Sixth International Conference on Industrial Engineering and Operations Management (IEOM)
Kuala Lumpur, Malaysia, March 8 – 10, 2016
JW Marriott Hotel

Overall Conference Program

March 7, 2016 (Monday)
13:00 – 21:00 Registration
08:00 – 16:30 Lean Six Sigma Green Belt Certification Workshop

March 8, 2016 (Tuesday)
07:00 – 17:00 Registration
08:00 – 16:30 Lean Six Sigma Green Belt Certification Workshop
08:00 – 09:15 Parallel Sessions
09:30 – 10:00 Welcome Address: Professor Datuk Dr. Mohd. Noh bin Dalimin, VC, Universiti Tun Hussein Onn Malaysia
10:00 – 11:00 Opening Keynote: Dr. Ronald G. Askin, Arizona State University, Tempe, AZ, USA
11:00 – 11:30 Networking Break at Exhibition Hall
11:30 – 12:45 Parallel Sessions
13:00 – 14:00 Industry Keynote: Dr. Anwar Ali Mohamed, O.R. Freelance Consultant & Former Principal Engineer at Intel Malaysia (Boxed Lunch Provided)
14:00 – 14:30 Break
14:30 – 15:45 Parallel Sessions
15:45 – 16:00 Break
16:00 – 17:15 Parallel Sessions
17:15 – 19:00 Poster Session and Student Chapter Mixer

March 9, 2016 (Wednesday)
07:00 – 17:00 Registration
08:00 – 09:30 Parallel Sessions
09:30 – 10:15 Morning Keynote: Ir. Dr. Zuhairi Abd. Hamid, Executive Director, Construction Research Institute of Malaysia
10:15 – 11:00 Morning Keynote: Speaker from PROTON Automobile - Malaysia
11:00 – 11:30 Networking Break at Exhibition Hall
11:30 – 12:45 Parallel Sessions
13:00 – 14:00 Lunch Keynote: Dr. Rupy Sawhney, University of Tennessee, Knoxville, USA (Boxed Lunch Provided)
14:00 – 14:30 Break
14:30 – 15:45 Parallel Sessions
15:45 – 16:00 Break
16:00 – 17:15 Parallel Sessions
19:00 – 22:00 CONFERENCE AWARD DINNER and Cultural Program by Cultural Academy of Kuala Lumpur
Award Keynote: Hulas King, Director, Diversity, Professional Affiliations & Global Community Relations, Siemens PLM

March 10, 2016 (Thursday)
07:00 – 17:00 Registration
08:00 – 16:30 Smart Manufacturing Workshop
08:00 – 09:30 Parallel Sessions
09:00 – 10:15 Morning Keynote: Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFiEES), Executive Secretary of the Global Engineering Deans Council (GEDC)
10:15 – 11:00: Morning Keynote: Prof. Dr. Noraini Kaprawi, Director of Strategic and Quality Management Office, Faculty of Technical and Vocational Education, University of Tun Hussein Onn Malaysia
11:00 – 11:30 Networking Break at Exhibition Hall
11:30 – 12:45 Parallel Sessions
13:00 – 14:00 Lunch Keynote: Rajiv Ghatikar, VP & General Manager, Siemens PLM, ASEAN/Australasia (Boxed Lunch Provided)
14:00 – 14:30 Break
14:00 – 20:00 Entrepreneurship Workshop
14:30 – 15:45 Parallel Sessions
15:45 – 16:00 Break
16:00 – 17:15 Parallel Sessions
17:15 – 18:00 CLOSING MIXTURE

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### Tentative Program - IEOM 2016 Kuala Lumpur

**March 7, 2016 (Monday)**
- 13:00 – 21:00 Registration
- 08:00 – 16:30 Lean Six Sigma Green Belt Workshop

**March 8, 2016 (Tuesday)**

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<tr>
<td>08:00</td>
<td>Global Engineering Education</td>
<td>Industry Solutions</td>
<td>Lean 6σ Green Belt Workshop</td>
<td>OM I</td>
<td>SCM I</td>
<td>Material Flow Cost Accounting</td>
<td>UG Student Paper Competition</td>
<td>Grad Student Paper Competition</td>
<td>Occupational Safety and Health (OSH)</td>
<td>Data Analytics</td>
<td>Case Studies</td>
<td>Reliability and Maintenance</td>
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<tr>
<td>09:30</td>
<td>Welcome Address: <strong>Professor Datuk Dr. Mohd. Noh bin Dalimin</strong>, Vice-Chancellor, Universiti Tun Hussein Onn Malaysia (UTHM)</td>
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<td>10:00</td>
<td>Opening Keynote: <strong>Dr. Ronald G. Askin</strong>, Professor and Director, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, Tempe, AZ, USA - Mayang Sari Grand Ballroom</td>
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<td>Global Engineering Education</td>
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<td>Material Flow Cost Accounting</td>
<td>UG Student Paper Competition</td>
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<td>Human Factors and Ergonomics</td>
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<td>Manufacturing and Design</td>
<td>UG Student Paper Competition</td>
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<td>Human Factors and Ergonomics</td>
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<td>Global Engineering Education</td>
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<td>Lean 6σ Green Belt Workshop</td>
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<td>Manufacturing and Design</td>
<td>UG Student Paper Competition</td>
<td>Doctoral Dissertation Competition</td>
<td>Human Factors and Ergonomics</td>
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<td>Engineering Management</td>
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<td>Poster Session and Student Chapter Mixer</td>
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**March 9, 2016 (Wednesday)**

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<td>Lean and Six Sigma I</td>
<td>SCM V</td>
<td>Manufacturing and Design</td>
<td>Undergraduate Research Presentation</td>
<td>Reliability and Maintenance</td>
<td>Human Factors and Ergonomics</td>
<td>Decision Analysis</td>
<td>Engineering Management</td>
<td>Energy</td>
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<td>09:30</td>
<td>Wednesday Morning Keynote: <strong>Ir. Dr. Zuhairi Abd. Hamid</strong>, Executive Director, Construction Research Institute of Malaysia (CREAM) - Mayang Sari Grand Ballroom</td>
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### Tentative Program - IEOM 2016 Kuala Lumpur

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Sixth International Conference on Industrial Engineering and Operations Management (IEOM)

JW Marriott Hotel
Kuala Lumpur, Malaysia
March 8 – 10, 2016

Keynote Speakers

Opening Keynote (Tuesday, March 8, 2016): 10:00 – 11:00 am

Dr. Ronald G. Askin
Professor and Director
School of Computing, Informatics, and Decision Systems Engineering
Arizona State University
Tempe, AZ, USA

Ronald G. Askin, Ph.D., is a Professor of Industrial Engineering and Director of the School of Computing, Informatics, and Decision Systems Engineering at Arizona State University. Dr. Askin received a B.S. in Industrial Engineering from Lehigh University and an M.S. in Operations Research and a PhD in Industrial and Systems Engineering from Georgia Institute of Technology. He has over 30 years of experience in the development, teaching and application of methods for systems design and analysis with particular emphasis on production and material flow systems. Dr. Askin is a Fellow of the Institute of Industrial Engineers (IIE) and Editor-in-Chief of IIE Transactions. He also serves on the INFORMS Board of Directors and has previously served on the IIE Board of Trustees, as President of the IIE Council of Fellows, Chair of the INFORMS Manufacturing and Service Operations Management Society, Chair of the Council of Industrial Engineering Academic Department Heads (CIEADH) and Chair of the Association of Chairs of Operations Research Departments (ACORD). Dr. Askin has published over 120 journal and conference papers and presented invited Keynote Addresses on four continents. His list of awards includes a National Science Foundation Presidential Young Investigator Award, the Shingo Prize for Excellence in Manufacturing Research, IIE Joint Publishers Book of the Year Award (twice), IIE Transactions on Design and Manufacturing Best Paper Award (twice), the Eugene L. Grant best paper award from The Engineering Economist, and the IIE Transactions Development and Applications Award.

Industry Keynote (Tuesday, March 8, 2016): 1:00 – 2:00 pm (Boxed Lunch Provided)

Dr. Anwar Ali Mohamed
O.R. Freelance Consultant
Penang, Malaysia

Former Principal Engineer at Intel Malaysia

Dr. Anwar Ali is a freelance trainer and consultant in Operations Research (OR). He has 27 years’ experience in semiconductor industry, 2 years at Texas Instruments in Kuala Lumpur followed by 25 years at Intel Technology Sdn Bhd in Penang. He was a Principal Engineer for his last 5 years at Intel. He practiced OR (discrete event simulation and mathematical modelling) for 13 years. His areas of expertise include high fidelity equipment simulation modelling, factory capacity modelling and optimization, and the relevant enterprise data integration involved.

Previously, he held Industrial Engineering (IE) management positions supporting factory start-up and designing, developing and deploying enterprise systems for IE capacity planning. He was an equipment development engineer for 7 years, developing IC logo machine vision inspection and PC-based equipment control during the days of 286/386. Dr. Anwar Ali completed his B.Eng. in Mechanical Engineering (Industrial Engineering major) from Universiti Teknologi Malaysia (UTM) in 1988, M.Sc. in Decision Science from Universiti Utara Malaysia (UUM) in 2005, and doctorate in Engineering Business Management from UTM in 2014.
Wednesday Morning Keynote (March 9, 2016): 9:30 – 10:15 am

Ir. Dr. Zuhairi Abd. Hamid
Executive Director
Construction Research Institute of Malaysia (CREAM)
Kuala Lumpur, Malaysia

Green, Sustainability and Lean Systems in Malaysia Construction Industry and Management

Zuhairi Abd. Hamid is the Executive Director of Construction Research Institute of Malaysia (CREAM), a research institute established under Construction Industry Development Board (CIDB) which he joined in January, 2006. He has over 27 years of experience in the construction industry and started his professional career as a civil and structural engineer with Public Works Department of Malaysia in 1984. He has worked under various capacities as road engineer, bridge engineer, building engineer, district engineer, assistant director of planning, forensic and structural design engineer. He joined CIDB in 1998 as a senior manager at the Technology Development Division and later was appointed to his current post at CREAM. He holds a B.Eng. (Hons.) Civil from University Technology Malaysia. He gained his Masters in Structural Dynamic Engineering from Kanazawa University, Japan and his PhD in IT Construction majoring in Healthcare Facilities Management from University of Salford, United Kingdom. He is a Professional Engineer (P.Eng.) in the Board of Engineers Malaysia and a Fellow of the Institution of Engineers Malaysia (FIEM). He sits in many committees as construction industry advisor to UTM, UTHM, UTP, UPNM and UiTM. He also sits as a Board Member in the United Nation support International Research Council, CIB “Conseil International du Bâtiment” (International Council for Research and Innovation in Building and Construction). His research interest and expertise is within the area of Strategic Management of IT in Construction, Strategic Facilities Management in Health Sector, Structural dynamic (wind engineering and earthquake engineering), Prefabricated building construction and Open Building System and Manufacturing.

Wednesday Morning Keynote (March 9, 2016): 10:15 – 11:00 am

Speaker from PROTON Automobile - Malaysia

Wednesday Lunch Keynote (March 9, 2016): 1:00 - 2:00 pm

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

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).

Conference Award Keynote, March 8, 2016, 7:00 pm

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

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

Hulas managed the GO PLM (Global Opportunities in Product Lifecycle Management) program, nurturing strategic partnerships that provide significant added value for academic institutions, youth development programs and our global communities. These partnerships exemplify SIEMENS as the PLM Industry Leader and are successful in developing technology environments where underutilized citizens of the world can work together to improve their economic conditions and promote peace. He served as McDonnell-Douglas’ Program Manager for Enterprise Life-Cycle Processes for Team Columbus Engineering/Manufacturing in support of C-17 Production in Columbus, OH.

Thursday Morning Keynote Speaker (March 10, 2016): 9:30 – 10:15 am

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

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

Dr. Hoyer has been a Visiting Scholar at the Center for International Studies at MIT, a Fellow at Harvard's School of Education and Visitor at the Kennedy School of Government. He was dean of the graduate program at the School for International Training, World Learning and Executive Director of the Executive Training Program for global governmental and NGO leaders in Brattleboro, Vermont. Prior to this, he taught cultural anthropology and Latin American Studies at George Mason University in Fairfax, VA. and Montgomery College, Takoma Park, MD. He earned his Ph.D. at American University in Washington, D.C. and was a post-doctoral fellow at the Organization of American States, carrying out research in the 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 and was responsible, among others, for raising large financial resources from a multitude of donors including government agencies, the World Bank, IAB, several foundations, corporations and private donors. He also represented the largest U.S. farming membership association as a spokesperson at the European Union and European Parliament in Brussels and also represented them in Mexico and Central America. He has served on the board of directors with Nelson Mandela of El Taller, a global civil society network headquartered in Tunisia as well as on several social-action community groups. 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 (EFA) initiative under the umbrella of the OAS. He serves on the Editorial Committee of the Argentinian Journal of Engineering Education, Science and Technology. He has written and published on a broad range of subjects related to international development, politics, health, education, and engineering education. Born in Berlin, Germany, he immigrated to the US as a teenager. His wife is Canadian and he has four children who were born in the U.S., Brazil, Mexico and Belgium.
Thursday Morning Keynote Speaker (March 10, 2016): 10:15 – 11:00 am

Prof. Dr. Noraini Kaprawi
Director of Strategic and Quality Management Office
Faculty of Technical and Vocational Education
University of Tun Hussein Onn Malaysia

Prof. Dr. Noraini Kaprawi is Director of Strategic and Quality Management Office at Universiti Tun Hussein Onn Malaysia (UTHM). Previously she was Dean of the Centre for Graduate Studies. She received Ph.D in Management of Higher Education from University of Manchester, United Kingdom, M.Sc. in Technology Management from University of Technology Malaysia (UTM), Postgraduate Teacher Certificate, Temenggong Ibrahim Teachers College (MPTI) in Johor Bahru and B.Sc. in Physics, from University of Aston in Birmingham, United Kingdom.

Dr. Noraini held various positions at Universiti Tun Hussein Onn Malaysia (UTHM) including lecturer, Assoc. Professor, Deputy Director of Continuing Education, Centre for Research Consultancy and Continuing Education, and Head of Manager for Institutional Project Management Office (iPMO Lead).

Dr. Noraini has served in many national and international professional organization including Wide involvement in National and Institutional TVE (Technical and Vocation Education) Projects. She has published many papers, provided workshops and attended national and international conferences. Many of her publication are related on technical and vocational education and training. Dr. Noraini has revived various awards including:

2012: Universiti Tun Hussein Onn Malaysia, Jasa Bakti 10 Tahun
2010: Research and Innovation Festival 2010, Universiti Tun Hussein Onn Malaysia, for the project Development of A New Empirical Based Competency Profile for Malaysian Technical and Vocational Education and Training (TVET) Instructors, Silver Medal
2009: Universiti Tun Hussein Onn Malaysia, Vice Chancellor Award
2007: Universiti Tun Hussein Onn Malaysia, Excellent Teaching Award
2006: 34th International Exhibition of Inventions of New Techniques and Products, Geneva, Bronze Medal
2006: The International Technology Exhibition (ITEX 2006 in KLCC for the project of Curriculum Design Management System (CDMS), Bronze Medal
2005: Kolej Universiti Teknologi Tun Hussein Onn, Potential Researcher Award
2003: Kolej Universiti Teknologi Tun Hussein Onn, Excellent Service Award

Thursday Lunch Keynote Speaker (March 10, 2016): 1:00 - 2:00 pm

Rajiv Ghatikar
Vice President and General Manager
Siemens PLM
ASEAN/Australasia

Rajiv Ghatikar is the Vice President and General Manager for Siemens PLM Software’s business in ASEAN and Australasia. Siemens PLM Software, a business unit of the Siemens Digital Factory Division, is a world-leading provider of product lifecycle management (PLM) software, systems and services with nine million licensed seats and 77,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software helps thousands of companies make great products by optimizing their lifecycle processes, from planning and development through manufacturing and support. Located in Hong Kong, Rajiv is responsible for managing all sales, sales support and services delivery for his region.

Prior to his current role, Rajiv was associated with PLM industry. From 1991 to 1998 he also worked with Procter & Gamble in both India and China in various financial roles with increasing levels of responsibility. In charge of a region that is predominantly run through a network of channel partners, Rajiv’s personal approach towards life is most helpful. As a forward thinker, Rajiv believes that it is important to build trust and mutual respect with his team, partners and customers so as to achieve the best possible results.

Born in Mumbai, India, Rajiv studied at both the St. Mary’s School and the Sydenham College before completing his professional studies as a Chartered Accountant. Rajiv has spent most of his work life and career outside of India and is committed to developing the potential of the Asia Pacific region, which he sees as his home. A keen traveler and one who enjoys learning about different cultures, Rajiv spends most of his spare time visiting various countries with his wife. He is also actively involved in hiking and other outdoor activities.

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IEOM Society addresses the issues of Global Engineering Education. There are different levels of readiness of engineering graduates from various parts of the world. One of the main themes of this series is how to reduce the readiness gap around the world. The special focus is given to Industrial Engineering and Manufacturing Engineering including Engineering Management. Are the engineering graduates ready to take on the challenges of the current global economy? With the great success of Global Engineering Education Series of last IEOM conferences, IEOM 2016 KL Conference will have a dedicated session for the Global Engineering Education where distinguished speakers will discuss the readiness of engineering graduates for workforce around the world. Thirty six featured speakers will be from various part of the world to address engineering education challenges and opportunities. Power point presentations/abstracts will be published in the conference proceeding and summary of the talk and bio of the speakers will be printed in the conference program.

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, Kansas, USA

Contact: info@ieomsociety.org
March 8, 2016 (Tuesday)
07:00 – 17:00 Registration
08:00 – 09:15 Session I:
Dr. C. Chitharanj, Professor of Mechanical Engineering and State Project Coordinator (TEQIP), Directorate of Technical Education, Chennai, Tamil Nadu, INDIA
S. Indra Devi, Senior Lecturer, Department of Languages, Centre for Languages and Human Development, Universiti Teknkal Malaysia Melaka
Ahmed E. Haroun and Salih O. Duffuaa, Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, KSA
09:30 – 10:00 Welcome Address – VC UTHM
10:00 – 11:00 Opening Keynote: Dr. Ron Askin, Professor of Industrial Engineering and Director of the School of CIDSE, Arizona State University.
11:00 – 11:30 Break
11:30 – 12:45 Session II:
Professor Dr. Mushkat Al-Atabi, Dean, School of Engineering, Taylor's University, Selangor Darul Ehsan, Malaysia
Professor R. Natarajan, Former Chairman, AICTE, Former Director, IT Madras, India
Dr. Christoph Wunck, Professor, Business Computing Systems, Industrial Engineering, Jade University, Wilhelmshaven, Germany
13:00 – 14:00 Industry Keynote: Dr. Anwar Ali Mohamed, O.R. Freelance Consultant, Penang, Malaysia and Former Principal Engineer at Intel Malaysia
14:00 – 14:30 Break
14:30 – 15:45 Session III:
Dr. Alok Verma, Ray Ferrari Professor and Chair, Department of Engineering Technology, Old Dominion University, Norfolk, Virginia, USA
Dr. Ramiro Jordan, Professor and Associate Dean of Engineering for International Programs, University of New Mexico, USA and ISTEM founder, IFEES ExCom
Dr. Mohammad Yeakub Ali, Professor and Head, Department of Manufacturing and Materials Engineering, International Islamic University Malaysia
16:00 – 17:00 Industry Keynote: Dr. Christoph Wunck, Business Computing Systems, Industrial Engineering, Jade University, Wilhelmshaven, Germany
17:30 – 19:00 POSTER SESSION and Student Chapter Mixer
March 9, 2016 (Wednesday)
07:00 – 17:00 Registration
08:00 – 09:15 Session V:
Dr. Adagbonyin Moses Obiaz, Dean, Faculty of Engineering and Technology, Ambrose Alli University, Nigeria and President, African Engineering Deans Council
Dr. C. B. Gupta, Professor, Department of Mathematics, Birla Institute of Technology and Science, Pilani (Raj.), India
Professor Alison Esmile Lewis, Dean, Faculty of Engineering and the Built Environment, University of Cape Town, Rondebosch, South Africa
09:30 – 10:15 Keynote: Dr. Zuhairi Abd. Hamid, Executive Director, Construction Research Institute of Malaysia (CREAM), Kuala Lumpur, Malaysia
10:15 – 11:00 Keynote: Speaker from Proton Automobile
11:00 – 11:30 Break
11:30 – 12:45 Session VI:
Dr. Alfredo Sceiro, Associate Professor, University of Porto, Portugal and Past President - European Society of Engineering Education
Dr. Rosemary Seva, Dean of Gokongwei College of Engineering, De La Salle University (DLSU), Manila, Philippines
Dr. Asela K. Kulatunga, Senior Lecturer, Department of Production Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka
13:00 – 14:00 Keynote: Dr. Rupy Sawhney, Heath Fellow in Business and Engineering, Professor of Industrial and Systems Eng., University of Tennessee, Knoxville, USA
14:00 – 14:30 Break
14:30 – 15:45 Session VII:
Dr. Md. Mizanur Rahman, Senior Lecturer, Faculty of Mechanical Engineering, University Technology Malaysia (UTM), Skudai, Johor Bahru, Malaysia
Dr. Eldon Caldwell, Director, Industrial Engineering Department, Engineering School, University of Costa Rica
Dr. Pal Pandi Ammavasi, Associate Professor, Bharath Nketan Engineering College, Aundipatty, Tamilnadu, India
15:45 – 16:00 Break
16:00 – 17:00 Session VIII: Panel Session
Dr. Abu Masud, Boeing Global Engineering Professor, Professor of Industrial and Manufacturing Engineering, Wichita State University, Kansas, USA
Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEES) and Resident Scholar - Marquette University
Dr. Funso Falade, Department of Civil & Environmental Engineering, University of Lagos, Akoka, Lagos, Nigeria and President, African Engineering Education Association
19:00 – 22:00 CONFERENCE AWARD DINNER, AND CULTURAL PROGRAMS
Award Keynote: Hulus King, Director, Diversity, Professional Affiliations & Global Community Relations, Siemens PLM Software, St. Louis, Missouri, USA
March 10, 2016 (Thursday)
07:00 – 17:00 Registration
08:00 – 09:15 Session IX:
Dr. Khairiay Mah Yusoof, Director, Centre for Engineering Education (CEE), Universiti Teknologi Malaysia, Johor Bahru, Malaysia
Dr. Amar Partap Singh Pharwaha, Professor, Sant Longowal Institute of Engineering & Technology (SLIET)-Deemed University, Longowal, Sangrur, Punjab, India
Dr. Funso Falade, Department of Civil & Environmental Engineering, University of Lagos, Nigeria and President, African Engineering Education Association
09:30 – 10:15 Keynote: Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEES)
10:15 – 11:00 Keynote: Prof. Dr. Noraini Kaprawi, Dean-Centre for Graduate Studies, Faculty of Technical and Vocational Education, University of Tun Hussein Onn Malaysia
11:00 – 11:30 Break
11:30 – 12:45 Session X:
Dr. Kameswar, Professor in the School of Civil Engineering, University of Birmingham, UK and Immediate Past President of SEFI
Dr. Charles Mbohwa, Professor and Vice-Dean Postgraduate Studies, Research and Innovation, University of Johannesburg’s (UJ), South Africa
Dr. S. Nair, Professor, Former Head of Chem Engg and Dean, National Institute of Technology, Rourkela, India and Past President, The Institution of Engineers
13:00 – 14:00 Keynote: Rajiv Ghatkar, Vice President and General Manager, Siemens PLM, ASEAN/Australasia
14:00 – 14:30 Break
14:30 – 15:45 Session XI:
Professor Khedidja ALLIA, Research Laboratory of Science in Industrial Process Engineering (LSGPI), USTHB - FGMGP, Bâb-Ezzouar, Algiers- Algeria
Shri. Mahesh Anant Kakade, Controller of Examinations, Shivaji University, Kolhapur and Chairman, Indian Society for Technical Education, Maharashtra- Goa
Dr. Hamid Parsaei, Prof. of Industrial and Systems Engineering, Texas A&M Univ. (College Station) and Director of Academic Outreach - Texas A&M Univ. Qatar
15:45 – 16:00 Break
16:00 – 17:45 Session XII:
Nidhi M B, A/HoD Mechanical Engineering Department, Mar Baselios College of Engineering & Technology (MBCET), Thrivunanathampuram, Kerala, India
Dr. P. Mureed, Dean – School of Engineering Technology, Harare Institute of Technology, Zimbabwe
17:30 – 19:00 Closing Mixer

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DISTINGUISHED SPEAKERS

Tuesday (March 8, 2016)

Session I: Global Engineering Education
8:00 – 9:15 am - Room Starhill 5
Session Chair: Dr. xxx, University

08:00 – 08:25 (Tuesday)

Dr. C. Chinnaraj
Professor of Mechanical Engineering and
State Project Coordinator (TEQIP)
Directorate of Technical Education
Chennai, Tamil Nadu, INDIA

Global Engineering Education Challenges and Opportunities

Prof. Dr. C. Chinnaraj is a Professor of Mechanical Engineering, Government College of Engineering, Salem, Tamil Nadu, India. He is now a State Project Coordinator (TEQIP), Directorate of Technical Education, Chennai-25, Tamil Nadu, India. Dr. Chinnaraj has received Ph.D. and master from ANNA University, Guindy, Chennai and B.E (Mechanical) from Madras University, Chennai, India. He has 32 Years as a Teacher in various State Government Engineering Colleges, acted as Examiner, Question paper setter and Chairman for various University examinations. Governing and Academic Council Member for many Engineering Colleges and Polytechnic Colleges and guided many Undergraduate and Post Graduate student Projects. He also received certificate for Guiding the State level Student best Project (Solar Wind ventilated Drier) and assisted the head of Institution in development of department, starting of new Post Graduate degree course in thermal engineering and Institution.

