration in Supply Chain Network Design: Towards “Green Collaboration” Strategies
Lamis E. Amer and Amr, B. Eltawil, Egypt-Japan University for Science and Technology, New Borg El Arab, Alexandria, Egypt

ID 035 Implementation of Total Quality Management (TQM) within the Industry Sector in the United Arab Emirates
Abdussalam Shibani and Hadi Al Ahbabi, Coventry University, United Kingdom

ID 404 Particle Swarm Optimization for Natural Grouping in Context for Group Technology Application
Prabhas Bhardwaj and Anil Kumar Agrawal, IIT (BHU), Varanasi, Uttar Pradesh India
Ravi Prakash, NIT Jamshedpur, Jharkhand, India
Saurabh Sharma, IIT (BHU), Varanasi, UP, India

ID 694 Stakeholder’s Preferences Modeling in Managing Economic Sustainability
Belaid Aouni, Salem Nechi and Zouhair Mrabet, College of Business and Economics, Qatar University, Doha, Qatar

11:15 Break

11:30 TUESDAY

TU 11:30 – 13:00

Global Engineering Education II Industrial Engineering and Management Education Jade-Opal-Topaz

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

Dr. Khalid Hafeez, University of Sharjah, UAE
Dr. Hakan Butuner, IIE Turkey Professional Chapter, President
Dr. José Antonio Heredia Álvaro, University Jaume I, Spain

TU 11:30 – 13:00

Industry Solutions II

Emerald

Session Chair: Dr. Janos D. Pinter, Pinter Consulting Services, Inc., Canada

Derek Middlemas, Group Operations Director, AVEVA Solutions, Dubai, UAE
Dubai, UAEDr. Ayham Jaaron, An-Najah National University, Nablus, Palestine
Dr. Janos D. Pinter, Pinter Consulting Services, Inc., Canada

TU 11:30 – 13:00

Student Paper Competition

Sapphire

Session Chair: Dr. Ahm Shamsuzzoha, Sultan Qaboos University, Oman

ID 253 Supply Chain Collaboration and Service Innovation in Thai Hotel Industry
Narongsak Pongsathornwiwat and Chawalit Jeenanata, Sirindhorn International Institute of Technology, Thammasat University, Bangkok, Pathumthani, Thailand

ID 261 E-waste Reverse Logistic Optimization in Egypt
M. Nashat Fors and Rehab Elbadrawy, Alexandria University, Alexandria, Egypt

ID 270 Diagnosis of Machining Outcomes based on Machine Learning with Logical Analysis of Data

Soumaya Yacout, École Polytechnique, Montreal, Quebec, Canada
 Yasser Shaban, Polytechnique de Montreal, Montreal, Quebec, Canada
 Mouhab Meshreki, National Research Council Canada, Montreal, Quebec, Canada
 Marek Balazinski, Polytechnique de Montreal, Quebec, Canada
 Helmi Attia, National Research Council Canada, Montreal, Quebec, Canada

ID 277 Rural Electrification Using a Stand-alone Photovoltaic System: Case Study of Cameroon

Asmaou Adam, Noha Galal and Mostafa Hamad, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

ID 294 Cybersecurity Investment Optimization with Risk: Insights for Resource Allocation

Yueran Zhuo and Senay Solak, University of Massachusetts Amherst, Massachusetts, USA

ID 675 Reducing Inbound Transportation Costs: An Application

Carla Di Vece, Mirthala Hinojosa, Eugenia Villarreal and Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza García, N.L., México

TU 11:30 – 13:00**Operations Management II****Jawhar 1**

Session Chair: Herwina Richelle Andres, Analog Devices Inc. Philippines

ID 246 Study of Success Factors of TPM Implementation in Indian Industry towards Operational Excellence: An Overview

Pardeep Gupta, Sachit Vardhan and Md Shazli Al Haque, Sant Longowal Institute of Engineering & Technology, Longowal, Sangrur (Punjab), India

ID 455 Computational Tool to Setup Time Reduction - A Hamiltonian Path Analysis to Production Sequencing.

Fabício Costa, Nokia Institute of Technology – IndT, Manaus, Amazonas, Brazil
 Leandro Ferraz, Instute Nokia of Technology Manaus, Amazonas, Brazil

ID 523 Bulk Chemical Delivery System (BCDS) in Oil & Gas UAE Industry

Basel Alsayed, Hassan Al Darmaki and Talal Al-Shehhi, UAEU Al Ain, Abu Dhabi, United Arab Emirates

ID 015 Lot Sizing: Optimization of Economic Order Quantity

Herwina Richelle Andres, Analog Devices Inc. Philippines

TU 11:30 – 13:00**Quality Control and Management II****Jawhar 2**

Session Chair: Yun-Kung, Yuan Ze University, Chung Li, Taiwan

ID 265 Statistical Analysis of Total Process Capability Index in Two-Stage Processes with Measurement Errors

Amirhossein Amiri and Erfaneh Nikzad, Shahed University, Tehran, Iran

ID 310 Design of CUSUM Charts with Probability Control Limits

Wenpo Huang, Shanghai Jiao Tong University, China
 Lianjie Shu, University of Macau, China
 William H. Woodall, Virginia Tech, USA
 Kwok-Leung Tsui, City University of Hong Kong, China

ID 377 Integrated Role of TQM and Technology Management in Organizational Sustainability

Muhammad Tasleem, Nawar Khan and Athar Masood, NUST, Islamabad, Pakistan

ID 621 New Application of Process Mining to Identify Abnormality in Statistical Process Control Process

Yun-Kung and Yun-Shiow Chen, Yuan Ze University, Chung Li, Taiwan

TU 11:30 – 13:00**Artificial Intelligence II****Mehwar 1**

Session Chair: Michael Kanisuru Adeyeri, Tshwane University of Technology, Pretoria, South Africa

ID 276 Reconfiguration of Networked Seru Production systems in an Indian Perspective

V.K. Manupati, T. Vemkata Depthi, K. Ramakotaiah and S.S. Rao, KL University, Guntur District, Andhra Pradesh, India

ID 197 Improved Trust Prediction in Business Environments by Z-Numbers and Metrics of Maturity, Distance, and Density

Mansour Zarrin and Ali Azadeh, University of Tehran, Iran
 Morteza Saberi, Curtin University of Technology, Perth, Australia

ID 739 Faces Detection in Color Image VS Gray Scale

Chems Ennahar Bencheriet, and Hicham Tebbikh, 8 Mai 1945 University, Algeria

ID 654 Integration of Agent Technology into Manufacturing Enterprise: A Review and Platform for Industry 4.0

Michael Kanisuru Adeyeri, Khumbulani Mpofu and Olukorede Adenuga, Tshwane University of Technology, Pretoria, South Africa

TU 11:30 – 13:00**Modeling and Simulation II****Mehwar 2**

Session Chair: Armen Mkrtchyan, Massachusetts Institute of Technology (MIT), USA

ID 289 Modeling and Analysis of Workforce Management Decisions in Modern Call Centers

Aya Abdelrahman Seada and Amr B. Eltawil, Egypt-Japan University of Science and Technology, Alexandria, Egypt

ID 467 Conceptual Modeling on Emergency Logistics - A Case Study Jeddah City, Saudi Arabia
Shougi Abosuliman, RMIT University, Melbourne, VIC, Australia

ID 553 Modeling and Simulation for Enterprise Decision-Making: Successful Projects and Approaches
Noha Ramadan, Racha Ajami, Nader Mohamed, and Sanja Lazarova-Molnar, Nader Mohamed, Noha Ramadan and Racha Ajami, UAE University, Al Ain, Abu Dhabi, United Arab Emirates

ID 574 Modeling Distributed Product Development Processes in Small and Medium Enterprises
Armen Mkrtchyan and Jayakanth Srinivasan, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA

TU 11:30 – 13:00

Facilities Planning and Management

Pearl 1

Session Chair: Suman Samanta, IIT Kanpur, Uttar Pradesh, India

ID 296 A Fuzzy Goal Programming Approach for Facility Location Problem (Case Study: Service Providers)
Hassan Hadipour, Azad University, Qazvin, Iran
Mohammad Khoshnoud, Farabi Institute of higher Education, Karaj, Iran
Roohbeh Azizmohammadi, Payam-e-Noor University, Tehran, Iran
Abbas Mahmoudabadi, Mehrstan University, Gilan, Iran

ID 326 Comparison of Enhanced Constructive Layout Optimization Technique with Tabu-Search and Particle Swarm Optimization Methodologies
Mustahsan Mir, Ajman University of Science & Technology, Ajman, United Arab Emirates
Mohammad Al-Saleh, Umm Al-Qura University, Makkah, Saudi Arabia
Ahmed Hassanin, Aachen, Germany

ID 227 Maintenance Schedule Optimization based on Failure Probability Distribution
Masaru Tezuka, Satoshi Munakata and Mikiko Sawada, Hitachi Solutions East Japan, Ltd., Kawasaki, Japan

ID 551 Two Step Facility Layout Optimization of an Indian Bus Body Manufacturing Plant Using Artificial Bee Colony Algorithm and its Variants
Suman Samanta, Deepu Philip, Rishabh Deo Mall and Amandeep Singh, IIT Kanpur, Uttar Pradesh, India

TU 11:30 – 13:00

Sustainability and Green Systems II

Pearl 2

Session Chair: Abe Zeid, Northeastern University, Boston, MA, USA

ID 039 Dynamic Industrial System Approach to the Sustainability Development of National Economy
Hsiao-Fan Wang, National Tsing Hua University, Hsinchu, Taiwan

ID 184 The impact of biodiesel production on land use change in South Africa
Charles Mbohwa and Tatenda Talent, Chingono, University of Johannesburg, Gauteng Province, South Africa

ID 547 A Polynomial Goal Programming Model with Application to Energy Consumption and Emissions in United Arab Emirates
Raja Jayaraman, Khalifa University, Abu Dhabi, United Arab Emirates
Davide La Torre, Khalifa University (UAE) and University of Milan (Italy)
Tufail Malik and Yanthe Pearson, Khalifa University, Abu Dhabi, United Arab Emirates

ID 721: The Effect of Rooftop Garden on the Internal Temperature of the Rooms in Buildings
Abrar Al-Amoudi, Lamees Alhashimi, Lujain Aljawi and Raneem Gashgari, Industrial Engineering Department, King Abdulaziz University, Jeddah, Saudi Arabia

TU 11:30 – 13:00

Operations Excellence II

Pearl 3

Session Chair: Hamdi Bashir, University of Sharjah, United Arab Emirates

ID 119 Effect of information technology (IT) to deploy Customer Relationship Management (CRM) in bank
Ali Tajdin, Mazandaran University of Science and Technology, Babol, Iran
Salma Amooie and Salile Amooie, Islamic Azad University, Ghaemshahr, Iran

ID 595 Applying Green Manufacturing Model to Build Sustainable Competitiveness
JrJung Lyu and Wei-Ting Chen, National Cheng Kung University, Taiwan

ID 306 Investigation of Maintenance Assumptions for an Automotive Production Line using Simulation Modeling
Annamalai Pandian, Saginaw Valley State University, Michigan, USA
Ahad Ali, Lawrence Technological University, Southfield, MI, USA

ID 422 Hierarchical Structuring of Organizational Performance Using Interpretive Structural Modeling
Hamdi Bashir and Asil Abdel Jawad, University of Sharjah, United Arab Emirates

13:00 Lunch Keynote: Moraya AlGahtani, Division Head, Operational Excellence Department, Saudi Aramco, Crystal Ballroom (Box Lunches Provided)

14:00 TUESDAY**TU 14:00 – 15:30 Global Engineering Education III: Globalization of Engineering Education Jade-Opal-Topaz**

Session Chair: Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEES)

Dr. Berna Dengiz, Dean, Engineering Faculty, Baskent University – Baglica Campus, Ankara, Turkey

Dr. Muhammad H. Zaman, Boston University, USA

Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEES)

TU 14:00 – 15:30 Industry Solutions III: Sponsors and Exhibitors Presentations Emerald

Session Chair: Normand Péladeau, Provalis Research, Montreal, Canada

Kavitha Prabhu, Director of American Society for Quality (ASQ) - Middle East and North Africa (MENA)

Madhu P Pillai, Projects Director, Kentz Engineering International Co. Ltd., Al Khobar, Saudi Arabia

Normand Péladeau, President and CEO, Provalis Research, Montreal, Canada

TU 14:00 – 15:30 Student Paper Competition Sapphire

Session Chair: Dr. Ahm Shamsuzzoha, Sultan Qaboos University, Oman

ID 540 Exclusion of Risky Values of Trading Models Parameters in Investment Decisions

M. Nashat Fors and Tarek Gadallah, Alexandria University, Alexandria, Egypt

ID 568 A Recommended Approach to Improve Utilization of Local Workforce in the Middle East Megaprojects

Omar Galil and Troy Nguyen, Florida Institute of Technology, Melbourne, Florida, USA

ID 304 A Novel Application of System Survival Signature in Supply Chain Risk Management

Abroon Qazi, John Quigley and Alex Dickson, University of Strathclyde, Glasgow, Scotland, United Kingdom

ID 665 Assessment of the Solar Power Investment with Feed-in Tariff Policy: A Case in Taiwan

Hsiao-Fan Wang and Zih-Han Lin, National Tsing Hua University, Hsinchu, Taiwan

ID 181 Evaluation of Energy Efficient Strategies for Buildings in Tropical Climates

Monika Jain, IIT Bombay, Powai, Mumbai, Maharashtra, India

Soumya Pasumarthy, IIT Kharagpur, West Bengal, India

TU 14:00 – 15:30 Operations Management III Jawhar 1

Session Chair: Ineta Geipele, Riga Technical University, Latvia

ID 405 House of Quality Improvement by New Design Requirements Generation

Mohammad Molani Aghdam, Islamic Azad University, Ayatollah Amoli Branch, Amol, Iran

Iraj Mahdavi and Babak Shirazi, Mazandaran University of Science and Technology, Babol, Iran

Javad Vahidi, Iran University of Science and Technology, Tehran, Iran

ID 457 System to Generate the Operator Productivity Index inside Production Cell to Improve the Production Process Efficiency

Fabrício Rodrigues Costa, INdT – Microsoft Brazil, Hardware & Manufacturing, Manaus, Amazonas, Brazil

Jefferson Ribas, Engineering Simulation and Scientific Software, São Paulo, Brazil

ID 549 Material Optimization and Process Improvement using Simulation for Makeshift Auto Chassis Manufacturing of an Indian SME

Suman Samanta and Onkar P., IIT Kanpur, Kanpur, Uttar Pradesh, India

ID 448 Flexible Manufacturing System: A Remedy for Improving Productivity in Zimbabwe Manufacturing Industry

Loice Gudukeya, University of Johannesburg, South Africa

ID 373 Construction Management - Challenges, Influencing Factors and Importance of Investment Climate

Ineta Geipele and Linda Kauškalē, Riga Technical University, Riga, Latvia

TU 14:00 – 15:30 Quality Control and Management III Jawhar 2

Session Chair: Ishtiaq Hussain, General Motors Corporation, Pontiac, Michigan, USA

ID 384 Phase II Monitoring of Correlated Simple Linear and Logistic Regression Profiles

Amirhossein Amiri and Mona Ayoubi, Shahed University, Tehran, Iran

ID 417 Review of the Power Quality Monitoring Systems for Electrical Networks

Basel Alsayyed, Hoda ElSheikh Saroor and Abbas Fadoun, United Arab Emirates University, AlAin, Abu Dhabi, United Arab Emirates

ID 432 Empirical Study of the Impact of Software Quality Practices on Product Performance in Engineering Firms in Pakistan

Muhammad Tasleem, Athar Masood, Nawar Khan and Syed Tasweer, NUST, Islamabad, Pakistan

ID 419 Design Capabilities Development in a Malaysian Automotive Vendor Company

Ana Sakura Zainal Abidin, Universiti Malaysia Sarawak, Kota Samarahan, Sarawak, Malaysia

Rosnah Mohd Yusuff, Universiti Putra Malaysia, UPM Serdang, Selangor, Malaysia

Rasli Muslimen and Shahrol Mohamaddan, Universiti Malaysia Sarawak, Kota Samarahan, Sarawak, Malaysia
 Noorul Amni Qistina Mohd Daud, UPM, Serdang, Selangor, Malaysia

ID 390 Designed Experiment to Find the Optimal Combination of the Factors for the Coordinate Measuring Machine (CMM) to Measure Cylindricity of Engine Cylinder Bore

M. Ishtiaq Hussain, J. Gu, R. Engel, and Duane Shortt, General Motors Corporation, Pontiac, Michigan, USA

TU 14:00 – 15:30

Artificial Intelligence III

Mehwar 1

Session Chair: Kasim Baynal, Kocaeli University, Kocaeli, Turkey

ID 123 Analysis of Socio-Economic Development of Provinces in Turkey with using data mining techniques

Tuğba Efendigil and İnci Elif Sağlam, Yıldız Technical University, Yıldız, Istanbul, Turkey

ID 126 A Review on Big Data Analytics and Security

Ikram Ul Haq, Deakin University Australia, Ballarat, Victoria, Australia

Shamsul Huda, Federation University, Victoria, Australia

Jemal Abawajy, Deakin University Australia, Ballarat, Victoria, Australia

Greg Simons, Federation University, Victoria, Australia

ID 663 EducApp

Anshul Patro, Vineet Kataria, Shalini Sharma and K. K. Singh, Dronacharya College of Engineering, Farrukh Nagar, New Delhi, India

ID 223 Data Mining Application in Banking Sector with Clustering and Classification Methods

Asli Çaliş, Gazi University, Ankara, Turkey

Ahmet Boyaci, Hitit University, Çorum, Turkey

Kasim Baynal, Kocaeli University, Kocaeli, Turkey

TU 14:00 – 15:30

Modeling and Simulation III

Mehwar 2

Session Chair: Wissam EL Hachem, University of Bergen, Hordaland, Norway

ID 058 Location and strengthening of cellular network sites in order to maximize the net revenue and coverage space in critical situation

Nafiseh Alinezhad, Department of Industrial Engineering, Pardisan University, Fereidon kenar, Iran

Nikbakht Javadian and Ali Tajdin, Department of Industrial Engineering, Mazandaran University of Science and Technology, Babol, Iran

ID 730 On Adaptive Estimation in Periodic Purely Long Memory Models

K. Belaïde, A. Dahmani and H. Gerbyenne, The University A/ MIRA of BEJAIA, Algeria

ID 593 Econometric Modeling and Forecasting of Tourism in Nepal

Dila Ram Bhandari, Tribhuvan University, Kathmandu, Nepal

ID 065 Mental Model Moderation, Modification and Managing (5M) framework, a System Dynamics and Brunswikian Lens Model approach to Complex Decision Making

Wissam EL Hachem, University of Bergen, Hordaland, Norway

Joseph Khoury, Methode Electronics Inc., Mrieħel, Qormi, Malta

Ramy Harik, University of South Carolina, Columbia, South Carolina, USA

TU 14:00 – 15:30

Systems Engineering I

Pearl 1

Session Chair: Hamdi Bashir, University of Sharjah, United Arab Emirates

ID 176 Parallel Implementation of Multiple Linear Regression Algorithm Based on MapReduce