Dr. Chinnaraj has 8 years in administrative line at Directorate of Technical Education, Chennai-25, Tamil Nadu initially as Assistant Director (planning) and then as Project Coordinator for the World Bank assisted Technical Education Quality Improvement Programme (TEQIP). He assisted the Commissioner of Technical Education in execution of State’s various Schemes, starting of new Government Polytechnic and Engineering Colleges, curriculum/syllabus revision for Polytechnic Colleges, formation of skill development centre, Quality Circle and Teaching Learning Centre at Engineering Colleges and also for conducting Faculty Development Programmes. He visited leading Technical Universities in GERMANY, Peking University in BEIJING, CHINA and University of Buffalo, USA.

Dr. Chinnaraj has served two times as State Secretary and Treasurer for Tamil Nadu and Puducherry State Indian Society for Technical Education (ISTE) Section and two times received the best section National award for the drive in the ISTE membership, starting of ISTE chapters, encouraging the institutions to conduct the State level and National level Programmes for faculty and students. Two times National Executive Council Member of ISTE and helped the Institutions to conduct the Faculty Development Programmes, National Seminar, Conference and workshop for Faculty and Students. He represented and Lead the Anna University Volley Ball Team.

08:25 – 08:50 (Tuesday)

S. Indra Devi
Senior Lecturer, Department of Languages
Centre for Languages and Human Development
Universiti Teknikal Malaysia Melaka


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

08:50 – 09:15 (Tuesday)

AN EFFECTIVE ORGANIZATIONAL STRUCTURE TO IMPLEMENT STRATEGIC PLANS IN HIGHER EDUCATION INSTITUTIONS

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Session II: Global Engineering Education
11:30 am – 12:45 pm - Room Starhill 5
Session Chair: Dr. xxx, University

11:30 – 11:55 (Tuesday)

Professor Dr. Mushtak Al-Atabi
Dean, School of Engineering
Taylor's University
Selangor Darul Ehsan
Malaysia

Bio: Professor Mushtak Al-Atabi is currently the Dean of School of Engineering at Taylor’s University, Malaysia. His research interests include engineering, entrepreneurship, education and leadership. He is an Honorary Chair at the School of Mechanical Engineering of the University of Birmingham (UK) and the Editor-in-Chief of Journal of Engineering Science & Technology. Professor Al-Atabi published two books, “Think Like an Engineer” and “Driving Performance” and he has numerous research publications, awards and honours. He is a Co-Founder of the Global Engineering Deans Council. Professor Al-Atabi is an innovative educator; he pioneered the CDIO (Conceive, Design, Implement, Operate) and delivered the first MOOC (Massive Open Online Course) in Malaysia. He trains executives from Multinational Corporations including banks and energy companies.

11:55 – 12:20 (Tuesday)

Professor R. Natarajan
Former Chairman, AICTE
Former Director, IIT Madras, India

Emerging Engineering Education Challenges and Opportunities -- Indian Perspectives

R Natarajan received his M.A. Sc and Ph.D degrees from the University of Waterloo, Canada. He has worked as a National Research Council Fellow in Canada, and as a Humboldt Research Fellow in Germany. He served as The Director of the Indian Institute of Technology, Madras from 1995 to 2001, and as the Chairman of The All India Council for Technical Education, a statutory body of the Government of India, from 2001 to 2004. He was the Vice – President of The Indian National Academy of Engineering during 2002-2006, and the Chairman of the Research Council of the Central Fuel Research Institute, Dhanbad during 1995-2005. He is a Fellow of: Indian National Academy of Engineering, Indian Society for Technical Education and several other Professional Societies. He has been conferred Honorary Doctorate Degrees by: The University of South Australia, Jawaharlal Nehru Technological University (A.P.), and four other Indian Universities. He has been a Member of the Editorial Boards of: Fuel (London), Fuel Science and Technology, ASEE Journal of Engineering Education, and several other Journals.

12:20 – 12:45 (Tuesday)

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

"Computer Science Education for Industrial Engineers - Meeting the Challenges of the Smart Factory Paradigm"

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

His professional experience covers project management and consulting services for a major European business consultancy and work as a consulting engineer for manufacturing and electronics industries. He has served Jade University for nine years in the position of Dean and Dean of Studies.

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

Prof. Dr. Wunck is well connected in his field. He serves in the management of conferences and is a reviewer for conference papers and books. He is a member of IEEE Industrial Electronics Society, IEOM, INFORMS, ISCA, ISACA and VDI.
Dr. Alok K. Verma is Ray Ferrari Professor and Chair of the Engineering Technology Department at Old Dominion University. Dr. Verma also serves as the chief editor of the International Journal of Agile Manufacturing. Prof. Verma received his B.S. in Aeronautical Engineering from IIT Kanpur, MS in Engineering Mechanics and PhD in Mechanical Engineering from ODU. Prof. Verma is a licensed professional engineer in the state of Virginia, a certified manufacturing engineer and has certifications in Lean Manufacturing and Six Sigma. He has organized several international conferences as General Chair, including ICAM-2006, ICAM-1999, Lean Educator Conference and also serves as associate editor for two International Journals. His scholarly publications include 35 journal papers and 55 papers in conference proceedings. Dr. Verma has developed and delivered training program in Lean Enterprise & Design for Manufacturing for Northrop Grumman Newport News, STIHL and several other companies in U.S. At ODU, he has developed the Automated Manufacturing Laboratory. He was PI on several funded projects from National Shipbuilding Research Program (NSRP), (NSF) and Department of Education (DOE). He is well known internationally and has been invited to deliver keynote addresses at several national and international conferences on Lean/Agile manufacturing. Dr. Verma has received the Regional Alumni Award for Excellence, the International Education Award at ODU and Ben Sparks Medal by ASME. He is active in ASME, ASEE, SME, IIE and SNAME. Dr. Verma continues to serve the Hampton Roads community in various leadership positions.

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

Dr. Jordan is a founder of the Ibero-American Science and Technology Education Consortium (ISTEC), a successful non-profit organization that was created in 1990 with the mission to accelerate STEM education, R&D and entrepreneurship in Latin America and the Iberian Peninsula. ISTEC is comprised of over 100 educational, research, industrial, and multilateral organizations throughout the Americas and Iberia, and is now reaching into the global arena.

Dr. Jordan is a recognized leader in his field and serves on the Board of Directors of several industrial and professional organizations. He served as Vice President for the Americas Region and is currently in the Executive Committee of the International Federation of Engineering Education Societies and is VP for the Americas. He is on the Board of the Engineering for the Americas Initiative, an initiative hosted by the Organization of American States involving all Heads of State in the Americas Region. He is advisor to the International Conference in Engineering Education (ICEE) and advisor to the Institute of Electrical and Electronics Engineers (IEEE) Latin America Region, IEEE Senior member. He served as a member of the National Academy of Sciences of Bolivia, as special consultant to the Latin American ambassadors to the United Nations in the area of Science and Technology, and is advisor to several governments and multilateral organizations (OAS, IADB). He has been involved in the creation and enhancement of over 12 international Technology Parks and has fostered entrepreneurial activities worldwide. He was the Executive Vice-president and Chief Development Officer for Gridline Communications Holdings, Inc. a startup company.

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

3:20 – 3:45 (Tuesday)

**Dr. Mohammad Yeakub Ali**  
Professor and Head  
Department of Manufacturing and Materials Engineering  
Faculty of Engineering, International Islamic University Malaysia  
Kuala Lumpur, Malaysia

**Malaysian Engineering Education and Accreditation**

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

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**Session IV: Global Engineering Education**  
4:00 – 5:15 pm (Tuesday) - Room Starhill 5  
Session Chair: Dr. xxx, University

4:00 – 4:25 (Tuesday)

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

**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.

4:25 – 4:50 (Tuesday)

**Dr. Ayham Jaaron**  
Asst. Prof. in Industrial Engineering  
Director of Quality Assurance Unit  
Director of ABET Centre  
An-Najah National University  
Nablus, West Bank  
Palestine

**Bridging the Gap between IE Qualifications and Employers Requirements: lessons from Palestinian IE Programs**

**Abstract:** It is evident that due to fierce global competition and rapid manufacturing technological changes many industrial engineers lag behind in various production, quality, and manufacturing technologies. This has caused a problem to manufacturing firms as they are not easily able to find highly skilled engineers, especially industrial engineers, to satisfy their technological and managerial needs. The aim of this presentation is to report on the case of the Palestinian Industrial Engineering programs to illustrate how these programs were able to reduce the readiness gap of their industrial engineering graduates to satisfy Palestinian manufacturing sector priorities operating under Israeli occupation restrictions. The presentation discusses the benefits of involving industrial engineering programs stakeholders, especially employers from the manufacturing sector, which is of two-fold. First, the involvement of these employers will help identify their ever evolving general and technical training needs that educational institutions can offer to close training needs gap. Second, their involvement is of significant importance in the process of customizing curriculum of Industrial Engineering programs to help reduce readiness gap of graduates for manufacturing firms’ requirements. The presentation highlights the benefits of the requirements of international Accreditation Board for Engineering and Technology (ABET) in the process of readiness gap reduction.

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

4:50 – 5:15 (Tuesday)

Prof. Dr. Gunduz ULUSOY
Faculty of Engineering and Natural Sciences
Sabanci University
Orhanli, Tuzla
Istanbul, Turkey

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


He is a founding member of the Informatics Foundation, Science Center Foundation, and Scientific and Technical Research Foundation. During 1994–2000 he served on the Board of Elginkan Foundation. He was the Chairman of the National Quality Award Committee during 1998-2002. He is a member of INFORMS, Turkish Quality Society, Turkish Machine Design and Manufacturing Society, and Turkish Operational Research Society.

Wednesday (March 9, 2016)

Session V: Global Engineering Education
8:00 – 9:15 am (Wednesday) - Room Starhill 5
Session Chair: Dr. xxx, University

08:00 – 08:25 (Wednesday)
Engr. Prof. Adagbonyin Moses O. Obiazi
Dean, Faculty of Engineering and Technology
Ambrose Alli University
Nigeria
President, African Engineering Deans Council, AEDC

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

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

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

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

Engr. Prof. Obiazi has received several awards from students, staff, religious and professional bodies and groups for outstanding contributions to engineering, education, national development and socio-cultural advancement. Engr. Prof. Obiazi is well published in both local and foreign journals and has presented papers in several local and international conferences.

In Sept, 2012 Eng. Prof. Obiazi was elected the Chairman, Committee of Deans of Engineering and Technology of Nigerian Universities.

Dr. C. B. Gupta
Professor, Department of Mathematics
Birla Institute of Technology and Science Pilani(Raj.), India

A recipient of Shiksha Rattan Puraskar 2011, Best Citizens of India award 2011, listed in Marquis who is who in Science and Technology in the world December 2010, 2013 and listed in top 100 scientists of world in 2012, glory of India Award 2013. Dr. Gupta who is presently working as a Professor in the Department of Mathematics, obtained his Master’s degree in Mathematical Statistics and Ph.D. in Operations Research from Kurukshetra University, Kurukshetra. His field of specialization is Applied Statistics, Optimization and Operations Research. A number of students have submitted their thesis/ dissertation on these topics under his supervision. He has published a large number of research papers on these topics in peer reviewed national and international journals of repute. He has authored/ co-authored 14 books on the topics Probability and Statistics, quantitative Methods, Optimization in Operations Research, Advance Discrete Mathematics, Engineering Mathematics, Advance Mathematics etc. He is also on the editorial board and reviewer of a number of national and International journals.

Dr. Gupta is a member on various academic and management committees of many Institutes/ Universities. He has participated in large number of national and International conferences in which he has delivered invited talks and chaired technical sessions. Dr. Gupta has been member of Rajasthan board of school education and also member of various committees of RPSC Ajmer, UPSC, New Delhi and AICTE, New Delhi. He was awarded best paper award at the annual conference of National Academy of Science India held at Calcutta University, Kolkata from 15-17 December 2009.

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Dr. Alfredo Soeiro
Associate Professor
University of Porto, Portugal
Past Academic Director in Civil Engineering
Past Pro-Rector of the University of Porto for Continuing Education
Past President - Europejski Towarzystwo Wychowania Technicznego and Placówka EEO

Dr. Soeiro was founder of the Continuing Engineering Education office of the College of Engineering of the University of Porto in 1995; was Pro-Rector of Universidade do Porto in charge of Continuing Education between 1998 and 2003; was founder and President of AUPEC – Portuguese Association of Universities for Continuing Education between 2001 and 2005; from 2001 until 2004 was president of IACEE, International Association of Continuing Engineering Education, Washington DC, USA; between 2003 and 2005 was president of SEFI Societe Européenne pour la Formation des Ingénieurs; between 2004 and 2008. He was the academic director and vice-director of Civil Engineering of the University of Porto.

Dr. Soeiro was a Fulbright scholar between 1985 until 1989 in the University of Florida to obtain his doctoral degree; between 1996 and 1999 was the President of the Scientific Commission of the Thematic Network THENUCE (Thematic Network on University Continuing Education); from 1999 and 2005 was a member of European ODL Liaison Committee, representing the University of Porto and the Higher Education sector; since 1997 until 2004 he has been an invited expert of the European Commission to evaluate projects in adult education and in thematic networks; was an invited expert of Group G of the European Commission within the framework of the Lisboa Objectives between 2002 and 2005. He was an invited speaker at the 800th Anniversary of the University of the Sorbonne in the closing session coordinated by the French minister of education, Claude Allègre, entitled the University without Walls, 1998.

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

Dr. Soeiro has helped the creation of the center of elearning in the University of Porto between 1999 and 2002 including the edition of continuing education courses in cooperation with other European universities; has coordinated and participated in several European projects in the areas of distance learning and elearning; has authored the second ebook in engineering of the University of Porto with the support of a portal; has authored and coordinated an ebook on construction safety that has been supported by the International Labour Organization. He is the representative of Ordem dos Engenheiros, vice-chair of the European Monitoring Committee of FEANI and chair of the OMP. He was awarded the International Hall of Fame in Adult and Continuing Education title in 2006 and received the award of EDEN Fellow in 2008. Dr. Soeiro received the IACEE Fellow award in 2014. He coordinated some European funded projects Atelcoma (1998), Equipe (2004), Daete (2006), Virqual (2009) and TALOE. He is also member of the reviewers of Campbell Paperback (2010/2012/2014). He was also a partner in several European funded projects like DIALOGUE, Community Service Engineer and VMCOLOB.
Dr. Rosemary Seva
Dean of Gokongwei College of Engineering
De La Salle University (DLSU)
Manila, Philippines

Rosemary Seva is a Professor of Industrial Engineering and former Dean at the Gokongwei College of Engineering - De La Salle University, Philippines. She is the current President of the Human Factors and Ergonomics Society of the Philippines (HFESP) and the past President of the Southeast Asian Network of Ergonomics Societies (SEANES). She is one of the Top 150 scholars and scientists in the Philippines from Webometrics. She obtained her doctorate degree at the Nanyang Technological University (Singapore). She has two master's degrees: one in Ergonomics from the University of New South Wales (Australia) and in Industrial Engineering from De La Salle University. She is an ASEAN Engineer and a Professional Industrial Engineer. She has published a number of journal articles on affective design, safety, and usability studies. Her works appear in Applied Ergonomics and International Journal of Industrial Ergonomics.

Dr. Asela K. Kulatunga
Senior Lecturer
Department of Production Engineering
Faculty of Engineering
University of Peradeniya
Sri Lanka

"Industrial Engineering Education in Sri Lanka"

Asela K. Kulatunga is a senior lecturer in the Department of Production Engineering at the Faculty of Engineering, University of Peradeniya, Sri Lanka. He earned Bachelors in Production Engineering from University of Peradeniya, Sri Lanka and PhD in Mechanical/Industrial Engineering from University of Technology, Sydney, Australia. He has published more than 50 books/book chapters, journal and conference papers. Dr. Kulatunga has carried out various research projects with local manufacturing and service sectors. He is currently serving as a co-drafter for organizational LCA, for UNEP/SETAC Life Cycle Initiative. His research interests include lean and sustainable manufacturing, Industrial Engineering. He is the country representative for IEOM in Sri Lanka. He also holds associate membership at IEEE, ERSCP, and IESL.

Session VI: Global Engineering Education
2:30 – 3:45 am (Wednesday) - Room Starhill 5
Session Chair: Dr. xxx, University

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

Engineering education in energy technology: paradigm shift from technology-centred to multidisciplinary focused

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

2:55 – 3:20 (Wednesday)

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

Using Robotics as Educational Framework Strategy in Industrial Engineering

Abstract: Industrial engineering evolve, as formal science and as practice, in a world experiencing a faster technological revolution that gave birth to the late nineteenth century. The “core study object” of this discipline is still what I call “the complex production system”; which is present in contexts as diverse as the services sector, the goods producing sector, government organizations and public and private social organizations. One of the main features of these new complex production systems, is undoubtedly cognitive ability in dynamic and chaotic environments so robotic applications appear as a technological factor. Analyzing the experience at the University of Costa Rica, this conference focuses on how robotics can be used to address collaborative learning, learning through projects and also developing teamwork skills, cognitive skills of abstract conceptualization, computer programming skills and design skills in concurrent environments. Implementing some changes in the curriculum and the didactic strategies, robotics give more pedagogical benefits when we use their principles in order to develop a “pragmatic, statistic, strategic, systemic and frugal” thinking. A preliminary model is presented in this lecture.

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

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

3:20 – 3:45 (Wednesday)

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

Dr. A. Pal Pandi is working as an Associate Professor in Bharath Niketan Engineering College, Aundipatty, Tamilnadu, India. He has seventeen years of experience in both academic and industry streams. He has published more than 26 papers in International and National journals including Inderscience, Elsevier and Taylor and Francis. He has published 45 papers in proceedings of international and national conferences held across India. He has a wide range of expertise and knowledge in Mechanical Engineering as well as Management sciences. He holds doctorate degree in both Faculty of Management Sciences and Mechanical Engineering. He also reviewer for some reputed international journals. His area of research is total quality management, quality engineering and manufacturing management. Seven scholars are pursuing research programme under his guidance.

Session V: Panel Session - Global Engineering Education

4:00 – 5:15 pm (Wednesday) - Room Starhill 5

Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA

Panelists

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

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

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

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 at 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 (IUCCE). Prior to 2006, Hans J. Hoyer was CEO of World Links, a spin-off of the World Bank. In this capacity, he worked globally on issues related to secondary education, teachers’ education, and on-line collaborative learning focusing on science and social studies among high school students across the globe.

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

Bio: Falade Funso Alphonsus is a Nigerian and a Professor of civil engineering at University of Lagos, Nigeria. He earned Diploma in Quantity Surveying at Yaba College of Technology, Nigeria, in 1978. He completed his M.Sc (Civil Engineering) at the Moscow Institute of Civil Engineering in the USSR in 1984 and obtained PhD in Civil Engineering, from University of Lagos in 1998. Prof. Falade has authored over 70 articles on innovative construction materials and engineering education published in locally and internationally reputable journals as well as in proceedings of learned conferences. He has also made contributions to two (2) textbooks. In February, 2014, he made public presentation of a book titled ‘Strengthening of Distressed Buildings’. He has researched into the structural properties of bamboo and developed the technology for its successful incorporation as replacement of steel reinforcement in some structural elements. He has also researched extensively on Foamed Aerated Concrete. Prof. Falade has presented over 45 papers at workshops and seminars on such topics as Project Management, Quality Control, Maintenance of Facilities, and Contract Procurement Processes etc.

Prof. Falade is a member of some professional bodies both locally and internationally, including Fellow, The Nigerian Academy of Engineering, Fellow, Nigerian Society of Engineers, Fellow, African Engineering Education Association, Registered Engineers, Council for the Regulation of Engineering in Nigeria etc. He is a promoter of engineering education. He was the initiator of African Regional Conference on Engineering Education and the Chairman, Organizing Committee and the Editor of the Proceedings of the 1st, 2nd and 5th African Regional Conference on Engineering Education that were held at University of Lagos in 23rd – 25th September, 2002, 20th – 22nd September, 2004 and 9th -12th September, 2013 respectively. He is the President of the African Engineering Education Association (AEEA) and former Vice-President, international Federation of Engineering Education Societies (2009-2012). He was appointed UNESCO Consultant in 2005.

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

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

Dr. Amar Partap Singh Pharwaha
Professor
Department of Electronics & Communication Engineering
Sant Longowal Institute of Engineering & Technology (SLIET)-Deemed University
Longowal, Sangrur, Punjab, India

Abstract - With the advent of interactive multimedia programming languages and the world-wide-web (www), it has now become possible to build virtual laboratories that can be accessed globally. Virtual laboratory facilitates to offer experiment-oriented problems without the overhead incurred when establishing a complete hardware-based laboratory. Based on these considerations, the present work reports the development of a new type of Virtual Instrument (VI) for monitoring process parameters, which may also be used as an educational tool. The proposed VI is designed using fourth generation object-oriented programming technology. The executed user-interactive VI fulfills the requirements of efficient data acquisition, management and presentation. It is designed as an integrated system using five different virtual instruments. Each of the five virtual instruments was designed as an independent standalone system to serve a particular application. These dedicated virtual instruments were examined independently for their performance. Ultimately, these VIs were integrated to synthesize the proposed VI for versatile applications of transducer modeling including estimation of static-nonlinearity of transducers.
transducer linearization, self-compensation in transducers and fault detection in transducers based systems. Such applications are required frequently in Data Acquisition System (DAS) connected Transducers in computer based instrumentation.

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

8:50 – 9:15 (Thursday)

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

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Session X: Global Engineering Education  
11:30 am – 12:45 pm (Thursday) - Room Starhill 5  
Session Chair: Dr. S. C. Naik, National Institute of Technology, Rourkela, Odisha, India

11:30 – 11:55 (Thursday)

**Kamel Hawwash, BSc, MSc, MAPM, FHEA**  
Professor in the School of Civil Engineering  
University of Birmingham, UK  
Immediate Past President of SEFI  
Member of the European Engineering Deans Council

Kamel Hawwash is Professor in the School of Civil Engineering and Immediate President of the European Society for Engineering Education, SEFI. He is the Convenor of the long-established MSc Construction Management Programme. He was Head of the School of Civil Engineering from 2008 to 2011. Between 2009 and 2012 he was the Regional Director for the Midlands and East Anglia for the National HE STEM Programme.

Professor Hawwash is past Chair of the Association of Civil Engineering Departments, and member of the Engineering Education, Employability and Skills sub-committee of the Engineering Professors’ Council and Associate of the Engineering Council, UK.

He is a Fellow of the Higher Education Academy and a Member of the Association of Project Management. Professor Hawwash received MSc in Civil Engineering from UMIST in 1987 and BSc (Hons) in Civil Engineering from UMIST in 1985.

11:55 – 12:20 (Thursday)

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

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

12:20 – 12:45 (Thursday)

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

"Engineering Education and Environment"

Professor S C Naik obtained his BTech, MS & PhD degrees-all in Chemical Engineering from the Universities of Madras, Ottawa and UK (Swansea, Wales) respectively. He taught at the National Institute of Technology, Odisha State, India where Dr. Naik was Head of the Department and Dean. He guided many Research Fellows, some medium scale Industries and helped in establishment of an Engineering College. Dr. Naik 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, Odia 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.

Session XI: Global Engineering Education
2:30 – 3:45 pm (Thursday) - Room Starhill 5
Session Chair: Dr. xxx, University

2:30 – 2:55 (Thursday)

Professor Khedidja ALLIA
Research Laboratory of Science in Industrial Process Engineering (LSGPI)
USTHB - FGMP, Bâb-Ezzouar
Algers- Algeria

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

2:55 – 3:20 (Thursday)

Shri. Mahesh Anant Kakade, MIE, MISTE, MIV, MIEEES
Controller of Examinations, Shivaji University, Kolhapur
Chairman, Indian Society for Technical Education
Maharashtra- Goa Section, India

3:20 – 3:45 (Thursday)

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

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

Session XII: Global Engineering Education  
4:00 – 5:15 pm (Thursday) - Room Starhill 5

Session Chair: Dr. xxx, University

4:00 – 4:25 (Thursday)

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

Enhancing outcome Based Education through Self awareness

Prof. Nidhi M B is currently working as Assistant Head of dept. Mechanical Engineering Dept. of Mar Baselios College of Engineering and Technology, Trivandrum, Kerala. She is also in the capacity of National Executive Council Member of ISTE (Indian Society for Technical education) (2015-2018) and joint Secretary to IIIE (Indian Institution of Industrial Engineers, Kerala chapter) (2011-2012, 2014-2015, 2015-2016). She has been serving as State Management Committee Member ISTE Kerala section from 2012-2015. Apart from the above responsibilities she has consistently initiated the release of Kerala Section Newsletter for the last 5 years, in the capacity as Newsletter Editor. She has gained appreciation by the Kerala Section for the efforts to promote ISTE. She has been instrumental in bridging the Industry Academia Gaps, and she is co-coordinating 5 projects with industry apart from current teaching responsibilities on the interest of the Institution. Ms Nidhi MB has been a special invitee to GEDC (Global Engineering Deans Council Summit), Singapore. She has been instrumental in initiating ISTE Faculty and Student Chapters in MBCET and currently the Chairman of ISTE-MBCET Chapter. Under her leadership the ISTE Chapter has organised many events for the benefit of students and Faculty. The Chapter has won 5 awards within the short span of 2.5 years. She has delivered many Keynotes addresses and Invited Lectures at State, National and International forums. She has to her credit 26 papers in National, International Journals and Conferences of which 8 papers are in education research. She is also reviewer of journals and conferences in areas relating to Sustainability in Engineering, Supply Chain Management, Engineering & Technology trends in Mechanical Engineering, etc. Her areas of interest include Pedagogy and Training, Outcome Based Education, Changing roles of Industrial Engineering, Design and Engineering, Green Supply Chain Management etc.

She graduated from the SCT College of Engineering in BTech Mechanical Production in the year 2001. She worked in Industry Leela Lace International Ltd, as Industrial Engineer for 3 years. There by developing a passion for Industrial Engineering, she pursued her Master’s Degree in Industrial Engineering from CET, Kerala, (2006-2008). Since then she started her career in Engineering Education as lecturer, Sr Lecturer and as Asst. Prof with Saintgits College and Mar Baselios College of Engineering and Technology. She has also won many Best Paper Awards in various forums of International conferences and National Conventions. She is also serving as mentor to other ISTE chapters in Kerala. She is currently pursuing her research at the National Institute of Technology Calicut on Sustainability.

4:25 – 4:50 (Thursday)
Dr. P. Muredzi
Dean – School of Engineering & Technology
Harare Institute of Technology
Zimbabwe

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

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

4:50 – 5:15 (Thursday)
TBD
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IEOM Industry Solutions sessions will showcase the industrial case studies and their impacts of the industrial solutions using IE / OM tools and techniques (lean, six sigma, FMEA, simulation, design of experiments, optimization, TOC, PLM, CAE, statistical analysis, etc.) IEOM 2015 Dubai Conference will have a dedicated session for the Industry Solutions where distinguished practitioners provide their presentations including their experiences and journey to be successful. Thirty six featured speakers will be from various part of the world to address industrial challenges and opportunities for continuous improvement and sustainability.

IEOM Industry Solutions Chairs
Majid Abab, The Boeing Company, USA
Masaru Tezuka, Hitachi Solutions East Japan, Ltd., Japan

Distinguished Industry Speakers

Tuesday, March 8, 2016

Session I: Industry Solutions - Room – Starhill 4
8:00 – 9:15 (Tuesday)
Chair:

08:00 – 08:25 (Tuesday)
Reza Mesgarian
Head of Process Engineering
National Iranian Gas Company
Tehran, Iran

ID 251 Use of Low Heating Value Natural Gas by Blending With Fuel Gas

08:25 – 08:50 (Tuesday)
Saeed Salimi Beni
National Iranian Gas Company
Tehran, Iran

ID 268 Index Selection of Monitoring Technical Inspection Department in National Iranian Gas Company

Saeed Salimi Beni is a Mechanical Supervisor, and Head of Mechanical assessment Crew for Manufacturer Facilities, Equipments in Gas Industrial, National Iranian Gas Company. He earned B.S. in Mechanical Engineering from Petroleum Institute of Technology, Ahvaz, Iran.

08:50 – 09:15 (Tuesday)

Dr. Ari Maunuksela
Director/Principal
TEAK Ltd. – A Center for Vocational Training and Education
Teuva, Finland

Dr. Maunuksela works as a director/principal with TEAK Ltd. TEAK is a Center for Vocational Training and Education. Core competences of TEAK include wood and carpenter training programs, robotics and automation, CAD/CAM/CNC/3D technologies, upholstery, interior decorations, surface treatment. TEAK has extensive experience as a leading training & education company on wood industries, robotics and automation. We provide both hands-on training and web-based education. Ari Maunuksela holds a Ph.D. in Industrial Management, from University of Vaasa. Prior to joining TEAK he has worked in director positions in R&D and product management within international telecommunications industry companies. He has also experience from start-up companies with new technologies. Before moving to industry Dr. Maunuksela worked in academia as a researcher and teacher. He has published
articles in refereed scientific journals and international conferences, especially related with innovation and product development. Currently he is also working as a board member of small and medium sized companies. Dr. Maunuksela has given presentations and speeches in several international conferences.

**Session II: Room – Starhill 4**

**11:30 – 12:45 (Tuesday)**

**Woman in Industry and Academia**

11:30 – 11:55 (Tuesday)

**Dr. Adibah Shuib**

Acting President of MSORMS (Malaysian Society of Operations Research and Management Science)  
Head of Strategic Planning (Monitoring)  
Centre for Strategic Planning  
Universiti Teknologi MARA (UiTM)

Dr. Adibah Shuib is an Associate Professor in the Faculty of Computer and Mathematical Sciences of the Universiti Teknologi MARA (UiTM), Malaysia. She received her Bachelor of Science degree in Mathematics and Master of Science in Computational & Applied Mathematics from the Old Dominion University, USA. She received her PhD in Mathematics and Statistics from the University of Birmingham, United Kingdom.

Assoc. Prof. Dr. Adibah Shuib is currently the Head of Strategic Planning at the Centre for Strategic Planning and Information of UiTM. Her main responsibilities include monitoring the implementation of the university’s strategic initiatives and the achievement of the University’s KPIs. She is also the Director for the Integrated Programme Management of the UiTM’s Transformation Programme.

Her research interests are in the areas of mathematical modelling and optimisation. Her research include those on vehicle routing problems, emergency medical services particularly on ambulance routing and ambulance location and relocation, cross docking management, diet plan optimisation, airport revenue optimisation, vehicle scheduling and portfolio investment. She has also published widely in international journals and conferences.

Assoc. Prof. Dr. Adibah Shuib is now the Acting President of the Management Science and Operations Research Society of Malaysia (MSORSM). Being a Council Member of the MSORSM since 2009, where she has held the position of Secretary, then the Vice President, has given her the opportunity to be involved with many companies and universities through many activities and also meeting with individuals of various career backgrounds in industries as well as the academia.

11:55 – 12:20 (Tuesday)

12:20 – 12:45 (Tuesday)
Session III: Industry Solutions - Room – Starhill 4  
2:30 – 3:45 pm (Tuesday)  
Chair:

2:30 – 2:55 (Tuesday)

Foad Hosseinkhanli  
Director of Quality Assurance  
Performance and Business Improvement  
Amor Health Services, Inc.  
Brownsville, Texas, USA

Quality Assurance, Performance and Business Improvement:  
A Lean Six Sigma Approach

Mr. Hosseinkhanli is Director of Quality Assurance, Performance and Business Improvement Amor Health Services, Inc. in Brownsville Texas USA. He was General Manager of Almana Trading in Doha Qatar Middle East and responsible for all aspects in creation and implementing of successful growth of new market development and turn- key operation for various products. Mr. Hosseinkhanli was involved with financial negotiation with national and international banking, corporation, private sources and trading organization. Volvo International Development Corporation, Gothenburg Sweden, Marketing Director For The Middle Eastern Countries, UAE, Saudi Arabia, Bahrain, Turkey and Iran. Negotiated and established exclusive franchise agreement and turn- key operation. Did market analysis and feasibility studies for Volvo International in the Middle Eastern countries and increase annual sales in excess of 55%. Chief Industrial Engineer, United Carr, manufacturer of plastic knobs for Automotive Industries, Knoxville Tennessee USA.

His education background is: Master of Business Administration from IMMEDE Management Institute in Lausanne Switzerland majoring in financing, Bachelor of Science in Industrial and System Engineering from University of Rhode Island in Kingston Rhode Island USA. Certified Business Analyst from International profit Association in Buffalo, Grove, IL, USA. Certified Six Sigma Green and Black Belt from Institute of Industrial Engineers. Extra Curriculum Activity: Senior Member of Institute of Industrial Engineers, Senior Member of ASQ and Senior Member of Swedish Method and Time Measurement. Language: Fluent in English, Swedish, German, Turkish, Farsi and some Spanish.

2:55 – 3:20 (Tuesday)

Dr. Hakan Butuner  
IMECO Industrial Management & Engineering Co.  
Istanbul, Turkey

ID 008: Systematic Competency Based Training Needs Analysis

Dr. Hakan Butuner received his B.Sc. in Industrial Engineering from Middle East Technical University; MBA from Bilkent University; and Ph.D. in Engineering Management from the University of Missouri-Rolla. He has been active both in academic and professional fields for several years as a project manager in overseas; as a strategic planning and business development director; and as an operations improvement program manager. During the same periods, he has been lecturing in the Business Schools and/or Industrial Engineering Departments of well-known Universities. Currently, he is lecturing as a part-time faculty in Business Schools, plus acting as the affiliates of several US companies in industrial management and engineering consulting and training fields. Additionally, he is the president of Institute of Industrial Engineers – Turkish professional chapter; and board member of Institute of High Performance Planners in Kansas City. During his career path, he has participated in several projects. Plus, he has several publications and books (especially in Operations Management and Improvement and Strategic Planning).

3:20 – 3:45 (Tuesday)
Kishor Kulkarni
Sr. Project Engineer
Tata Technologies
Pune, India

Biography: Kishor Kulkarni is Sr. Project Engineer in Tata Technology, Pune with 4 years for experience in automotive interiors, expertise in manufacturing, validation & development of plastic interior parts of luxury cars. He has completed MBA from Karnataka State Open University in 2013 and B.E. (Industrial Production) from Vishvesharaya Technical University, Belgaum in the year 2011. Presently, he is pursuing his studies for award of Master of Engineering (M.E. in Production Engineering) in Shivaji University, Kolhapur. Applied patent for Low Cost POP fixtures & welding nests for prototype production. The fabrication cost reduced by 99% and lead time reduced by 99.5%. He has presented research paper at International Conference on Multidisciplinary Research & Practice 2014, IIM Ahmedabad. Mr. Kulkami has presented research paper at GSCSR 2015 (Global summit on corporate social responsibilities) New Delhi titled “Challenges & opportunities for CSR in India”. He also published a research paper titled “Sweeping Jet Flushing for EDM” in International Journal of Research & Scientific Innovation.

Abstract
Productivity and efficiency measurement and improvement go hand in hand, because one cannot improve what one cannot measure. Hence measuring productivity and efficiency is essential for all kinds of production plants to perform better. There is huge scope for research on measurement of the productivity and efficiency for pre-serial production plant, as there are no findings of literatures in this regard. This research is about the operations of pre-serial production plants and bottlenecks in adopting the standard methodologies of measurement of productivity and efficiency which are generally followed in serial production and batch production plants & developing a new measurement technique for productivity & efficiency for pre-serial & prototype production plants. As per the findings, the appropriate methodology for measurement of productivity and efficiency of Pre-serial production plants is not well set till now. Most of the companies who operates pre-serial production plants adapted the methodologies which are suitable only for serial production.

As compared to serial and batch production plants, the pre-serial production plants work totally differently. In serial production plants the product is optimized and all the relevant data which contributes in the measurement of productivity and efficiency is available. The pre-serial plants are responsible for product optimization. In these plants the product optimization is primary objective and process is secondary. Hence we cannot finalize the inputs like cycle time, machining time; labor usage till the product is finalized. The value of input measures will keep on changing during optimization of product and process. Hence using these values for measurement of productivity makes no sense. Once the product is optimized then the suitable processes will get optimized and the trials will takes place. The results from trials will be considered as the input measures for productivity measurement. As the working methodology and process of serial and pre-serial production plants differs from each other, there is a need to develop a measurement technique which can efficiently measure the productivity of pre-serial plants.

The author will work on defining a new measurement model/methodology for pre-serial plants and as per the pre-study it has been decided that the author will divide the production process into micro processes and define the standard for each process which will be considered as standard and compared with actual parameters which will leads to find out productivity and efficiency of the pre-serial production plants. This horizontal deployment of this methodology can be done to batch production and also prototype production plants with suitable modifications.
Big Data in Manufacturing and Service Industry

Dr. Andrew Kusiak
Intelligent Systems Laboratory
Professor, Department of Mechanical and Industrial Engineering
The University of Iowa
Iowa City, Iowa, USA

Abstract:
Big data will play a key role in shaping the design and innovation of products, production, and services by making them smarter, better connected, more efficient and widely accessible. Data analysis has been enlarging its footprint in business and engineering applications for the last two decades. The industrial engineering profession can be at the forefront of applying big data analysis and research in product development, manufacturing, and service areas. Basic data mining algorithms applicable to analysis of big data are introduced. Applications of big data analysis in product design and innovation, manufacturing, remanufacturing, and service domains will be the focus.

Industrial engineering needs to be open to embracing applications where data offers value. Product design and development is a highly multidisciplinary process awaiting new solutions. It is widely recognized that design of an innovative product considers data streams originating at customers, experts, trails of data left by products throughout their lifetime, and cyberspace. Disruptive innovations often happen because they meet this expanded set of requirements.

Traditional manufacturing and remanufacturing as well as emerging manufacturing technologies and systems involve data. Data science offers tools for fusing diverse data streams (parameters) that would not be possible with traditional approaches such as operations research or simulation. Sustainability considerations offer another set of data analysis opportunities. Service industry is plentiful of opportunities for big data opportunities to be discussed besides the product design and innovation, manufacturing, remanufacturing, and sustainability applications.

Biography:
Dr. Andrew Kusiak is a Professor in the Department of Mechanical and Industrial Engineering at The University of Iowa, Iowa City. His current research interests include applications of computational intelligence and big data in automation, energy, manufacturing, product development, sustainability, and healthcare. He is the author or coauthor of numerous books and hundreds of technical papers published in journals sponsored by professional societies, such as the Association for the Advancement of Artificial Intelligence, the American Society of Mechanical Engineers, Institute of Industrial Engineers, Institute of Electrical and Electronics Engineers, and other societies. He speaks frequently at international meetings, conducts professional seminars, and consults for industrial corporations. Dr. Kusiak has served in various editorial roles of over forty journals.

Professor Kusiak is a Fellow of the Institute of Industrial Engineers and the Editor-in-Chief of the Journal of Intelligent Manufacturing. Besides his academic appointment at the University of Iowa, he holds Distinguished Adjunct Professorship at King Abdulaziz University, Jeddah, Saudi Arabia. His past academic appointments, include the Technical University of Nova Scotia (now Dalhousie University) and the University of Manitoba in Canada, as well as visiting positions at University of Lion, Institut National Polytechnique de Grenoble, University of Nancy, France, and the University of Hong Kong, Hong Kong. His graduate students have assumed prominent positions in academia and industry. Dr. Kusiak has co-advised PhD students at University on Munich, Germany and Institut National Polytechnique de Grenoble, France.
Wednesday (March 9, 2016)

Session V: Industry Solutions - Room – Starhill 4
8:00 – 9:15 am (Wednesday)
Chair:

08:00 – 08:25 (Wednesday)
ID 627 Yield Improvement of Wafer Edge Die Defocus (EDD) at Via Layer
Arumugam Manikam, Silterra (M) Sdn.Bhd, Kulim, Kedah, Malaysia

8:25 – 8:50 am
Vivek Sundar Magesh
TVS Logistics Services Limited
Chennai, India

ID 218 Maximising Revenues in the “Tatkal” Category of Indian Railways

Vivek Sundar Magesh is an MBA from the Indian Institute of Management at Tiruchirappalli, India. He is presently employed at TVS Logistics Services Limited. His interest areas are in developing better public systems and tackling global problems using techniques from Management Science. He also has an Electrical Engineering degree from the prestigious National Institute of Technology at Tiruchirappalli, India. As an Engineer he has published papers on optimization using heuristics. He looks forward to researching about improving public systems to tackle global challenges by joining a doctoral program in a reputed global business school.

08:50 – 09:15 (Wednesday)
Md Kawsar Ali
Chief Operating Officer
Comfit Composite Knit LTD
Gorai, Mirzapur, Tangail
Dhaka, Bangladesh

Md. Kawsar Ali is a well-known expert and mentor in the garment industries of Bangladesh. He has twenty one years of professional experiences in RMG sector. He has worked in different capacities in leading companies like Beximco, Square, Orion and DBL. He has got strong communication, interpersonal relations, mentoring, negotiation and cross-cultural organizational skills, and has demonstrated such over the years with utmost productivity and reputation. He is also expert in Total Quality Management, Lean manufacturing, Kaizen, Leadership and self-development courses like Meditation and Yoga. Mr. Kawsar has completed his graduation from Khulna University of Engineering and Technology (KUET) also obtained an MBA degree from Dhaka University. He has participated in many workshops, seminars and training sessions in Bangladesh and abroad.

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Session VI: Industry Solutions Room – Starhill 4
11:30 am – 12:45 pm (Wednesday)
Chair:

11:30 – 11:55 (Wednesday)

**Dr. Zain Tahboub**
Chief Advisor-Director of Excellence & Innovation
Dubai Aviation Engineering Projects (DAEP)
United Arab Emirates (UAE)

“\(\text{I}^3\) University of the future for integrating the university with industry and innovation”

Dr. Zain Elabideen Tahboub is Chief Advisor of Director of Excellence and Innovation of Dubai Aviation Engineering Projects, UAE. He 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.

11:55 – 12:20 (Wednesday)

**ID 692 Critical Success Factors of Six Sigma Implementation in Malaysian Manufacturing Industry**

**Md Fauzi Ahmad**, Wong Jing Ping, Nor Aziati Abdul Hamid, Shiau Wei Chan, Production and Operation Department, Universiti Tun Hussein Onn Malaysia (UTHM), Batu Pahat, Johor, Malaysia
Josu Takala, Department of Engineering Science and Industrial Management, University of Vaasa, Wolffintie, Finland
Md Fauzi Ahmad is an academic staff at UTHM. His undergraduate studies was in Electrical & Electronic Engineering from Muroran Institute of Technology (MIT), Japan and Post Graduate study in Total Quality Management (TQM) from Universiti Teknologi Malaysia (UTM). His majoring research is in TQM of Japanese companies and actively publishing international and local journals. He embarked his career as Quality Engineer at Sharp Corporation in 1999 and has been assigned at various departments which include Product Quality Assurance (PQA), Quality Control (QC), Product Planning and Sales Department. He has working experience for 12 good years in quality and marketing management. He is a Certified Quality Engineer (CQE) from Federation Manufacturing Malaysia (FMM) and Sharp Corporation Japan. He also participated in On Job Training (OJT) for quality, reliability management and data analysis at Sharp Corporation, Japan under Association of Overseas Technical Scholarship (AOTS). He also contributed in establishing company strategy for improving customer satisfaction and other major improvement projects. He has working with Japanese companies for more than 12 years.

12:20 – 12:45 (Wednesday)

Session VII: Room – Starhill 4
2:30 – 3:45 pm (Wednesday)
Chair:
PANEL SESSION - Woman in Industry and Academia

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

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

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

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**Prof. Christine Ennew**  
Provost, University of Nottingham Malaysia Campus  
Pro Vice Chancellor and Professor of Marketing  
University of Nottingham Malaysia Campus  
Selangor DE Malaysia

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

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

Dr. Pillai is an Associate Professor at the Department of English Language, Faculty of Languages and Linguistics, University of Malaya (UM). Her main areas of research interest are the segmental and prosodic features of spoken Malaysian English, and the revitalisation of Malacca Portuguese Creole or Cristang. His initial work on the Creole was funded by, and has been archived in the Endangered Languages Archive. Dr. Pillai is currently the Dean of the Faculty of Languages and Linguistics. He was the Deputy Dean for Postgraduate Studies of the Faculty from August 2014, and previously headed the University's Centre for Industrial Training and Relations, which later expanded to become the Centre for Community and Industry Relations.

Session VIII: Room – Starhill 4  
4:00 – 5:15 pm (Wednesday)  
Chair: Woman in Industry and Academia

4:00 – 4:25 (Wednesday)  
ID 122  Glass ceiling effect on working women is Sri Lanka  
Sakura Wickramasinghe, University of Peradeniya, Colombo, Western Province, Sri Lanka

4:25 – 4:50 (Wednesday)  
ID 610  Burn Accident related Injuries and Disabilities among the RMG Women Workers: A Case Study of Tazreen Garments Tragedy  
Mahmmad Mahbub Alam Talikder, Accident Research Institute (ARI), Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

4:50 – 5:15 (Wednesday)  

Dr. Stefanie Pillai  
Dean and Associate Professor  
Faculty of Languages & Linguistics  
University of Malaya  
Kuala Lumpur, Malaysia

Dr. Pillai is an Associate Professor at the Department of English Language, Faculty of Languages and Linguistics, University of Malaya (UM). Her main areas of research interest are the segmental and prosodic features of spoken Malaysian English, and the revitalisation of Malacca Portuguese Creole or Cristang. His initial work on the Creole was funded by, and has been archived in the Endangered Languages Archive. Dr. Pillai is currently the Dean of the Faculty of Languages and Linguistics. He was the Deputy Dean for Postgraduate Studies of the Faculty from August 2014, and previously headed the University’s Centre for Industrial Training and Relations, which later expanded to become the Centre for Community and Industry Relations.

Thursday (March 10, 2016)  
Session IX: Industry Solutions - Room – Starhill 4
8:00 – 9:15 am (Thursday)

Chair:

08:00 – 08:25 (Thursday)

ID 444  Essential Parameters for Determining Gas Pipeline In-Line Inspection Interval

Hossein Abdi
National Iranian Gas Co. (NIGC)
Tehran, Iran

08:25 – 08:50 (Thursday)

ID 186  Importance of the Strategic Utilization of Information Technology in Small and Medium-Sized Food Manufacturers in Japan

Masaru Tezuka and Junko Miyazaki
Hitachi Solutions East Japan, Ltd.
Sendai, Miyagi, Japan

Masaru Tezuka is the Manager of the Research and Development Department at Hitachi Solutions East Japan, Ltd. He received a BE and ME in bio-physical engineering from Osaka University, Japan and a PhD in systems and Information engineering from Hokkaido University, Japan. He is a certified Systems Analyst and a certified Application Systems Design Engineer. He served in Malaysia as a short-term expert in operations research of the Japan International Cooperation Agency in 1998. His research interests include nonlinear optimization, evolutionary computation, computational intelligence, computational statistics, risk analysis, and their industrial application. He is a member of the Information Processing Society of Japan.

Masaki Fujiwara and Miyuki Koriki
Miyagi University, Kurokawagun
Miyagi, Japan

08:50 – 09:15 (Thursday)

Dr. Jalaluddin Harun
Director General
Malaysian Timber Industry Board (MTIB)
Session X: Industry Solutions - Room – Starhill 4
11:30 am – 12:45 pm (Thursday)
Chair:

Mr. Takenori Kabeya
Senior Engineer and IT Specialist of Production, Sales and Inventory Solution Department
Business Solution Division
Hitachi Solutions East Japan, Ltd.

Designing demand and supply operation tailored to industry sector and business category

Abstract: The internationalization of corporate activities and an advancing international division of labor are driven by the progress of logistics and information technology. Meanwhile, as both natural and political risks increase, an accident in one region can impact the overall supply chain. Under the circumstances, because of uncertainty on both the supply and demand sides, those involved with the supply chain should understand and estimate the fluctuation swiftly and precisely, optimizing procurement, production, and inventories. From a practical perspective, a demand–supply operation varies greatly by industry sector, business category, and regional characteristics, as does supply chain management systems.

For example, the demand for materials such as metals and chemical products is relatively stable; however, the production process involves many constraints in the form of annealing, washing, and setup. These constraints pose difficulties in supply adjustments. Therefore, the manufacturers focus on the stable control of supply. On the other hand, the demand for home appliances is turbulent. Thus, the manufacturers in this industry focus on the flexible control of supply following changes in demand. Additionally, acceptable supply lead times including transport tend to be shorter in small countries like Japan than in large countries like the U.S. This difference should produce a different level of difficulty in demand–supply coordination. The market of the supply chain planning (SCP) system as a replacement of the production planning system is rapidly growing; however, the introduction of SCP cannot achieve success unless the system is designed to fit the industry and business category.

Biography: Takenori Kabeya is a Senior Engineer and IT Specialist of the PSI (Production-Sales-Inventory) Solution Department at Hitachi Solutions East Japan, Ltd. He earned a master's degree in chemical engineering at the Graduate School of Engineering, Kyoto University, Japan. He has developed and provided supply chain planning (SCP) tools and systems such as production planning systems, demand forecasting tools, demand planning systems, and inventory analysis tools with the international development team based in Japan, India and the U.S. His customer list covers various types of businesses, including material manufacturers, assembly manufacturers, fabless manufacturers, and wholesalers in Japan, Malaysia, Indonesia, Thailand, and so on. These customers are spread across a wide business area encompassing home appliances, car audio systems, chemicals, pharmaceuticals, consumer packaged goods (CPG), metals, beverages, and so on. His current task is to design optimal system architecture for SCP solutions.

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

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.

**Session XI: Industry Solutions**
- Room – Starhill 4
- 2:30 – 3:45 pm (Thursday)
- **Chair:**

2:30 – 2:55 (Thursday)

**Parth Rashmikant Patel**
Executive Director
Apollo Techno Equipments Limited
Ahmedabad, Gujarat, India

Parth Patel is an Executive Director at Apollo Techno Equipments Limited, Gujarat, India. Previously, he was working as Quality Engineer at Sakthi Automotive Group USA. He was a Master of Science student in Industrial Engineering Program at Lawrence Technological University, USA. He holds a Bachelor Degree in Mechanical Engineering from Visvesvaraya Technological University, Bangalore, India. He has attained an industrial experience working as a Mechanical Engineer at Apollo Construction Equipments Private Limited, India. He completed his training on Industrial Hydraulics at Rexroth Bosch Group, India. He has knowledge of ANSYS, AutoCAD, and Minitab. His expertise lies in CNC Programming, CIM Modeling and Arena. His research interest includes Manufacturing Process, Quality, and Six Sigma. He has a positive energy and a dream of manufacturing world-class facility that can contribute to the growth of his country.

2:55 – 3:20 pm

**ID 457 Eliminate Salicide Residues in Wafer Fabrication Front-End Pre-Metal Layer Cleaning Process**
Johann Ong and Bee Hoon Tan
SilTerra Malaysia Sdn Bhd.
Kulim, Kedah, Malaysia

Ong Johann works as a Principle Engineer in SilTerra Malaysia Sdn Bhd. He earned B. (Hons) in Computer Aided Engineering from South Bank University, London, UK and Master Sc in Information Technology in Business. Currently he is pursuing his PhD in Manufacturing Engineering Faculty, University Teknikal Malaysia, Melaka.

3:20 – 3:45 pm

**ID 267 Developing Productivity Monitoring System in a governmental organization with multi-performance objectives: A case study in National Iranian Gas Company**

Ali Massaei
National Iranian Gas Company
Tehran, Iran
Ali Massaeli  
Ali is a Senior Expert in Industrial Inspection Department of National Iranian Gas Company, Tehran- I.R. of IRAN. He earned B.Sc. in Chemical Engineering from Azad University of South Tehran; M.Sc. in Industrial Engineering – System Management and Productivity from Azad University of Qazvin. He has several research activities such as publishing internal journal of IGU (International Gas Union) and international conference papers. He has several industrial training courses in Chem. and Industrial Engineering and co-authoring and the editor of process engineering in oil and gas industry. He was one of the senior experts in SCOE integrating executive committee of Petroleum Ministry of I.R. of IRAN. In the IEOM 2012(Istanbul-Turkey) he received Outstanding Industry Awards. He is one of the members Industrial Committee of IEOM since 2012 till now. Also he is member of jury team of International Management Conference since 2010 in managerial experience section.