Moufida Rehab Adjout and Faouzi Boufares, Laboratory LIPN-UMR 7030-CNRS, Paris 13 University, Villetaneuse, France

ID 141 Effect of Humidity and Temperature on Organic Semiconductor CuPc Films Deposited at Different Gravity Conditions

Noshin Fatima, GIK Institute of Engineering Sciences and Technology, Topi, Pakistan

Kh.S. Karimov, GIK Institute of Engineering Sciences and Technology, Pakistan and Center for Innovative Development of Science and Technologies of Academy of Sciences, Aini, Dushanbe, Tajikistan

Muhammad Abid, 3Interdisciplinary Research Center, COMSATS Institute of information Technology, GT Road Wah Cantt, Pakistan

Amjad Farooq, Wah Engineering College, Mall Road, Wah Cantt, Pakistan

M.U.Khan, Hamdard University, Islamabad, Pakistan

ID 677 Role of Electrospun Zno-Nio Metaloxide Nanocomposite Fibers for Sensor Applications

Varun Nair, Florina Regius, Sidharth Suman and Arun Ragavendar SRM Univeristy, Chennai, Tamilnadu, India

ID 489 Aggregate Data Class and Materialized Views based Approach for Energy Conservation in Sensor Network

Sebaa Abderrazak and Tari A/Kamel, LIMED, Bejaia, Algeria

ID 186 Lean Production for a Freezing Potato Factory

Hadi Abou Chakra and Ramzi Fayad, Beirut Arab University, Beirut, Lebanon

TU 14:00 – 15:30

Sustainability III

Pearl 2

Session Chair: Sahar El Barky, Arab Academy for Science and Technology, Alexandria, Egypt

ID 602 A Green Supply Chain Management Migration Model Based on Challenges Faced in Egypt

Sahar El Barky and Sara El Zarka, Arab Academy for Science and Technology, Alexandria, Egypt

ID 636 A TOPSIS Multi-Criteria Multi-Period Approach for Selecting Projects in Sustainable Development Context

Anissa Frini, Université du Québec à Rimouski, Lévis, QC, Canada

Sarah Benamor, Telfer School of management, Université d'Ottawa, Ottawa, Canada

ID 576 Biofuel Production: Fast Pyrolysis Units' Manufacturing Infrastructure

Mostafa Fawzy, Iowa State University, Ames, USA

Paul Compton, University of Texas at Arlington, USA

ID 133 Toward a Projection Model for Estimation of End of Life Aircrafts

Samira Keivanpour, Université Laval, Quebec, Canada

Christian Mascle, École Polytechnique de Montréal, Quebec, Canada

Daoud Ait Kadi, Université Laval, Quebec, Canada

TU 14:00 – 15:30**Operations Excellence III****Pearl 3**

Session Chair: Jose Arturo Garza-Reyes, University of Derby, Derbyshire, UK

ID 640 Sustainability Applications in Turkish Production Firms

Öznur Özdemir Akyıldırım, Akdeniz University, Antalya, Turkey

ID 120 Life Cycle Assessment of Sri Lankan Chocolate Industry

Nimesha Wickremasinghe and A. K. Kulatunga, University of Peradeniya, Maharagama, Colombo, Sri Lanka

ID 152 Optimal Production-Inventory Policy under Strict Carbon Cap in a Supply Chain with Backorders and Lost Sales

Arindam Ghosh, J K JHA and S P Sarmah, Indian Institute of Technology Kharagpur, Kharagpur, West Bengal, India

ID 456 Corporate Sustainability and Business Excellence

Jose Arturo Garza-Reyes and Ming K. Lim, University of Derby, Derbyshire, UK

Vikas Kumar, Bristol Business School, University of the West of England, Bristol, Somerset, UK

Luis Rocha-Lona, National Polytechnic Institute of Mexico, Tlalneptatla, Mexico

15:30 Break**15:45 TUESDAY****TU 15:45 – 17:15****Global Engineering Education IV ENGINEERING TEACHING AND LEARNING****Jade-Opal-Topaz**

Session Chair: Dr. Hongyi Sun, City University of Hong Kong

Dr. Amy Zeng, Professor, Director of Industrial Engineering, Worcester, Massachusetts, USA

Dr. Ana Luísa Ferreira Andrade Ramos, University of Aveiro, Portugal

Dr. Hongyi Sun, Dept. of Systems Engineering and Engineering Management (SEEM), City University of Hong Kong

TU 15:45 – 17:15**Industry Solutions IV: ISO Seminar and Town Hall Meeting****Emerald**

Session Chair: Resh Plaha, Crystal Quality UK Ltd

15:45 – 16:15: Resh Plaha, Crystal Quality UK Ltd: "The implications of the new ISO 9001: 2015 Standard on Quality Management Systems"

16:15 – 16:45: Dr. Mohammad Ahsanullah, Professor, Department of Management Sciences, Rider University, New Jersey, USA

16:45 – 17:15: **TOWN HALL MEETING for IEOM Society:** Professional Chapters, Student Chapters, Journal and Technical Divisions**TU 15:45 – 17:15****Student Paper Competition****Sapphire**

Session Chair: Dr. Ahm Shamsuzzoha, Sultan Qaboos University, Oman

ID 666 The Impact of Production Scheduling Policies and Buffer Zone Size in Process Synchronization - An Application in Aluminum Industry

Fatih Mutlu, Hamsa Delghan and Afnan Eliyan, Qatar University, Doha, Qatar

ID 129 Supply Chain Risk Management: Systematic Literature Review and a Conceptual Framework for Capturing Interdependencies between Risks

Abroon Qazi, John Quigley and Alex Dickson, University of Strathclyde, Glasgow, Scotland, United Kingdom

ID 679 Production Sequencing in a Fifth Wheel Industry: Case Study

Girish Upreti, Rupy Sawhney and Isaac Atuahene, University of Tennessee, Knoxville, TN, USA

Gerardo Maciel, Ricardo Méndez, Daniel Covarrubias, Jhoselin Sánchez and Víctor Alcalá, Tecnológico de Monterrey, Mexico

ID 370 A New Approach for Combining Multi-Criteria Trading Decision Models

M. Nashat Fors and Tarek Gadallah, Alexandria University, Alexandria, Egypt

ID 681 Application of Soft Computing Techniques to Forecast Monthly Electricity Demand

Hsiao-Fan Wang and Chia-Liang Lai, National Tsing Hua University, Hsinchu, Taiwan

TU 15:45 – 17:15**Operations Management IV****Jawhar 1**

Session Chair: Maryam Hamed, Payame Noor University, Tehran, Iran

ID 606 Markov Chain Applied for the Prediction of Non-Performing Assets in a Non-Banking Financial Institution

Rajeev K S., Kerala financial Corporation, Thiruvananthapuram, Kerala, India
 Suresh Subramoniam, CET School of Management, Trivandrum, Kerala, India

ID 682 Multi-Objective Balancing of Parallel Mixed-Model Assembly Lines by Considering Machine and Worker Constraints

Gholamreza Esmaeilian, Farzaneh Ghanbarian and Maryam Hamed, Payame Noor University, Tehran, Iran

ID 434 A Survey on Factors Influencing the Usage of Mobile Value-Added Services: An Empirical Investigation among Iranian Users

Hamid Kazemkhanlou and Payam Boozary, Sharif University of Technology, Tehran, Iran

ID 454 Planning and Managing Problems of Energy and Energy Efficiency at Regional and District Level in Latvia: Case Study

Ineta Geipele and Gita Actina, Riga Technical University, Riga, Latvia
 Namejs Zeltins, Institute of Physical Energetics, Riga, Latvia

ID 686 Binary Integer Formulation for Mixed- Model U-Line Assembly Line with the Approach of Dual Resource Constrained

Maryam Hamed, Gholamreza Esmaeilian and Mahdi Seddighi Manesh, Payame Noor University, Tehran, Iran

TU 15:45 – 17:15**Quality Control and Management IV****Jawhar 2**

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

ID 068 A Novel Approach to Improve COP Efficiency

Nuno Costa and João Garcia, IPS-ESTSetubal, Setúbal, Portugal

ID 381 Estimating Sporadic Change Point in the Mean of Polynomial Profiles

Mona Ayoubi and Reza Baradaran Kazemzadeh, Tarbiat Modares University, Tehran, Iran

ID 740 Selection of New Product: A Case of Clay-Pot-Refrigerator

M. Suresh, Amrita School of Business, Amrita Vishwa Vidyapeetham University, Coimbatore, India

ID 521 Extracting Features from Injection Moulding Process Signals Using Wavelet Analysis

Christoph Wunck, Jade University, Wilhelmshaven, Germany

TU 15:45 – 17:15**Computers and Computing****Mehwar 1**

Session Chair: Nader Mohamed, UAE University-AI Ain, United Arab Emirates

ID 278 e-Health Cloud Implementation Issues and Efforts

Noura AlNuaimi, Asma AlShamsi, Nader Mohamed, and Jameela Al-Jaroodi. UAE University-AI Ain, United Arab Emirates

ID 703 Optimizing SIMT Programs using CUDA-C: A Probe into How Topology and Mapping of Kernels Affects Speedup

Christopher Umahaeyo and Oyku Akaydin, Cyprus International University, Lefkosa, Turkey

ID 074 A Distributed Security Framework for Accessing Composite Web Services

Hassina Nacer, University A/mira, Bejaia, Algeria

ID 491 Method of Lines Based on Finite Element Technique to Analyse Electromagnetic Problems

Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 391 Datamatic Shop Floor Data Capture with Message System for Workforce Motivation

Hazim Al-Hajjaj, Micro Automation Industries, Jebel Ali Free Zone, Dubai, United Arab Emirates

ID 395 High-performance Feature Extraction Method for Texture Classification

Alireza Akoushideh and Babak Mazloom-nezhad Maybodi, Department of Electrical and Computer, Shahid-Beheshti University, Tehran, Iran

TU 15:45 – 17:15**Modeling and Simulation IV****Mehwar 2**

Session Chair: Eui Park, North Carolina A&T State University, Greensboro, North Carolina, USA

ID 604 An Application of Neuro-Logit New Modeling Tool in Corporate Financial Distress Diagnostic

Waleed E. Almonayir, Swiss Business School (SBS-UAE), Abu Dhabi, United Arab Emirates

ID 286 A Model to Incorporate Demand Response Programs in Security Constrained Unit Commitment

Javad Olamaei, Dept. of Electrical Engineering, Faculty of Engineering, South Tehran Branch, Islamic Azad University, Tehran, Iran
 Mohammad Mehdi Khademi, Hormozgan Electric Power Distribution Company, Hormozgan, Iran
 Abdolsaheb Arjomand, Hormozgan Electric Power Distribution Company, Hormozgan, Iran

ID 688 Versatile Multi-Objective Genetic Optimization for Non-Identical Multi- Story Building Projects

Fatma Agrama, Menoufia University, Shebien El-Koom, Menoufia, Egypt

ID 071 Using Digital Human Modeling to Predict Operator Performance of a Mobile Fluid Powered Patient Transfer Device

Eui Park and Brittney Jimerson, North Carolina A&T State University, Greensboro, North Carolina, USA

TU 15:45 – 17:15**Systems Engineering II****Pearl 1**

Session Chair: Mouloud Bourareche University of Batna, Algeria

ID 115 Capacitive Deionization based Water Desalination System using an MPPT based Solar Charge Controller
Sai Shankar Balakrishnan, Pranav Pattabi and Kiran Raj R, Sri Sai Ram Engineering College, Chennai, Tamil Nadu, India

ID 257 Configuration Management and Its Implementation Barriers in Public Sector Engineering Organizations of Pakistan: An Empirical Study

Waleed Safdar, Wah Cantt, Punjab, Pakistan

Akhtar Nawaz Malik, Rawalpindi, Punjab, Pakistan

Najam Anjum, Centre for Advanced Studies in Engineering, Islamabad, Pakistan

ID 274 A Program for Implementing of an Asset Integrity Management System in NIGC Gas Treating Plants
Saeed Salimi Beni, National Iranian Gas Company, Tehran, Iran

ID 341 Ranking of Critical Success Factors in Reverse Logistics by TOPSIS

Nima Bahiraei, Hamidreza Panjehfouladgaran and Rosnah Mohd. Yusuff, Universiti Putra Malaysia, Kuala Lumpur, Malaysia

ID 444 Implementing BORA in Oil and Gas Process, Case Study - Algerian Industry

Mouloud Bourareche, Health and Occupational Safety Institute, University of Batna, Algeria

TU 15:45 – 17:15**Sustainability IV****Pearl 2**

Session Chair: Uday Venkatadri, Dalhousie University, Halifax, NS, Canada

ID 379 Solid Waste Management by Consideration of the Pollution Credit Certificates Theory

Francisco Sabbadini, Antonio Araujo Jr., Jose Glenio Barros, Rosinei Batista, Marcus Vinícius de Araujo and Marina Jardim Faria de Araujo, Universidade do Estado do Rio de Janeiro, Resende, Rio de Janeiro, Brazil

ID 313 Electrical Energy Generation from Car Body Build with Al₂O₃ filler ER Sandwiched by Carbon Fibre and Lithium Thin Plate

Ataur Rahman and Ramiz Raja, International Islamic University Malaysia, KL, Malaysia

ID 691 Electricity Sector Modernization Directions for the Development of the Latvian Economy

Liga Kamola, Uldis Kamols and Anna Survillo, Riga Technical University, Riga, Latvia

ID 572 Optimal Siting For Electric Vehicle Charging Stations in Waterloo Region Using Trip Success Ratio

Yassir Alhazmi and Magdy Salama, University of Waterloo, Ontario, Canada

ID 291 A Two-Phase Optimization Approach to Recyclable Product Collection using Compaction Trailers

Uday Venkatadri, Claver Diallo and Navin Chari, Dalhousie University, Halifax, NS, Canada

TU 15:45 – 17:15**Student Paper Competition****Pearl 3**

Session Chair: Dr. Md. Shamsuzzaman, University of Sharjah, UAE

ID 668 Analysis of the Optimal Combination of Renewable Energies for an Enterprise

Pei-Wen Chou and Hsiao-Fan Wang, National Tsing Hua University, Hsinchu, Taiwan

ID 378 Practical Risk Management Plan of Wi-Fi Network Deployment; Case Study

Saber Elmagbrouk, University of Tripoli, Libya

Tawfik Elmhedi, Libyan Academy, Tripoli, Libya

ID 664 Supply Chain Resilience

Asmaa Al-Zaabi and Asma Al-Riyami, Sultan Qaboos University, Muscat, Oman

ID 661 Anthropometric Data for Equipment Design in Small Island Developing States

Marie Vanessa Victoire and Santaram Venkannah, University of Mauritius, Reduit, Mauritius

ID 676 Wireless Sensor Network Based Bank Monitoring System Using LabVIEW™

Muhammad Aksar K P, Akhil Xavier, Aish J Thaha, VIT University, Vellore, India

ID 243 Automating Field Motor and Irrigation Systems for Better Crop Yield

Shyam Tenali, Vijay Bhaskar Kondaveety, Taranikanth Kamma and Ram Subhash Ganti, GITAM University, Vishakapatnam, Andhra Pradesh, India

17:15 – 19:00 Tuesday

Poster Session

WEDNESDAY (WD), MARCH 4**08:30 Morning Keynote: Mr. Michael M. Kurth, Senior Vice President, Boeing Saudi Arabia****WD 09:45 – 11:15****Global Engineering Education V ENGINEERING CURRICULUM****Jade-Opal-Topaz**

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

Dr. Kailash Bafna, Western Michigan University

Dr. Abdurazzag Ali Aburas, International University of Sarajevo, Ilidza, Sarajevo, Bosnia and Herzegovina

Dr. Gulnara Abitova, Eurasian National University, Astana City, Republic of Kazakhstan

WD 09:45 – 11:15**Industry Solutions V****Emerald**

Session Chair Dr. Zain Tahboub, Dubai Aviation Engineering Projects (DAEP), United Arab Emirates (UAE)

09:45 – 10:15: Dr. Zain Tahboub, Dubai Aviation Engineering Projects (DAEP), United Arab Emirates (UAE)

10:15 – 11:15: Martin Nazareth, OpEx Solutions Inc., Texas, USA: **Special Topic on “Strategy Linked to Mission and Vision is Key to Significant Gains”****WD 09:45 – 11:15****Supply Chain Management I****Sapphire**

Session Chair: Linda L. Zhang, IESEG School of Management (LEM-CNRS), Paris, France

ID 124 Dynamics of Closed Loop Supply Chains

Takamichi Hosoda, Aoyama Business School, Aoyama Gakuin University, Shibuya-ku, Tokyo, Japan

Stephen Disney, Cardiff, Wales, United Kingdom

Nagesh Gavirneni, Samuel Curtis Johnson Graduate School of Management, Cornell University, Ithaca, NY, USA

ID 109 Supply Chain Management Issues in Re-shoring Manufacturing Activities within the context of Postponement Strategies

Hamid Moradlou and Chris Backhouse, Wolfson School of Mechanical and Manufacturing Engineering, Loughborough University, UK

ID 258 Dynamic Risk Assessment Tool for Supply Chain: A Risk Quantification and Analysis for Decision Making

Rohit Kumar Singh, National Institute of Industrial Engineering, Mumbai, India

Dibya Sundar Sharma, IIM Indore, India

Aman Sinha, Mahle Behr India Ltd. Pune, India

Vivek Khanzode, National Institute of Industrial Engineering, Mumbai, India

ID 418 Green Supplier Selection and Order Allocation Using an Integrated Fuzzy TOPSIS, AHP and IP Approach

Sadeque Hamdan and Ali Cheaitou, Univeristy of Sharjah, United Arab Emirates

ID 083 Supply Chain Planning with Integrated Decision Making in Resource Allocation

Linda L. Zhang, IESEG School of Management (LEM-CNRS), Paris La Defense, Paris, France

WD 09:45 – 11:15**Operations Research I****Jawhar 1**

Session Chair: Mageed A. Ghaleb, King Saud University, Riyadh, Saudi Arabia

ID 108 Sensitivity Analysis of Bid Evaluation Plans for Defence Acquisition Problems

Ahmed Ghanmi, DRDC CORA, DND Canada, Ottawa, Ontario, Canada

ID 112 Collaborative Processes within Virtual Manufacturing Business Networks: How SMEs can be benefited?