**Session XII: Industry Solutions**  
Room – Starhill 4  
4:00 – 5:15 pm (Thursday)  
Chair:

- 4:00 – 4:25 (Thursday)
- 4:25 – 4:50 (Thursday)
- 4:50 – 5:15 (Thursday)
Preliminary Program – IEOM 2016 KL

March 8 – 10, 2016
JW Marriot Hotel

March 7, 2016 (Monday)

08:00 am – 05:00 pm (Room Starhill 4)

Lean Six Sigma Green Belt Certification Workshop

Dr. Joseph M. Ogundu, MBB
President and CEO – Emerald Global Consulting Inc.
West Bloomfield, Michigan, USA

March 8, 2016 (Tuesday)

08:00 – 09:30, TUESDAY  Global Engineering Education I  Starhill 4

08:00 – 08:30 (Tuesday)
Dr. C. Chinnaraj
Professor of Mechanical Engineering and
State Project Coordinator (TEQIP)
Directorate of Technical Education
Chennai, Tamil Nadu, INDIA

08:30 – 09:00 (Tuesday)
S. Indra Devi
Senior Lecturer
Department of Languages
Centre for Languages and Human Development
Universiti Teknikal Malaysia Melaka

09:00 – 09:30 (Tuesday)
Ahmed E. Haroun and Salih O. Duffuaa
Systems Engineering Department
KFUPM, Dhahran, KSA

ID 030: An Effective Organizational Structure to Implement Strategic Plans in Higher Education Institutions

08:00 – 09:30, TUESDAY  Industry Solutions I  Starhill 5

ID 268  Index Selection of Monitoring Technical Inspection Department in National Iranian Gas Company
Saeed Salimi Beni, National Iranian Gas Company, Tehran, Iran

08:00 – 09:30, TUESDAY  Lean Six Sigma Green Belt Workshop  Starhill 6

Dr. Joseph M. Ogundu, MBB
President and CEO – Emerald Global Consulting Inc.
West Bloomfield, Michigan, USA
08:00 – 09:30, TUESDAY  
**Operations Management I**  
Session Chair: Rahmat Nurcahyo, Universitas Indonesia, Depok, Jawa Barat, Indonesia

**ID 043**  Re-shoring Manufacturing through the application of Additive Technologies  
Christopher Backhouse and Hamid Moradlou, Loughborough University, Leicestershire, United Kingdom

**ID 041**  Enhancing Enterprise Performance with Social BPM and TOGAF Framework  
Jyhjong Lin, Ming Chuan University, Taoyuan City, Taipei, Taiwan

**ID 055**  Improving the manufacturing performance by using the appropriate purchasing strategy  
Ahmed Attia, Effat University, Jeddah, Mekka, Saudi Arabia

**ID 210**  Customer Orders Prioritization Using Topsis in Multi Business Channel Environment  
Muhammad Haris Aziz and Summyia Qamar, University of Engineering and Technology, Taxila, Pakistan  
Chanchal Saha, Binghamton University, Poughkeepsie, New York, United States  
Saifullah Khan, Qasim Ali Jahanzaib Mirza, University of Engineering and Technology, Taxila, Pakistan

**ID 273**  Production Efficiency Improvement through Preventive Maintenance and Production Scheduling Optimization  
Rahmat Nurcahyo and Amar Rachman, Universitas Indonesia, Depok, Jawa Barat, Indonesia

08:00 – 09:30, TUESDAY  
**Supply Chain Management I**  
Session Chair: Erdem Aksakal, Gazi University, Ankara, Turkey

**ID 019**  Determinants of the Scope of Supply Chain E-Collaboration  
Tesfaye Tolu Feyissa R.R.K. Sharma, Indian Institute of Technology, Kanpur, Uttar Pradesh, India

**ID 191**  Improving organizations performance through Supply Chain Quality Management practices  
Paulo Sampaio, Maria Carvalho and Ana Cristina Fernandes, University of Minho, Braga, Portugal

**ID 171**  Literature review of Physical Delivery Service Quality: type of research and research gap  
Teuku Yuri M. Zagloel, Akhmad Hidayatno and Clara Benarto, Industrial Engineering Department, University of Indonesia, Depok, West Java, Indonesia

**ID 683**  Designing Personalized Tourism Packages for Oman Tourism Industry  
Abdulwahab M., Amur M., Rashid H. and S. Piya, College of Engineering, Sultan Qaboos University, Oman

**ID 325**  Green Supplier Selection under Risk Assessment  
Erdem Aksakal and Emre Caliskan, Gazi University, Ankara, Turkey

08:00 – 09:30, TUESDAY  
**Material Flow Cost Accounting**  
Session Chair: Wichai Chattinnawat, Chiang Mai University, Thailand

**ID 148**  Framework of an ‘(In) Efficiency Costing’ based on the idea of Material Flow Cost Accounting  
Ronny Sygulla and Uwe Götze, Technische Universität Chemnitz, Saxony, Germany

**ID 165**  How will MFCA make Usefulness on Sustainable Engineering - Based on practical experiences in Japanese and Southwestern Asian companies  
Michiyasu Nakajima and Asako Kimura, Kansai University, Suita-Shi, Osaka, Japan

**ID 215**  Application of Material Flow Cost Accounting (MFCA) and Quality Control Tools in Wooden Toys Product  
Wasawat Nakkiew and Pattarawadee Poolperm, Department of Industrial Engineering, Chiang Mai University, Thailand

**ID 601**  Impact of Introducing Material Flow Cost Accounting: A Comparative Review of Supply Chains and Individual Companies  
Kana Okada and Katsuhiko Kokubu, Kobe University, Hyogo, Japan

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ID 351  Application of Material Flow Cost Accounting Analysis to Increase Pajama Production Efficiency: A Case Study of Confederate International Co., Ltd.
Wichai Chattinnawat, Industrial Engineering Department, Chiang Mai University, Thailand

ID 350  The Limitation of MFCA-based Cost Analysis for Serial Manufacturing Process with Sampling Scheme
Wichai Chattinnawat, Industrial Engineering Department, Chiang Mai University, Thailand

08:00 – 09:30, TUESDAY  Undergraduate Student Paper Competition sponsored by Siemens  Bintang VI
Session Chair: Abbas Mahmoudabadi, MehrAstan University, Gilan, Iran

ID 085  River’s Rubbish Catcher Machine (RRC-Machine) - The Planning of a Machine Instrument to Catch the Rubbish in the River towards Healthy Environment
Rendhie Suswanto, Mining Engineering Department, University of Sriwijaya, Inderalaya, South Sumatera, Indonesia

ID 098  Superstructure Optimization of Multiple Gas-Solid Cyclone Arrangements
Ali ElKamel, University of Waterloo, Ontario, Canada
Rois Fatoni, Chemical Engineering Department, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia
Muhammad Fariz Failaka, Chemical Engineering Department, University of Waterloo, Ontario, Canada

ID 391  Similarity Measures and Distance Measures Applications: An Analysis and Design of Systems prospective
Osama Rabie, King Abdulaziz University, Jeddah, Saudi Arabia

ID 408  Design and Manufacturing of Automobile Testing Track Sweeping Machine
Nazish Quadri Syed, College of Pune, Maharashtra, India

08:00 – 09:30, TUESDAY  Graduate Student Paper Competition sponsored by EATON  Bintang VII
Session Chair:

ID 176: Assessment on 5S System of Rules in a Cosmetics Manufacturing’s Central Weighing Area, Processing and Packaging Area for Creams, Liquids and Lotions (CLL)
Ma. Erika R. Laguardia and Rachel C. Villanueva, Department of Industrial Engineering, Malayan Colleges Laguna, Cabuyao, Laguna, Philippines

08:00 – 09:30, TUESDAY  Occupational Safety and Health (OSH)  Mayang Sari I
Session Chair: Jafri Rohani, Universiti Teknologi Malaysia

ID 137  AHP-Based Conceptual Model for Selection of Key Elements for Safety Culture Using SMART Criteria
Shahid Ali and Azmi Mohd Shariff, Universiti Teknologi Petronas, Tronoh, Perak, Malaysia

ID 138  Knowledge Management (KM) in Human Error (HE) in Accident Prevention
Ahmad Soyuti Haji Sabran, Sapurakencana Ti Offshore Sdn Bhd, Puchong, Selangor De Malaysia
Abdul Rahamn Abdul Rahim, UTM Razak School of Engineering and Advanced Technology, Kuala Lumpur, Malaysia

ID 487  The Level of Safety Culture Beliefs and Practices amongst Safety and Health Officers (Shos) in Malaysian Manufacturing Companies
Rozlina Md Sirat and Jafri Mohd Rohani, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Skudai, Johor Bahru
Awaluddin Mohamed Shaharoun and Habibah Haron, UTM Razak School of Engineering and Advanced Technology, UTM KL

ID 583  Fire Safety and Availability of Fire Fighting Equipment in Selected Garment Factories in Bangladesh
Mohammad Iqbal, Salma A. Iqbal, Shahjalal University of Science and Technology, Sylhet, Bangladesh
Sumayel Mumammad Mallick, Anlima Yarn Dyeing Ltd., Savar, Dhaka, Bangladesh

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ID 486  Estimation of compensation cost related to Musculoskeletal Disorder: Younger versus Older Malaysian Manufacturing Workers  
Jafri Rohani, Affandi Mohd Zainal, Mohamed Fitri Johari, Rozlina Md Sirat, Raemy Md Zein and Ismail Abdul Rahman, Universiti Teknologi Malaysia, Senai, Johor, Malaysia

08:00 – 09:30, TUESDAY  Data Analytics  
Session Chair: Xin James He, Fairfield University, Fairfield, CT, United States

ID 061 Integration of Business Process management and Big Data technologies  
Christoph Wunck and Alfred Wulff, Jade University of Applied Sciences, Wilhelmshaven, Lower-Saxony, Germany

ID 142 Categorization of Web News Documents Using Word2Vec and Deep Learning  
Hiroyuki Goto and Ryoma Kato, Hosei University, Koganei, Tokyo, Japan

ID 216 Big Data Business Analytics: Attitude and Readiness  
Xin James He, Fairfield University, Fairfield, CT, United States  
Myron Sheu, California State University, Dominguez Hills, CA, United States

ID 232 Knowledge extraction from TB patients- A hybrid model with clustering and decision tree  
F. Firuzi Jahantigh, Department of Industrial Engineering, University of Sistan and Baluchestan, Zahedan, Iran  
Hakimeh Ameri, Department of Industrial Engineering, Khaje Nasir Toosi University of Technology, Tehran, Iran

ID 278 Innovation Clusters and Determinants of Innovativeness in Manufacturing Industries  
Mete Sevinc, School of Industrial Engineering, Operations, Planning, Accounting & Control Group, Eindhoven University of Technology, Eindhoven, The Netherlands  
Gündüz Ulusoy, Department of Industrial Engineering, Sabanci University, Istanbul, Turkey

08:00 – 09:30, TUESDAY  Case Studies  
Session Chair: Ineta Geipele, Riga Technical University, Riga, Latvia

ID 046 The importance of learning computer programming for engineers  
Carlos Oliveira, Department of Computing, Rio de Janeiro Federal Institute of Education Science and Technology Rio de Janeiro (IFRJ), Brazil

ID 119 Product-Service System and Inventory Control: Provision in a UK manufacturing case study  
Siti Ismail and J.A. Harding, Loughborough University, Leicestershire, United Kingdom

ID 136 A Study on the Business Strategy of Highly Profitable Electronic Component Manufacturers  
Chihiro Sato, Tohoku University, Sendai, Miyagi, Japan

ID 254 Class-Time Utilization in Business Schools in Tunisia  
Omar Ben-Ayed, Qatar University, Doha, Qatar  
Hedia Lahmar and Raoudha Kammoun, College of Economics and Management (FSEG), University of Sfax, Sfax, Tunisia

ID 332 Importance of Business Incubators for New Business and its Development in Latvia  
Ineta Geipele, Linda Kauškale and Iveta Pukite, Riga Technical University, Riga, Latvia

08:00 – 09:30, TUESDAY  Reliability and Maintenance  
Session Chair: Annamalai Pandian, Saginaw Valley State University, Michigan, United States

ID 129 An Optimal Preventive Maintenance Plan According to Power Generation for a Wind Turbine  
Hajej Zied and Nidhal Rezg, LGIPM, METZ, France

ID 203 A Methodology for Simultaneously Optimizing Selective Maintenance Decision and X-Control Chart Parameters  
Pravin Tambe, Industrial Engineering Department, RCOEM, Nagpur, India  
Makarand Kulkarni, IIT Delhi, New Delhi, Delhi, India

ID 287 Value of Perfect Information in Condition Based Maintenance using Proportional Hazards Models; a comparison of maintenance strategies  
Alireza Ghasemi and Iireza Farhang Doost, Dalhousie University, Halifax, NS, Canada
ID 040  Manufacturing cell layout improvement using Simulation Modeling and Group Technology
Annamalai Pandian, Saginaw Valley State University, Michigan, United States
Ahad Ali, Lawrence Technological University, Southfield, MI, United States

ID 237  Visual data mining of faults in machining process based on machine learning
Soumaya Yacout, École Polytechnique, Montreal, Quebec, Canada
Yasser Shaban, Faculty of Engineering, Helwan University, Cairo, Egypt
Jose Luis, Gonzalez Rubio, Madrid, Spain

09:30 – Welcome Address – VC – UTHM

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

11:00 – Networking break at exhibition hall

11:30 – 13:00, TUESDAY  Global Engineering Education II  Starhill 4
Session Chair: Dr. Christoph Wunck, Jade University, Wilhelmshaven, Germany

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

11:55 – 12:20 (Tuesday)
Professor R. Natarajan
Former Chairman, AICTE
Former Director, IIT Madras, India

Emerging Engineering Education Challenges and Opportunities -- Indian Perspectives

12:20 – 12:45 (Tuesday)
Dr. Christoph Wunck
Professor
Business Computing Systems, Industrial Engineering
College of Management, Information, Technology
Jade University
Wilhelmshaven, Germany

11:30 – 13:00, TUESDAY  Industry Solutions II  Starhill 5

11:30 – 11:55 (Tuesday)

11:55 – 12:20 (Tuesday)

12:20 – 12:45 (Tuesday)

11:30 – 13:00, TUESDAY  Lean Six Sigma Green Belt Workshop  Starhill 6

Dr. Joseph M. Ogundu, MBB
President and CEO – Emerald Global Consulting Inc.
West Bloomfield, Michigan, USA

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11:30 – 13:00, TUESDAY  Operations Management II  Starhill 7
Session Chair: Mohammad Iqbal, Shahjalal University of Science and Technology, Sylhet, Bangladesh

ID 114  Assessment of Automotive Industry Component Supplier’s Competitiveness in South Africa
Mukondelezi Grace Kanakana Katumba and Opeyeolu Timothy Laseinde, Tshwane University of Technology, Pretoria, Gauteng, South Africa

ID 144  Performance evaluation of a heuristics for the prize collecting Steiner tree problem
Hiroyuki Goto, Yuki Hosokawa and Eishi Chiba, Hosei University, Koganei-shi, Tokyo, Japan

ID 633  Optimal Control Applied to Dynamic Model of Climate Change: A Bangladesh Scenario
M H A Biswas and Md. Mohidul Haque, Khulna University, Bangladesh
Muhammad Hanif, Noakhali Science and Technology University, Noakhali, Bangladesh
M. Alhaz Uddin, Khulna University Engineering and Technology, Bangladesh

ID 492  Particle Swarm Optimization for Just-In-Time Trucks Scheduling in Cross Docking Terminals
Warisa Wisittipanich, Department of Industrial Engineering, Chiang Mai University, Muang, Chiang Mai, Thailand

11:30 – 13:00, TUESDAY  Supply Chain Management II  Starhill 8
Session Chair: Sinta Sarpani, University of Indonesia, Indonesia

ID 335  Prepositioning of relief goods under network uncertainty for tropical cyclones with information updates: a humanitarian supply chain
Bryan GObacO, Miguel Lahoz, Mykhael Ng, and Derrick Sy, Industrial Engineering Department, De La Salle University, Manila, Philippines

ID 313  Supply Chain Flexibility and Performance under Uncertainty in Indian Automotive Industry
Parveen Farooque, Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India

ID 401  Supply Chain Risk Management in the Indonesian Flavor Industry: Case Study from a Multinational Flavor Company in Indonesia
Fransisca Dini Ariyanti and Aditya Andika, Industrial Engineering Department, Bina Nusantara University, Jakarta, Indonesia

ID 559  Designing Process Improvement of Order Fulfillment in an Indonesian Lubricant Company Using Business Process Reengineering Method
Sinta Sarpani, University of Indonesia, Jakarta, South Jakarta, Indonesia

11:30 – 13:00, TUESDAY  Material Flow Cost Accounting  Bintang V
Session Chair: Chompoonoot Kasemset, Department of industrial engineering, Chaing Mai University, Thailand

ID 503  Management Control Systems for Material Flow Cost Accounting: A Case of Japanese Company
Hirotugu Kitada, Faculty of Business Administration, Hosei University, Tokyo, Japan
Akira Higashida, Faculty of Business Management, Meijo University, Nagoya, Japan

ID 149  Material Flow Cost Accounting in Supply Chains – Challenges and Approaches
Ronny Sygulla, Uwe Götze and Fanny Dressel, Technische Universität Chemnitz, Saxony, Germany

ID 305  Ceramics Process Improvement with Material Flow Cost Accounting
Wimalin Laosiritaworn, Chaing Mai University, Chiang Mai University, Muang, Chiang Mai, Thailand

ID 349  Application of Material Flow Cost Accounting Analysis to Increase Pajama Production Efficiency: A Case Study of Con
Wichai Chattinnawat, Industrial Engineering Department, Chaing Mai University, Muang, Chiang Mai, Thailand

ID 469  Application of Material Flow Cost Accounting and System Dynamics Approach for Waste Reduction and Sustainable Food Manufacturing Development in Thailand
Jedsada Tipmontian and Ketinun Kittipongpittaya, King Mongkut's University of Technology, North Bangkok, Muang, Prachinburi, Thailand
Rajmohan Murugesan, Anna University, Chennai, Tamilnadu, India

ID 537  Application of MFCA and ECRS in Waste Reduction: A Case Study of Electronic Parts Factory

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11:30 – 13:00, TUESDAY  **Undergraduate Student Paper Competition sponsored by Siemens**  Bintang VI

**Session Chair:** Abbas Mahmoudabadi, MehrAstan University, Gilan, Iran

**ID 228**  Optimal Aggregate Production Planning using Genetic Algorithm
Gaurav Banthia, Ronak Vyas and Juhi Gupta, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, India

**ID 236**  An Optimization Model for Managing System Inventories in a Disaster Supply Chain
Charles Sy, Martin Julian Ongchuan, Steven Ong and Hazel Lynne Lim, De La Salle University, Manila, Philippines

**ID 292**  Feasibility Analysis of Indonesian Traditional Shipping Industry to Strengthen Domestic Maritime Logistic System
Rahmat Nurcahyo and Wegit Triantoro, Universitas Indonesia, Depok, West Java, Indonesia

**ID 697**  Developing a cost-effective model for evaluating the efficiency of weigh in motion system
Razieh Akbari, Faculty of Economics, Kharazmi University, Iran
Abbas Mahmoudabadi, Master Program in Industrial Engineering (MPIE), MehrAstan University, Gilan, Iran

11:30 – 13:00, TUESDAY  **Graduate Student Paper Competition sponsored by EATON**  Bintang VII

**Session Chair:**

**ID 477**  A new risk-based dynamic approach for Prioritizing Patients' access to healthcare services
Daoud Ait Kadi, Samira Abbasgholizadeh Rahimi and Angel Ruiz, Université Laval, Quebec, Canada

**ID 500**  Determining the Effect of Key Process Parameters on Forming Force of Single Point Incremental Sheet Metal Forming
Abdulmajeed Dabwan, Adham Ragab, Mohammed Saleh and Abdelnaser Daoud, Saudi Arabia King Saud University, Riaydh, Saudia Arabia

**ID 561**  A Prospective Solution for Consistent Aerostatic Lift for a Hybrid Buoyant Aircraft
Anwar Ul Haque, Waqar Asrar, Erwin Sulaeman, and JS Mohamed Ali
Experimental & Computational Thermofluid Mechanics Research Group, ECTMRG, Department of Mechanical Engineering, International Islamic University Malaysia (IIUM), Kuala Lumpur, Malaysia
Ashraf Ali Omar, University of Tripoli (UOT), Tripoli, Libya

**ID 382**  Feasibility of Implementation of Project Management System in Project Oriented Organizations–A Case Study of Electrical Distribution Company
Amin Lakzadeh, Middle East Mines & Mineral Industries Development Holding Company (MIDHCO), Kerman, Alghadir, Iran

**ID 135**  In-house Crowdsourcing-based Entity Resolution using argumentation: Issue of Common Names
Morteza Saberi, Curtin University of Technology, Perth, Australia
Omar Khadeer Hussain, Elizabeth Chang and Naeem Janjua, UNSW, Canberra, Australia

11:30 – 13:00, TUESDAY  **Human Factors and Ergonomics**  Mayang Sari I

**Session Chair:** Pratima Verma, IIT Kanpur, India

**ID 079**  Students’ Perception of Careers in the Shared Services Industry
Oksana Koval and Stephen Nabareseh, Tomas Bata University in Zlin, Czech Republic

**ID 177**  Multiple Performance Optimization for Human-Robot Collaboration: a Translation Motion in a Tele-Sandblasting Maintenance System
Ranon Jientrakul and Chumpol Yangyai, King Mongkut's Institute of Technology, Ladkrabang, Bangkok, Thailand

**ID 184**  Reduction of workload stress on employee performance in the service sector of Sri Lanka.
Kethaki Kumarasiri, University of Peradeniya, Peradeniya, Sri Lanka

**ID 164**  Ergonomics as a Lean Manufacturing Tool for Improvements in a Manufacturing Company
Rosnah Mohd Yusuff and Nor Suhada Abdullah, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

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ID 201  Structure, Evaluation System, and Employee Resistance: Impediments to Horizontal Strategy Implementation in Diversified Corporations  
Pratima Verma, IIT Kanpur, UP, India

11:30 – 13:00, TUESDAY  
**Data Analytics**  
Session Chair: Koorosh Mashhadi Alizadeh, Sadjad University of Technology, Mashhad, Iran

ID 320  Application of Text Mining for Classification of Textual Reports: A Study of Indonesia’s National Complaint Handling System  
Isti Surjandari, Chyntia Megawati, Arian Dhin and I.B.N. Sanditya Hardaya, Universitas Indonesia, Depok, Indonesia

ID 387  In search of Malaysian companies with successful implementation of business intelligence initiatives  
Wong Kee-Luen and Chuah Min-Hooi, Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia

ID 538  Crime Trend Analysis by Changes of Spatial Autocorrelation and Hot-spot  
Hohyun Lee and Dain Kim, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

ID 127  Driving safety performance in the construction industry through safety induction and training – as a leading measure  
Natalie Skeepers and Charles Mbohwa, University of Johannesburg, South Africa

ID 429  Prioritize of usages, challenges and risks of Building Information Modeling  
Koorosh Mashhadi Alizadeh, Department of Industrial Engineering, Sadjad University of Technology, Mashhad, Iran  
Jalal Sani Bajgiran, Day Company, Tehran, Iran  
Ebrahim Rezaee Nik, Department of Industrial Engineering, Sadjad University of Technology, Mashhad, Iran

11:30 – 13:00, TUESDAY  
**Case Studies**  
Session Chair: Sanda Geipele, Riga Technical University, Latvia

ID 329  Energy Efficiency Improvement Opportunities in Latvia as a Sustainable Development Indicator  
Ineta Geipele, Linda Kauškale and Iveta Pukite, Riga Technical University, Latvia

ID 498  A Build-or-Lease Case Study for a Potential New Warehouse Due To Increasing Storage Capacity Requirements  
Denis Daus, Chiang Mai University, Lübbecke, NRW, Germany

ID 567  The Impact of Lack in Occupational Health and Safety Implementation in Small Businesses  
Charles Mbohwa and Sebonkile Thaba, University of Johannesburg, South Africa

ID 481  Financial Inclusion in Colombia: Evolution and Relative Efficiency  
Gloria Rodriguez-Lozano, Universidad Nacional de Colombia, Bogota, Colombia

ID 359  Management of energy efficient processes in residential and public buildings at regional level: A Case Study of Latvia  
Sanda Geipele, Institute of Civil Engineering and Real Estate Economics, Riga Technical University, Riga, Latvia  
Gita Actina, Institute of Physical Energetics, Energy Efficiency Center, Riga, Latvia

11:30 – 13:00, TUESDAY  
**Transportation and Traffic**  
Session Chair: Yoichi Shimakawa, Salesian Polytechnic, Machida-shi, Tokyo, Japan

ID 024  A Proposed Hybrid Scheme for Eliminating Road Transportation Waste  
Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza Garcia Nuevo Leon, Mexico

ID 042  A Two-stage Stochastic Programming Model for Districting and Transportation Lot-size of Sugarcane  
Kanchala Sudtachat, Suranaree University of Technology, Muange, Nakhon Ratchasima, Thailand

ID 113  An investigation into the urban bus route performance using a modified DEA Model: A case study of Kolkata bus transport  
Arnab Adhikari and Sumanta Basu, Indian Institute of Management Calcutta, Kolkata, West Bengal, India  
Indranil Biswas, Operations Management Area, Indian Institute of Management Lucknow, Prabandh Nagar, Lucknow, India