AHM Shamsuzzoha, Sultan Qaboos University, Muscat, Oman

Petri Helo, University of Vaasa, Finland

ID 167 An Ant Colony Algorithm for the Quadratic Set Covering Problem

Nasrin Ramshe and Mobina Masaali, Amirkabir University of Technology, Tehran, Iran

ID 178 On the Reducibility of Multicriteria Scheduling Problems to Bicriteria Scheduling Problem

Elkanah Oyetunji, Lagos State University, Epe Campus, Lagos, Nigeria

S.A. Akande, Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria

Ayodeji Oluleye, University of Ibadan, Ibadan, Oyo State, Nigeria

ID 075 Metaheuristics for Two-stage No-Wait Flexible Flow Shop Scheduling Problem

Mageed A. Ghaleb, Umar S. Suryahatmaja and Ibrahim M. Alharkan, King Saud University, Riyadh, Saudi Arabia

WD 09:45 – 11:15**Lean and Six Sigma I****Jawhar 2**

Session Chair: Adel Hejaaji, Coventry University, United Kingdom

ID 518 Redesigning the Material Supply System of the Automotive Suppliers Based on Lean Principles and an Application

Sule Satoglu and Kirac Ucan, Istanbul Technical University, Istanbul, Turkey

ID 061 Achieving Competitiveness through Setup Time Reduction

Bernardo Villarreal and Minerva M. Orta, Universidad de Monterrey, San Pedro Garza Garcia, N.L., Mexico

ID 710 An Integrated Model of Kano and Quality Function Deployment for Evaluation of Lean Production Tools in Assembly Environment

Amir Azizi and Daniel Osezua Aikhuele, Universiti Malaysia Pahang, Pahang Darul Makmur, Malaysia

ID 716 To what extent Implementing of Total productive Maintenance (TPM) in a Hospital could improve maintenance procedures

Hesham Alzaben, Nottingham Trent University, Nottingham, United Kingdom

ID 470 Missing Link between Agility Models and Manufacturing SMEs

Adel Hejaaji, Coventry University, Coventry, West Midlands, United Kingdom

WD 09:45 – 11:15**Healthcare Systems I****Mehwar 1**

Session Chair: Farzad Firouzi Jahantigh, Zahedan, Sistan & Balouchestan, Iran

ID 507 Finite Element Analysis of Finger Joint Implant: A Review

Tariq Aziz, A. M. Al-Ahmari, Hazem Al Khawashki, S. M. Darwish and Fahad Badr M. Al Badr, King Saud University, Riyadh, Saudi Arabia

ID 343 Predictive Modeling of Tumors using RP

Emad Abouel Nasr, King Saud University, Riyadh, Saudi Arabia and Helwan University, Cairo, Egypt

Ali Kamrani, University of Houston, TX, USA

Maryam Azimi, Lenovo – USA, Morrisville, NC, USA

ID 226 Detection of Fracture in Skull by Hit-or-Miss Transformation

Hardik Doshi, Darshan Institute of Engineering & Technology, Rajkot, Gujarat, India

Riddhi Wala, Gujarat Technological University, Rajkot, Gujarat, India

ID 651 The Role of Knowledge Management in Global Software Engineering

Samina Khalid, Tehmina Shehryar and Smeeta Arshad, Mirpur University of Science and Technology, AJK, Pakistan

ID 514 Improvement of Forecasting Accuracy for Personal Care Products: A Hybrid Approach

Vivek Khanzode and Ashish Pingulkar, National Institute of Industrial Engineering, Mumbai, India

ID 416 Kidney Diseases Diagnosis by Using Fuzzy Logich

Farzad Firouzi Jahantigh, Zahedan, Sistan & Balouchestan, Iran

WD 09:45 – 11:15**Modeling and Simulation V****Mehwar 2**

Session Chair: Javier D. Fernandez Ledesma, Universidad Pontificia Bolivariana, Medellin, Colombia

ID 646 Using Spreadsheets Features to Schedule Non-Identical Multi-Story Building Projects

Fatma Agrama, Menoufia University, Shebien El-Koom, Menoufia, Egypt

ID 660 Comparing RDS with QMC methods

Megdouda Ourbih and Linda Khalfi, Applied Mathematics Laboratory, Faculty of Exacts Sciences, University of Bejaia, Algeria

ID 238 Flux Vector Control of an Induction Motor Drive for Energy-efficient Operation of a Centrifugal Pump

Iqbal Jahmeerbacus, University of Mauritius, Reduit, Mauritius

ID 298 Multi-Modal Parcel Routing and Scheduling Combining Fixed and Variable Timetables

Omar Ben-Ayed, Qatar University, Doha, Qatar

Mondher Hachicha, University of Sfax, USA

ID 742 Experimental Investigation of Magneto Rheological Damping Effect on Surface Roughness of Work Piece during an End Milling Process

Gholamreza Esmaeili, Azad University, Iran

ID 106 Optimization Model for the Dairy Sector

Javier D. Fernandez Ledesma, Universidad Pontificia Bolivariana, Medellin, Antioquia, Colombia

WD 09:45 – 11:15**Manufacturing and Design I****Pearl 1**

Session Chair: Samson Mhlanga, National University of Science and Technology, Zimbabwe

ID 399 Development of a Framework to Customize Design Methodologies for Product Service Systems

Tuananh Tran and Joonyoung Park, Dongguk University, Seoul, South Korea

ID 358 Optimization of Corrosion Factors in Some Alloys Produced from steel Chips Using Taguchi Method

Mohammed H. Hafiz, Al- Iraqia University, Iraq

Wesam K. Hamdan, University of Technology and Hussain M. Yousif, Central Tool Room Plant, Nasser State Company, Ministry of industry & Mineral, Iraq

ID 571 Metamodel product based on the coupling of the extended design matrix X-DSM and formalism SysML

Mickael Gardoni, ÉTS, Montréal, Canada

Gaye Khalifa, Ziguinchor, Senegal

Coulibaly Amadou, Strasbourg, France

ID 724 Fixed Bed Column Study for Pb (II) adsorption using Calcium-Alginate Treated Shea Butter Husk (TSBH)

Muibat Diekola Yahya and J.O. Odigire, Federal University of Technology, Minna, Nigeria

ID 315 Development of a System for Designing Customized Dental Implants

Samson Mhlanga, Eriyeti Murena, Nicholas Tayisepi and Njabulo Mangena, National University of Science and Technology, Zimbabwe

WD 09:45 – 11:15**Human Factors and Ergonomics I****Pearl 2**

Session Chair: Patrick Dallasega, Free University of Bolzano, Italy

ID 057 Facility Layout Improvement Model Using Ergonomics and Layout Simulation

Ma. Cecilia Carlos and Jocelyn Delgado, Mapua Institute of Technology, Manila City, Philippines

ID 081 Determination of Safe Weight Limit of Sandcrete Block for Block Moulders

Olasunkanmi Ismaila, Federal University of Agriculture, Abeokuta, Ogun, Nigeria

ID 556 Anthropometric Study of Indonesian University Students in JakartaYanto Yanto and Chih-Wei Lu, Chung Yuan Christian University, Chung Li, Taiwan
Karel O. Bachri, Atma Jaya Catholic University, Jakarta, Indonesia**ID 559 Design and Construction of an Ergonomic Footrest for an Electric Three Wheeler Vehicle**

Abu Raihan Md. Harunur Rashid, Islamic University of Technology (IUT), Gazipur, Dhaka, Bangladesh

ID 589 Musculoskeletal Health and Safety of Aged Workers in Manual Handling Works

Azizur Rahman, Ekambaram Palaneeswaran, Ambarish Kulkarni and Patrick Zou, Swinburne University of Technology, Hawthorn, Victoria, Australia

WD 09:45 – 11:15**Operations Excellence IV****Pearl 3**

Session Chair: Imad Alsyouf, University of Sharjah, United Arab Emirates

ID 325 An Integrated Approach using Data Envelopment Analysis and Balanced Score Card to Supply Chain Performance Evaluation

Hamid Kazemkhanlou and Hamidreza Ahadi, Iran University of Science & Technology, Tehran, Iran

ID 539 Using Process Modelling and Simulation for Setting Quality Gates in Complex Product Development Processes

Mickael Gardoni, ÉTS, Montréal, Canada

Onur Hisarcikilar, McGill University, Montreal, Quebec, Canada

ID 641 Towards the Understanding of the Relationship Between Lean Production and Operational Performance in the Manufacturing Industry

Raja Zuraidah Raja Mohd Rasi, UTHM, Batu Pahat, Johor, Malaysia

ID 700 Robust Capacity Planning of a Make-To-Order Job Flow

Jose Antonio Heredia Alvaro, Industrial Systems Engineering and Design, University Jaume I, Spain

ID 034 Implementing Product Design Development Methodology for Improving Performance of Electrical Generator

Imad Alsyouf, Alam Al-Alami and Ali Saidam, University of Sharjah, United Arab Emirates

11:15 Break**11:30 WEDNESDAY****WD 11:30 – 13:00****Global Engineering Education VI ASSESSMENT AND ACCREDITATION****Jade-Opal-Topaz**

Session Chair: Dr. Pamela McCauley Bush, University of Central Florida, USA

Dr. S. C. Naik, Bhubaneswar, Odisha State, India

Dr. Ezendu Ariwa, University of Bedfordshire, UK

Dr. Pamela McCauley Bush, University of Central Florida, USA

WD 11:30 – 13:00**Industry Solutions VI****Emerald****WORKSHOP: Smart Manufacturing to Reduce Decision Lead Time**Dr. Rupy Sawhney, Heath Fellow in Business and Engineering and Professor, Industrial and Systems Engineering
University of Tennessee, Knoxville, USA**WD 11:30 – 13:00****Supply Chain Management II****Sapphire**

Session Chair: Armin Darmawan, Hasanuddin University, Indonesia

ID 508 Research on Cascading Failure Model for Supply Chain Network

Gengui Zhou, Zhejiang University of Technology, Hangzhou, Zhejiang, China

ID 552 Optimization of Excess and Waste of Closed Loop Supply Chain System by Using Fuzzy Model

Zuhair Al-Daoud, AlBani College University, Baghdad, Iraq

Reiam Mohammed, Baghdad University, Baghdad, Iraq

ID 652 Hedging Against Uncertain Supply And Demand Using Options in a Single Period Framework

Gopalan Srinivasan and Francisco Arcelus, University of New Brunswick, Fredericton, NB, Canada

Ravi Gor, Dr. Babasaheb Ambedkar Open University, Ahmedabad, Gujarat, India

ID 588 Design Multi-echelon Supply Chain Network Considering Disruption Risk

Armin Darmawan, Muhammad Rusman and Farid Mardin, Hasanuddin University, Makassar, Sulawesi Selatan, Indonesia

WD 11:30 – 13:00**Operations Research II****Jawhar 1**

Session Chair: Erdem Aksakal, Gazi University, Ankara, Turkey

ID 213 Dynamic Cross Impact Analysis with Markov Chain

Amany Mamdouh, Abd-ElHadi N. Ahmed, Mohamed Saleh and Nedaa E. Agami, Cairo University, Cairo, Egypt

ID 237 Tabu Search and GPU-based Genetic Algorithm to Solve the Job Shop Scheduling Problem with Blocking

Mourad Boudhar, Abdelhakim AitZai and Adel Dabah, USTHB, Algiers, Algeria

ID 436 A Fuzzy Integral Approach for Determining the Degree of Effect of the Global Warming on the Cities of Turkey

Gokhan Ozelik, Mehmet Unver and Cevriye Gencer, Ankara University, Turkey

ID 280 Government Preference, Environmental Taxes and Privatization

Fernanda A. Ferreira and Flavio Ferreira, ESEIG - Polytechnic Institute of Porto, Vila do Conde, Portugal

ID 200 Integrated Wind Turbine Selection Model under Multi-Criteria Decision Making Methods: Entropy and TOPSIS

Erdem Aksakal and Metin Dagdeviren, Gazi University, Ankara, Turkey

WD 11:30 – 13:00**Lean and Six Sigma II****Jawhar 2**

Session Chair: Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

ID 709 An Integrated Framework of Critical Techniques in Implementation of Total Quality Management

Amir Azizi, Universiti Malaysia Pahang, Pahang Darul Makmur, Malaysia

ID 020 The Application of 5S Methodology into Plant Maintenance KPIs

Abdullah Dhafer, Aramco, Riyadh, Saudi Arabia

ID 459 Fit Manufacturing: Production Waste Index and Its Effect to Production Profitability

Zuhrah Ebrahim, Universiti Teknikal Malaysia Melaka, Malaysia

ID 569 Virtual Reality for Manufacturing - A Robotic Cell Case StudyAli Ahmad, Mustufa H. Abidi, Saber Darmoul and Abdulrahman Al-Ahmari, King Saud University, Riyadh, Saudi Arabia
S.M. Darwish and H.M.A. Hussein, FARCAMT, Advanced Manufacturing Institute, King Saud University, Saudi Arabia**ID 005 Reducing Operating Costs by Integrating a Food Supply System**

Bernardo Villarreal and Ivonne Guerra, Universidad de Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

WD 11:30 – 13:00**Healthcare Systems II****Mehwar 1**

Session Chair: Tarun Mohan Lal, Mayo Clinic, Rochester, Minnesota, USA

ID 601 Exploring the Impact of Technology Adoption on E-prescribing Roles and RoutinesNelson King, Khalifa University, Abu Dhabi, United Arab Emirates
Bijan Azad, American University of Beirut, Riad El Solh, Beirut, Lebanon**ID 638 A General Framework for Lean Transformation of Hospitals**Kudret Demirli, Khalifa University of Science, Technology & Research (KUSTAR), Abu Dhabi, United Arab Emirates
Ting Yu and Nadia Bhuiyan Concordia University, Montreal, QC, Canada**ID 642 A Multi-Criteria Approach for Nurse Scheduling - Fuzzy Simulated Metamorphosis Algorithm**Michael Mutingi, University of Botswana, Gaborone, Botswana
Charles Mbohwa, University of Johannesburg, South Africa**ID 550 Integrating Supply Chain Data Standards in Healthcare Operations and Electronic Health Records**Raja Jayaraman and Kamal Taha, Khalifa University, Abu Dhabi, United Arab Emirates
Angelica Burbano, Collazos University of ICESI, Cali, Colombia**ID 409 Module-based Healthcare Platform Planning for Designing Customized Healthcare Service Pathways in Hospitals**

Huan Yu, University of Science and Technology of China, Hefei, Anhui, China

ID 579 Data Analytics and Business Intelligence: Applications and Trends in Healthcare

Tarun Mohan Lal, Mayo Clinic, Rochester, Minnesota, USA

WD 11:30 – 13:00**Modeling and Simulation VI****Mehwar 2**

Session Chair: Abderrahmane Benbrik, University M'hamed Bougara, Algeria

ID 287 CLV Model Selection for Segmentation PerspectiveMohamed Ben Mzoughia, University of Tunis Ben Arous, Ben Arous, Tunisia
Mohamed Limam, University of Tunis, Tunisia and Dhofar University, Oman**ID 531 Buoyancy Ratio Effects on Coupled Radiation and Double-Diffusive Convection in Non-Gray Air-H₂O Mixtures**Mohammed Cherifi and Siham Laouar-Meftah, University M'Hamed Bougara, Boumerdes, Algeria
Denis Lemonnier Institut P' (UPR 3346), Futuroscope Poitou-Charente, France
Abderrahmane Benbrik, Boumerdes, Algeria

ID 282 Effect of Horizontal Walls Emissivity on Coupled Double Diffusive Convection And Non Gray-Gas Radiation of Air-H₂O Mixture in a Cooperating Case

Abderrahmane Benbrik and Mohammed Cherifi, University M'hamed Bougara, Boumerdes, Algeria
 Siham Laouar-Meftah, Boumerdes, Algeria
 Denis Lemonnier, Institut P² (Upr 3346), Département Fluides, Futuroscope, Poitou-Charente, France

WD 11:30 – 13:00**Manufacturing and Design II****Pearl 1**

Session Chair: Ibrahim Garbie, Sultan Qaboos University, Al-Khoud, Muscat, Oman

ID 342 Patient Specific Mandibular Implant for Maxillofacial Surgery using Additive Manufacturing

Abdulrahman M. Al-Ahmari and Emad Abouel Nasr, King Saud University, Riyadh, Saudi Arabia and Helwan University, Cairo, Egypt
 Ali Kamrani, University of Houston, Houston, TX, USA
 Khaja Moiduddin and Mohammed Alkindi, King Saud University, Riyadh, Saudi Arabia

ID 499 Production and Optimization of Aesthetic Braided Composite Bracket and Archwires by Wear Damages

Sarder Sadique, Marshall University, Huntington, WV, USA

ID 500 Modelling Electrode Wear in an EDM Process Using Data Transformation-based Polynomial and GLM

Khalid Al-Ghamdi, King Abdulaziz University, Jeddah, Makkah, Saudi Arabia

ID 198 Minimizing the Number of Tardy Jobs in a Dynamic Flexible Flow Shop

Arezoo Jafari and Ali Elyasi, Department of Industrial Engineering, University of Science and Culture, Tehran, Iran

ID 042 Investigation of Sustainability Index in Omani Manufacturing Firms: Evidence from Industrial Company

Ibrahim Garbie, Sultan Qaboos University, Al-Khoud, Muscat, Oman

WD 11:30 – 13:00**Human Factors and Ergonomics II****Pearl 2**

Session Chair: Rene Estember, Mapua Institute of Technology, Manila, Philippines

ID 620 Ergonomic Evaluation of Post Mechanical Effects of Vibration on Commercial Bus Drivers

Sesan Peter Ayodeji, Tshwane University of Technology, Pretoria, Gauteng, South Africa
 Olurotimi Dahunsi and Olabisi Olagunju, Federal University of Technology, Akure, Ondo State, Nigeria

ID 317 An Integrated Cognitive Performance Evaluation Framework for Urban Search and Rescue Applications

Steven Jiang and Antonio Lee, North Carolina A&T State University, Greensboro, North Carolina, USA

ID 273 Comparative Analysis of Gait Kinematics of Male and Female Construction Workers While Carrying Asymmetric Loads in Different Modes

Arundhati Guha Thakurta National Institute of Industrial Engineering (NITIE), Mumbai, Maharashtra, India

ID 251 Heat Losses from Human Body in Weather Condition of Amman City

Mohamed Gaith, M. El Haj Assad and Ahmad Sedaghat, Australian College of Kuwait, Kuwait

ID 063 Determination of Safe Mass of Backpack for Students in Tertiary Institutions

Olasunkanmi Ismaila, Federal University of Agriculture, Abeokuta, Ogun, Nigeria
 Kolawole Oriolowo, Ibadan, Oyo State, Nigeria

ID 408 The Musculoskeletal Disorder Effects on the Use of Single and Dual Monitor Workstations

Rene Estember, Regil Panugot and Angelica Vale, Mapua Institute of Technology, Manila, Philippines

WD 11:30 – 13:00**Operations Excellence V****Pearl 3**

Session Chair: Kuldeep Chaudhary, Amity University, Uttar Pradesh, India

ID 596 Reconfiguring Manufacturing Systems Using an Analytic Hierarchy Process with Strategic and Operational Indicators

Saber Darmoul, King Saud University, Riyadh, Saudi Arabia
 Sonia Hajri-Gabouj and Souhir Ben Cheikh, INSAT, Tunis, Tunisia

ID 001 Operational Improvement of Warehouse Operations

Nirav Sheth, Parth Patel, Ahad Ali, Don Reimer, Sanjeev Manjunathan, Anupam Byri, Rajashekar Geddadi and Gomanth Duvvuru, Lawrence Technological University, Michigan, USA

ID 202 Modification and Performance Evaluation of Height Adjustable Paraplegic Wheelchair

Grace Kanakana, Michael Kanisuru Adeyeri and Sesan Peter Ayodeji, Tshwane University of Technology, Pretoria, South Africa

ID 244 Optimal Control Promotional Policy for Consumer Durable Product in a Segmented Market incorporating Goodwill

Kuldeep Chaudhary, Amity University, Uttar Pradesh, India
 Sugandha Aggarwal, Arshia Kaul and P.C. Jha, University of Delhi, India

13:00 Lunch Keynote: Dr. Chris Backhouse, Professor of Product Innovation, School of Mechanical and Manufacturing Engineering, **Loughborough University**, Leicestershire, UK, and **ex-VP of the British University in Egypt**, Crystal Ballroom (Box Lunches Provided)

14:00 WEDNESDAY**WD 14:00 – 15:30 Global Engineering Education VII ENGINEERING EDUCATION Jade-Opal-Topaz**

Session Chair: Dr. Alaa K. Ashmawy, Dean of the School of Engineering, American University in Dubai

Dr. Abdur Rahim, University of New Brunswick, Fredericton, NB, Canada and Visiting Faculty, King Fahd Univ. of Petroleum and Minerals
 Dr. Ho Thanh Phong, Rector, International University – VNUHCM, Ho Chi Minh City, Vietnam
 Dr. Alaa K. Ashmawy, Dean of the School of Engineering, American University in Dubai

WD 14:00 – 15:30 Industry Solutions VII Panel Session on LEAN Emerald

Session Chair: Dr. Rupy Sawhney, University of Tennessee, Knoxville, USA

Majid Abab, Industrial Engineering Manager, The Boeing Company, USA
 Dr. Kudret Demirli, Professor & Chair, Industrial & Systems Engineering, Khalifa University, Abu Dhabi, UAE
 Ms. Resh Plaha, Crystal Quality, UK
 Dr. Rupy Sawhney, Heath Fellow in Business and Engineering, and Professor, Industrial and Systems Engineering, University of Tennessee, Knoxville, USA

WD 14:00 – 15:30 Supply Chain Management III Sapphire

Session Chair: Shao Hung Goh and Wei Ping Tan, SIM University, Singapore

ID 174 Is a Green Supply Chain Network Resilient to Disruptions?

Behnam Fahimnia, University of Sydney, Sydney, New South Wales, Australia

ID 010 Optimization of Container Utilization: A Case Study

Asif Salam, Ryerson University, Toronto, ON, Canada

ID 245 Optimal Control Policy to Production and Inventory System with Price-Dependent Demand in Segmented Market

Kuldeep Chaudhary, Amity University, Uttar Pradesh, India
 Sugandha Aggarwal and P.C. Jha, University of Delhi, India
 Mansi Tandon, Amity University, Uttar Pradesh, India

ID 722 Effects of Intrinsic and Extrinsic Attributes on Purchase Intention: An Experiment on Manufacturer vs. Store Brand Coffee Products

Muhammad Firdaus Abdul Talib, Zuraidah Sulaiman, Norzaidahwati Zaidin and Norhayati Zakuan, Universiti Teknologi Malaysia (UTM), Johor, Malaysia

ID 307 Incorporating Postponement in an Offshoring Strategy - A Case Study of a Singapore-China Cross Border Manufacturing Supply Chain

Shao Hung Goh and Wei Ping Tan, SIM University, Singapore

WD 14:00 – 15:30 Operations Research III Jawhar 1

Session Chair: Vural Aksakalli, Istanbul Sehir University, Uskudar, Istanbul, Turkey

ID 631 Dealining with Discrete Signal/ Data Dominated by Trend and Seseasonality using Least Squares Polynomails and Time Weighted Fourier Series Polynomails.

M.O. Oladejo and U.L. Okafor, Nigerian Defence Academy, Kaduna, Nigeria

ID 281 Privatization and Social Wabrarelfare in an International Mixed Stackelberg Duopoly

Fernanda A. Ferreira and Flavio Ferreira, ESEIG - Polytechnic Institute of Porto, Vila do Conde, Portugal

ID 295 Analyzing the Effect of Non-normality on the Solution Space for the Economic Statistical Design of X-bar Control Charts

Abdur Rahim, University of New Brunswick, Fredericton, New Brunswick, Canada
 Santiago-Omar Caballero-Morales, Huajuapán de León, Oaxaca, Mexico

ID 305 Consistent Conjectural Variations Equilibrium in a Human Migration Model

Vyacheslav Kalashnikov, Tecnológico de Monterrey (ITESM), Campus Monterrey, Monterrey, Nuevo Leon, Mexico
 Nataliya Kalashnykova, FCFM, UANL, San Nicolas de los Garza, Nuevo Leon, Mexico
 Felipe Castillo Perez, Tecnológico de Monterrey (ITESM), Monterrey, Nuevo Leon, Mexico

ID 234 Path Planning for Ships Using Large Adjacency Grids

Vural Aksakalli, Istanbul Sehir University, Uskudar, Istanbul, Turkey
 Ali Fuat Alkaya and Dindar Oz, Marmara University, Istanbul, Turkey

WD 14:00 – 15:30 Lean and Six Sigma III Jawhar 2

Session Chair: Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

ID 004 A Scheme to Achieve Distribution Agility

Bernardo Villarreal, Lorena Garzafox and Etna Muraira, Universidad de Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

ID 104 Application of Six Sigma in Manufacturing of Power Plant Projects

Farbod Lotfi, Wayne State University, Detroit, Michigan, USA
 Mohammad S. Eslamipour, Mapna Generator Co., Karaj, Alborz, Iran

ID 146 Acceptability of Lean Six Sigma in a Developing Economy: Results from Exploratory Research in Nigerian Consulting Companies

Oviri Umude-Igbru and Brian Price, Aston University, Birmingham, West Midlands, United Kingdom

ID 163 Strategies for Sustainable Assembly Line Design with Lean and Ergonomics Perspective

M Easwaramoorthi, Nandha Engineering College, Erode, Tamilnadu, India

ID 041 Implementation of Lean Manufacturing for Productivity Improvement in Malaysia

Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

WD 14:00 – 15:30**Healthcare Systems III****Mehwar 1**

Session Chair: Rachid Ouache and Ali A.J Adham, Faculty of Technology, University Malaysia Pahang, Malaysia

ID 107 Nurse-Physician Ratio in an Internal Medicine Residency Clinic

Javad Taheri, North Carolina State University, Cary, NC, USA

Gregory Brown, Ziad Gellad and Sonal Patel, Durham VA Medical Center, Durham, NC, USA

Sofia Robles, North Carolina State University, Raleigh, NC, USA

ID 505 Cooling Mattress and Apnea Detector with Stimulator for HIE Neonates

Gopu Govindasamy, Ackshaiyaa Ashokkumar, Rumana Begum Raffi and Janani Viswanathan, Sri Ramakrishna Engineering College, Coimbatore, TN, India

ID 718 The Left-Right Handed Chair Design and Optimization

Abrar Saeed Al Amoudi and Abdullah Omar Al Kaff, King Abdulaziz University, Jeddah, Saudi Arabia

ID 745 The Evaluation of Performance Criteria for Healthcare Facilities Services in Malaysia

Ihfasuziella Ibrahim, Mohd Khairoldeen Ghani and Zuhairi Abd Hamid, Construction Research Institute of Malaysia (CREAM), Kuala Lumpur, Malaysia

Syahrul Nizam Kamaruzzaman and Zairul Nisham Musa, Faculty of Built Environment, University of Malaya, Kuala Lumpur, Malaysia

ID 006 Reliability Quantitative Risk Assessment

Rachid Ouache and Ali A.J Adham, Faculty of Technology, University Malaysia Pahang, Malaysia

WD 14:00 – 15:30**Case Studies I****Mehwar 2**

Session Chair: Ram Bishu, University of Nebraska, Lincoln, Nebraska, USA

ID 320 Technology Form Land Transportation in Costing Function - Case Colombia

Johanna Trujillo Díaz, Andres Velasquez, Mario Alexander Martinez and Jaime Perez, Universidad Católica de Colombia, Bogota, Cundinamarca, Colombia

ID 080 Analysis and Evaluation of Total and Partial Productivity using Fuzzy Optimization Technique: A Research Article as Management Perspective

Sivakumar Annamalai, Navaneethakrishnan Palanisami, Sudhin Krishna and Harish Nair, Kongu Engineering College, Erode, Tamil Nadu, India

ID 232 Efficiency Analysis of Financial Actors to Achieve the Financial Inclusion in Colombia

Francisco Arcelus, Univeristy of New Brunswick, Fredericton, NB, Canada

Katrín Simon-Elorz, Universidad Pública de Navarra, Pamplona, Navarra, Spain

Gloria Rodríguez-Lozano, Universidad Nacional de Colombia, Bogota, Colombia

ID 425 Evaluation of Human performance in Data Entry tasks: Effect of Time Pressure and Complexity

Ram Bishu, University of Nebraska, Lincoln, Nebraska, USA

Kalyanasundaram Krishnamoorthy and P Balasubramanian, Amrita School of Business, Coimbatore, Tamilnadu, India

WD 14:00 – 15:30**Manufacturing and Design III****Pearl 1**

Session Chair: Niveen J. Abd Alkadir, University of Technology, Iraq

ID 424 Solving the No-Wait Flow Shop Problem With Due Date Constraints

Farzad Firouzi Jahantigh, Zahedan, Sistan & Balouchestan, Iran

ID 657 Vibrational Analysis of Rotary Machines

Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 314 Roughness Enhancement of Parts Produced by Multi-Layer SPIF

Tahseen Alani, University of Technology, Baghdad, Iraq

ID 598 Manufacturing Process for a MEMS Cantilever Array

Said Kafumbe, Abu Dhabi, United Arab Emirates

ID 421 Optimization of Corrosion Behavior of Aluminum Metal Matrix Composite reinforced with nanoparticles Using Taguchi's Techniques

Niveen J. Abd Alkadir, University of Technology, Iraq

Payman Sahbah Ahmed, University of Koya, Iraq

Ali Jamal Abdulqader, Center of Studies and Engineering Designs, Iraq

WD 14:00 – 15:30**Human Factors and Ergonomics III****Pearl 2**

Session Chair: Emmanuel Yannakoudakis, Athens University of Economics & Business, Cambridge, England, United Kingdom

ID 014 Innovative Ergonomic Design of a Tricycle and Risk Assessment

Rachel C. Villanueva, Ezrha C. Godilano, Weilong Yao Ang, Adrianne B. Afionuevo, Bounty C. Insorio, Masakazu V. Morita, Mark Anthony C. Padios, Herli Ricci G. Realce and Joven C. San Diego, Malayan Colleges Laguna, Pulo Diezmo, Cabuyao City, Laguna, Philippines

ID 158 Usability Evaluation of Web-Based Interfaces for Type2 Diabetes Mellitus

Dorian Davis and Steven Jiang, North Carolina A&T State University, Greensboro, North Carolina, USA

ID 240 Analysis of Mesoergonomic at Logistic Process of Bottled Drinking Water

Rahmat Nurcahyo and Ricky Firdaus, Universitas Indonesia, Depok, Jawa Barat, Indonesia

ID 172 The Architecture of the ARISTON Expert System For Vocational Counselling

Emmanuel Yannakoudakis and Helen Yannakoudakis, Athens University of Economics & Business, Cambridge, England, United Kingdom

WD 14:00 – 15:30**Operations Excellence VI****Pearl 3**

Session Chair: Hwi Chie Ho, Bina Nusantara University, Jakarta, Indonesia

ID 733: An Efficient Firefly Algorithm for the Flexible Job Shop Scheduling Problem

Alireza Khatami and Seyed Habib A. Rahmati, Young Researcher Club, Qazvin Branch, Islamic Azad University, Qazvin, Iran
Abbas Ahmadi, Department of Industrial Engineering and Management Systems, Amirkabir University of Technology, Tehran, Iran

ID 199 Product Lifecycle Management, Digital Factory and Virtual Commissioning: Analysis of These Concepts as a New Tool of Lean Thinking

Antonio Araujo Jr., Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil
Flavio Silva, Instituto Maua de Tecnologia, São Caetano do Sul, São Paulo, Brazil
Caio Jorge Gamarra and Jussara Leonardo, São Caetano do Sul, São Paulo, Brazil

ID 727 Just in Time Implementation Issues in Indian Corrugated Packaging Industries - An empirical study in Natioanl Capital Region (NCR)

Nitin Kumar Upadhye, University of Modern Sciences, Dubai, UAE
S G Deshmukh, ABV Indian Institute of Information Technology & Management, Gwalior, India
Suresh Garg, Delhi Technological University, Delhi, India
Durgesh Sharma, IMS Engineering College, Ghaziabad, India

ID 356 Pursuing the Quality of Driving Through an Understanding of Job Security, Job Satisfaction, and Perceived Safety as Antecedents of Motorcycling Behaviors in Jakarta, Indonesia

Hwi Chie Ho, Deby Leono, Ivan Setio Suhartono and Michael Reynaldo, Bina Nusantara University, Jakarta, Indonesia

15:30 Break

15:45 WEDNESDAY

WD 15:45 – 17:15**Global Engineering Education VIII PANEL SESSION****Jade-Opal-Topaz**

Session Chair: Dr. Abu Masud, Wichita State University, Wichita, Kansas, USA

Dr. Funso Falade, University of Lagos, Nigeria and President, African Engineering Education Association
Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEES)
Dr. Abu Masud, Intertrim Dean of Graduate School, Wichita State University, Wichita, Kansas, USA
Dr. Ibrahim Mohammed Al-Harkan, Dean of Graduate Studies, King Saud University, Riyadh, Saudi Arabia

WD 15:45 – 17:15**Industry Solutions VIII****Emerald**

Session Chair: Shailendra Shukla, Renewable Energy Development Agency, India

Dr. Mickael Gardoni, Professor and Director, Innovation Management Program, ÉTS Engineering Industry, Québec, Canada
Ahmed Al-Jabr, Aramco Services Company (ASC) - A Subsidiary of Saudi Aramco, Detroit, Michigan, USA
Shailendra Shukla, Renewable Energy Development Agency, Raipur, Chhattisgarh, India

WD 15:45 – 17:15**Supply Chain Management IV****Sapphire**

Session Chair: Jyoti Darbari, University of Delhi, India

ID 410 A Decision Support Module for ERP System under VMI Collaboration

Jiun-Yan Shiau, National Kaohsiung First University of Science and Technology, Kaohsiung, Taiwan
Yu-Ling Tsou, Shi-Ho Screw Industrial Co., LTD, Kaohsiung, Taiwan

ID 635 Defining and Modeling Cost of Risk Recovery in Supply Chain Management

Adil Akaaboune, Alhosn University, Abu Dhabi, United Arab Emirates

ID 669 Supply Chain Management through the Stochastic Goal Programming Model

Alireza Azimian, School of Business and Economics, Wilfrid Laurier University, Waterloo, Ontario, Canada
Belaid Aouni, Management and Marketing Department, College of Business and Economics, Qatar University, Doha, Qatar

ID 262 A Research Framework of Supply Chain Management in Apparel Industry: Bangladesh Perspective

Md. Mamun Habib, University Utara Malaysia (UUM), Malaysia
 Bishwajit Banik Pathik, American International University-Bangladesh, Dhaka, Bangladesh
 Md. Farhan Shahriar, Avery Dennison Bangladesh, Dhaka, Bangladesh

ID 393 Multi-Criteria Decision Approach for a Sustainable Reverse Logistics Network under Fuzzy Environment

Jyoti Darbari, P.C. Jha and Vernika Agarwal, University of Delhi, India
 Kuldeep Chaudhary, Amity University, Uttar Pradesh, India

WD 15:45 – 17:15**Operations Research IV****Jawhar 1**

Session Chair: Paulo Morelato França, UNESP, Presidente Prudente, SP, Brazil

ID 335 The Impact of Globalization on Total Factor Productivity of the Manufacturing sector in Pakistan

Usama Bin Perwez, National University of Sciences & Technology, Pakistan
 Hasban Yusuf Kolia, UET Taxila, Dubai, United Arab Emirates

ID 336 Developing Spreadsheet Models of Holt-Winter Methods and Solving With Microsoft Excel Solver and Differential Evaluation Technique: An Application to Tourism Sector

Yusuf Ziya Ünal, Istanbul, Turkey

ID 398 A Genetic and Iterative Local Search Algorithm for Solving Subgraph Isomorphism Problem

Mina Farahani, Tarbiat Modares University, Tehran, Iran
 Seyed Kamal, Chaharsoughi, Tehran, Iran

ID 735: Duality for a Nondifferentiable Multiobjective Fractional Programming Problem Using G-Inconvexity

S. K. Gupta and Ramu Dubey, Indian Institute of Technology Roorkee, India

ID 339 Heuristics for Legislative Districting

Paulo Morelato França, UNESP, Presidente Prudente, SP, Brazil

WD 15:45 – 17:15**Lean and Six Sigma IV****Jawhar 2**

Session Chair: Mohd Hazri Mohd Rusli, Toyota Malaysia, Shah Alam, Selangor, Malaysia

ID 008 Adoption of Operations Improvement Methods in the Greek Engineering Sector

Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derbyshire, UK
 Stavros Zisis, Warwick Manufacturing Group, University of Warwick, Coventry, Warwickshire, UK
 Ming K. Lim, Centre for Supply Chain Improvement, University of Derby, Derby, Derbyshire, UK
 Vikas Kumar, Bristol Business School, University of the West of England, Bristol, Somerset, UK
 Luis Rocha-Lona, National Polytechnic Institute of Mexico, Tlalneptatla, Mexico

ID 165 Lean Management Practices to improve supply chain performance of Leather Footwear Industry

Shakila Shobana, CSIR-Central Leather Research Institute, Chennai, Tamil Nadu, India
 Hansa Lysander Manohar, Anna University, Chennai, Tamilnadu, India

ID 471 Set-up Time Reduction at Stamping Station 1 of Tri-R Allied Industries Incorporated

Frenzel Paz S. Avecilla, Jannine S. Fameronag, Nida C. Polled, Alfredo A. Gatdula and Rachel C. Villanueva, Malayan Colleges Laguna, Pulo Diezmo, Cabuyao City, Laguna, Philippines

ID 474 Functional and Distributed Layouts and their Effectiveness on Capability-Based Virtual Cellular Manufacturing Systems Performance

Maryam Hamed and Gholamreza Esmaeilian, Isfahan, Iran

ID 111 Comparison on the Parameter and Criterion between the Three Production Methods Used in the Kanban Pull System at Malaysian Auto Suppliers