ID 130  An Analytical Framework for Local Impacts of Road Pricing Policy: A Case Study of the Tokyo Metropolitan Area  

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13:00 – Industry Keynote:
Dr. Anwar Ali Mohamed
O.R. Freelance Consultant, Penang, Malaysia and
Former Principal Engineer at Intel Malaysia
Mayang Sari Grand Ballroom (Boxed Lunches Provided)

14:00 - Break

14:30 – 15:45, TUESDAY  
Global Engineering Education III  
Starhill 4
Session Chair: Dr. Mohammad Yeakub Ali, International Islamic University Malaysia

2:30 – 2:55 (Tuesday)
Dr. Alok Verma
Ray Ferrari Professor and Chair
Department of Engineering Technology
Old Dominion University
Norfolk, Virginia, USA

2:55 – 3:20 (Tuesday)
Dr. Ramiro Jordan
Professor and Associate Dean of Engineering for International Programs
Department of Electrical and Computer Engineering
University of New Mexico
ISTEC founder, IFEES ExCom

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

14:30 – 15:45, TUESDAY  
Industry Solutions III  
Starhill 5
Session Chair: Kishor Kulkarni, Tata Technology, Pune, India

2:30 – 2:55
Foad Hosseinkhanli
Director of Quality Assurance
Performance and Business Improvement
Amor Health Services, Inc.
Brownsville, Texas, USA

ID 062  Strategic Emergency Preparedness and Effective Response Plan Applying Lean Six Sigma

2:55 – 3:20
Hakan Butuner
MECO Industrial Management & Engineering Co.
Istanbul, Turkey

ID 008  Systematic Competency Based Training Needs Analysis
14:30 – 16:00, TUESDAY  **Lean Six Sigma Green Belt Workshop**  Starhill 6

Dr. Joseph M. Ogundu, MBB  
President and CEO – Emerald Global Consulting Inc.  
West Bloomfield, Michigan, USA

14:30 – 16:00, TUESDAY  **Operations Management III**  Starhill 7  
Session Chair: Artie Ng, Hong Kong Polytechnic University

ID 146  Resolution of Resource Contentions in the Critical Chain Project Management based on Simulated Annealing  
Hiroyuki Goto and Hajime Yokoyama, Hosei University, Koganei, Tokyo, Japan

ID 152  Performance Measurement System and Business Performance Measurement System: A Comparative Study  
Shahryar Sorooshian, Nor Mahirah Mustapha and Azlinna Azizan, Universiti Malaysia Pahang, Kuantan, Pahang, Malaysia

ID 263  Improvement of Master Production Planning in a Semi-Conductor Manufacturer  
Waralak Maneefun and Parames Chutima, Chulalongkorn University, Bangkok, Thailand

ID 272  Use of Interdiction Models to evaluate the Robustness of two Echelon Supply Chain for Minimum Service level  
Priyank Sinha, IIT Kanpur, Kanpur, Uttar Pradesh, India

ID 336  Competitive Revenue Management Model Using Dynamic Pricing for Theater Seats Management  
Lindley Bacudio, Rose Angel Lizardo and Eunice Austria, De La Salle University - Science and Technology Complex Binan, Laguna Philppines

ID 290  Second-movers’ advantage under the Big Data era: sustainability performance through disruptive innovation  
Artie Ng, Adam Wong and Edmund Wut, Hong Kong Polytechnic University, Hong Kong, China

14:30 – 16:00, TUESDAY  **Supply Chain Management III**  Starhill 8  
Session Chair: Mohammad Rizal Firmansyah, University of South Australia

ID 419  Applying the Analytical Hierarchy Process to Determine Upstream Competitiveness for Wedding-Planning Industry  
Grisna Anggadwita, Cut Ira Setiawati, Yuhana Astuti and Bayu Rachmadi, School of Economic and Business, Telkom University, Bandung, West Java, Indonesia

ID 505  Coordinating a Multi-echelon Apparel Supply Chain in the Presence of Supply and Demand Uncertainty  
Arnab Adhikari, Indian Institute of Management Calcutta, Kolkata, West Bengal, India

ID 551  “Performance Evaluation”&“Problems Identifications in Warehouses” of Third-Party Logistics  
Ghulam Yasin Shaikh, Muhammad Aijazuddin, Abu Bakar, Shamir Ali, Muhammad Amir and Moin Khan, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

ID 505  Addressing Supply Chain Configuration Practices: Evidence from Italian Best Performer Valve Suppliers for the Oil & Gas Industry  
Guido Jacopo Luca Micheli, Enrico Cagno, Filippo S.P.M. Manzi and Yasmine Sabri, Politecnico di Milano, Italy

ID 558  Assessing the effect of implementing a port community system platform in the response time of an international terminal: the case of a multi-cargo facility at the Colombian Caribbean coast  
Rene Amaya, Adriana Moros, Guisselle Garcia and Carlos Paternina, Universidad del Norte, Barranquilla, Atlántico, Colombia

ID 581  The development of a framework for Australian SMMEs collaboration in a global supply chain environment, Part 2: Genetic operators and a case study  
Mohammad Rizal Firmansyah, University of South Australia, Mawson Lakes, Adelaide, South Australia, Australia

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ID 185 : Improvement of Productivity Rate of JIT #262, Creams, Liquids, Lotions Department of a Cosmetics Company
Ezrha C. Godilano and Rachel C. Villanueva Department of Industrial Engineering, Malayan Colleges Laguna, Cabuyao Laguna, Philippines

ID 175 Effect of Sintering Temperature on Hydroxyapatite Compact Scaffold Characteristics
Wassanai Wattanucharinya, Jidapah Rueenareenard and Anirut Chaijaruwanich, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Muang, Chiang Mai, Thailand

ID 214 Social Network Analysis Based Evolutionary Algorithmic Approach to Identify the Influence of Hubs on Flexible Scheduling Problems
Vijayakumar Manupati and Ila Sharma, VIT University, Vellore, TamilNadu, India

ID 223 System of decision-making assistance for the recycling manufactured products
Mickael Gardoni, ÉTS, Montréal, Canada
Gaye Khalifa, University Assane Seck of Ziguinchor, Senegal
Amadou Coulibaly, INSA Strasbourg, France

ID 317 Designing Laptop Based On Costumer Preference Using ECQFD and TRIZ Methods
Indi Galih, Amalia Suzianti, Irham Satria Yudha and Shabila Anjani, Universitas Indonesia, Depok, Jawa Barat, Indonesia

ID 400 Optimization of Warehouse Operations for Logistics Company in the Philippines
Stephanie B. Duque, Maricar M. Navarro, Bernaliza O. Verrey, Jovale C. Vitao, Sherilyn M. Zantua, Rosalia F. Gabuya, Industrial Engineering Department, Technological Institute of the Philippines, Quezon City, Philippines

ID 100 Design of Single-Phase Grid-Connected Based on Dual-MPPT for Photovoltaic Generation Systems
Slamet Kasbi, Rasli bin Abd Ghani and Fuminori Kobayashi, Malaysia – Japan International Institute of Technology (MJIIT), University Teknologi Malaysia Kuala Lumpur, Kuala Lumpur, Malaysia

ID 134 Next Generation of Interactive contact centre for efficient customer recognition
Morteza Saberi, Curtin University of Technology, Perth, Australia
Omar Khadeer Hussain and Elizabeth Chang, UNSW Canberra, Australia

ID 323 A Hybrid Particle Swarm Optimization Algorithm and Support Vector Machine Model for Agricultural Statistic of Thailand Forecasting
Onuma Kosanan and Nantachai Kantanantha, Department of Industrial Engineering, Faculty of Engineering, Kasetsart University (Bangkhen Campus), Chatuchak, Bangkok, Thailand

ID 677 Exploring Critical Success Factors for TQM Implementation Using Interpretive Structural Modelling Approach: Extract from Case Studies
Vimal Kumar, IIT Kanpur, India

ID 678 The Linkages between Horizontal Strategy, Person-Environment fit and Horizontal Fit: An Empirical study
Pratima Verma, IIT Kanpur, India

ID 194 Fatigue from driving – a comparison between morning and afternoon tasks
Rida Zuraida, Bina Nusantara University, Jakarta Barat, DKI Jakarta, Indonesia
Hardianto Iriastadi and Iftikar Z.Sutalaksana, Institut Teknologi Bandung, Jawa Barat, Indonesia

ID 243 Workplace Ergonomics and Employees’ Health: A Case Study at Automotive Manufacturer

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ID 291  Ergonomic Risk Factors for Workers in Garments Manufacturing – A Case Study from Pakistan
Zahid Abbass Shah, Asim Amjad, Maria Ashraf, Fareeha Mushtaq and Iram A. Sheikh, University of the Punjab, New Campus, Lahore, Punjab, Pakistan

ID 086  Effects of Different Interruptions While Driving for Field Independent and Dependent Individuals
Rene Estember, Kevin Kristoffer Balares and Ma. Janice Gumasing, Mapua Institute of Technology, Manila, Philippines

ID 343  Human Error in Multitasking Environments
Ali Ahmad, Northwestern State University, Natchitoches, LA, United States
Saber Darmoul, Abdulmajeed Dabwan, and Mohammed Alkahtani, Industrial Engineering Department, King Saud University, Riyadh, Saudi Arabia
Shatha Samman, Global Assessment, Inc., Orlando, Florida, USA

ID 376  Study on Life Log of Female Parent during Child Care in Japan
Seiko Taki, Chiba Institute of Technology, Narashino, Chiba, Japan

14:30 – 16:00, TUESDAY  Data Analytics
Session Chair: Ainul Akmar Mokhtar, Universiti Teknologi Petronas, Malaysia

ID 150  Development of Effective Marketing Strategies for a Housing Equipment Company Based on Analysis of Sales Data and Sales Personnel
Kakunoshin Nishiyama, Graduate School of Business Administration, Keio University, Chuo-ku, Tokyo, Japan
Uschio Sumita, Keio University, Yokohama, Kanagawa, Japan

ID 151  Structural Analysis of Page Access Behaviors of Sessions at Website of a Housing Equipment Company
Uschio Sumita and Mikio Komatsu, Keio University, Yokohama, Kanagawa, Japan

ID 154  Analysis of VOC (Voice of Customer) Data for Assessing Corporate Image of a Housing Equipment Company
Uschio Sumita and Hiroaki Takagi, Keio University, Yokohama, Kanagawa, Japan

ID 488  Application of Logistic Regression in Resolving Influential Risk Factors Subject to Corrosion under Insulation
Ainul Akmar Mokhtar, Masdi Muhammad and Nurul Rawaida Ain Burhani and Mokhtar Che Ismail, Universiti Teknologi Petronas, Tronoh, Perak, Malaysia

14:30 – 16:00, TUESDAY  Construction Management
Session Chair: Ineta Geipele, Riga Technical University, Latvia

ID 123  Improving health and safety in the construction industry through cultural transformation
Natalie Skeepers and Charles Mbohwa, University of Johannesburg, South Africa

ID 407  A Risk Management Framework for Selling a Mega Power Plant Project in a New Market
Negar Ganjouhaghighi and Amirali Dolatshahi, Mapna Group, Tehran, Iran

ID 534  Genetic Algorithms for Two-Phase Construction Dynamic Site Layout
Amr Fathy and Ibrahim Abotaleb, The American University in Cairo, Egypt

ID 448  Comparative Study of Procurement System between Industrialised Building System (Ibs) and Conventional Construction
Natasha Dzulkalnine, Construction Research Institute of Malaysia (CREAM), Kuala Lumpur, Malaysia

ID 227  Influence of Economic and Real Estate Market Fluctuations on Real Estate Entrepreneurship in Latvia
Ineta Geipele and Linda Kauškale, Riga Technical University, Riga, Latvia

ID 247  Real Estate Investment Management and Macroeconomic Sustainability: Case of Latvia and International Experience
Ineta Geipele and Linda Kauškale, Riga Technical University, Riga, Latvia

14:30 – 16:00, TUESDAY  Transportation and Traffic
Session Chair: Farag Elfeituri, University of Benghazi, Libya
ID 156  Commercial Viability of Foldable Ocean Containers  
Shao Hung Goh, SIM University, Singapore

ID 324  A Multi Objective Robust Model for Capacity-Constraint Hub-Covering Flow Problem  
Sogol Saremi, Industrial Engineering School, Iran University of Science & Technology, Tehran, Iran  
Hani Shahmoradi-Moghaddam, Industrial Engineering Department, University of Tehran, Tehran, Iran  
Armin Jabbarzadeh, Industrial Engineering School, Iran University of Science & Technology, Tehran, Iran

ID 548 Waiting Time Duration-Constrained Close-Open Mixed Vehicle Routing Problem with Semi Soft Time Window Solved by Genetic algorithm and Tabu Search  
Mehdi Seifbarghy, Alzahra University, Tehran, Iran  
Mojhgan Hafezinia, Qazvin, Iran

ID 649 Optimization of Shifting Cycle of SKUs by Developing Suggested Operating Procedure (SOP) in a FMCG Industry  
Ghulam Yasin Shaikh, Muhammad Zulfiqar, Jazib Zai, Zahid Ali Abbasi and Mohsin Sheikh, Mehran University of Engineering and Technology, Jamshoro, Hyderabad, Sindh, Pakistan

ID 026 Using Tolerated Risk for Solving Hazardous Material Routing Problem by Preemptive Goal Programming Approach  
Abbas Mahmoudabadi, MehrAstan University, Astaneh Ashrafieh, Gilan, Iran  
Hassan Abdoo, Road Maintenance and Transport Organization, Tehran, Iran  
Roozbeh Azizmohammadi, Department of Industrial Engineering, Payame Noor University, Tehran, Iran

15:45 - Break

16:00 – 17:30, TUESDAY  Global Engineering Education IV  Starhill 4  
Session Chair: Dr. Ayham Jaaron, An-Najah National University, Palestine

4:00 – 4:30 (Tuesday)  
Dr. Chan Chee-Ming  
Associate Professor and Deputy Dean (Academic and Research)  
Centre for Graduate Studies  
Universiti Tun Hussein Onn Malaysia  
Batu Pahat, Johor, Malaysia

ID 717: Engineering Postgraduate Students’ Perspective on Their Preparedness for the Job Market: Employability Attributes

4:30 – 5:00 (Tuesday)  
Dr. Ayham Jaaron  
Asst. Prof. in Industrial Engineering  
Director of Quality Assurance Unit  
Director of ABET Centre  
An-Najah National University  
Nablus, West Bank  
Palestine

5:00 – 5:30 (Tuesday)  
Dr. K Manivannan  
Vice-President  
Indian Society for Technical Education (ISTE)  
New Delhi, India

16:00 – 19:00, TUESDAY  Industry Solutions IV  Starhill 5

Big Data in Manufacturing and Service Industry  
4:00 – 7:00 pm (Tuesday)

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Andrew Kusiak  
Intelligent Systems Laboratory  
Department of Mechanical and Industrial Engineering  
The University of Iowa  
Iowa City, Iowa, USA  

16:00 – 17:00, TUESDAY  Lean Six Sigma Green Belt Workshop  
Starhill 6  

Dr. Joseph M. Ogundu, MBB  
President and CEO – Emerald Global Consulting Inc.  
West Bloomfield, Michigan, USA  

16:00 – 17:30, TUESDAY  Operations Management IV  
Starhill 7  

Session Chair: Nor Aziati Abdul Hamid, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia  

ID 357  Optimization Model for Advertisement Decision a Case of Cooperative Dairy  
Anubha Rautel, Nishith Mohan, S. K. Sharma and P. Bhardwaj, Indian Institute of Technology –BHU, Uttar Pradesh, India  

ID 304  Can Resource Sharing Improve Disaster Response Effectiveness? Evidence from West Sumatra Earthquake  
Eko Setiawan, Universitas Muhammadiyah Surakarta Birmingham, West Midlands, United Kingdom  

ID 366  Performance Measurement in PT. XYZ Using the Balanced Scorecard - A Case Study of PT. XYZ  
Ig Jaka Mulyana, Lien Tjiang, Martinus Edy and Van Gunawan, Industrial Engineering Department Widya Mandala Surabaya Catholic University, Surabaya, East Java, Indonesia  

ID 369  Improving the quality of public transportation using Quality Function Deployment and Kano’s Model  
Anjar Priyono, Universitas Islam Indonesia, Yogyakarta, Indonesia  

ID 572  A new heuristic algorithm to solve product-service mix analysis in mobile bottleneck environments with shared resources based on GTBM method  
Eldon Caldwell, University of Costa Rica, San Jose, Costa Rica  

16:00 – 17:30, TUESDAY  Supply Chain Management IV  
Starhill 8  

Session Chair: Kammoun Mohamed Ali, METZ, France  

ID 020  Relating Supply Chain E-Integration to Organizational Strategy  
Tesfaye Tolu Feyissa and R.R.K. Sharma, Indian Institute of Technology, Kanpur, UP, India  

ID 039  Optimization of Excess and Waste of Closed Loop Supply Chain System by Using Fuzzy Model  
Reiam Basim Mohamed, Department of Mechanical Engineering, Engineering College, Baghdad University, Iraq  
Zuhair Issa Ahmed, Dean Bani University College, Baghdad, Iraq  

ID 118  Optimized management of hospital supply chain: The hospital linen circuit subcontracted  
Kammoun Mohamed Ali, Laboratory of Industrial Engineering, Production and Maintenance, Metz, France  

ID 147  Supply Chain Management of Thai Parboiled Rice for Export  
Wassanai Wattanucharinya, Department of Industrial Engineering, Faculty of Engineering Chiang Mai University, Thailand  
Roengchai Tansuchat, Faculty of Economics, Chiang Mai University, Thailand  
Jidapah Ruennareenard, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Thailand  

ID 153  Networked RFID based Supply Chain Process Analysis  
Tatsuya Inaba, Kanagawa Institute of Technology, Atsugi, Kanagawa, Japan  

16:00 – 17:30, TUESDAY  Manufacturing and Design  
Bintang V  

Session Chair: Sahil Nanda, Delhi Technological University, India  

ID 363  Improvement of the manufacturing process of the salicylic acid  

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ID 462 Copper Sheet Resistance characteristics in the production staging time limitation study between Copper Seed and Copper Electroplating in Semiconductor Wafer manufacturing
Mohd Razali Muhamad, Universiti Teknikal Malaysia Melaka, Malaysia
Anuar Fadzil Ahmad, Silterra Malaysia Sdn Bhd, Kulim, Kedah, Malaysia
Zarifah Syazana Hashim, Universiti Teknikal Malaysia Melaka (UTeM), Kulim, Kedah, Malaysia
Md Nizam Abdul Rahman, Universiti Teknikal Malaysia Melaka, Durian, Tunggal, Melaka, Malaysia

ID 480 Investigation of surface integrity in high speed machining of Ti6Al4V alloy
Amir Rasti, Mohammad Hossein Sadeghi and Hamed Hassanpour, Tarbiat Modares University, Tehran, Iran

ID 526 Grey fuzzy optimization of cutting parameters on Material Removal Rate and Surface Roughness of Aluminium
Sahil Nanda, Shubham Singhal, Rushil Batra and Ranganath M. Singari, Delhi Technological University, New Delhi, Delhi, India

16:00 – 17:30, TUESDAY Undergraduate Student Paper Competition sponsored by Siemens Bintang VI
Session Chair: Rajdeep Singh, CGC College of Engineering Landran Mohali, Punjab, India

ID 512 Developing a Multi-objective Model for Locating a New Warehouse for Bama’s Chain Store
Maral Siahpour, Ferdowsi University, Mashhad, Khorasen Razavie, Iran

ID 421 Consideration of economics and ergonomics aspects in the design and manufacturing of Hydraulic Floor Crane
Abdul Wahid, Shakil Shaikh, Muhammad Ibrahim Khan, Shahzain Akram and Syed Muhammad Hassan, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

16:00 – 17:30, TUESDAY Ph.D. Dissertation Research Presentation Competition Bintang VII
Session Chair: Michael Mutingi, University of Botswana

ID 334 A Framework for Improving Productivity of SMEs Economically
Suman Samanta, IIT Kanpur, Kanpur, Uttar Pradesh, India

ID 509 Deployment of Virtualization Technology for Higher Engineering Education Data Communication Laboratory
Zulfiqar Ali, Royal Commission, Yanbu Al Sinayah, Madinah, Saudi Arabia
Raed Althomali, Yanbu Industrial College-YIC, Yanbu Al Sinayah, Madinah, Saudi Arabia

ID 527 Design, Connection, Configuration and Testing of a Mini Data Center for Higher Engineering Technology Institute Lab
Zulfiqar Ali, Royal Commission, Yanbu Al Sinayah, Madinah, Saudi Arabia

ID 576 Solutions to ammoniacal nitrogen presence in CMP effluent from oxide process
Mohamed Ariff Shri Abdul Aziz, Muhammad Asyraf Said, Ahmad Termizi Awang and Sulong Mamat, SilTerra Malaysia Sdn Bhd, Kulim, Kedah, Malaysia
Abdul Talib Din, Universiti Teknikal Malaysia (UTeM), Durian, Tunggal, Melaka, Malaysia

ID 598 Fuzzy heuristic approaches for healthcare staff scheduling
Michael Mutingi, University of Botswana, Gaborone, Botswana

16:00 – 17:30, TUESDAY Human Factors and Ergonomics Mayang Sari I
Session Chair: Hakan Butuner, IMECO Industrial Management & Engineering Co., Istanbul, Turkey

ID 569 Gripping Strength Distribution among Middle Eastern Teenage and Young Adults
Abdalla Alrashan, Alfaisal University, Riyadh, Saudi Arabia
Ali Mohamed, Prism Group Inc., Windsor, ON, Canada

ID 599 Sonographer Ergonomics: assessment and workplace redesign
Anchal Patil, IIT Delhi, New Delhi, Delhi, India

ID 651 The Relationship between Leadership Styles and Quality Management Practices in Johor Bahru Manufacturing Firms
Shiau Wei Chan and Parit Raja, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

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<td>Hwi-Chie Ho and Dyah Lestari Widaningrum, Bina Nusantara University,</td>
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<td>Jakarta, Jakarta Raya, Indonesia</td>
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<td>Vimala Kadiresan, Mehrunishah Begum Bt vps Bathusha Hamind, Mohamad</td>
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<td>employees which leads to retention</td>
<td>Hisyam Bin Selamat and Neeta Jayabalan, Faculty of Business,</td>
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<td>Accounting and Management (FOBAM), SEGi University, Kota Damansara,</td>
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<td>Petaling Jaya, Malaysia</td>
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<td>Shaheen Mansori, Faculty of Business, Communications and Law, INTI</td>
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<td>International University, Bandar Baru Nilai, Negeri Sembilan, Malaysia</td>
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<td>ID 015 Framework for Decision Support Tool for Quality Control</td>
<td>Mogale Sabone, Botswana International University of Science and</td>
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<td>and Management in Botswana Manufacturing Companies</td>
<td>Technology, Gaborone, South East, Botswana</td>
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<td>ID 047 A Game-Theoretic Approach to Digital Marketing and Lead</td>
<td>Antonio Grilo, Diogo Mota and Marta Faias, FCT-UNL, Alverca, Lisboa,</td>
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<td>University, Shiraz, Fars, Iran</td>
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<td>ID 250 A Decision Support Model for Spare Parts Inventory in a</td>
<td>Charlie Sy, De La Salle University, Manila, Philippines</td>
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<td>ID 269 Fuzzy Extent Analysis: Comparison of Defuzzification</td>
<td>Kemal Kilic and Faran Ahmed, Sabanci University, Istanbul, Turkey</td>
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<td>Saber Darmoul, Industrial Engineering Department, King Saud University,</td>
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<td>Riyadh, Saudi Arabia</td>
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<td>Sonia Hajri-Gabouj and Souhir Ben Cheikh, INSAT, Tunis, Tunisia</td>
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<td><strong>Engineering Management</strong></td>
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<td>ID 198 Supporting Decisions on Industrial Plant Modularization:</td>
<td>Mauro Mancini, Angelica Maganini, Alessandro Bondi, Guido Jacopo Luca</td>
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<td>A Case Study Approach in the Oil and Gas Sector</td>
<td>Micheli and Agnese Travaglini, Politecnico di Milano, Milan, Italy</td>
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<td>ID 009 From Traditional to Modern Manufacturing System: Case Study</td>
<td>Charles Mbohwa and Ignatio Madanhire, University of Johannesburg,</td>
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<td>Syed Masood, International Islamic University, Islamabad, Pakistan</td>
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<td>Ceicalia Tesavrita and Ike Mercia Yusuf, UNPAR, Bandung, West Java,</td>
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<td>Ayham Jaaron, Mohammad Othman and Mujahed Staiti, An-Najah National</td>
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<td>Chathurani Silva and Sanjay Mathrani, Massey University, Albany,</td>
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<td>Auckland, New Zealand</td>
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<td>North, Manawatu, New Zealand</td>
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ID 436  Key RFID implementation factors affecting “sourcing” decision of RFID systems in supply chain of manufacturing industry
Niraj Kumar Vishvakarma Indian Institute of Technology, Kanpur Kanpur Uttar Pradesh India.
R.R.K. Sharma Indian Institute of Technology Kanpur, UP, India

ID 441  Firm’s Policy Management by using ERP system
Thanyawan Soonthornvipat, Vorapoch Angkasith and Dhiranantha Rithmanee, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

Noorliza Karia and Mohamed Soliman, Universiti Sains Malaysia, Penang, Malaysia

17:30 – Poster Session and IEOM Student and Professional Chapter Mixer
March 9, 2016 (Wednesday)

**Global Engineering Education V**  
**Session Chair:** Dr. C. B. Gupta, Birla Institute of Technology and Science, Pilani (Raj.), India

08:00 – 08:30 (Wednesday)  
**Engr. Prof. Adagbonyin Moses O. Obiazi**  
Dean, Faculty of Engineering and Technology  
Ambrose Alli University  
Nigeria  
President, African Engineering Deans Council, AEDC

08:30 – 09:00 (Wednesday)  
**Dr. C. B. Gupta**  
Professor  
Department of Mathematics  
Birla Institute of Technology and Science  
Pilani (Raj.), India