Mohd Hazri Mohd Rusli, Toyota Malaysia, Shah Alam, Selangor, Malaysia
 Ahmed Jaffar, Suzilawati Muhamud-Kayat and Mohd Tarmizi Ali, Malaysia Universiti Teknologi Mara, Shah Alam, Selangor, Malaysia

WD 15:45 – 17:15**Healthcare Systems IV****Mehwar 1**

Session Chair: Senthilkumar D., Anna University, Chennai, Tamilnadu, India

ID 440 Using Statistical Process Control Charts for Monitoring Birth Weight at a National Level

Hamdi Bashir and Fikri Dweiri, University of Sharjah, United Arab Emirates
 Jawahir Alali, Dubai Electricity & Water Authority, Dubai, United Arab Emirates
 Amal Al-Kubaisi, Qatar General Electricity and Water Cooperation, Doha, United Arab Emirates
 Mariam Alalili, Montreal, Quebec, Canada

ID 671 Robotic Nursing & Caring – Study Example: Robotic Nursing Assistant (RoNA) System

Idir Mahrouche, University of Béjaia, Algeria

ID 528 A Mathematical Model for Understanding the Spread of Nipah Fever Epidemic in Bangladesh

M H A Biswas and Md. Mohidul Haque, Mathematics Discipline, Khulna University, Bangladesh, Khulna, Bangladesh
 Gomanth Duvvuru, Lawrence Technological University, Michigan, USA

ID 134 Prediction of Low Birth Weight Infants and Its Risk Factors Using Data Mining Techniques

Senthilkumar D. and Paulraj S., Anna University, Chennai, Tamilnadu, India

WD 15:45 – 17:15**Case Studies II****Mehwar 2**

Session Chair: Waleed Ahmed, UAE University - Al Ain, Abu Dhabi, United Arab Emirates

169 Sales and Operations Planning: Motivations, Impediments and Outcomes at Singapore-based Companies
Shao Hung Goh, SIM University, Singapore

ID 624 CMMS, Why and How- Case study: Morvarid Petrochemical Company
Hamed Mirzapour, Adnan Keshvari and G. Reza Jokar, Morvarid Petrochemical Co., Assalouyeh, Boushehr, Iran

ID 450 Life Cycle Assessment of Steel Balls: Case study – Craster International
Charles Mbohwa and Loice Gudukeya, University of Johannesburg, South Africa

ID 656 Thermal Stress and Creep Analysis of Boiler Tubes
Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 354 Mechanical Properties of Nano-Cement Mortar: Compression and Tension
Wail N. Al-Rifaie, Philadelphia University, Amman, Jordan
Waleed Ahmed, UAE University - Al Ain, Abu Dhabi, United Arab Emirates

WD 15:45 – 17:15**Manufacturing and Design IV****Pearl 1**

Session Chair: Guna Ciemleja, Riga Technical University, Riga, Latvia

ID 066 Improving Mechanical and Fatigue Characteristic of Trans-Tibial Prosthetic Socket
Payman Sahbah Ahmed, Koya University, Koya, Erbil, Iraq
Kahtan Al-Khazraji and Jawad Kadhim, University of Technology, Baghdad, Iraq

ID 309 Product-Service System in Inventory Control: A New Paradigm?
Siti Zubaidah Binti Ismail, S.C. Morton and J.A. Harding, Loughborough University, Leicestershire, United Kingdom
Roula Michaelides, Management School, Liverpool, Merseyside, United Kingdom

ID 229 Multi Objective Optimization of Drilling Parameters of CFRC Composites by using GRA Method
Krishnasastri K.V. Avit, Chennai, Tamilnadu, India
Seshagiri Rao V., St. Joseph's College of Engineering, Chennai, Tamilnadu, India

ID 043 Dual Cycle Mode Scheduling of Internal Transfer in Container Terminals Using a Genetic Algorithm
M. Nashat Fors, Ghada Elnaggar and Yasmine Abouelseoud, Alexandria University, Alexandria, Egypt

ID 183 Practical Evaluation of Multifunctional Nanocoatings Technology Commercialization in Latvia
Ineta Geipele, Tatjana Staube and Guna Ciemleja, Riga Technical University, Riga, Latvia

WD 15:45 – 17:15**Service Systems and Management****Pearl 2**

Session Chair: Ahmad Reza Pourghaderi, National University of Singapore, Singapore

ID 334 A Development of Satisfaction-Loyalty and Reputation Relationship Model Using Performance Measurement Approach of the Private Medical Clinics' Services
Norhayati Zakuan, Norzaidahwati Zaidin, Rohaizat Baharun and Zuraidah Sulaiman, Universiti Teknologi Malaysia, Johor, Malaysia

ID 371 Identifying the Barriers of Knowledge Transfer in Collaborative Processes of Public Service Sector: A Study of Tax Determination process
Morteza Bazrafshan, Mohammad Aghdasi and Mina Ranjbarfard, Tarbiat Modares University, Tehran, Iran

ID 380 A Decision Analysis Perspectives on the Higher Education Admissions Center in Oman
Mahmood Al Kindi, Sultan Qaboos University, Muscat, Oman

ID 428 The Impact of Employee Satisfaction and Service Quality on Perceived Firm's Performance in High Contact Service Industry
Muhammad Tasleem, NUST, Islamabad, Pakistan
Jawaid Islam, Rawalpindi, Punjab, Pakistan

ID 423 A Stochastic Approach to Appointment Sequencing
Ahmad Reza Pourghaderi and Boray Huang, National University of Singapore, Singapore

WD 15:45 – 17:15**Operations Excellence VII****Pearl 3**

Session Chair: Ana Luísa Ramos, University of Aveiro, Portugal

ID 330 Network DEA Efficiency Improvement under Constant Sum of Inputs/Outputs
Sanjeet Singh, Indian institute of Management Calcutta, Kolkata, West Bengal, India
Surya Sarathi Majumdar and Gautam Buddh Nagar, Uttar Pradesh, India

ID 577 Performance Improvement of Average Access Time by Optimization of Cache Memory Access Time
Mohammad Shamsul Alam, ADN Telecom, Dhaka, Bangladesh

ID 731 Refined Descriptive Sampling in Multi-dimension
Sofia Guebli and Megdouda Ourbih, Applied Mathematics Laboratory, Faculty of Exacts Sciences, University of Bejaia, Algeria

ID 558 Improving the Productivity of a Packaging Line Using Lean Manufacturing Tools and Simulation
Ana Luísa Ramos, José Vasconcelos Ferreira and Fábio Bernardes, University of Aveiro, Portugal

19:00 Conference Award Dinner and Cultural Program

THURSDAY (TR), MARCH 5

08:30 Morning Keynote: Syed Mohammed Aumir, Senior Executive Vice President, Digital Factory, Siemens Middle East, Crystal Ballroom

TR 09:45 – 11:15 Global Engineering Education IX **ENGINEERING EDUCATION**

Jade-Opal-Topaz

Session Chair: Dr.-Eng. Eldon Caldwell, University of Costa Rica

Dr. C. B. Gupta, Birla Institute of Technology & Science (BITS), India
 Prof. Dr. B. Anil, Principal, Government College of Engineering, Barton Hill, Trivandrum, Kerala, India
 Dr.-Eng. Eldon Caldwell, Director, Industrial Engineering Department, University of Costa Rica

TR 09:45 – 11:15

Information Technology I

Emerald

Session Chair: Larry LeBlanc, Vanderbilt University, Brentwood, TN, USA

ID 060 New Communication Technologies and Globalization in the 21st Century

Jale Heydarova, Uludag University, Baku, Azerbaijan
 Yusif Aliyev, Azerbaijan State Economic University, Baku, Azerbaijan

ID 135 Designing a Fire Incident Response Information Support System

Celestine Ntuen, Eui Park and Gwang-Myung Kim, North Carolina A&T State University, Greensboro, NC, USA

ID 355 Antecedents and Consequences of the Intention of Young Consumers to Pirate or Buy Copyright Products

Mathupayas Thongmak, Thammasat University, Bangkok, Thailand

ID 387 Impact of Big Data Analytics to Nigerian Mobile Phone Industry

Elizabeth Onwuka, Emeka Nwanga, Abiodun Aibinu and Osichinaka Ubadike, Federal University of Technology, Minna, Niger State, Nigeria

ID 048 Effective Design of Spreadsheets for Analytics: Methods for Minimizing Errors

Larry LeBlanc, Vanderbilt University, Brentwood, TN, USA

TR 09:45 – 11:15

Supply Chain Management V

Sapphire

Session Chair: Samar Mukhopadhyay, Sungkyunkwan University-GSB, Seoul, South Korea

ID 266 The Production-Inventory-Distribution-Routing Problem: An Integrated Formulation and Solution Framework

Noha Mostafa and Amr Eltawil, Egypt-Japan University for Science and Technology, New Borg El Arab, Alexandria, Egypt

ID 468 Optimization Modeling for Production, Inventory and Distribution of Perishable Items: A Review

Ashok Pundir and L Ganapathy, Mumbai, Maharashtra, India
 Varimna Singh, Ahmedabad, Gujarat, India

ID 725 ECOR: A Reference Model for the Management of Electoral Supply Chain Support

Olufemi Adetunji, University of Pretoria, Pretoria, South Africa

ID 170 Reverse Supply Chain for Remanufacturing with Uncertain Demand and Return Product Yield

Samar Mukhopadhyay, Sungkyunkwan University-GSB, Seoul, South Korea
 Huafan Ma, Indiana University, East Richmond, IN, USA

TR 09:45 – 11:15

Operations Research V

Jawhar 1

Session Chair: Mohsin Malik, Abu Dhabi University, Al Ain, Abu Dhabi, United Arab Emirates

ID 435 Network Interdiction Problem: Literature Survey

Gokhan Ozelik, Cevriye Gencer and Kamil Akel, Ankara, Turkey

ID 233 Small Traditional Retailers in Emerging Markets

Youssef Boulaksil, UAE University - Al Ain, Abu Dhabi, United Arab Emirates

ID 512 A Binary Cuckoo Search Algorithm for Knapsack Problems

Kaushik Bhattacharjee and Sarada Prasad, Indian Institute of Technology Kharagpur, West Bengal, India

ID 530 Minimization of a Quadratic Program with Hybrid Direction

Nacera Ikhenche, University of Béjaia, Algeria

ID 402 A Multi-Objective Optimization Approach to Solve a 2-Dimensional Cutting Stock Problem in the Aerospace Industry
Mohsin Malik and Salam Abdallah, Abu Dhabi University, Al Ain, Abu Dhabi, United Arab Emirates

TR 09:45 – 11:15

Reliability and Maintenance I

Jawhar 2

Session Chair: Hajej Zied, LGIPM, METZ, France

ID 248 Dynamic Maintenance in Series Manufacturing Systems with Consideration of Buffer Inventory
Naser Mollaverdi and Saleh Mirabadi, Isfahan University of Technology, Isfahan Iran

ID 361 Implementing a Reliability-Centered Maintenance Model for a Power Distribution System: A Case Study in Saudi Arabia
Salem Alshahrani, National Guard, Health Affair, Dammam, Saudi Arabia
Laith Al-Hadidi, King Fahd University, Dahrn, Saudi Arabia

ID 392 An Assessment of Maintenance Management Practices in Palestinian Industries
Ramiz Assaf, Yahya Saleh, Tamer Haddad and Mohammed Othman, An-Najah National University, Nablus, Palestine, West Bank and Gaza

ID 367 A System with Multi-Failure Mode and Imperfect Repair
Mohammed Hajej and Bashayer Dashi, Kuwait Institute for Scientific Research Kuwait

ID 219 Production/Maintenance Optimization Problem with Random Repair Time
Hajej Zied, Nidhal Rezg and Sofiene Dellagi, LGIPM, METZ, France

TR 09:45 – 11:15

Engineering Education I

Mehwar 1

Session Chair: Basel Alsayed, United Arab Emirates University - Al Ain, Abu Dhabi, United Arab Emirates

ID 498 Improving Effectiveness of Teaching for Enhancing Employability of Engineering Graduates
Prakash Kulkarni, Hemant Abhyankar, Ashutosh Kulkarni and Shriniwas Kulkarni, Vishwakarma Institute of Technology, Pune, Maharashtra, India

ID 648 Blended Learning for Today's Engineering Student
Jacqueline Chestnut, Lawrence Technological University, Michigan, USA
Sandra Braxton and Elizabeth Asfaw, Jones International University, USA

ID 522 Qualitative versus Quantitative Course Assessment
Basel Alsayed and Abdel-Hamid Mourad, UAEU - Al Ain, Abu Dhabi, United Arab Emirates

TR 09:45 – 11:15

Case Studies III

Mehwar 2

Session Chair: Amarjit Singh, University of Hawaii, Honolulu, Hawaii, USA

ID 070 The Analysis of Success (Failure) Critical Factors in Nanotechnology R&D field by using a New Approach of Fuzzy Map
Shahla Yassaei and Farhad Ghasemi, Tehran, Iran

ID 284 Managing Effective Response of Humanitarian Logistics, Empirical Evidence from Oman
Hamah Al Mamari, Rayya Al Khalili, Shadha Al Hashmi and Asma Al Muqaimi, Sultan Qaboos University, Muscat, Oman

ID 366 Design Portfolio Factors Motivating University Employees to Improve Productivity using BLP and ANP Fuzzy Models
Ali Mostafaeipour, Hasan Khademi and Tahere Aliheidari, Yazd University, Yazd, Iran

ID 532 Comparative Analysis of Environmental Performance in G8 and G20 Countries
Mehmet Şahin Gök, Gebze Institute of Technology, Kocaeli, Turkey

TR 09:45 – 11:15

Production Planning and Management I

Pearl 1

Session Chair: Felix Chan, Hong Kong Polytechnic University, Hong Kong

ID 149 Scheduling of Multi-Die Operations with Multiple Maintenance Tasks
Felix Chan and C. S. Wong, Hong Kong Polytechnic University, Hong Kong

ID 114 Aggregate Production Planning Framework in a Multi-Product Factory
Charles Mbohwa and Ignatio Madanhire, University of Johannesburg, South Africa

ID 389 A Novel Spiral-evolutional Construction Approach for Production Scheduling Systems
Shigeru Fujimura, Waseda University, Kitakyushu, Fukuoka, Japan

ID 351 A mixed optimization model for a multi-product advanced planning and scheduling system by considering learning effect
Ahmad Allahyari, Mehrdad Javadi and Ali Ghahramany Baranghar, Iran

ID 098 Metaheuristics for Identical Parallel Machines Scheduling to Minimize Mean Tardiness
Ibarhim Alharkan, Mageed Ghaleb, Husam Kaid and Atef Ghaleb, King Saud University, Riyadh, Saudi Arabia

TR 09:45 – 11:15

Energy I

Pearl 2

Session Chair: Ali Mostafaeipour, Yazd University, Yazd, Iran

ID 446 A Small Hydro Power Plant at Tsanga River (Nyanga) to Feed into a Grid
Charles Mbohwa and Loice Gudukeya, University of Johannesburg, South Africa

ID 634 Relieving Electric Power Dependency during Shortage with an On-Site Solar Power Supply
SangYun Choe and JinWoo Park, Seoul National University, Seoul, South Korea

ID 517 A Maximum Power Point Tracker of Photovoltaic Arrays for Partial Shading Conditions
Jawad Ahmad, Alessandro Ciocia and Fillip Spertino, Politecnico Di Torino, Torino, Italy

ID 347 Wind-Solar Energy Potentials for Three Free Trade and Industrial Zones of Iran
Ali Mostafaeipour Yazd University, Yazd, Iran
Kasra Mohammadi and Majid Sabzpooshan, Kashan, Iran

TR 09:45 – 11:15

Operations Excellence VIII

Pearl 3

Session Chair: Edward Williams, University of Michigan – Dearborn, USA

ID 611 Minimizing the Number of Machines in the Fixed Interval Scheduling Problem with Energy Constraints
Ons Sassi, University of Lorraine-LORIA UMR, Campus Scientifique, Vandoeuvre-Is-Nancy, France
Ammar Oulamara, University of Lorraine, Ile de Saulcy, Metz, France

ID 044 Total Productive Maintenance in Automotive Industry: Issues and Effectiveness
Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

ID 372 Multicriteria-based Decision Aiding Framework for Assessing Energy Policy towards Sustainable and Low Carbon Energy Paths
Md. Mizanur Rahman, Jukka V. Paatero and Risto Lahdelma, Aalto University, Finland

ID 719 Value-driven vs Process-driven Methodology for Software Development: A Case Study
Ashish Sahu, PGDFM, SIBM Pune
Ratri Parida, NICMAR, Pune

ID 100 Simulation Helps Local Grocery Store Compete Effectively Against Large Chains
Edward Williams, University of Michigan – Dearborn, USA
Jared Gruber, Oakwood Healthcare, Dearborn, Michigan, USA
Renée Smiddy, Henry Ford Health System, Detroit, Michigan, USA
Jeffrey Watson, Credit Acceptance, Southfield, Michigan, USA

11:15 Break

11:30 Thursday

TR 11:30 – 13:00

Global Engineering Education X Innovation and Entrepreneurship in Higher Education **Jade-Opal-Topaz**

Session Chair: Dr. Abdel Magid Hamouda, Qatar University, Qatar

Dr. Ibrahim Mohammed Al-Harkan, King Saud University, Riyadh, Saudi Arabia
Dr. Kudret Demirli, Khalifa University, Abu Dhabi, UAE
Dr. Abdel Magid Hamouda, Qatar University, Qatar

TR 11:30 – 13:00

Information Technology II

Emerald

Session Chair: Wilhelm Rossak, Friedrich Schiller University, FSU, Jena, Germany

ID 433 Co-Utility: Self-Enforcing Protocols without Coordination Mechanisms
Josep Domingo-Ferrer, Jordi Soria-Comas and Oana Ciobotaru, Universitat Rovira i Virgili, Tarragona, Catalonia, Spain

ID 582 Chaotic Encryption for Anti 2D Barcode Cloning
Poomyos Payakkawan, Bangkok Thonburi University, Taweewatana, Bangkok, Thailand

ID 458 Sniping as a Rational Strategy on Ebay
Farooq Sheikh, School of Business, University of New York, Geneseo, NY, USA

697 Using Refined Descriptive Sampling in Integration
Leila Baiche and Megdouda Ourbih, Applied Mathematics Laboratory, Faculty of Exacts Sciences, University of Bejaia, Algeria

ID 529 Smart City Logistik Erfurt (SCL): ICT Support for Managing Fully Electric Vehicles in the Domain of Inner City Freight Traffic
Volkmar Schau and Wilhelm Rossak, Department of Computer Science, Friedrich Schiller University, FSU, Jena, Germany
Harald Hempel, Research and Development, DAKO STS GmbH und Co.KG, DAKO, Jena, Germany
Steffen Späthe, Research and Development, Navimatix GmbH, NX, Jena, Germany

TR 11:30 – 13:00

Supply Chain Management VI

Sapphire

Session Chair: Antonio Grilo, FCT-UNL, Alverca, Lisboa, Portugal

ID 140 Impact of Advertising on Closed Loop Supply Chain Profit under Stochastic Demand And Return of Items
Sarat Jena and S.P Sarmah, IIT Khragpur, West Bengal, India