09:00 – 09:30 (Wednesday)  
**Professor Alison Emslie Lewis**  
Dean  
Faculty of Engineering and the Built Environment  
University of Cape Town  
Rondebosch, South Africa

**Industry Solutions V**  
**Session Chair:** Md. Kawsar Ali, Comfit Composite Knit Ltd., Bangladesh

08:00 – 08:30 am  
**ID 627 Yield Improvement of Wafer Edge Die Defocus (EDD) at Via Layer**  
Arumugam Manikam, Silterra (M) Sdn.Bhd, Kulim, Kedah, Malaysia

08:30 – 09:00 am  
**ID 218 Maximising Revenues in the “Tatkal” Category of Indian Railways**  
Vivek Sundar Magesh, TVS Logistics Services Limited, Chennai, India

9:00 – 9:30 am  
**Md Kawsar Ali**  
Chief Operating Officer  
Comfit Composite Knit LTD  
Gorai, Mirzapur, Tangail  
Dhaka, Bangladesh

**Operations Management V**  
**Session Chair:** Makhala Mpho Motebele, University of Johannesburg, South Africa

08:00 – 09:30, WEDNESDAY  
**ID 388 Proposed Performance Management System for Indonesian Ministry of Health Using Integrated Performance Management System**  
Indra Wirapraceka and Dermawan Wibisono, ITB, Bandung, Indonesia

**ID 471 Enhanced Organizational Ambidexterity through the Automation of Production-Related Processes**  
Eva Bogner, Christopher Kaestle and Joerg Franke, Institute for Factory Automation and Production Systems, Friedrich-Alexander-University Erlangen-Nuremberg, Erlangen, Germany

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ID 654  Awareness, Implementation, Effectiveness and Future Adoption of Operational Improvement Initiatives: Survey Results
Nor Aziati Abdul Hamid, Musli Mohammad, Mohd Shahir Yahya and Noor Hamizah Yaakub, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia

ID 647 Implementation of Fuzzy Inference System for Production Planning Optimisation
R. Ramlan, A. P. Cheng, S. W. Chan and Y. Ngadiman, Department of Production and Operation Management, Universiti Tun Hussein Onn Malaysia, Malaysia

ID 370 Identifying Organisational best practices redesign: skills, grading and wage systems for synthesizing findings on WCM
Makhala Mpho Motebele, University of Johannesburg, South Africa

08:00 – 09:30, WEDNESDAY  Lean and Six Sigma I  Starhill 7
Session Chair: A.N.M. Karim, International Islamic University Malaysia

ID 121 Introducing Radio Frequency Identification into Lean Manufacturing; An application in garment industry
Michael Wahba, Lamia Shihata and Amr Talaat, German University in Cairo, Egypt

ID 241 Perception of female employees towards the Lean and work culture change in apparel industry in Sri Lanka
S. Sewwandi and H.D.P. Premarathne, Department of Sociology, Faculty of Arts, University of Peradeniya, Peradeniya, Sri Lanka
I. Morawaka and A.K. Kulatunga, Department of Production Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka

ID 319 Quality Improvement in Plastic Based Toy Manufacturer Using Six Sigma Method
Rahmat Nurcahyo and Dendi Ishak, Universitas Indonesia, Depok, Jawa Barat, Indonesia

ID 330 An Investigation of Lean Manufacturing Implementation in Textile Sector of Pakistan
Zahid Abbass Shah and Habib Hussain, University of the Punjab, New Campus, Lahore, Pakistan

ID 386 Leanness Assessment for Adapting Lean Manufacturing Principles to Textile Processing
Abbebayehu Abdela, School of Mechanical and Industrial Engineering, Ethiopia Institute of Technology-Mekelle, Mekelle University, Mekelle, Tigray, Ethiopia

ID 491 A Critical Assessment of Prevailing Models for Measuring Lean Manufacturing
Amjad Khalili, A.N.M. Karim, Md Yusof Ismail and Mohd Radzi Che Daud, International Islamic University Malaysia, Kuala Lumpur, Selangor, Darul Ehsan, Malaysia

08:00 – 09:30, WEDNESDAY  Supply Chain Management V  Starhill 8
Session Chair: Muhammad Rusman, Hasanuddin University, Makassar, Indonesia

ID 143 Disruption recovery of two-stage serial supply chain with consideration of carbon emission cost
Noraida Azura Darom and Hawa Hishamuddin, Universiti Kebangsaan Malaysia, Bandar Baru Bangi, Selangor, Malaysia

ID 125 Minimising fluctuation in commodity pricing using Dynamic Simulation
Madhupreetha Venkatesh, Confederation of Indian Industries, Chennai, Tamil Nadu, India

ID 580 The development of a framework for Australian SMMEs collaboration in a global supply chain environment, Part 1: A conceptual model and solution approach
Mohammad Rizal Firmansyah, University of South Australia, Mawson Lakes, Adelaide, South Australia, Australia

ID 321 Reverse Logistics in Indian Pharmaceutical Industry
Jamal A Farooquie, Aligarh Muslim University (AMU), Aligarh, UP, India

ID 246 Optimization Planning for Logistics distribution of rice commodities in South Sulawesi
Muhammad Rusman, Industrial Engineering, Hasanuddin University, Makassar, Sulawesi Selatan, Indonesia

08:00 – 09:30, WEDNESDAY  Manufacturing and Design  Bintang V
Session Chair: Muhammad Akmal Johar, Universiti Tun Hussein Onn Malaysia

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<td>Build Up of Copper EDM Electrode by Using Galvanic Plating Process</td>
<td>Hussain Mohammed Yousif, Central Tool Room Plant, Nasser State Company, Ministry of Industry &amp; Mineral, Baghdad, Iraq; Hijran Zainalabidin, Dep. of Production Engineering and Metallurgy, University of Technology, Baghdad, Iraq; Niveen Jamal Abd Alkader, Dep. of Materials Engineering, University of Technology, Baghdad, Iraq</td>
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<td>Comparative Performance Study of Smart Structure for Thermal Microactuators</td>
<td>Muhammad Akmal Johar, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia</td>
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08:00 – 09:30, WEDNESDAY

**Undergraduate Research Presentation**

**Session Chair:** Mellak Abderrahmane, Boumerdes University – Algeria, Boumerdes, Algeria

**ID 435** Study on Performance Evaluation of Self-propelled Reaper

Jannatul Ferdows Nipa, Hajee Mohammad Danesh Science and Technology University, Dinajpur, Bangladesh

**ID 087** Evaluating Maintenance Strategies Effectiveness on Overall Equipment Utilization

Charles Mbohwa and Bupe Mwanza, University of Johannesburg, Gauteng, South Africa

**ID 685** Need for Deployment of RFID Technology in Indian Hospitals

Parul Maroo, Industrial Engineering, Pandit Deendayal Petroleum University, Raisan, Gandhinagar, Gujarat, India

**ID 234** The environmental impact of inputs used in the vitivinicultural sector in Algeria

Mellak Abderrahmane, Boumerdes University – Algeria, Boumerdes, Algeria; Kaddour El Heit, Université Mouloud Mammeri, Tizi Ouzou, Algeria; Hamama Anderazak, University Tizi Ouzou, Algeria

**ID 690** Transportation of Organs using UAV

Nivedha Balakrishnan, Kannan Devaraj, Siranjiv Rajan and Girirpbhu Seshadri, Project Student, Sri Ramakrishna Engineering College, Coimbatore, India

08:00 – 09:30, WEDNESDAY

**Reliability and Maintenance**

**Session Chair:** Wilkistar Otieno, University of Wisconsin-Milwaukee, United States

**ID 084** Cost Based Failure Consequence Approach for Identifying Critical Components for Maintenance Support Decision

Pravin Tambe, Rcoem, Nagpur, Maharashtra, India; Makarand Kulkarni, IIT Delhi, New Delhi, Delhi, India

**ID 283** Exergy Based Multi-State Reliability Model for a Stationary Gas Turbine

Tamiru Alemu Lemma, Fakhrulidin Mohd Hashim and Mohd Amin Bin Abd Majid, Department of Mechanical Engineering, Universiti Teknologi Petronas, Bandar Sri Iskandar, Perak, Malaysia

**ID 284** Gas Turbine Prognostics using Fuzzy Systems and Modified Bat Algorithm

Tamiru Alemu Lemma, Fakhrulidin Mohd Hashim and Mohd Amin Bin Abd Majid, Department of Mechanical Engineering, Universiti Teknologi Petronas, Bandar Sri Iskandar, Perak, Malaysia

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ID 345  Comparative Analysis of Offshore Pipeline Reliability Using Degradation Analysis and PF Interval Models
Ainul Akmar Mokhtar, Universiti Teknologi Petronas, Bandar Seri Iskandar, Perak, Malaysia

ID 555  Research on BRT Driver Jakarta Fatigue Evaluation
Ketut Ayu, Nike Septiani and Rida Zuraida, Bina Nusantara University, Jakarta Barat, Indonesia
Hardianto Iridiastadi, Institut Teknologi Bandung, Bandung, Jawa Barat, Indonesia

ID 420  Warranty Optimization for Remanufactured Products
Wilkistar Otieno, University of Wisconsin-Milwaukee, United States

08:00 – 09:30, WEDNESDAY  Human Factors and Ergonomics  Mayang Sari I
Session Chair: Zahid Abbass Shah, University of the Punjab, Lahore, Pakistan

ID 381  Anthropometric Data Variation Within Gari-frying Population
Taiwo Samuel, Dept. of Agricultural and Mechanical Engineering, Olabisi Onabanjo University, Nigeria
Olateju Aremu, Federal Institute of Industrial Research Oshodi (FIIRO), Lagos, Nigeria
Olasunkanni Ismaila, Federal University of Agriculture, Abeokuta, (FUNAAB), Nigeria
Babatunde Adetila, Dept. of Agricultural and Mechanical Engineering, Olabisi Onabanjo University, Nigeria
Livinus Onu, S.E. Adegbite and A.A. Olokose, Federal Institute of Industrial Research Oshodi (FIIRO), Lagos, Nigeria

ID 412  Association between Psychosocial factors with upper-musculoskeletal disorders: An academic review
Paras Behrani, UTP, Tronoh, Perak, Malaysia

ID 422  Design of Human Cognitive Model in a Self-Optimizing Assembly Cell: A Case Study of Indonesian Novie Susanto and Kharisma Panca Kurniawati, Industrial Engineering Dept, Faculty of Engineering, Diponegoro University, Semarang, Indonesia

ID 432  Musculoskeletal Disorders among Caregivers in Nursing Home
Hardianto Iridiastadi and Bayuardi Anggawisnu, Faculty of Industrial Technology, Institut Teknologi Bandung, Bandung, Jawa Barat, Indonesia
Erry Rimawan, Graduate Program, Universitas Mercu Buana, Jakarta, Indonesia

08:00 – 09:30, WEDNESDAY  Decision Analysis  Mayang Sari II
Session Chair: Somayeh Khoshsoroor, Harbin Institute of Technology, Harbin, Heilongjiang, China

ID 356  Assessing Customer Requirements and Preferences for a Perishable Product: A Case of an Indian Cooperative Dairy
Anubha Rautela, Vinaytosh Mishra, S. K. Sharma, P. Bhardwaj and Nishith Mohan, Indian Institute of Technology-BHU, Varanasi, Uttar Pradesh, India

ID 474  Applying fuzzy-AHP and VIKOR method to evaluate the fitness of ERP systems
Li-Man Liao, Ching-Jen Huang and Po-Chih Kang, National Chin-Yi University of Technology (NCUT), Taichung, Taiwan

ID 624  The Psychology of the Competition in High-Tech Industries
Ehsan Chitsaz, Harbin Institute of Technology, Harbin, Heilongjiang, China
Liang Dapeng, School of Economy and Management, Harbin Institute of Technology, Harbin, Heilongjiang, China
Somayeh Khoshsoroor, School of Economy and Management, Harbin Institute of Technology, China
Hamid Shafizadeh, Texas A&M University College Station, Texas, United States

ID 542  Evaluation of Innovative Product Development Practices in an Organization: A Case Study
Vinayak Kalluri, BML Munjal University, Gurgaon, Haryana, India

ID 632  How Team Allocate the Resource - A Model of Escalation of Commitment in Competitive Situation
Somayeh Khoshsoroor, Liang Dapeng, Ehsan Chitsaz and Shahid Kalim, School of Economy and Management, Harbin Institute of Technology, Harbin, Heilongjiang, China

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08:00 – 09:30, WEDNESDAY   Engineering Management   Mayang Sari III
Session Chair: Charles Mbohwa, University of Johannesburg, South Africa

ID 010  A Cleaner Production (CP) Perspective for the Metal Industry Processes: Case Study
Charles Mbohwa and Ignatio Madanhire, University of Johannesburg, Gauteng, South Africa

ID 109  The impact of Process Improvement initiatives in manufacturing industry in South Africa
Mukondeleli Grace Kanakana Katumba, Tshwane University of Technology, South Africa
Sydney Theko, Automotive Industry Development Centre, Pretoria, South Africa

ID 347  Problem-Solving, Decision Making and Managerial Skills of Engineer-Managers in Selected Small-To-Large Scale Enterprises in Laguna
Josephine Villamin, PIIE, Sta. Cruz, Laguna, Philippines

ID 377  Globalization of Logistics and Supply Chain Management
Majid Baseer and Muhammad Arsalan, Sarhad University of Science and Information Technology, Peshawar, Pakistan

ID 016  Cleaner Production to Optimize Resource Consumption and Reduce Effluent Waste in a Beverage Plant
Charles Mbohwa and Ignatio Madanhire, University of Johannesburg, Gauteng, South Africa

08:00 – 09:30, WEDNESDAY   Energy   Mayang Sari IV
Session Chair: Mohammad Mahfujur Rashid, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

ID 170  Component Rating Optimization Methodology for the Protection of Photovoltaic Solar Power System Components from Shading Effect
Ayman El Hakea, American University in Cairo, Alexandria, Egypt
Mohamed Amin, Cairo University, Giza, Egypt

ID 271  Development of an Expert System for the Feasibility Assessment of Renewable Energy Projects
M. Khurshid Khan, Farhan Qutab Siddiqui and Jasim Al-Dairi, University of Bradford, United Kingdom

ID 301  Renewable energy policy in Germany and Malaysia: Success factors
Md. Mizanur Rahman, Aminuddin Saat and Mazlan Abdul Wahid, Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia

ID 396  Aerodynamic Optimization of NACA64A410 Blade Aerofoil for Small Wind Turbine Application with Ansys Fluent
Mulu Bayray Kahsay, Mekelle University, Mekelle, Tigray, Ethiopia
Tariku Achamyelehe, Department of Mechanical Engineering, Faculty of Technology, Debre Tabor University, Debre Tabor, Ethiopia
Mulu Bayray, School of Mechanical and Industrial Engineering, Ethiopian Institute of Technology- Mekelle, Mekelle University, Mekelle, Ethiopia

ID 399  Tidal Energy and its Prospects in Bangladesh
Mohammad Mahfujur Rashid, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

9:30 – 10:15 Tuesday Morning Keynote:
Ir. Dr. Zuhairi Abd. Hamid
Executive Director - Construction Research Institute of Malaysia (CREAM), Kuala Lumpur
Mayang Sari Grand Ballroom

10:15 – 11:00 Tuesday Morning Keynote:
Speaker from PROTON Automobile - Malaysia

11:00 – 11:30 Break

11:30 – 13:00, WEDNESDAY   Global Engineering Education VI   Starhill 4
Session Chair: Dr. Rosemary Seva, De La Salle University (DLSU), Manila, Philippines

11:30 – 12:00 (Wednesday)
Dr. Alfredo Soeiro
Associate Professor
University of Porto, Portugal
Past Academic Director in Civil Engineering

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Past Pro-Rector of the University of Porto for Continuing Education
Past President - European Society of Engineering Education

12:00 – 12:30 (Wednesday)
**Dr. Asela K. Kulathunga**
Senior Lecturer
Department of Production Engineering
Faculty of Engineering
University of Peradeniya
Sri Lanka

12:30 – 13:00 (Wednesday)
**Dr. Rosemary Seva**
Dean of Gokongwei College of Engineering
De La Salle University (DLSU)
Manila, Philippines

11:30 – 13:00, WEDNESDAY
**Industry Solutions VI**
Starhill 5

11:30 – 11:55 (Wednesday)
**Dr. Zain Tahboub**
Chief Advisor-Director of Excellence & Innovation
Dubai Aviation Engineering Projects (DAEP)
United Arab Emirates (UAE)

“i3 University of the future for integrating the university with industry and innovation”

11:55 – 12:20 (Wednesday)
**Md Fauzi Ahmad**, Wong Jing Ping, Nor Aziai Abdul Hamid and Shiau Wei Chan
Production and Operation Department
Universiti Tun Hussein Onn Malaysia (UTHM)
Batu Pahat, Johor, Malaysia

Josu Takala
Department of Engineering Science and Industrial Management
University of Vaasa, Wolfinntie, Finland

**ID 692 Critical Success Factors of Six Sigma Implementation in Malaysian Manufacturing Industry**

12:20 – 12:45 (Wednesday)

11:30 – 13:00, WEDNESDAY
**Operations Research**
Starhill 6

Session Chair: Mohammad Rahimi, INSA-Lyon, DISP Laboratory, Villeurbanne, France

**ID 070 Disambiguation Points Sampling Heuristic for the Stochastic Obstacle Scene Problem**
Vural Aksakallı, İstanbul Sehir University, Uskudar, İstanbul, Turkey
Ali Fuat Alkaya and Serkan Yıldırım, Marmara University, Goztepe, İstanbul, Turkey

**ID 075 Dual Based Procedure for the Single Stage General Minimum Cost Flow Problem**
R.R.K. Sharma and Priyank Sinha, Indian Institute of Technology, Kanpur, UP, India

**ID 375 The Impact of Structure of Interdependence on Supplier Performance in the Local Pineapple Processing Supply Chain in Thailand: a Mixed Method Research**
Phatcharee Thongrattana, Suddaratana Wongweragjat and Kritsana Aimdate, Kasetsart University, Chatuchak, Bangkok, Thailand

11:30 – 13:00, WEDNESDAY
**Lean and Six Sigma II**
Starhill 7

Session Chair: Muhammad Hamad Sajjad, Alfaisal University, Riyadh, Saudi Arabia

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ID 001  A Sequential Truck Transportation Waste Reduction Scheme
Bernardo Villarreal and Andrea Lopez, Universidad de Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

ID 045  Applying the Principles of Lean Management to the Radiology Department
Demet Bayraktar, Hakan Butuner and Gözde Hatipoğlu, Business Administration Administration, Faculty of Business and Management Sciences, Suleyman Sah University, Tuzla, Istanbul Turkey

ID 090  Design and assessment of lean handling buffers in forward-reserve model
Vivek Khanzode and Bhavin Shah, National Institute of Industrial Engineering, Mumbai, Maharasthra, India

ID 286  Value Chain Optimization in Overseas Procurement Using Lpp
Deepak Chandra, National Institute of Industrial Engineering, Mumbai, India
Aman Sinha, Mahle Behr India Private limited, Pune, Maharasthra, India
Rohit Kumar Singh, SAP, Bangalore, Karnataka, India

ID 063  Six Sigma Implementation
Muhammad Hamad Sajjad, Alfaisal University, Riyadh, Saudi Arabia

11:30 – 13:00, WEDNESDAY  Supply Chain Management VI  Starhill 8
Session Chair: Shao Hung Goh, SIM University, Singapore

ID 256  Reliability-based Robust Design Optimization of Dynamic Supply Chain Network
Abdulaziz T. Almaktoom, Effat University, Jeddah, Mecca, Saudi Arabia
Krishna Krishnan, Wichita State University, Wichita, KS, United States

ID 265  Inventory Routing Problem for Deteriorating Items with Multi Tours
Gede Agus Widyadana, Petra Christian University, Surabaya, Indonesia
Takashi Irohara, Sophia University, Tokyo, Japan
Syarif Daniel Budiman, Petra Christian University, Surabaya, Indonesia

ID 552  Coordinating a Multi-echelon Apparel Supply Chain in the Presence of Supply and Demand Uncertainty
Arnab Adhikari, Operations Management Area, Indian Institute of Management Calcutta, Joka, Kolkata 700104, India
Arnab Bisi, Decision Sciences and Information Systems Area, Johns Hopkins Carey Business School, Baltimore, Maryland, USA

ID 128  Heterogeneous Vehicle Routing Problem in a Supply Chain
Prabhas Bhardwaj and Anil Kumar Agrawal, IIT (BHU), Varanasi, Uttar Pradesh, India

ID 158  A Price Review Framework for Maintenance, Repair and Operations Procurement Contracts in the Public Sector
Shao Hung Goh, SIM University, Singapore

11:30 – 13:00, WEDNESDAY  Manufacturing and Design  Bintang V
Session Chair: Rubina Bahar, International Islamic University Malaysia

ID 521  Investigation on Corrosion Behavior of the Al/SiC Nanocomposites in Sea Water
Niveen Jamil Abdul kader, Materials Engineering, University of Technology, Baghdad, Iraq
Hussain Mohammed Yousif, Central Tool Room Plant, Nasser State Company, Ministry of Industry & Mineral, Baghdad, Iraq
Ahmed Ameed Zainalabdeen, Materials Engineering, University of Technology, Baghdad, Iraq

ID 612  Remote Global Alignment Error for Pad Inductor Layer to Improve the Cycle Time
Saandilian Devadas, Silterra Malaysia Sdn.Bhd, Kulim, Kedah, Malaysia
Shajahan Maidin, Universiti Teknikal Malaysia, Melaka, Durian Tunggal, Melaka, Malaysia
Tritham Wara, Leng Kok Hong and Nurul Ayu Hashim, Silterra Malaysia Sdn. Bhd., Kulim, Kedah, Malaysia

ID 657  Various Techniques to Design Controllers for Single Link Flexible Arm
Noshin Fatima and Farhan Hanif, Capital University of Science and Technology (CUST), Islamabad, Punjab, Pakistan

ID 668  Relationship between Human Errors in Maintenance and Overall Equipment Effectiveness in Food Industries
Yunos Ngadiman, Burairah Hussin, Nor Aziai Abd Hamid, Rohaizan Ramian and Liew Kai Boon, Department of Production and Operation Management, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

ID 506  Minimum Quantity Lubrication in Micromachining: A Greener Approach

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11:30 – 13:00, WEDNESDAY  High School STEM Project Presentation  Bintang VI
Session Chair:

ID 533  Composition Methodology for Optimal Portfolio and Performance Measures Considering Indian SENSEX
Hohyun Lee, Hyunha Cho and Yuchan Han, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

ID 539  Crime Trend Analysis by Changes of Spatial Autocorrelation and Hot-spot
Hohyun Lee and Dain Kim, Data Science Lab, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

ID 541  Selection of Optimal Portfolio Model by Comparing Mock Stock Trading
Hohyun Lee, Youngjoon Kim, Minsung Kim and Taehoon Kim, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

ID 545  Using Mathematical Programming for Investment Assessment and Optimal Investment
Hohyun Lee, Jinwoo Lee and Myeonghun Ji, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

11:30 – 13:00, WEDNESDAY  Reliability and Maintenance  Bintang VII
Session Chair: Joe Amadi-Echendu, University of Pretoria, South Africa

ID 416  Reliability Analysis of a Motor Control Unit Used in Electric Vehicles
Ting-Hao Kan, Hsin-Wei Huang and Wen-Fang Wu, National Taiwan University, Da’an Dist., Taipei City, Taiwan

ID 425  Availability Allocation Using Systems Engineering Principles
Abraham Almaw Jigar, Cecilia Haskins and Mary Ann Lundeigen, Norwegian University of Science and Technology, Trondheim, Sør-Trøndelag, Norway

ID 609  An Investigation into Bearing Fault Diagnostics for Condition Based Maintenance Using Band – Pass Filtering and Wavelet Decomposition Analysis of Vibration Signals
Joseph B Wood, Muhammad Ilyas Mazhar and Ian Howard, Curtin University: Department of Mechanical Engineering, Perth, Australia

ID 371  Adaptive neuro-fuzzy inference system for performance health monitoring of industrial gas turbines
Mohammadreza Tahan-Bouria, Masdi Muhammad and Z.A. Abdul Karim, Department of Mechanical Engineering, Universiti Teknologi Petronas, Iskandar, Perak Darul Ridzuan, Malaysia

ID 318  Identifying the root causes contributing to defects in order to minimise scrap
Zanele Mpanza, Transport Systems and Operations, CSIR, Pretoria, South Africa

ID 592  A bibliometric study on design, application and management of power transformers
Joe Amadi-Echendu and Jacob Mafutsana, University of Pretoria, South Africa

11:30 – 13:00, WEDNESDAY  Production Planning and Management  Mayang Sari I
Session Chair: Ali Vatankhah Barenji, Eastern Mediterranean University, Turkey

ID 068  A Genetic Algorithm for Solving the Integrated Cell Formation, Layout and Scheduling Problem
Sherif Fahmy, American University of the Middle East (AUM), Egaila, Kuwait

ID 102  An Improved Analogy-based Demand Forecasting Method for Service Parts
Masaru Tezuka, Satoshi Munakata and Shinji Iizuka, Hitachi Solutions East Japan, Ltd., Sendai, Miyagi, Japan

ID 105  Measuring Production Floor Performance Using Systematic Approach - A Case Study of Hospital Beds Production
Susanto Sudiro, Magister Teknik Mesin Universitas Pancasila Jakarta, Jakarta Pusat, Jakarta, Indonesia

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ID 132  An Analysis of competitive Advantages of South African Manufacturing industries. A case study; Automotive Industries
Mukondeleli Grace Kanakana Katumba and John Ikome, Tshwane University of Technology, South Africa

ID 160  Schedule Nervousness in Production Operations of an Airline Catering Company: The Challenge of an Effective Demand Response Program
Narat Hasachoo and Ruedee Masuchun, Faulty of Engineering, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand

ID 302  A Dynamic Multi Agent based scheduling for flexible flow line manufacturing system: UPVC door and window Company
Ali Vatankhah Barenji and Danial Roudi, Eastern Mediterranean University, Famagusta, Rize, Turkey
Majid Hashemipour, School of Engineering Mathematics and Science, Robert Morris University, Moon Morris, United States
Reza Vatankhah Barenji, Hacettepe University, Ankara, Baytape, Turkey

11:30 – 13:00, WEDNESDAY  e-Business and e-Commerce  Mayang Sari II
Session Chair: Eui H. Park, North Carolina Agricultural & Technical State University, Greensboro, USA

ID 028  Influence of culture on E-commerce and vice versa
Teklehaimanot Tadele Kidane and RRK Sharma, Indian Institute of Technology, Kanpur, Uttar Pradesh, India

ID 052  Factors Affecting Consumers' purchasing Decision through E-Commerce
Teklehaimanot Tadele Kidane and RRK Sharma, Indian Institute of Technology, Kanpur, Uttar Pradesh, India

ID 168  Understanding the Impulsiveness Effect of a Web Design on Online Fashion Stores
Paulina Arringsilf, Marihot Nainggolan, Ignatius Sandy and Dhea Widiastri, Universitas Katolik Parahyangan, Bandung, West Java, Indonesia

ID 344  Evaluating the Location of Effective Product Advertising on Facebook Ads
Atya Aisha, Aulia Hadining and Dimas Aji, Telkom University, Bandung, West Java, Indonesia

ID 655  Sniping as a Rational Strategy on Ebay
Farooq Sheikh, State University of New York (SUNY), Geneseo, NY, United States

ID 676  Understanding Risk Perception Related to Trust and Bias in Cyberspace
Emeka P. Idoye and Eui H. Park, Department of Industrial & Systems Engineering, North Carolina Agricultural & Technical State University, Greensboro, USA

11:30 – 13:00, WEDNESDAY  Facility Planning and Management  Mayang Sari III
Session Chair: Suman Samanta, IIT Kanpur, Kanpur, India

ID 270  Scheduling of Three FMS Layouts Using Four Scheduling Rules
M. Khurshid Khan, Muhammad Arshad and Milana Milana, University of Bradford, West Yorkshire, United Kingdom

ID 032  Modified Cluster Boundary Search Technique for Improved Layout Designs
Mohammed Al-Saleh, Umm Al-Qura University, Makkah, Saudi Arabia
Mustahsan Mir, Ajman University of Science & Technology, UAE
Ahmed Hassinan, RWTH Aachen, Germany

ID 115  Reliable capacitated facility location problem: SAA based approach
Sumanta Basu, Megha Sharma and Partha Sarathi Ghosh, Indian Institute of Management Calcutta, Kolkata, West Bengal, India

ID 340  Risk issues in facility layout design
Saber Darmoul, Industrial Engineering Department, King Saud University, Riyadh, Saudi Arabia
Sonia Hajri-Gabouj and Sana Kouki Amri, INSAT, Tunis, Tunisia
Henri Pierreval, Ifma, Clermont-Ferrand, France

ID 547  Multi-server Congested Location Allocation Problem with Multiple Objectives
Mehdi Seifbarghy and Mehrnaz Asgari, Department of Industrial Engineering, Alzahra University, Tehran, Iran

ID 333  A Modified ABC Algorithm with Genetic and Neighborhood Search for solving QAP
Suman Samanta and Deepu Philip, IIT Kanpur, Kanpur, Uttar Pradesh, India

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11:30 – 13:00, WEDNESDAY  
**Energy**  
Session Chair:  

**ID 423 Conversion of Waste Plastics into Gasoline and Diesel**  
Salma Akhter and Raihan Ahamed, Shahjalal University of Science and Technology, Sylhet, Bangladesh  

**ID 379 Enhancement of tube and tube Heat exchanger with semispherical hollow baffle for counter flow**  
Rajendra Patil, TSSMS PVPIT Bavdhan Pune, Pune, Maharashtra, India  

**ID 646 Photosynthetic bioenergy utilizing CO2 from plant flue gas: an approach on microalgae based third generation biofuels production**  
Shamsuddin Ahmed, Department of Mechanical and Chemical Engineering, Islamic University of Technology (IUT), Dhaka, Bangladesh  
M. Abdul Quader, Department of Mechanical Engineering, Faculty of Engineering, University of Malaya, Kuala Lumpur, Malaysia  

**ID 497 Performance Analysis of Different Controller for PEMFC Fed Adjustable Speed Drives**  
Hemachandran K, Dr.MGR Educational & Research Institute University, Chennai, Tamilnadu, India  
Justus Rabi B, Shri Andal Alagar College of Engineering, Chennai, Tamilnadu, India  
Darly S.S., University College of Engineering and Technology, Thindivanam, Tamilnadu, India  

13:00 Wednesday Lunch Keynote:  
**Dr. Rupy Sawhney**, Heath Fellow in Business and Engineering, Professor, Industrial and Systems Engineering  
*University of Tennessee, Knoxville*, USA - Mayang Sari Grand Ballroom  

14:00 Networking Break  

14:30 – 16:00, WEDNESDAY  
**Global Engineering Education VII**  
Session Chair: Dr. Eldon Caldwell, University of Costa Rica  

2:30 – 3:00 (Wednesday)  
**Dr. Md. Mizanur Rahman**  
Senior Lecturer  
Department of Thermo Fluids  
Faculty of Mechanical Engineering  
University Technology Malaysia (UTM)  
Skudai, Johor Bahru, Malaysia  

*Engineering education in energy technology: paradigm shift from technology-centred to multidisciplinary focused*  

3:00 – 3:30 (Wednesday)  
**Dr. Pal Pandi Ammavasi**, M.E., Ph.D (Engg), MBA., Ph.D (Mgmt)  
Pal PandiAssociate Professor  
Bharath Niketan Engineering College  
Aundipatty, Tamilnadu, India  

3:30 – 4:00 (Wednesday)  
**Dr. Eldon Caldwell**  
Director, Industrial Engineering Department  
Engineering School  
University of Costa Rica  

*Using Robotics as Educational Framework Strategy in Industrial Engineering*  

14:30 – 16:00, WEDNESDAY  
**Industry Solutions VII**  
Session Chair: Ms. Resh Plaha, Crystal Quality, UK  

Panel Session on “Woman in Industry and Academia”
Penalists
Ms. Resh Plaha, Crystal Quality, UK

14:30 – 16:00, WEDNESDAY  Operations Research  Starhill 6
Session Chair: Arnab Adhikari, Indian Institute of Management Calcutta, India

ID 197  An empirical study of competitiveness measurement methodology: A case study of the automotive manufacturing sector
Laseinde Opeyeolu Timothy and Mukondeleli Grace Kanakana Katumba, Tshwane University of Technology, Pretoria, South Africa

ID 131  Performance Evaluation of an Exact Method for the Obstacle Neutralization Problem
Vural Aksakalli, Istanbul Sehir University, Uskudar, Istanbul, Turkey
Ali Fuat Alkaya, Dindar Oz and Ramazan Algı, Marmara University, Istanbul, Turkey
Elvan Ceyhan, Koc University, Istanbul, Turkey

ID 532  Capacitated Lot-Sizing and Scheduling with Sequence-Dependent setups in Petrochemical Plants
Sari Abdullah, Abdulrahim Shamayleh and Mallick Ndiaye, Industrial Engineering Department, American University of Sharjah Sharjah, UAE

ID 630  Investigation of Trade Credit Patterns in Effect with Bank Loan Availability
Jaleel Ahmed and Xiaofeng Hui, Harbin Institute of Technology, Harbin, Heilongjiang, China

ID 427  Mathematical Model for Maritime Inventory Routing Problem with Multiple Time Windows
Nurhadi Siswanto Industrial Engineering Department, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 549  An Efficiency and Consistency Based Approach for Selecting the Best Cricket Team
Arnab Adhikari, Adrija Majumdar and Gaurav Gupta, Indian Institute of Management Calcutta, Kolkata, West Bengal, India

14:30 – 16:00, WEDNESDAY  Lean and Six Sigma III  Starhill 7
Session Chair: Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

ID 097  Road Map for the Implementation of Lean production tools in SMEs
Amine Belhadi, Fatima Ezzahra Touriki and Said El Fezazi, Caddi Ayad University, High School of Technology Safi, Morocco

ID 139  Proposed Lean Sustained Factors
Sha’ri Mohd Yusof, Razak School of Engineering and Advanced Technology, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia
Katsuki Aoki, Graduate School of Business Administration, Meiji University, Surugadai Campus, Tokyo, Japan

ID 195  Application of Lean Manufacturing Concepts to Reduce Manufacturing Lead Times within the Meatball Production Process
Jiratthavee Wejwitwarakul and Rungchat Chompu-inwai, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Muang, Chiang Mai, Thailand

ID 460  Effects of Value Stream Mapping in a Processing Industry
Shakil Shaikh, Muhammad Aqib, Hasnain Riaz, Umer Abdullah, Azmat Abbas and Usama Akbar, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

ID 022  Hybrid Schemes for Eliminating Road Transportation Waste
Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

14:30 – 16:00, WEDNESDAY  Supply Chain Management VII  Starhill 8
Session Chair: Elisa Kusrini, Universitas Islam Indonesia

ID 025  Relating Supply Chain Risks to Supply Chain Strategy
Teklehaiamanot Tadele Kidane and RRK Sharma, Indian Institute of Technology, Kanpur, Uttar Pradish, India

ID 413  Application System for Smart Supply Chain Management (SCM): Case Study of SMEs in Indonesia
Grisna Anggadwita, School of Economic and Business, Telkom University, Bandung, Indonesia
Cut Irsni Setiawati, School of Communication and Business, Telkom University, Bandung, Indonesia

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Yuhana Astuti, School of Economic and Business, Telkom University, Bandung, Indonesia
Dini Turipanam Alamanda, School of Economic and Business, Telkom University, Bandung, Indonesia

ID 626 Valued Supply Chain: The imminent Frontier for Improved Hospital Management
Abu Raihan Bhuiyan Albarune, Nazma Farhat and Farzana Afzal, University Utara Malaysia, Alorsetar, Kedah, Malaysia

ID 648 Causal Linkage-based Strategic Map Design along the Robotics and Automation Supply Chain in Thailand
Kanda Boonsothonsatit, King Mongkut's University of Technology Thonburi, Thungkru, Bangkok, Thailand

ID 066 Using Multiple Criteria Approach to Evaluate Risks associated with Supply Chain Sustainability
Anirban Ganguly, O. P. Jindal Global University, Sonipat, Haryana, India
Debdeep Chatterjee, Schneider Electric, Bengaluru, Karnataka, India

ID 616 Designing performance measurement procedure for supply chain actors and regulator base on a modified model of balanced scorecard and Data Envelopment Analysis
Elisa Kusrimi, Universitas Islam Indonesia, Sleman, Yogyakarta, Indonesia

14:30 – 16:00, WEDNESDAY   Automation and Control   Bintang V
Session Chair: Mohammed Bakkari, Faculty of Sciences and Technology of Fez, Fès, Morocco

ID 312 An investigation into the impact of advance manufacturing technologies implementation in SMEs manufacturing plastic packaging products- A case study of Pakistan
Tanweer Hussain, Shakil Shaikh, Muhammad Jumani, Jamil Khaliqdina and Intizar Ali, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

ID 360 An Intelligent feature based process planning for Rotational parts
Vijayakumar Manupati, Harshita Raj and Manidhar Darisi Venkata, Vit University, Vellore, Tamilnadu, India

ID 684 Strengthening Life Line
Parul Maroo, Komal Koya and Hiren Patel, Department of Industrial Engineering, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, India

ID 584 Design of control system for Electric Power Steering in vehicle
Mohammad Reza Ahadiat Department of Electrical Engineering, Mehriz Branch, Islamic Azad University, Yazd, Iran

14:30 – 16:00, WEDNESDAY   Engineering Education   Bintang VI
Session Chair: Karl Hain, Technische Hochschule Deggendorf, Bavaria, Germany

ID 017 Learning strategies of post-secondary students
Peter Toth, Obuda University, Budapest, Hungary, Hungary

ID 030 An Effective Organizational Structure to Implement Strategic Plans in Higher Education Institutions
Salih Duffuua and Ahmed Elamin Haroun, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

ID 200 Application of Concurrent Engineering for Collaborative Learning and New Product Design
Muhammad Haris Aziz, Summyia Qamar, Aisha Tayyab and Shmad Wasim, University of Engineering and Technology, Taxila, Pakistan
Chanchal Saha, Binghamton University, Poughkeepsie, New York, United States
Salman Hussain, University of Engineering and Technology, Taxila, Pakistan

ID 353 Effect of Heating on the Impedance of NiPc based Organic Field Effect Transistor
Noshin Fatima, Capital University of Science and Technology (CUST), Islamabad, Punjab, Pakistan
Khasan Karimov, GIKI, Topi, swabi, Pakistan
M. Mansoor Ahmed, Capital University of Science and Technology (CUST), Islamabad, Punjab, Pakistan

ID 398 Fostering creativity and innovation in engineering design education: A case study
Karl Hain and Christoph Rappl, Technische Hochschule Deggendorf, Bavaria, Germany

14:30 – 15:45, WEDNESDAY   Healthcare Systems   Bintang VII
Session Chair:

ID 328 Case Averaging as a Tool for Operational Efficiency in GI Endoscopy

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ID 076  Capacity Planning For Diabetes Management -Indian Example  
Vinaytosh Mishra, Cherian Samuel and S K Sharma, Indian Institute of Technology -BHU, Varanasi, Uttar Pradesh, India

ID 424  Hospital-Supplier Integration: an Assessment of the Driving Factors in the Context of the Saudi Arabian Healthcare System  
Al Shaharni, S., Rahman, S., and Chan, C., RMIT, Melbourne, Vic, Australia

ID 464  An Integrated Framework for Optimization of Resources in Emergency Departments  
Julia El-Zoghby, Hala Farouk and Khaled El-Kilany, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

ID 172  Improving Indian Healthcare using Data Mining  
Vivek Sundar Magesh, Beri Pradeep, Harinivas Bhaskaran, Sadhanand Lakshminarayanamurthy, Thomas Franco and Nishant Kumar, TVS Logistics, Chennai, Tamil Nadu, India

14:30 – 16:00, WEDNESDAY  Production Planning and Management  Mayang Sari I  
Session Chair: Linda Kauškale, Institute of the Civil Engineering and Real Estate Economics, Riga Technical University, Latvia

ID 450  Hidden Wastes in Overall Equipment Effectiveness (OEE) under the study of Maynard’s Operation Sequence Technique (MOST)  
Puvanasvaran A. Perumal, Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia  
Teoh Yong Siang, Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia  
Teruaki Ito, Faculty and School of Engineering, The University of Tokushima, Minami, Jousanjima  
Nur Syafilla binti Mahamud, Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia

ID 466  Semiconductor Fabrication Strategy for Cycle Time and Capacity Optimization: Past and Present  
Kader Ibrahim, Chik MA and U. Hashim, Institute of Nano electronic Engineering, Universiti Malaysia Perlis, Perlis, Malaysia

ID 483  Optimal Production-Inventory Control Policy for Manufacturing Systems Subject to Quality Deterioration  
Karem Dhouib, Department of Mechanical and Industrial Engineering, Faculty of Engineering, Riyadh, Saudi Arabia

ID 544  Design Simulation and Information Dashboard for Manufacturing Control Using Systematic Approach: a Case Study of Hospital Beds Production  
Susanto Sudiro, Magister Teknik Mesin Universitas Pancasila Jakarta, Jakarta Pusat, Jakarta, Indonesia  
Sha'ri Mohd Yusof, UTM, Jalan Sultan Yahya Petra Kuala Lumpur, Kuala Lumpur, Malaysia  
Revinio Revino, Post Graduate Program, Institut Sains dan Teknologi Nasional Jakarta, Jakarta Selatan, Jakarta, Indonesia

ID 615  The Effect of Perceived Self-Efficacy and Product Comparisons on Outcome Expectancy of Portable Multi-Screens  
Shahid Kalim Khan, Li Guoxin and Ehsan Chitsaz, School of Management, Harbin Institute of Technology, Harbin, China  
Naqash Ali and Ume Ammara, Department of Management Sciences, CIIT, Pakistan

ID 309  The Strategic Management Analysis of Wood Manufacturing Companies in Latvia - Interdisciplinary approach  
Linda Kauškale, Kristīne Fedotova and Sanda Geipele, Faculty of Engineering Economics and Management, Institute of the Civil Engineering and Real Estate Economics, Riga Technical University, Riga, Latvia

14:30 – 16:00, WEDNESDAY  Information Technology  Mayang Sari II  
Session Chair: Kannan Devaraj, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India

ID 023  Business Intelligence and Analytics: Paving way for Operational Excellence in Indian Banks  
Anil Kumar Saini, University School of Management Studies, New Delhi, India  
Rekha Mishra, University School of Management Studies, Guru Gobind Singh Indraprastha University (GGSIPU), New Delhi, India

ID 096  Implementation of Mobile Event Monitoring Agents for Manufacturing Execution and Intelligence Systems Using a Domain Specific Language  
Christoph Wunck, Jade University of Applied Sciences, Wilhelmshaven, Germany

ID 193  Developing Manufacturing Execution Software as A Service for Small and Medium Size Enterprise  
Ali Vatankhah Barenji and Adedotun Olanrewaju Adetunla, Eastern Mediterranean University, Famagusta, Mersin, Turkey  
Reza Vatankhah Barenji, Hacettepe University, Ankara, Baytape, Turkey
Suwilai Areejit, Bangkok Thonburi University, Taweewatana, Bangkok, Thailand

ID 644  Efficient Authentication Method Using Score Level Fusion and Particle Swarm Optimization (Pso) Of Multimodal Biometrics
Kannan Devaraj, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India

14:30 – 16:00, WEDNESDAY   Financial Engineering    Mayang Sari III
Session Chair: Javad Soroor, Shiraz University, Iran

ID 352  An Innovative Holistic Approach to Optimal Portfolio Management
Waleed Almonayirie, Alpha Data, Abu Dhabi, United Arab Emirates
Galia Novak, Sofia University, Sofia, Bulgaria

ID 385  Use of Smokeless Tobacco by Low Socio-economic Populations and Risk Factors Associated with it
Md Shahjahan, Daffodil International University, Dhaka, Bangladesh

ID 531  Composition Methodology for Optimal Portfolio and Performance Measures Considering Indian SENSEX
Hohyun Lee, Hyunha Cho and Yuchan Han, Data Science Lab, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

ID 540  Selection of Optimal Portfolio Model by Comparing Mock Stock Trading
Hohyun Lee, Youngjee Lee, Minsung Kim and Taeheon Kim, Data Science Lab, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

ID 613  Autonomic Learning Algorithm to Predict Stock Price at the Exchange via Metaheuristics-Based Optimization
Javad Soroor and Sahar Khaleghi, Shiraz University, Shiraz, Fars, Iran

14:30 – 16:00, WEDNESDAY   Sustainability and Green Systems  Mayang Sari IV
Session Chair: Asela Kulatunga, University of Peradeniya, Sri Lanka

ID 064  Income inequality and human capital as factors influencing economic development of region – case study of Latvia
Liga Kamola, Uldis Kamols and Svetlana Ivanova, Riga Technical University, Riga, Latvia

ID 095  Increasing the competitiveness of the city with energy efficiency measures – possibilities for Latvian cities
Liga Kamola, Uldis Kamols, Svetlana Ivanova and Tatjana Survilo, Riga Technical University, Riga, Latvia

ID 179  Relationships of Lean, Green Manufacturing and Sustainable Performance: Assessing the Applicability of the Proposed Model
Amjad Khalili, A.N.M. Karim, Md Yusof Ismail and Mohd Radzi Che Daud, International Islamic University Malaysia, Kuala Lumpur, Selangor, Darul Ehsan, Malaysia

ID 439  Developing for Sustainable Lanna Cultural Tourism Area
Gulputt Dechvichankit, Vorapoch Angkasith and Dhiranantha Rithmanee, King Mongkut's University of Technology Thonburi, Ratburana, Bangkok, Thailand

ID 117  Design and Development of Green Label Point Rating System to Promote SCP Concepts
Asela Kulatunga, Faculty of Engineering, University of Peradeniya, Peradeniya, Central, Sri Lanka
Gowrynathan Jeyanthinathasarma, Faculty of Engineering, University of Peradeniya, Vavuniya, Northern, Sri Lanka

15:45 – Break

16:00 – 17:30, WEDNESDAY   Global Engineering Education VIII  Starhill 4
PANEL SESSION

Panelists

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

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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

Dr. Funso Falade  
Funso_Falade1Department of Civil & Environmental Engineering  
University of Lagos, Akoka, Lagos, Nigeria  
and  
President, African Engineering Education Association

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

16:00 – 17:30, WEDNESDAY  
Industry Solutions VIII  
Starhill 5

Woman in Industry and Academia

Session Chair:

ID 122  
Glass ceiling effect on working women is Sri Lanka  
Sakura Wickramasinghe, University of Peradeniya, Colombo, Western Province, Sri Lanka

ID 610  
Burn Accident related Injuries and Disabilities among the RMG Women Workers: A Case Study of Tazreen Garments Tragedy  
Mahmmad Mahbub Alam Talikder, Accident Research Institute (ARI), Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

16:00 – 17:30, WEDNESDAY  
Operations Research  
Starhill 6

Session Chair: Amber Shafiq, KAIST, Deajon, Chaladong, Korea

ID 355  
Simulation of Extended Resource Constrained Scheduling Problem with a Soft Computed Priority Heuristic  
Taiba Zahid, Michael Volker and Thorsten Schmidt, Technische universität Dresden, Deutschland, Germany

ID 438  
An Artificial Bee Colony Algorithm for the Vehicle Routing Problem with Backhauls and Time Windows  
Krisada Asawarungsaengkul and Nairitsak Tuntitippawan, Department of Industrial Engineering, King Mongkut’s University of Technology, Bangkok, Thailand

ID 529  
Optimal promotional policy for a new product in presence of firm's goodwill in Segmented Market: A control theoretic Approach  
Prabhneet Kaur Sethi and Prabhneet Kaur Sethi, Department of Applied Mathematics, Amity University, Sector-125, Noida, Uttar Pradesh, India

ID 589  
The Delphi technique: A credible research methodology  
Charles Mbohwa, Jan Harm Christiaan Pretorius, Edoghogho Ogbeifun and John Agwa-Ejon, University of Johannesburg, Gauteng, South Africa

ID 513  
Model of Violator Detector Network Problem - A Case Study Sioux Falls Network  
Amber Shafiq, KAIST, Deajon, Chaladong, Korea

16:00 – 17:30, WEDNESDAY  
Lean and Six Sigma IV  
Starhill 7

Session Chair: Yunos Ngadiman, Universiti Tun Hussein Onn Malaysia

ID 245  
The Development of 5s-Kaizen and Service Excellence Measurement Framework for Malaysia Private Hospitals  
Nor Aziati Abdul Hamid, Yunos Ngadiman and Nor Hazana Abdullah, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

ID 262  
Application of the Six-Sigma Concept to Time Reduction for Resin Recirculate Rinse in Demineralized Water Production  
Thidarat Thanyarak and Parames Chutima, Chulalongkorn University, Bangkok, Thailand
ID 275  Productivity Improvement of Cutting, Sewing and Finishing Sections through Value Stream Mapping - A Case Study
Abdullahil Azeem and Md. Moin Uddin, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh

ID 564  Creating shared value: How to guide for the Royal Project area
Napassawan Tangamporn, Vorapoch Angkasith and Dhirananta Rithmanee, KMUTT, Thung Khru, Bangkok, Thailand

ID 417  Critical Success Factors of Implementing Green Lean Six Sigma
Said El fezazi, Cherrafi Anass, Khalid Benhida, Ahmed Mokhli and Fatima Zohra Elamrani, Cadi Ayyad University, Safi, Morocco

16:00 – 17:30, WEDNESDAY  Supply Chain Management VIII  Starhill 8
Session Chair: Rene Amaya, Universidad del Norte, Barranquilla, Atlántico, Colombia

ID 591  A Framework for evaluating the performance of Thai Tourism Industry Supply Chain Management
Daraka Palang and Korakot Taipawong, Chiang Mai University, Thailand

ID 585  Two-level Supply Chain with Extended Warranty in Competitive Market Environment
Imam Baihaqi, Bagus Noval and Nani Kurniati, Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember (ITS), Surabaya, Indonesia

ID 621  Supply chain management in Service Quality
Mahadi Hasan Miraz, Ferdoush Saleheen and Mashiour Rahman, University Utara Malaysia, Sintok, Kedah, Malaysia

ID 582  Intermediary agent in the holistic collaborative production distribution network model for SMMEs
Mohammad Rizal Firmansyah, University of South Australia, Mawson Lakes, Adelaide, South Australia, Australia

ID 581  Relating E-integrated, Triple-A Supply Chain to Environmental Uncertainty, Market Competition and Firm Performance
Tesfaye Tolu Feyissa, Indian Institute of Technology, Kanpur, Uttar Pradesh, India
R.R.K. Sharma, Indian Institute of Technology, Kanpur, UP, India

ID 556  Quick methodology based in the SCOR model for supply chains reengineering of international trade
Rene Amaya and Carlos Otero, Universidad del Norte, Barranquilla, Atlántico, Colombia

16:00 – 17:30, WEDNESDAY  Entrepreneurship and Innovation  Bintang V
Session Chair: Santiago-Omar Caballero-Morales, Universidad Popular Autonoma del Estado de Puebla, Puebla, Mexico

ID 233  Development of Training Model of Marketing for SMEs
Yati Rohayati, Telkom University & Telkom Foundation, Bandung, Jawa Barat, Indonesia
Sari Wulandari, Telkom University, Bandung, Jawa Barat, Indonesia

ID 258  Analyzing the Adoption of Malaysian Standards (MS) on SME Performances: The Mediating Effects of Innovation Adoption Factors
Fadhilur Rahim Azmi and Haslinda Musa, Universiti Teknikal Malaysia Melaka, Durian Tunggal, Melaka, Malaysia