ID 464 A Flexible Neural Network-Fuzzy Data Envelopment Analysis Approach for Location optimization of Solar Plants with Uncertainty and Complexity
Ali Azadeh, University of Tehran, Tehran, Iran

ID 586 Review and New Insights of the Car-Following Model for Road Vehicle Traffic Flow
Youzhi Zeng and Ning Zhang, Beijing, China

ID 708 Supplier Competition: Theory vs. Experiment
Seyed Ehsan Elahi and Roger Blake, University of Massachusetts, Boston

ID 609 Analyzing the Impact of Business Interoperability on the Performance of Cooperative Supply Chain Networks
Antonio Grilo, FCT-UNL, Alverca, Lisboa, Portugal
Izunildo Cabral, UNIDEMI, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Caparica, Portugal

TR 11:30 – 13:00
Operations Research VI
Jawhar 1

Session Chair: Fattaneh Ghaneh Cauley, Purdue University, West Lafayette, Indiana, USA

ID 545 A Two-Stage Decomposition Approach for the Traveling Salesman Problem
Hamdi Bashir and Basma Hamdan, University of Sharjah, United Arab Emirates

ID 617 The Optimal Routes for The Vessels to Transport Empty Containers under Different Shipping Service Networks Design
Venkata Seshachala Sarma Yadavalli, University of Pretoria, Gauteng, South Africa

ID 701 Consistent Conjectural Variations Equilibrium in a Human Migration Model
Vyacheslav Kalashnikov, Tecnológico de Monterrey (ITESM), Monterrey, Nuevo Leon, Mexico
Nataliya Kalashnykova, FCFM, UANL, San Nicolas de los Garza, Nuevo Leon, Mexico
Felipe Castillo Perez and Jose Alvaro Gomez-Pantoja, Tecnológico de Monterrey (ITESM), Mexico

ID 705 Fragmentable Group and Item Bin Packing with Compatibility Preferences
Aderemi Adeyemo and Victor Oladokun, University of Ibadan, Ibadan, Oyo, Nigeria

ID 702 Real Time Solutions for Scheduling a Satellite Downlink: A Constrained Minimization Problem
Fattaneh Ghaneh Cauley, Purdue University, West Lafayette, Indiana, USA

TR 11:30 – 13:00
Reliability and Maintenance II
Jawhar 2

Session Chair: Hassan Hamri, OCPgroup, Casablanca, Morocco

ID 131 A Program for Developing of Risk-Based Inspection (RBI) and Maintenance Procedures Modification for a Gas Treating Plants of N.I.G.C.
Ali Massaeli, National Iranian Gas Company, Tehran, Iran

ID 426 Optimum Reliability and Maintainability Allocations for Series System with Buffers under Imperfect Repair
M. Nashat Fors, Khaled Ahmed Farouk and Mohammad Younes, Alexandria University, Egypt

ID 515 Cost Optimization of Maintenance Schedule V.S. Reliability
Basel Alsayed, Ahmed Abobaker, Waseem Hittini and Ahmed Al Rawahi, UAE University-Al Ain, Abu Dhabi, United Arab Emirates

ID 321 Investigating the Effect of Human Factors on Warranty Cost under Sales Delay Conditions
Ali Zeinal Hamadani and Sepide Eskandri, Isfahan University of Technology, Isfahan, Iran

ID 628 Management of Maintenance using FMEA model: Case study of Roadheaders (Alpine Miners AM50)
Daoud Ait Kadi and Lalla Samira Touhami, Université Laval, Québec, Canada
Hassan Hamri, OCPgroup, Casablanca, Morocco

TR 11:30 – 13:00
Engineering Education II
Mehwar 1

Session Chair: Peter Toth, Obuda University, Budapest, Hungary

ID 279 Certification of Professional Engineering in Colombia: From the Multi-Criteria Analysis Approach and Innovation
Oscar Vasquez Bernal and Felix Cortes-Aldana, Universidad Nacional de Colombia, Bogota, Colombia

ID 323 Boosting Students' Proficiency in Thermodynamics via E-Learning
Waleed Ahmed and Ali Al Marzouqi, UAE University, Al Ain, Abu Dhabi, United Arab Emirates

ID 447 Computer Programming Difficulties at Higher Secondary School: A Content Analysis
Canayah Cuniah, University of Technology, Port Louis, Moka, Mauritius

ID 045 Leadership Challenges of Nigeria Educational System
Babatunde Joel Todowede, Lagos State University, Lagos- Nigeria

ID 750: Higher Education Institutions and Industry Collaboration "The Foundation for a Successful Industry"
Daw Alwerfalli and Badi Jawad, Lawrence Technological University, Southfield, Michigan, USA

ID 064 Geo-disasters in Relation with Climate Change: Student's Perspective via a Course-embedded Project [GEE]
Chee-Ming Chan, Alina Shamsuddin and Azeanita Suratkon, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

TR 11:30 – 13:00**Transportation****Mehwar 2**

Session Chair: Mojahid Saeed Osman, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

ID 557 The Crew Rostering Problem at Urban Mass Transit Companies: The Assignment of Crews without Predefined Work
Ana Luísa Ramos and José Vasconcelos Ferreira, University of Aveiro, Portugal

ID 565 A Temporal Analysis of Vessel Type Traffic in Istanbul Strait Anchorages
Vural Aksakalli and Milad Malekipirbazari, Istanbul Sehir University, Uskudar, Istanbul, Turkey
Volkan Aydogdu, Istanbul Technical University, Tuzla, Istanbul, Turkey

ID 632 Multi-Modal Parcel Routing and Scheduling Combining Fixed and Variable Timetables
Omar Ben-Ayed, Qatar University, Doha, Qatar
Mondher Hachicha, University of Sfax, USA

ID 630 Unsustainability in Emergent Systems. Case Study of Road Transportation in Greater Beirut Area
Charbel Mansour, Lebanese American University, Byblos, Lebanon
Marc Haddad and Jad Stephan, Byblos, Lebanon

ID 359 Route Finding Procedures for Performing Distribution Routing Function in Supply Chain
Mojahid Saeed Osman, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

TR 11:30 – 13:00**Production Planning and Management II****Pearl 1**

Session Chair: Nasr Al Hinai and Sujana Piya, Sultan Qaboos University, Muscat, Oman

ID 272 Minimizing Total Weighted Tardiness in Single Machine Problem with Non-Identical Job Sizes
Mehdi Bijari, Isfahan University of Tech., Isfahan, Iran

ID 475 Minimization of Earliness and Tardiness Penalties with Common Due Dates Problem using Tabu Search
Tariq Aziz, Ibrahim M. Alharkan, Mohammed Hatem Mohammed Alhaag, King Saud University, Riyadh, Saudi Arabia

ID 453 Intelligent Water Drops Algorithm on Parallel Machines Scheduling
Vahid Kayvanfar, Amirkabir University of Technology, Tehran, Iran
Ehsan Teymourian, Mazandaran University of Science and Technology, Babol, Mazandaran, Iran
Koorosh Mashhadi Alizadeh, Sadjad University of Technology, Mashhad, Khorasan Razavi, Iran

ID 147 The Impact of Non-Stationary Demand and Forecasting on a Failure-Prone Manufacturing System
Felix Chan, N. Li, S.H. Chung and B. Niu, The Hong Kong Polytechnic University Hong Kong

ID 397 Jobshop Scheduling for Skill-Dependent Make-to-Order System
Nasr Al Hinai and Sujana Piya, Sultan Qaboos University, Muscat, Oman

TR 11:30 – 13:00**Energy II****Pearl 2**

Session Chair: Nikoo Sabzevar, University of Calgary, Alberta, Canada

ID 160 Used Vegetable Oil (UVO) as Feedstock for Biodiesel Production in South Africa
Charles Mbohwa, Sebonkile Thaba and Anup Pradhan, University of Johannesburg, South Africa

ID 560 Chaotic Control for the Reactor of a Continuous Microwave Biomass Carbonization Process
Poomyos Payakkawan, Anurak Jansri and Suwilai Areejit, Bangkok Thonburi University, Bangkok, Thailand

ID 346 Feasibility of Installing Wind Turbines for Electricity Generation in Jarandagh, Iran
Ali Mostafaeipour and Kasma Mohammadi, Yazd University, Yazd, Iran

ID 333 Kyoto Protocol and Iran's Energy Policy Adaptation Assessment
Reza Mesgarian, National Iranian Gas Company, Tehran, Iran

ID 443 The Impacts Of Collaboration on Economic and Environmental Performance of Liquefied Natural Gas Markets
Nikoo Sabzevar, University of Calgary, Alberta, Canada

TR 11:30 – 13:00**Operations Excellence IX****Pearl 3**

Session Chair: Zainab Aljazzaf, Kuwait University, Al-Adailiya, Al-Asemah, Kuwait

ID 208 A Production Planning Optimization for Multi Parallel Machine under Withdrawal Right
Hajaj Zied, Nidhal Rezz and Tarek Askri, LGIPM, METZ, France

ID 420 Effect of Pure Precipitated Micro Silica on Biological Properties of Mortar:
Payman Sahbah Ahmed, Manar Nazar Ahmed, Niveen Jamal Abdalkadir and Sahar Ismael Baker, Koya University, Koya, Erbil, Iraq

ID 492 Total Productive Maintenance (TPM) - Strategy for Competitiveness: Case Study
Charles Mbohwa and Ignatio Madanhire, University of Johannesburg, South Africa

13:00 Lunch Keynote: Dr. Leland Blank, Professor and Dean of Engineering, American University of Sharjah, UAE and Past IIE President, Crystal Ballroom (Box Lunches Provided)

14:00 Thursday

TR 14:00 – 15:30

Global Engineering Education XI STUDENT CENTERED EDUCATION

Jade-Opal-Topaz

Session Chair: Dr. Chee-Ming Chan, Universiti Tun Hussein Onn Malaysia

Edward Williams, University of Michigan - Dearborn, USA
 Slobodan Urdarevik, Western Michigan University, USA
 Dr. Chee-Ming Chan, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

TR 14:00 – 15:30

Entrepreneurship and Innovation

Emerald

Session Chair: Charles Mbohwa, University of Johannesburg, South Africa

ID 570 Opportunities to Exploit Big Data in Idea Generation Sessions

Mickael Gardoni and Ma Lorena Escandón Quintanilla, École de Technologie Supérieure, Montréal, Quebec, Canada

ID 203 Technology Profiling for Upcoming Commercial - Cotton Farmers in the Makhathini Region

John Mashala, Tshwane University of Technology, Pretoria, Gauteng, South Africa

ID 615 Worldwide Venture Capital and Innovation

Arsalan Safari, MIT, United States

ID 322 Sustaining Engineering Logistics Processes via Organizational Learning

Joe Amadi-Echendu, University of Pretoria, Gauteng, South Africa

Emmanuel Ejim-Eze, Institute of Engineering, Technology and Innovation Management, University of Port Harcourt, Rivers State, Nigeria

ID 161 The Effectiveness of Micro Financing Rural Women in Limpopo Province of South Africa

Charles Mbohwa and Sebonkile Thaba, University of Johannesburg, South Africa

TR 14:00 – 15:30

Project Management I

Sapphire

Session Chair: Gündüz Ulusoy, Sabanci University, Istanbul, Turkey

ID 151 A Fuzzy Linguistic Approach for Human Resource Evaluation and Selection in Software Projects

Vassilis C. Gerogiannis, Elli Rapti, Anthony Karageorgos and Panos Fitsilis, Technological Education Institute of Thessaly, Larissa, Greece

ID 099 Minimizing Delay in Infrastructure Project using an Integrated Approach of Interpretive Structural Modeling and Bayesian Belief Network

Jitesh Thakkar and Souva Majumder, IIT Kharagpur, West Bengal, India

ID 130 Interdependence-based Risk Analysis Methodology in Project Risk Response

Yao Zhang, Shenyang, Liaoning, China

ID 221 Challenges of Developing UAV Applications: A Project Management View

Ahmed Idries, Nader Mohamed, Imad Jawhar and Farhan Mohamed, UAE University, Al Ain, UAE

Jameela Al-Jaroodi, University of Pittsburgh, Pittsburgh, Pennsylvania, USA

ID 228 Proactive Project Scheduling in an R&D Department: A Bi-Objective Genetic Algorithm

Gündüz Ulusoy, Sabanci University, Istanbul, Turkey

Canan Capa, Concordia University, Montreal, Quebec, Canada

TR 14:00 – 15:30

Engineering Management I

Jawhar 1

Session Chair: Norsiah Mohamad, University Technology MARA (UiTM), Malaysia

ID 614 Design a Mathematical Model for Performance Evaluation of Cluster of Manufacturing Plant

Subodha Dharmapriya, Rathnapura, Sambaragamuwa, Sri Lanka

ID 612 Production Planning Based on Demand Forecasting

Nadiye Erdil and Aamani Adepu, University of New Haven, West Haven, CT, USA

ID 411 Providing an Integrated Approach to Prioritize the Strategic Objectives of Balanced Scorecard in Ambiguous Circumstances

Farzad Firouzi Jahantigh, Zahedan, Sistan & Baluchestan, Iran

ID 369 TQoSM: Total Quality of Service Model

Zainab Aljazzaf, Kuwait University, Al-Adailiya, Al-Asemah, Kuwait

ID 696 Collaborative Involvement in the New Product Development Process between a Major OEM and Its Suppliers

Norizah Mohamad, School of Electrical & Electronic Engineering, Universiti Sains Malaysia, Engineering Campus, Nibong Tebal, Pulau Pinang, Malaysia

Christopher Backhouse, Loughborough University, Leicestershire, United Kingdom

Mohd Razali Muhamad, Universiti Teknikal Malaysia, Melaka, Malaysia

Norsiah Mohamad, University Technology MARA (UiTM), Malaysia

TR 14:00 – 15:30**Reliability and Maintenance III****Jawhar 2**

Session Chair: Ali Zeinal Hamadani, Isfahan University of Technology, Isfahan, Iran

ID 603 Condition-based Maintenance of Gas Turbine Based on Short-Term Performance Prognostic

Masdi Muhammad, Mohammadreza Tahan, Zainal Ambri and Abdul Karim, Universiti Teknologi Petronas, Tronoh, Perak, Malaysia

ID 717 Survival Function Estimation with Nonparametric Adaptive Refined Descriptive Sampling algorithm

Mahdia Azzal and Megdouda Ourbih-Tari, Laboratoire de mathématiques appliquées, Université de Bejaia, Algeria

ID 541 Approaches and Models for Maintenance Capacity Planning

Salih Duffuaa and Hesham Al-Fares, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 331 Multi-Objective Availability Optimization of a System with Repairable and Non-Repairable Components

Ali Zeinal Hamadani, Hossein Zolfaghari and Mostafa Abouei Ardakan, Isfahan University of Technology, Isfahan, Iran

TR 14:00 – 15:30**E-Commerce and Computing****Mehwar 1**

Session Chair: Nader Mohamed, UAE University - Al Ain, Abu Dhabi, United Arab Emirates

ID 543 e-Commerce Cloud: Opportunities and Challenges

Mariam Al-Jaberi, Nader Mohamed, and Jameela Al-Jaroodi, UAE University - Al Ain, Abu Dhabi, United Arab Emirates

ID 164 Diacritics of Arabic Natural Language

Rosziati Ibrahim, Universiti Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, Johor, Malaysia

ID 263 OUNano A Novel Method and Framework to Optimize the Utilization of Digital Communication Channel and Storage Resources for Textual Based Transactions

Nitin Pujari, Arvind Srikanth, Keshav Pandey, Chirag Sumanth, Ramesh Arvind and Dharamsi Tejas Jay, PESIT, Bangalore, Karnataka, India

ID 466 A Massively Parallel Processing for the Multiple Linear Regression

Moufida Adjout, University PARIS 13-LIPN, Colombes, France

TR 14:00 – 15:30**Logistics Management I****Mehwar 2**

Session Chair: Noorliza Karia, Universiti Sains Malaysia, Penang, Malaysia

ID 077 Remanufacturing of Commercial Returns in a Market with a Variable Quality Tolerance

Farhad Azadivar and Ardavan Ardeshirilajim, University of Massachusetts Dartmouth, Massachusetts, USA

ID 121 Building Self-Organizing Logistics Systems: Prospects for Reverse Logistics

Chris Backhouse, Loughborough University, Loughborough, Leicestershire, United Kingdom

Ayham Jaaron, An-Najah National University, Nablus, West Bank, Palestine, West Bank and Gaza

ID 179 Forest Vehicle Routing Problem solved by New Insertion Technique and Meta-Heuristics

THIEN MY DAO, ETS University of Québec, Montreal, QC, Brossard, Quebec, Canada

Moussa Bagayoko, University of Quebec, Montreal, QC, Canada

ID 054 Developing a Risk Level Determination Method for Schools in the Vicinity of Inter-City Roads

Abbas Mahmoudabadi, Mehrstan University, Gilan, Iran

Nasir Baradaran Rahmiani, Department of Transport and Terminals, Mashhad, Khorasan Razavi, Iran

Shiva Hajhashemi, Ministry of Roads and Urban Development, Tehran, Iran

ID 254 Assessing Halal Logistics Competence: An Islamic-based and Resource-based View

Noorliza Karia and Muhammad Hasmi Abu Hassan Asaari, Universiti Sains Malaysia, Penang, Malaysia

TR 14:00 – 15:30**Production Planning and Management III****Pearl 1**

Session Chair: Sharafali Moosa, Singapore Management University, Singapore

ID 171 Numerical Assessment on Makespan Minimization by Adopting NEH Heuristics in Permutation Flow Shop

Shahrul Kamaruddin, Department of Mechanical Engineering, Universiti Teknologi Petronas, Perak, Malaysia

Zheng Ziao Chong, University Science Malaysia, Pulau Pinang, Malaysia

ID 400 Team-Oriented Assembly Line Balancing Problem: A New Design

Hamid yilmaz and Mustafa Yilmaz, Ataturk University, Erzurum, Turkey

ID 706 The Bin Spreading Problem- A Novel Application of the Integer Linear Programming

Aderemi Adeyemo, University of Ibadan, Ibadan, Oyo, Nigeria

ID 117 Scheduling with Agreements: Recent Results

Mohamed Bendraouche, Faculty of Sciences, Saad Dahleb University, Blida, Algeria
 Mourad Boudhar, Faculty of Mathematics, USTHB University, Bab-Ezzouar, Algiers, Algeria

ID 204 On a Stochastic Model of an Unreliable Production System with Outsourced Maintenance

Sharafali Moosa, Singapore Management University, Singapore
 Hakan Tarakci and Shailesh Kulkarni, University of North Texas, Denton, Texas, USA

TR 14:00 – 15:30**Energy III****Pearl 2**

Session Chair: Ali Mostafaeipour, Yazd University, Yazd, Iran

ID 142 Exergy Analysis of Reactive Combustion Processes in Gas Heaters

Ahmad Sedaghat, M. El Haj Assad and Mohamed Gaith, Australian College of Kuwait
 Mohamad Taghi Esfidani, Tehran, Iran

ID 012 Green Energy as an Alternative Fuels in IC Engine

Ramesh Kumar, Jaipur Institute of Engineering and Technology Kukas Jaipur, Rajasthan, India

ID 493 Energy Management Options in a Fertilizer Manufacturing Plant

Ignatio Madanhire, University of Johannesburg, Johannesburg, South Africa

ID 737 Calendar-Based Short-Term Forecasting of Daily Average Electricity Demand

M. Kumru, Department of Industrial Engineering, Doğuş University, Acibadem, İstanbul, Turkey
 P.Y. Kumru, Department of Industrial Engineering, Kocaeli University, Kocaeli, Turkey

ID 345 Implementing Data Envelopment Analysis (DEA) Methodology to Prioritize Wind Turbine Locations for Sistan-Baluchistan, Iran

Ali Mostafaeipour and Mohsen Jadidi, Yazd University, Yazd, Iran

TR 14:00 – 15:30**Operations Excellence X****Pearl 3**

Session Chair: Ketut Ayu, Bina Nusantara University, Jakarta, Indonesia

ID 382 Performance Optimization of Electricity Distribution Units with Random Variations

Ali Azadeh and Sara Motevali Haghighi, University of Tehran, Iran

ID 319 Algorithms for Clustering in Transportation Logistic Function

Johanna Trujillo Díaz, Andres Velasquez, Mario Alexander Martinez and Jaime Perez, Universidad Católica de Colombia, Bogota, Cundinamarca, Colombia

ID 526 Spend Analysis: A Step for Procurement Efficiency

Sneha Yawalekar and Govind Ranmale, Veermata Jijabai Technological Institute, Thane, Maharashtra, India

ID 485 Resource Management for Workflows in Cloud Computing Environment Based On Group Technology Approach

Vahid Kayvanfar, Amirkabir University of Technology, Tehran, Iran
 Ehsan Teymourian, Mazandaran University of Science and Technology, Babol Mazandaran, Iran
 Saleh Shahdi-Pashaki, Amol, Mazandaran, Iran
 Zahra Booyavi, Tehran, Iran
 Koorosh Mashhadi Alizadeh, Sadjad University of Technology, Mashhad, Khorasan Razavi, Iran

ID 365 Optimum Clustering and Routing Model using CVRP Cluster-First, Route-Second in a 3PL Provider

Ketut Ayu, Nike Septivani, Ani Ani, Stephanie Xu and Sherly Kwan, Bina Nusantara University, Jakarta, Indonesia

15:30 Break**15:45 THURSDAY****TR 15:45 – 17:15****Global Engineering Education XII****Jade-Opal-Topaz**

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

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

Seifedine Kadry, Jassim Al-Kandari, Saud Al-Saleh and Abdullah Al-Failakawi, American University of the Middle East, Kuwait

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

Dyah Hening and David Koonce, Ohio University, Athens, Ohio, USA

ID 154 New Possibilities for Adaptive Online Learning in Engineering Education

Peter Toth, Obuda University, Budapest, Hungary

TR 15:45 – 17:15**Construction Management****Emerald**

Session Chair: Hossam Hassaan, University of Alexandria, Alexandria, Egypt

ID 259 Mobile On-site Factories – Scalable and Distributed Manufacturing Systems for the Construction Industry

Patrick Dallasega, Dominik T. Matt and Erwin Rauch, Free University of Bolzano, Italy

ID 692 Procurement Management and Construction Methods for the Installation of Pavement Monitoring Systems in Airport Pavements

Amarjit Singh and Karissa Cook, University of Hawaii, Honolulu, Hawaii, USA

ID 690 Practical Aspects of Sustainable Construction in Latvia

Ineta Geipele, Iveta Stamure and Liga Kamola, Riga Technical University, Riga, Latvia

ID 209 Principles of Contract Claims Management – A Review of the Nigerian Construction Industry

Olatunde Banwo, Coventry University, United Kingdom

Amrit Sagoo, RMIT University, Australia, Melbourne, Victoria, Australia

Ken Parker, Coventry University, Coventry, West Midlands, United Kingdom

ID 480 Assessment of the use of Arcelor Mittal Electric Arc Furnace Slag as Coarse Aggregates in Concrete Production

Davatee Maharaj and Abrahams Mwasha, University of the West Indies, St Augustine, Trinidad and Tobago

ID 374 Influence of Development of National Economy on the Construction Business

Ineta Geipele and Linda Kauškale, Riga Technical University, Riga, Latvia

TR 15:45 – 17:15**Project Management II****Sapphire**

Session Chair: Saber Elmabrouk, University of Tripoli, Tripoli, Libya

ID 451 Delays in Construction Projects, Practical Approach

Basel Alsayyed and Abdulkader Al Jendi, UAEU, Al Ain, Abu Dhabi, United Arab Emirates

ID 527 Application of Interactive Planning Methodology to Multi-Project Environment

Zeynep Ocak, Yeditepe University, Istanbul, Atasehir, Turkey

ID 600 New Method of Risks Management for End-of-Life of Large-Scale Projects: Case of Extraction Projects [Industry Solutions]

Thierry J. Zagré, Houssin Remy and Mickael Gardoni, Engineering Department of Automated Production, ÉTS Engineering industry, Montréal (Québec), Canada

ID 544 Emotional Intelligence in COCOMO II for Software Cost Estimation

Mohammad Chuttur and Soogambal Chinien, University of Mauritius, Moka, Mauritius

ID 743 Investigating the Impact of Teamwork Quality on the Effectiveness of Managing Group of Multiple Projects in Oil and Gas Companies

Lina Al Shatti, Department of Engineering Management & Systems Engineering, The George Washington University, Arlington, VA, USA

ID 292 Aviation Risk Management Strategies: Case Study

Saber Elmabrouk, University of Tripoli, Tripoli, Libya

Mansour Elkhewdi, United Aviation Co. – Libya, Tripoli, Libya

TR 15:45 – 17:15**Engineering Management II****Jawhar 1**

Session Chair: Herbert Mapfaira, Gaborone, South East, Botswana

ID 629 LEED – based Evaluation for Submittal Review during Construction

Khaled Sherbini and Maha Alyamani, KSBUREAU, Jeddah, Saudi Arabia

ID 698 The Effects of Organizational Innovation on Operational Performance and Other Types of Innovation

Norizah Mohamad, Nibong Tebal, Pulau Pinang, Malaysia

Shahrul Kamaruddin, Univerisiti Sains Malaysia, Nibong Tebal, Pulau Pinang, Malaysia

Untung Setiyo Purwanto, Jakarta Islamic University, Utan Kayu, Jakarta, Indonesia

ID 155 Profile of Knowledge Analysis Using Regression Approach: Focused on Know-How

Karim Atashgar, Iran University of Science and Technology, Tehran, Iran

ID 264 Factor Affecting Construction Labor Productivity in Thailand

Patraporn Porntepkasemsant and Santi Charoenpornpattana, King Mongkut's University of Technology Thonburi, Thung Khru, Bangkok, Thailand

ID 438 An Alternative Framework for Engineering Change Management

Michael Mutingi, University of Botswana, Gaborone, Botswana

Charles Mbohwa, University of Johannesburg, South Africa

Herbert Mapfaira, Gaborone, South East, Botswana

TR 15:45 – 17:15**Reliability and Maintenance IV****Jawhar 2**

Session Chair: Abdelhakim Abdelhadi, Prince Sultan University, Riyadh, Saudi Arabia

ID 427 An Artificial Neural Network Meta Model for Availability of Systems in Series with Buffers Under Imperfect Repair
M. Nashat Fors, Khaled Ahmed Farouk and Mohammad Younes, Alexandria University, Egypt

ID 442 Optimal Replacement using Logical Analysis of Data (LAD) and Dynamic Programming
Alireza Ghasemi, Dalhousie University, Halifax, NS, Canada

ID 297 The Role of Kaizen (Continuous Improvements) in Improving Companies' Performance: A Case Study
Hassan Abdulmouti, University of Sharjah, United Arab Emirates

ID 249 Maintenance Optimal Strategy Selection Using Quantitative-Qualitative Model and Multi Criteria Decision Making Approach
Naser Mollaverdi and Hossein Abdollahi, Isfahan University of Technology, Isfahan, Iran

ID 191 Scheduling and Optimization of Preventive Maintenance
Abdelhakim Abdelhadi, Prince Sultan University, Riyadh, Saudi Arabia

TR 15:45 – 17:15**Technology Management****Mehwar 1**

Sharon Ordoobadi, University of Massachusetts, Dartmouth, Massachusetts, USA

ID 116 Managing New Product Technology Decisions under Technical and Demand Uncertainty
Leslie Monplaisir and Amir Sanayei, Wayne State University, Detroit, MI, USA

ID 162 Organization Development through Value Chain and Technometric Model
Augustina Asih, Rumanti, Atma Jaya Catholic University, Jakarta, Indonesia

ID 205 Was It Management-Technical Failure or Safety Ignorance? Root cause Analysis of the BP Oil Spill in the Gulf of Mexico
Hatem Oun, University of Nottingham, Nottinghamshire, United Kingdom

ID 412 A Technology Roadmap for Energy Productivity in Iranian Steel Industry
Behrooz Arbabshirani, Hasan Javadi and Nasim Karimy, Isfahan University of Technology, Esfahan, Iran
Samira Fazeli Veysari, Iran Energy Efficiency Organization, Tehran, Iran

ID 555 Application of Taguchi Loss Functions and AHP in Evaluation of Advanced Manufacturing Technologies
Sharon Ordoobadi, University of Massachusetts, Dartmouth, Massachusetts, USA

TR 15:45 – 17:15**Logistics Management II****Mehwar 2**

Session Chair: Zainab Al Balushi, Sultan Qaboos University, Sultan Qaboos University, Muscat, Oman

ID 535 Developing a Conceptual Transport or Logistics Model for Small-Scale Farmers - Logistics Challenges Faced By Small-Scale Farmers in South Africa
Zanele Mpanza, Transport Systems and Operations, Council for Scientific and Industrial Research, Pretoria, South Africa

ID 637 A Hybrid Servqual-Organizational Effectiveness Model Approach for 3PL Evaluation and Selection using AHP-DEA
Adil Akaaboune, Alhosn University, Abu Dhabi, United Arab Emirates
Hanaa Mcheneck, Universite Internationale de Rabat, Abu Dhabi, United Arab Emirates

ID 388 Vessel Routing Model in an Archipelago Crude Oil Distribution Problem
Ketut Ayu, Nike Septivani, Rakhmawati Rakhmawati, Lucky Rahardi and Faradibah Hafizah, Bina Nusantara University, Jakarta, Indonesia

ID 406 New Formulations for Team Orienteering Problem
İmdat Kara, Tusan Derya and Papatya Bıcakci, Ankara, Etimesgut, Turkey
Zanele Mpanza, Empangeni, KwaZulu, Natal, South Africa

ID 137 The State of Logistics – an Overview of Logistics in Oman
Zainab Al Balushi, Sultan Qaboos University, Sultan Qaboos University, Muscat, Oman

TR 15:45 – 17:15**Inventory Management****Pearl 1**

Session Chair: Salvatore Miranda, University of Salerno, Italy

ID 030 Inventory Replenishment for Profit Maximization Over a Finite Horizon When Cost Changes
Gopalan Srinivasan and Francisco Arcelus, University of New Brunswick, Fredericton, NB, Canada
TPM Pakkala, Mangalore University, Mangalore, Karnataka, India

ID 078 Retailer Optimal Policies in a Bicriteria Objective within a Price-Dependent Newsvendor Framework
F. J. Arcelus, University of New Brunswick, Fredericton, New Brunswick, Canada
Satyendra Kumar, JDA Software (India) Pvt. Ltd., Hyderabad, India
G. Srinivasan, University of New Brunswick, Fredericton, Canada

ID 156 To Define Service Level In An Integrated Model For Warehouse And Inventory Planning By Utilizing Heuristic Solution: An Example
Ömer Faruk and Murat Baskak, YILMAZ, Istanbul, Besiktas, Turkey
Hikmet Erbiyik, Yalova, Turkey

ID 597 Inventory-Thumbnails: An Effective Data Visualization System for Monitoring Inventories
Shintaro Urabe, Masaru Tezuka and Sendai Miyagi, Japan Hitachi Solutions East Japan, Ltd., Sendai, Miyagi, Japan

ID 003 Economic Production Quantity Model under Stochastic Breakdown with New Approach
Saeed Poormoaiied, Ferdowsi University of Mashhad, Mashhad, Iran
Mostafa Poormoaiied, Department of Industrial Engineering, Isfahan University of Technology, Isfahan, Iran
Taesu Cheong, Georgia Institute of Technology, Georgia State, United State of America

TR 15:45 – 17:15**Energy IV****Pearl 2**

Session Chair: Mohamed Alhosani, Abu Dhabi Transmission and Despatch Company (TRANSCO), Abu Dhabi, United Arab Emirates

ID 103 Prospect of Renewable Energy in Bangladesh: Policy Options
Md Abdullah Al Noman, Dhaka University of Engineering & Technology, Gazipur, Bangladesh

ID 159 Challenges Hindering Development of Small Scale of Biodiesel Production in South Africa
Charles Mbohwa and Sebonkile Thaba, University of Johannesburg, South Africa

ID 016 An Economical Analysis of Residential Hybrid Solar-Wind Power Generators in Abu Dhabi
Mahmoud Awad, American University of Sharjah, United Arab Emirates
Mohamed Alhosani, Abu Dhabi Transmission and Despatch Company (TRANSCO), Abu Dhabi, United Arab Emirates
Rani Kady, Fredericksburg, VA, USA

TR 15:45 – 17:15**Operations Excellence XI****Pearl 3**

Session Chair: Asela Kulatunga, University of Peradeniya, Sri Lanka

ID 653 Exact Expressions for the Periodic Review Inventory System with Stochastic Demand and Ordering in Integer Multiples of a Base Lot Size
Karel Donselaar and Rob Broekmeulen, Eindhoven University of Technology, Eindhoven, Noord-Brabant, Netherlands

ID 375 Life-Cycle Cost Optimization for Coastal Structures in Alexandria using Markov Chains and Genetic Algorithms
Ayman El Hakea, American University in Cairo, Alexandria, Egypt
Soliman Abu-Samra, American University in Cairo, Giza, Egypt

ID 290 Assessment of Total Productive Maintenance Implementation in a Semi-automated Manufacturing Company through Downtime and Mean Downtime Analysis
Chowdury Rahman, ShahJalal University of Science and Technology, Sylhet, Bangladesh

ID 230 Increasing Productivity in ETO Construction Projects through a Lean Methodology for Demand Predictability
Patrick Dallasega, Dominik T. Matt and Erwin Rauch, Free University of Bolzano, Italy

ID 626 Technological Needs Assessment of Traditional Brass Industry to Enhance the Productivity
Asela Kulatunga, Chanjief Chandrakumar, Gowryathan Jeyanthinathasarma, Sujith Anuruddha Herath, Rumeshe Jayasinghe, Rishheeka Ekanayake and Mahanama Dharmawardhana, University of Peradeniya, Sri Lanka

17:15 - 18:00 Closing Keynote: Crystal Ballroom**POSTERS**

ID 019 Determination of Insulation Active Component of an Insulated Neutral Electrical Supply Network
Abderrezzak Hocine, University Badji Mokhtar, Sidi Amar 23005, Algeria

ID 079 Exploring the Possible Usage of Agile Games in Project Teams' Productivity
Ammar Asghar, Ali Ahsan and Aamna Abbasi, CASE, Rawalpindi, Punjab, Pakistan

ID 087 Processing Determination the Default of Variation of Center Distance According To Factor of Vibration Imposed by the Network
Bloul Benattia, University of Boumerdes, Algeria

ID 139 Improvement of the Influence of the Parametric Variations on the Performances of a System unified power flow controller by a Regulator based on fuzzy logic
Larouci Benyekhlief, University of Science and Technology of Oran USTO.MB, Khalouia W Mascara, Algeria

ID 168 Numerical Analysis of Two-Phase Bubbly Flow in an Industrial Odor Remover Employing Effective Microorganisms Solution
Cheol Woo Park, Haider Ali and Moon Kyu Kwak, Kyungpook National University Daegu, South Korea

ID 201 optimization of the Concentration of Lubricating Oil Additives of Gasoline Engines
Mimoun Hadj and Kerboua Meriama, University Boumerdes, Algeria

ID 206 Automation and Simplification of Production Control of SOG Silicon from Sand on the Basis of Monoxide Process
Ashot Navasardian, Samara State Technical University, Samara, Russian Federation

ID 215 Modeling of the Temperature Field at the Outlet of a Continuous Casting Mold

Mounira Bourebia, Hichem Maouche, Salah Bouhouche, Mouhamed Chaour and Soufiene Boulkroune, National Center for Scientific Research and Technology in Welding and Control Unit for Applied Steel and Metals, Annaba, Algeria

ID 217 Improved Frank-Wolfe Method: Application to the Traffic Assignment Problem

Rachid Ouafi and Fayçal Mounir Ouafi, Houari Boumedienne University of Sciences and Technology, Algiers, Algeria

ID 224 Applying Environmental DEA to Evaluate the Environmental-Economic Efficiency for APEC Economies

Tai-His Wu, National Taipei University, New Taipei City, Taiwan

ID 269 Integrating Human Factors into Green Logistics

Lana M. Shahbari and Mohammed Othman, An-Najah National University, Nablus, West Bank, Palestine

ID 271 The Approach of Risk Analysis in the Sector of Food-Processing

Fedali Yamina and Bourmada Nouredine, Batna, Algeria

ID 299 Fuzzy Modelling of Uncertain Data in the Layers of Protection Analysis

Nouara Ouazraoui, University of Batna-Algeria, Batna, Algeria

ID 303 Analyzing and Estimating the Project Success with a Combined Method based on Fuzzy Theory and Decision Making Analysis

Fatemeh Almasia, Department of Industrial Engineering, Tehran Polytechnic University, Tehran, Iran

Behnam Malmirb, Department of Industrial Engineering, University of Tehran, Tehran, Iran

ID 328 The Impact of Enterprise Risk Management Practices on Malaysian Public Higher Educational Institution Performance: A Literature Review

Norhayati Zakuan, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

Mariam Setapa, Machang, Kelantan, Malaysia

Muhamad Zameri Mat Saman, Mohd Shoki Md Ariff and Norzaidahwati Zaidin, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

ID 348 The Effect of Time Pressure, Working Position, Component Bin Position And Gender on Human Error In Manual Assembly Line

Jia Xin Leau, Adi Saptari and Akramin Mohamad, Universiti Teknikal Malaysia Melaka (UTeM), Melaka, Malaysia

ID 360 Ergonomic Considerations in Manual Handling Task for Females Based on the Systematic Review of Literature

Nozomi Sato, Kinki University, Higashi-Osaka, Japan

ID 363 Economic Feasibility Study of "Battery-less" Renewable Energy (PV and Fuel Cell) System for Remote Areas in UAE via Water Electrolysis

Musaab Abdulla, Zahi Omer, Abbas Fardoun, Ahmed Alameri, Abdulla Al shehhi and Ali Al Ghafli, United Arab Emirates University, Al Ain, Abu Dhabi, United Arab Emirates

ID 364 Challenges of Normative Decision Approach in Industries: Case Study Press Company in Oman

Mujtaba Al-Lawati, Mahmood Al Kindi and Hani Al Rawahi, Sultan Qaboos University, Muscat, Oman

ID 385 Defining Open Configuration

Linda L. Zhang and Xiaoyu Chen, IESEG School of Management; Ecole Centrale Paris, Nanterre, Paris, France

ID 396 Fault Tree Analysis of Hazardous Conditions and Near Misses in a Company: A Case Application

Mehmet Savsar and Mohamed Al-Ali, Kuwait University, Safat, Kuwait

ID 403 Revenue Management for Durable Goods using Trade-ins with Certified Pre-own Options

Jen-Ming Chen and Yu-Ting Hsu Jhongli, National Central University, Jhongli, Taoyuan, Taiwan

ID 413 An AHP-Based Evaluation Method to Enhance Consensus in Agent-Mediated Negotiations on Multiple Issues with Incomplete Information

Djamila Boukredera, Kamal Hariche and Rabah Kassa, University of Bejaia, Algeria

ID 414 Providing a Model for Customer Satisfaction Rankings in the Telecommunications Industry

Farzad Firouzi Jahantigh, Zahedan, Sistan & Baluchestan, Iran

ID 430 Vendor Management System

Wafa AL Breiki, Sultan Qaboos University, AL Batinah North, Saham, Oman

ID 437 Integration of Job Sequencing With Imperfect Maintenance Scheduling and Quality Inspections in a Deteriorating System

Hossein Beheshti Fakher, Laval University, Quebec, Canada

ID 449 Employee Turnover, Causes, the Relationship between Turnover and Productivity and Recommendations to Reduce It

Basel Alsayed, UAEU, Al Ain, Abu Dhabi, United Arab Emirates

ID 452 A Survey of Information Technology Project Integration Models

Arwa Al-Edaily, University of Hail, Saudi Arabia

ID 477 The Golden Rules for Ecoinnovative Design by using the TRIZ Theory

Ahmed Cherifi and Mickael Gardoni, ÉTS, Montréal, Canada

Abdelaziz Tairi, Boumerdes, Algeria

ID 478 Markovian Approach to Improve the Reliability and the Availability of the Algerians Refineries

Amar Benmounah and Hachemi Tayeb, University of Boumerdes UMBB, Boumerdes, Algeria

ID 488 Reducing Aflatoxin Failures in Chilli across the Value Chain

Sally Eona Fernandes and Shobhit Jain, ITC Limited, Guntur, Andhra Pradesh, India

ID 495 Photoelectric Properties of Selenium

Hossam AlDeen, Ahmed Benkraouda, Ali Qarani, Hisham Hassan and Mohamed El Shaer, United Arab Emirates University, Al-Ain, Abu-Dhabi, UAE

ID 503 Developing an Effective ESP Curriculum for Engineering Students

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

ID 510 Gamification to Stimulate Engagement in Tacit Knowledge Transfer: State of the Art

Mickael Gardoni, ÉTS, Montréal, Canada

Saad Abdesseitar, LICEF Research Center, Montreal, QC, Canada

ID 511 Performance Evaluation of IP-Ad Hoc Gateways

Adel-Aissanou Karima, Abbas Karim and Aissani Djamil, Université de Bejaia, Bejaia, Algeria

ID 534 Literature Review on the Applicability of Lean

Shahryar Sorooshian, Razman Tahar and Kang Wei, University Malaysia Pahang, Kuantan, Pahang, Malaysia

ID 536 Green Manner Factors for Logistics

Shahryar Sorooshian, University Malaysia Pahang, Kuantan, Pahang, Malaysia

ID 561 Generating Capacity Adequacy Evaluation Incorporating Wind Power Generation using MCMC

Abdulaziz Almutairi, University Of Waterloo, Kitchener, Ontario, Canada

ID 567 Business Intelligence Approach to Measure Customer Profitability

Mohammad Maydanchi, Bu-Ali Sina University, Hamadan, Iran

Pouria Akbari, University of Tehran, Tehran, Iran

ID 575 Developing a Patient Transfer Device Prototype Using Human Factors Techniques and Human Digital Modeling

Eui Park, Brittney Jimerson and Steven Jiang, North Carolina A&T State University, Greensboro, NC, USA

ID 580 Evolutionary Optimization Approaches for Direct Coupling Photovoltaic-Electrolyzer System

Ali ElKamel, University of Waterloo, Ontario, Canada

Suad Al-Adwani, Kuwait University, Safat, Kuwait

ID 581 Modeling the Mechanical Properties of Biopolymers for Automotive Applications

Ali ElKamel, University of Waterloo, Ontario, Canada

Suad Al-Adwani, Kuwait University, Safat, Kuwait

ID 583 Design and Analysis of a Simulated Methanol Production Plant

Ali ElKamel, University of Waterloo, Ontario, Canada

Zarook Shareefdeen, Sharjah, United Arab Emirates

ID 584 Design and Optimization of a Biogas Digester for a Net-Zero Energy Community in Southwestern Ontario

Ali ElKamel, University of Waterloo, Ontario, Canada

Zarook Shareefdeen, University of Sharjah, United Arab Emirates

ID 590 Zonal Analysis of PHEVs/EVs Penetration: A Mean to Mitigate Vehicle Emissions

Ali ElKamel, University of Waterloo, Ontario, Canada

Suad Al-Adwani, Kuwait University, Safat, Kuwait

ID 607 Reducing Steps in Robertson's Binary Multiplication Algorithm for 2^x Numbers

Sameeha Akram, Makkah, Saudi Arabia

ID 613 A Framework for Strategy Development in Small Companies - A Case Study of a Telecommunication firm

Mahdie Sheikh and Maryam Goodarzi, Tarbiat Modares University, Tehran, Iran

ID 639 Tour Scheduling For Part-Time Employee with Variable Productivity

Mohammad Akbari, Shahid Beheshti University, Tehran, Iran

ID 643 Explicit Location Covering Problems

Venkata Seshachala Sarma Yadavalli, University of Pretoria, Gauteng, South Africa

ID 644 Fracture Behavior and Mechanical Characterization of a Composite Orthopedic Use in the Two Direction of Flow Molding

Sihem Achouri, Zérizer, Etarf, Algeria

Bachir Ridjel, Mounira Bourebia and Berdjane Djamel, Elhadjar, Annaba, Algeria

ID 645 Improving Tasting Processes in the Food Industry using ICT

Ana Luísa Ramos, Ana Raquel Xambre, Helena Alvelos and Leonor Teixeira, University of Aveiro, Campus de Santiago, Aveiro, Portugal

Bento Amaral, IVDP - Douro and Port Wine Institute, Porto – Portugal

ID 655 Selecting Warehouse Location By Means Of the Balancing and Ranking Method with Interval Approach

Behnam Malmir, University of Tehran, Tehran, Iran

Rahim Moein, Iran Management and Productivity Study Center, Tehran, Iran

S. Kamal Chaharsooghi, Tarbiat Modares University, Tehran, Iran

ID 667 Models Based Artificial Intelligence for Estimating the Cost of Repair and Maintenance of Buildings

Mohamed Bouabaz and Mordjaoui Mourad, University Skikda, Algeria

ID 678 Speech to Sign-Language & Sign-Language to Speech Translator

Zulfa A. Rasheed, Fatmah Jumah Alyammahi, Muhammad Rehan, Musaab Hasan and Amir J. Majid, Ajman University of Science and Technology, Fujairah, UAE

ID 680 Defining Service Quality Index Preferences in a Service Industry Using Analytic Hierarchy ProcessMohammad Anwar Rahman, University of Southern Mississippi, Hattiesburg, Mississippi, USA
Ahad Ali, Lawrence Technological University, Southfield, Michigan, USA**ID 684 Pull System Production using Antenna Kanban - Hardware Architecture of Antenna Model**Mohd Hazri Mohd Rusli, Toyota Malaysia, Shah Alam, Selangor, Malaysia
Ahmed Jaffar, Suzilawati Muhamud-Kayat and Mohd Tarmizi Ali, Shah Alam, Selangor, Malaysia**ID 689 Morphological Characterization and Optimisation of Porous Silicon Films for Photovoltaic Application**

Lilia Zighed and Salah Rahmouni, University 20 August 1955, Skikda, Algeria

ID 695 A Different Way to Compute RDS EstimateLatifa Ourbih-Baghdali, Higher national school of Public Works (ENSTP), Algiers, Algeria
Megdouda Ourbih-Tari and Abdelnasser Dahmani, Laboratory of Applied Mathematics, Dept. of Mathematics, University of Bejaia, Algeria**ID 699 Applications of Production and Delivery Concept to Vendor-Buyer Coordination Problem**Chun-Wu Yeh, Kun Shan University, Tainan, Taiwan
Yen-Chen Fu, National Cheng Kung University, Tainan, Taiwan**ID 711 Evaluating and Ranking the Learning Components of Entrepreneurial Skills based on a Hybrid Approach of the M-Learning Technology and TOPSIS Method**Rahim Moeina, Iran Management and Productivity Study Center, Tehran, Iran
Behnam Malmirb, Department of Industrial Engineering, University of Tehran, Tehran, Iran
Maryam Mousavic, Islamic Azad University, South Tehran Branch, Tehran**ID 712 Develop Supply Chain Model in Healthcare**Farzad Firouzi Jahantigh, University of Sistan and Baluchestan, Zahedan, Iran
Behnam Malmir, University of Tehran, Tehran, Iran**Senior Design Poster Competition Presentaion****ID-IEOM2015-Pos-01: Containership Routine Problem: Modeling And Optimization Using Traveling Salesman Problem**

Hanan Abdullah, Nasim Najieb, and Razan Ashour, Department of Industrial Engineering and Management, University of Sharjah, UAE

Ref. ID-IEOM2015-Pos-02: Istanbul Anatolian Side Demand Fulfillment System Design Project

Sercan Alici

Ref. ID-IEOM2015-Pos-03: Third generation QU vehicles "GERNAS 3" for Shell eco-marathon Asia 2014 Competition

Ajad Hossain, Noor Chowdhury, Abdul Shakil, Nada Hissain, Yasmeen Ahmed, Amal Hassan, Ayat Aswad, Dr Farid Touti, Prof. Mohieddine Benammar, Qatar University

ID-IEOM2015-Pos-04: Identify KPIs to Improve Dealership Sales and Profitability

Xiang Li, Zhehui Wang, Han Lin Yeo, and Yunyan Zhang, Industrial and Operations Engineering, Univeristy of Michigan – Ann Arbor, USA

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IEOM Society Activities

IEOM Booth at INFORMS San Francisco Meeting 2014

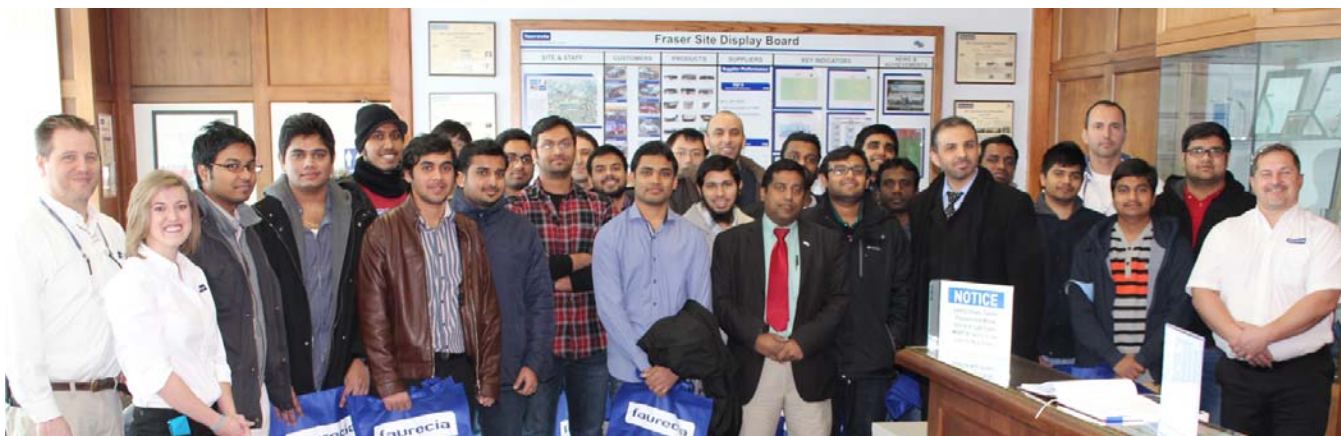


IEOM Student Chapter Established at LTU

Faculty Advisors: Dr. Jacqueline Chestnut and Professor Don Reimer



Faurecia Fraser Plant Visit - IEOM Student Chapter at LTU (January 2015)



Establish Your Institution IEOM Student Chapter

IEOM Student Chapter can help students in the development or enhancement their outer important skills, including: leadership, communications, organization, planning, time management, budgeting and finance, and other professional skills. Those can help to prepare for their career and to be successful in longer term. If any student group of any educational institute is interested to form an IEOM Student Chapter, please submit student chapter establishment form: <http://ieom.org/ieom/student-chapters/>.

IEOM Society - Saudi Chapter Established

Meeting was held at EPD (Environmental Production Department), Engineering Services of Saudi Aramco

From left to right:

Engr. Ahmed Aljabr, President IEOM, Saudi Chapter

Dr. Ayman Alrafaj, Environmental Specialist, Engineering Services

Dr. Rafiq Djwad, Engineering Specialist, Engineering Services

Engr. Abdulrahman Aljabr, Business Manager, Environmental Protection Depart.

Engr. Noushad Kunnummal, Engineering Consultant, Engineering Services

Dr. Alaa Elyas, Engineering Consultant, Engineering Services

Engr. Abulrazaq Alsaleh, Environmental Consultant, Engineering Services

Dr. Khalid Alabdulqader, Engineering Consultant, Engineering Services



IEOM Foundation for Humanity

IEOM Foundation helps disadvantaged students and schools for K-12 education in underdeveloped and developing countries. Students and schools can get direct support from the IEOM Foundation. It can also help other organizations to support similar projects. Based on the funding, the projects are selected.



JULY, 2014: Donated shirts for the orphans and poor students in Bangladesh attending elementary, middle and high schools.

IEOM Foundation has started projects in Nigeria and Haiti for helping school children

First IEOM Conference in Dhaka, Bangladesh, January 7-9, 2010



Second IEOM Conference in Kuala Lumpur, Malaysia, Jan 22-24, 2011



Third IEOM Conference in Istanbul, Turkey, July 3-6, 2012



Fourth IEOM Conference in Bali, Indonesia, January 7-9, 2014



International Journal of Industrial Engineering and Operations Management (IJIEOM)

The International Journal of Industrial Engineering and Operations Management (IJIEOM) aims to publish primary high quality research work in the field of industrial engineering and operations management (IEOM) for academics, researchers and practitioners to advance the theory and practice as well as to identify major trends in industrial engineering and operations management. The journal is expected to foster worldwide IEOM communities publishing in-depth research oriented papers with wide variety of problems related on real-life applications and research which affect in international levels.

IJIEOM covers academic research and industrial issues / applications related on fundamentals of industrial engineering and operations research, supply chain management, logistics, systems and service engineering, reliability and quality, modeling, simulation and optimization, and artificial intelligence. The application areas include manufacturing, healthcare, energy, transportation, financial, and business operations. Articles must have scientific research contribution with state-of-the-art review.

IJIEOM is a flagship journal of IEOM Society.

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Advertising Opportunities

Universities and companies can place announcements for faculty positions and job openings on the IEOM Society website.

University Program Advertisements on the IEOM Society and conference websites

Advertise on the newsletters, online and printed conference programs

Sponsorships and Exhibitions Opportunities at IEOM Conferences

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MEMBERSHIP BENEFITS

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- Professional Development
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Professional Members: \$35
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**International Conference on
Operations Excellence &
Service Engineering**
Orlando, Florida, USA, Sept. 10-11, 2015
Rosen Plaza Hotel, International Drive



CALL FOR PAPERS AND PRESENTATIONS

**IEOM International Conference on
Operations Excellence & Service Engineering**

Orlando, Florida, USA, September 10-11, 2015

Venue: Rosen Plaza Hotel, International Drive

www.iieom.org/icmoe2015/

The IEOM Society is organizing an International Conference on Operations Excellence and Service Engineering to be held in Orlando, Florida during September 10–11, 2015. The venue is the Rosen Plaza Hotel – International Drive. The theme of the conference is “*Achieving and Sustaining Excellence in Quality, Service and Operations*”. The conference provides a forum for academics, researchers and practitioners to exchange ideas and recent developments in the field of industrial engineering, service engineering, manufacturing engineering, systems engineering, operations research, engineering management, operations management and operations excellence. The event will advance theory and practice by fostering networking, collaboration and joint effort among the conference participants.

ONLINE Submission: www.xcdsystem.com/icmoe2015/

Presentation can be given with an abstract. Full paper is optional. Participants can present theoretical and applied research with abstract. All full papers will be subjected to double peer review. Accepted papers will be published in the CDROM Proceedings and indexed in INSPEC and EBSCO. Selected paper will be published in special issues of journals.

Student competitions are arranged: http://iieom.org/icmoe2015/?page_id=344. Award certificates and cash prizes will be given for the first, second and third place winners for each category:

[Undergraduate Paper Competition sponsored by SIEMENS](#)

[Graduate Paper Competition sponsored by EATON](#)

[Sr. Capstone Design Project / Final Year Project \(FYP\) Competition](#)

[Undergraduate Research Competition](#)

[High School STEM Project Competition](#)

[Poster Competition](#)

The conference will cover the following topics but not limited to:

TOPICS

Artificial Intelligence
Automation and Control
Case Studies
Construction Management
Data Analytics
Decision Sciences
E-Business/E-Service
E-Manufacturing
Energy
Engineering Education
Engineering Management
Entrepreneurship and Innovation
Environmental Services

Financial Service Management
Healthcare Operations and Services
Human Factors and Ergonomics
Industrial Services
Industry Practices and Solutions
Information Technology
Inventory Management
Lean and Six Sigma
Logistics Services
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Manufacturing and Design
Modeling and Simulation
Operations Management

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Project Management
Public Service
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Retail Service
Service Systems and Management
Supply Chain
Sustainability
Systems Engineering
Technology Management
Transportation

Best track papers awards will be provided along with distinguished educator awards, and service awards will be recognized.

Deadlines

Paper/Abstract Submission: **May 30, 2015**

Review Feedback: June 30, 2015

Registration: July 15, 2015

Conference Site: www.iieom.org/icmoe2015/

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