ID 475  New Service Development Process in Micro, Small and Medium Enterprises (MSMEs): An Indonesian Case Study
Ima Nurul Rachmania, Merlyn Rakhmaniar and Santi Setyaningsih, School of Business and Management, Institut Teknologi Bandung, Bandung, West Java, Indonesia

ID 570  The Implementation of Team development Process in Cooperative Enterprises
Sebonkile Cynthia Thaba and Charles Mbohwa, Department of Quality and Operations Management, University of Johannesburg, Bunting Road Campus, Johannesburg, South Africa

ID 573  On the Situation of Traditional Textile Producers in Mexico: General Overview for Supply Chain Improvements
Santiago-Omar Caballero-Morales and Gladys Bonilla Enriquez, Universidad Popular Autonoma del Estado de Puebla, Puebla, Mexico

16:00 – 17:30, WEDNESDAY  Engineering Education  Bintang VI
Session Chair: Hamid Parsaei, Texas A&M University at Qatar, Doha, Qatar

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ID 494 Assessing Self-Responsibility in Employability Competencies Development among Australian Engineering Students: Introductory report
Daudi Lazarus, University of South Australia, Paralowie, SA, Australia
Timothy Ferris, Cranfield University, Shrivenham, Oxfordshire, United Kingdom

ID 593 The Challenges of Computational Thinking at Higher Secondary School in Mauritius
Canayah Cuniah, University of Technology, Port Louis, Moka, Mauritius

ID 519 Students Attendance System in Faculty of Engineering at King Abdulaziz University
Sundus Balkhair, Khawlah Alharbi, Hanan Abdullah and Batool Bajkhaif, King Abdulaziz University Jeddah Mecca Saudi Arabia

ID 694: Android Maze Game for Children as an Autism Therapy
Muhammad Israr Fathoni, Alhamidi Haidar, Muhammad Pu and Zurina Muda, Faculty Information Science and Technology Universiti Kebangsaan Malaysia

ID 458 Employing Technology to Customize the Flipped Classroom Practice
Hamid Parsaei and Mohamed Ismail, Texas A&M University at Qatar, Doha, Qatar

16:00 – 17:30, WEDNESDAY Healthcare Systems Bintang VII
Session Chair: Michael Mutingi, University of Botswana

ID 504 Performance Management Criteria in Malaysian Healthcare
Ihfasuziella Ibrahim, Mohd Khairolden Ghani, and Zuhairi Abd Hamid, Construction Research Institute of Malaysia (CREAM), Kuala Lumpur, Malaysia
Syahrul Nizam Kamaruzzaman and Zairul Nisham Musa, University of Malaya, Kuala Lumpur, Malaysia

ID 553 An Integrated Model for Chemotherapy Planning
Amr Eltawil, Egypt-Japan University for Science and Technology, New Borg El Arab, Alexandria, Egypt
Mahmoud Heshmat, E-JUST, Borgelarab, Alexandria, Egypt

ID 565 RTOG Criteria to Evaluate Acute Skin Reaction and its Risk Factors in Patients with Head and Neck Cancer Submitted to IMRT Radiotherapy
Khaldoon M. Radaideha and Laila M. Matalqahb, Department of Radiologic Technology, College of Medical Science Al- Qassim University, Saudi Arabia

ID 689 Need for Deployment of RFID Technology in Indian Hospitals
Parul Maroo, Industrial Engineering, Pandit Deendayal Petroleum University, Raisan, Gandhinagar, Gujarat, India

ID 597 Fuzzy Multi-Criteria Simulated Evolution for Nurse Re-rostering
Michael Mutingi, University of Botswana, Gaborone, Botswana

16:00 – 17:30, WEDNESDAY Production Planning and Control Mayang Sari I
Session Chair: Seyed Amirhossein Alavifar, Russian State university of Tourism and Services, Moscow, Russia

ID 618 Productivity Assessment Based on Different Perspectives in Industries: A Review
Chan Sin Tan, Rosmaini Ahmad, Mohd Fizawan B. Md. Amin Hamzas and M.I. Hussain, Universiti Malaysia Perlis, Arau, Perlis, Malaysia

ID 620 A Taguchi-Continues Simulation Approach to the Injection Molding Blowing Process Quality Improvement
Safwan Altarazi, German Jordanian University, Amman, Jordan

ID 647 Implementation of Fuzzy Inference System with Tsukamoto for Production Planning Optimisation
Rohaizan Ramlan, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

ID 522 A case study of production scheduling and shop floor control for hybrid flexible flowshop
Li-Man Liao, Ching-Jen Huang and Guan-Heng Lin, National Chin-Yi University of Technology, Taichung, Taiwan

ID 031 Statistical Process Control (SPC) Application in a Manufacturing Firm to Improve Cost Effectiveness: Case study
Charles Mbohwa and Ignatio Madanhire, University of Johannesburg, Gauteng, South Africa

ID 082 Developing a Risk Based Maintenance - A Case study - Low Density Polyethylene (LDPE) production unit of Amir Kabir Petrochemical complex in Iran

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16:00 – 17:30, WEDNESDAY  
**Undergraduate Research Competition**  
*Mayang Sari II*

**Session Chair:**

**ID 088**  
Application of Work Study for Productivity Improvement: A Case study of a Brewing Company  
Charles Mbohwa and Bupe Mwanza, University of Johannesburg, Gauteng, South Africa

**ID 089**  
The Impact of Maintenance Systems on Water Supply: A case Study of a Utility Company  
Charles Mbohwa and Bupe Mwanza, University of Johannesburg, Gauteng, South Africa

**ID 294**  
Optimizing the Final Exam Scheduling Process at King Abdulaziz University  
Abrar Saeed Al Amoudi, Raneem Gashgari, Lamees Alhashimi, Lujain Aljawi and Raed Obaid, King Abdulaziz University, Jeddah, Western Provence, Saudi Arabia

16:00 – 17:15, WEDNESDAY  
**Project Management**  
*Mayang Sari III*

**Session Chair:** Mohammad Chuttur, University of Mauritius

**ID 011**  
Expert System Model Structure for Feasibility Study Using Strategic Planning and Systems Engineering Principles  
Mohammed Alzahrani, Umm Al-Qura University, Jeddah, Makkah, Saudi Arabia

**ID 018**  
Impact of Personality Traits of Manager on the Performance of Project  
Ifra Jamil, Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST), Islamabad, Pakistan.

**ID 059**  
A balanced approach to project management in partnering types of contract: a public private partnerships framework  
Putu Mandiartha, University Malaysia Pahang, Kuantan, Pahang, Malaysia  
Colin F. Duffield, The University of Melbourne, VIC, Australia

**ID 104**  
A Case Study Assessment of Project Management Maturity Level in the Malaysia’s IT Industry  
Whee Yen Wong, Kar Peng Yeoh, and Seok Gee Yap, University Tunku Abdul Rahman, Selangor Darul Ehsan, Malaysia

027  
Emotional Intelligence in COCOMO II for Software Cost Estimation  
Mohammad Chuttur, University of Mauritius, Faculty of Engineering, Moka, Mauritius

16:00 – 17:15, WEDNESDAY  
**Sustainability and Green Systems**  
*Mayang Sari IV*

**Session Chair:** Liga Kamola, Riga Technical University, Latvia

**ID 277**  
Decision support framework for the Sustainability of Traditional Brass Industry – A Sri Lankan case study  
Asela Kulatunga, Mahanama Dharmawardhana and Malan Jayawickrama, Faculty of Engineering, University of Peradeniya, Peradeniya, Central, Sri Lanka  
Shanaka Karunarathna, University of Peradeniya, Kandy, Central, Sri Lanka

**ID 285**  
An AHP Based Methodology to Evaluate Social Life Cycle of an Apparel Manufacturing Plant  
M. I. Rashangani, H.M.M.M. Jayawickrama, and A.K. Kulatunga, Department of Production Engineering, University of Peradeniya, Sri Lanka  
H.D.P. Premarathne, Department of Sociology, University of Peradeniya, Sri Lanka

**ID 314**  
Introducing of smart work – opportunity to increase economical development of municipalities in Latvia  
Ilze Judrupa, Riga Technical University, Riga, Latvia

**ID 484**  
The Significance of Riga Neighbourhoods for the Sustainable Economic Development of the City  
Uldis Kamols, Tatjana Survilo and Inesa Pavlova, Riga Technical University, Latvia

**ID 173**  
Modelling Approaches for a Sustainable Supply Chain
ID 478  Increasing the competitiveness of the city with energy efficiency measures possibilities for Latvian cities
Liga Kamola, Uldis Kamols, Svetlana Ivanova and Tatjana Survilo, Riga Technical University, Riga, Latvia
March 10, 2016 (Thursday)

08:00 – 09:15, THURSDAY  Global Engineering Education IX  Starhill 4
Session Chair: Khairiyah Mohd Yusof, Universiti Teknologi Malaysia

08:00 – 08:25 (Thursday)
Dr. Funso Falade
Department of Civil & Environmental Engineering
University of Lagos, Akoka, Lagos, Nigeria
and
President, African Engineering Education Association

08:25 – 08:50 (Thursday)
Dr. Amar Partap Singh Pharwaha
Dr. A.P. Singh Pharwaha Professor Department of Electronics & Communication Engineering
Sant Longowal Institute of Engineering & Technology (SLIET)-Deemed University
Longowal, Sangrur, Punjab, India

**ID 568 Virtual Instrument for Monitoring Process Parameters: A Versatile Tool for Engineering Education**
Amar Partap Singh Pharwaha, Sant Longowal Institute of Engineering and Technology (Deemed University), Punjab, India

09:00 – 09:30 (Thursday)
Khairiyah Mohd Yusof, PhD
Director, Centre for Engineering Education (CEE)
Universiti Teknologi Malaysia
Johor Bahru, Malaysia

08:00 – 09:15, THURSDAY  Industry Solutions IX  Starhill 5
Session Chair: Masaru Tezuka, Hitachi Solutions East Japan, Ltd.

**ID 186 Importance of the Strategic Utilization of Information Technology in Small and Medium-Sized Food Manufacturers in Japan**
Masaru Tezuka and Junko Miyazaki, Hitachi Solutions East Japan, Ltd., Sendai, Miyagi, Japan
Masaki Fujiwara and Miyuki Kori, Miyagi University, Kurokawagun, Miyagi, Japan

08:00 – 09:15, THURSDAY  Smart Manufacturing Workshop  Starhill 6

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

08:00 – 09:15, THURSDAY  Quality Control and Management  Starhill 7
Session Chair: Galia Novakova Nedeltcheva, Sofia University, Bulgaria

**ID 183 A Bayesian LASSO Algorithm for Simultaneous Variation Fault Diagnosis in Ill Conditioned Multistage Manufacturing Processes**
Sandipan Karmakar and Jhareswar Maiti, IIT Kharagpur, West Bengal, India

**ID 199 Review on some Multivariate Statistical Process Control Methods for Process monitoring**
Arian Dhini and Isti Surjandari, Universitas Indonesia, Depok, West Java, Indonesia

**ID 361 Process Variability Analysis of License Vehicle Number Plate Production in Nigeria**
Stephen Nwanya Oluseyi Ajayi and Felix Ishola, Covenant University, Cannanland, Ota, Ogun State, Nigeria
Celestine Achebe, University of Nigeria, Nsukka, Enugu State, Nigeria

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ID 221  Motion and Time Study: Measurement of Workstation for Piston Assembly Line Considering Anthropometric For Indonesian People
Teuku Yuri M. Zagloel and Inaki Maulida Hakim, Department of Industrial Engineering, Universitas Indonesia, Depok, West Java, Indonesia

ID 212  Rework Impact on BIW Production System Optimization Using Six Sigma Analysis
Galia Novakova Nedeltcheva, Sofia University, Faculty of Mathematics and Informatics, Sofia, Bulgaria
Hayder Zghair, Lawrence Technological University, Detroit, MI, United States

08:00 – 09:15, THURSDAY  Logistics Management I  Starhill 8
Session Chair: Sirajuddin Sirajuddin, University of Indonesia

ID 196  Assessment of Thai Check Point for Border Trade Operations
Jirapat Wanitwattanakosol, College of Arts, Media and Technology, Chiang Mai University, Thailand
Sooskit Wichaisri, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Thailand
Tisinee Surapunt, College of Arts, Media and Technology, Chiang Mai University Muang Chiang Mai Thailand
Thaneeya Chaiwongbud, Information System Management Research Unit, College of Arts, Media and Technology, Chiang Mai University, Muang, Chiang Mai, Thailand

ID 249  A Practical Case Study of a Heterogeneous Fleet Vehicle Routing Problem with Various Constraints
Kusuma Soonpracha and Anan Mungwattana, Department of Industrial Engineering, Kasetsart University, Chatuchak, Bangkok, Thailand
Tharinee Manisri, Sripatum University, Jatujak, Bangkok, Thailand

ID 490  A Novel Multi-Objective and Multi-Criteria Decision Support System for Logistic Management during Flood Disaster
Ainul Akmar Mokhtar, Masdi Muhammad and Nurul Rawaida Ain Burhani, Universiti Teknologi Petronas, Tronoh, Perak, Malaysia

ID 060  Production Optimization Problem under Carbone emission Constraint
Hajej Zied, Nidhal Rezg and Bouslikhane Salim, LGIPM, METZ, LORRAINE, France

ID 518  Improving Indonesian logistics performance with using six sigma, DMAIC and integration Process
Sirajuddin Sirajuddin, University of Indonesia, Kota Depok, Indonesia

08:00 – 09:15, THURSDAY  IE /OM in Asia  Bintang V
Session Chair: Md. Mizanur Rahman, Universiti Teknologi Malaysia

ID 354  Facility and Process Layout Analysis of an SME using Simulation: A Case Study of a Manufacturing Company
Onkar P, Vimal Kumar, Pratima Verma, Suraj Pratap Singh and Jitendra Katiyar, Indian Institute of Technology Kanpur, Uttar Pradesh, India

ID 397  Save water to save our next generation
Md. Mizanur Rahman, Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia
Md. Kawsar Ali and Jahangir Alam, Comfit Composite Knit Ltd., Mirzapur, Tangail, Bangladesh

ID 508  The Influence of Industrial Engineering in Semiconductor Fabrication Factory Optimization
Mohd Razali Muhamad, Universiti Teknikal Malaysia Melaka, Malaysia
Mohd Azizi Chik, SiTerra Malaysia, Kulim, Kedah, Malaysia

ID 625  A Review on Operation Diagnosis and Identification of Operation Improvement
Musli Mohammad, Mohd Shahir Yahya and Edly Ferdin Ramly, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

ID 672  Industrial Logistic Performance Evaluation: A Case of Printing and Packaging Company in Thailand
Kanda Boonsothonsatit, Institute of Field Robotics, King Mongkut's University of Technology Thonburi, Bangkok, Thailand
Suwaphit Buabuth, Institute of Field Robotics, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

08:00 – 09:15, THURSDAY  Artificial Intelligence  Bintang VI
Session Chair: Baouche Rafik, University of Boumerdes, Algeria

ID 238  Model development to monitor and control energy consumption in South Africa
Oludolapo A. Olanrewaju and Therese Van Wyk, Department of Industrial Engineering, Vaal University of Technology, Vanderbijlpark, South Africa

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ID 667 Applying Fuzzy Inference System Tsukamoto for Decision Making in Crude Palm Oil Production Planning
Abdul Talib Bon and Silvia Firda Utami, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia

ID 002 Facies Analysis and Permeability/porosity Prediction from well log data using the Non Parametric Regression with Multivariate Analysis and Neural Network in the Reservoirs of the Hassi R'Mel Southern Field (Algeria)
Baouche Rafik, University of Boumerdes, Algeria
Baddari Kamel, University of Bouira, Algeria

08:00 – 09:15, THURSDAY Healthcare Systems Bintang VII
Session Chair: Md. Liakot Ali, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 202 Fabrication of Fracture Aid Using Rapid Prototyping
Gopu Govindasamy, Nivedha Balakrishnan, Saranya Sureshkumar and Suvitha Subramaniam, Sri Ramakrishna Engineering College Coimbatore, India

ID 554 A Discrete-Event and Agent-Based Hybrid Simulation Approach for Healthcare Systems Modeling and Analysis
Amr Eltawil, Mohammed Abdelgall and Sameh Abdou, Egypt Egypt-Japan Univeristy for Science and Technology, New Borg El Arab, Alexandria, Egypt

ID 607 Logistic tools for increased the level of opportunity in the intervention in patients with hip fracture at “Hospital Universitario Mayor Mederi” case
Valeria Mendoza Cortes, Universidad Del Rosario, Bogotá, Colombia

ID 608 Inventory - A Tool to Improve Hospital Management
Valeria Mendoza Cortes, Universidad Del Rosario, Bogotá, Colombia

ID 656 A Model of a Secured Smart e-Health System
Md. Liakot Ali, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
Mohammad Tauhidul Alam, Bangladesh Bank, Dhaka, Bangladesh

08:00 – 09:15, THURSDAY Modeling and Simulation Mayang Sari I
Session Chair: Andrew Abah, University of Nigeria

ID 499 Tolerance Analysis using an alternative to Monte Carlo simulation
Mohamed Gadallah, Cairo University, Giza, Egypt
Omnia Fadel, Mohamed Zaghloul and Hanan Kouta, Port Said University, Port Said, Egypt

ID 587 Effect of Information Sharing and Capacity Adjustment on Healthcare Service Supply Chain: The Case of Flood Disaster
Ali Anjomshoae, Universiti Teknologi Malaysia, Johor, Johor Bahru, Malaysia

ID 637 Placement of Solar-Wind Hybrid Power Plant in Iran with using AHP algorithm and technical and economic evaluations by HOMER software
Mehrdad Hajizadeh, Hormozgan Electric Power Distribution Company and Islamic Azad University of Semnan, Iran
Faramarz Faghihi and Hamed Joorabli, Islamic Azad University of Semnan, Iran

ID 502 Predicting the Development Time of Platform for Multiple-Generation Product Using Artificial Neural Network
Amalia Suzianti, Nabila Priscandy Poetri and Nauli Dwi Fileinti, Universitas Indonesia, Depok, West Java, Indonesia

ID 358 Development of Facility Utilization Model for Use in Ajaokuta Steel Complex
Stephen Nwanya, Oluseyi Ajayi and Obafemi Olatunji, Covenant University, Cannanland, Ota, Ogun State, Nigeria
Andrew Abah, University of Nigeria,Nsukka, Enugu State, Nigeria

08:00 – 09:15, THURSDAY Reliability and Maintenance Mayang Sari II
Session Chair: Maruf Hasan, University of New South Wales, Sydney, Australia

ID 496 A New Software Reliability Growth Model with Introduction of New Defects in the Test Process
Zelong Yi, Shenzhen University, Shenzhen, Guangdong, China
ID 514 Reliability and Maintainability Parameters Estimation under Imperfect Repair and Maintenance by Genetic Algorithm
Mootaz Ghazy, Ahmed Farouk and Amr Hassnien, Arab Academy for Science and Technology and Maritime, Alexandria, Egypt

ID 617 Determination of Safety instrumented level using Fuzzy Risk Graph method Case study: Heater of oil & gas industry
Rabah Bilal and Tadjine Kamel, Department of Mechanical Engineering, Industrial risks laboratory, Badji Mokhtar University, Annaba, Algeria

ID 511 The history and development of six sigma quality management
Maruf Hasan and Maxwell Chiu, University of New South Wales, Sydney, NSW, Australia

08:00 – 09:15, THURSDAY Project Management Mayang Sari III
Session Chair: Mauro Mancini, Politecnico di Milano, Milan, Italy

ID 392 Project Management: A Complete Paradigm for Pakistani Public and Private Educational Institutions
Majid Baseer and Muhammad Arsalan, Sarhad University of Science and Information Technology, Peshawar, Pakistan

ID 470 The Role of Management Control System in ERP Project Implementation
Pratima Verma, IIT Kanpur, Kanpur, UP, India

ID 536 Personal Competency Assessment and Competence Building: A Study of Pakistani Project Management Scholars
Sara Siddique, Center for Advanced Studies in Engineering, Islamabad, Pakistan

Keerthika Asokan and Berlin Hency Victor, VIT University, Chennai, Tamilnadu, India

ID 365 Megaproject case studies: a stakeholder management perspective
Mauro Mancini and Agnese Travaglini, Politecnico di Milano, Milan, Italy
Ivana Burcar Dunovic, University of Zagreb, Zagreb, Croatia

08:00 – 09:15, THURSDAY Modeling and Simulation Mayang Sari IV
Session Chair: Alessandro Navarra, Universidad Católica del Norte, Antofagasta, Chile

ID 126 Selecting the best layout for the container terminal using Modeling and Simulation Techniques
Asela Kulatunga, Faculty of Engineering, University of Peradeniya, Peradeniya, Central, Sri Lanka
Chanjief Chandrakumar, Faculty of Engineering, University of Peradeniya, Badulla, UVA, Sri Lanka
Gowynathan Jeyanthinathasarma, Faculty of Engineering, University of Peradeniya, Sri Lanka
Nadarasa Sanjeevan, University of Peradeniya, Vavuniya, Sri Lanka

ID 145 Temperature Distribution using Zone Models for Radiative Sections of Fired Process Heaters
Ali ElKamel, University of Waterloo, Waterloo, Ontario, Canada
Rois Fatoni, Chemical Engineering Department, Universitas Muhammadiyah Surakarta, Indonesia
Muhummad Bujwa, University of Waterloo, Waterloo, ON, Canada

ID 167 The dynamics of Indonesian rice supply chain
Alan Dwi Wibowo, Universitas Lambung Mangkurat, Banjarmasin, Kalimantan Selatan, Indonesia
Armand Omar Moeis, Universitas Indonesia, Depok, Jawa Barat, Indonesia

ID 367 Sensitivity Analysis in Optimization of Multiple Cyclone Arrangements
Muhamad Fariz Failaka and Ali ElKamel, Department of Chemical Engineering, University of Waterloo, Ontario, Canada
Fethi Bellamine, National Institute of Applied Science and Technology, Tunis Cedex, Tunisia

ID 133 Debottlenecking of Conventional Copper Smelters
Alessandro Navarra, Universidad Católica del Norte, Antofagasta, Chile
Roberto Parra, Universidad de Concepción, Concepción, Bio Bio, Chile
Boyd Davis, Kingston Process Metallurgy Inc., Kingston, Ontario, Canada
Frank Mucciardi, McGill University, Montreal, Quebec, Canada
Seng How Kuan, Universiti Tunku Abdul Rahman, Kajang, Selangor, Malaysia
**IEOM Kuala Lumpur Conference Preliminary Technical Program**  
**March 8-10, 2016**

**9:30 Keynote:** Dr. Hans-Juergen Hoyer, Secretary General of the International Federation for Engineering Education Societies (IFEEES), Executive Secretary of the Global Engineering Deans Council (GEDC) and Resident Scholar in Global Engineering at Marquette University, USA - Mayang Sari Grand Ballroom

**10:15 Keynote:** Prof. Dr. Noraini Kaprawi, Director of Strategic and Quality Management Office, Faculty of Technical and Vocational Education, University of Tun Hussein Onn Malaysia - Mayang Sari Grand Ballroom

**11:00 - Break**

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<th><strong>Global Engineering Education X</strong></th>
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<td><strong>Session Chair:</strong></td>
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| 11:30 – 11:55 (Thursday) | Kamel Hawwash BSc, MSc, MAPM, FHEA  
Professor in the School of Civil Engineering  
University of Birmingham, UK  
Immediate Past President of SEFI  
Member of the European Engineering Deans Council |
| 11:55 – 12:20 (Thursday) | Dr. Charles Mbohwa  
Professor and Vice-Dean Postgraduate Studies, Research and Innovation  
Faculty of Engineering and the Built Environment (FEBE)  
University of Johannesburg’s (UJ)  
South Africa |
| 12:20 – 12:45 (Thursday) | Dr. S. C. Naik  
Professor, Former Head of Chem Engg and Dean  
National Institute of Technology, Rourkela, Odisha, India  
Past President, The Institution of Engineers  
Past Vice-President, The Federation of Engineering Institutions in South & Central Asia |
| "Engineering Education and Environment" |

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<td><strong>Session Chair:</strong></td>
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| 11:30 – 12:20            | Mr. Takenori Kabeya  
Takenori Kabeya  
Senior Engineer and IT Specialist of Production, Sales and Inventory Solution Department  
Business Solution Division  
Hitachi Solutions East Japan, Ltd. |

*Designing demand and supply operation tailored to industry sector and business category*

| 12:20 – 12:45 |

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

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<td>Vimal Kumar, Indian Institute of Technology Kanpur, India</td>
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**ID 322 Multi-Attribute Control Chart Design for Bronze Pipe Fittings Production**

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<td>S.P. Srinivasan, Mechanical Engineering, Rajalakshmi Engineering College, Chennai, India</td>
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<td>P. Malliga, Industrial Engineering, Anna University, Chennai, India</td>
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<td>Manoj Pokkiyarath, Amrita Business School, Bangalore, India</td>
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<td>Bishu Ramaratnam, Department of Mechanical and Materials Engineering, University Of Nebraska-Lincoln, Nebraska, USA</td>
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<td>Development of Root Cause Analysis Tool for Control Chart</td>
<td>Hari Agung Yuniaro, Industrial Engineering, Universitas Gadjah Mada, Siemen, D. I. Yogyakarta, Indonesia</td>
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<td>Wilhelmus Abisatya Paranta, PT ASTRA Daihatsu Motor, North Jakarta, DKI Jakarta, Indonesia</td>
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<td>217</td>
<td>Relating Left/Right Brained Dominance Types of Leaders to TQM Focus: A Preliminary Study</td>
<td>Vimal Kumar, Indian Institute of Technology Kanpur, Uttar Pradesh, India</td>
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**11:30 – 12:45, THURSDAY**

**Logistics Management II**

*Session Chair: Mandy Taha, Alexandria University, Egypt*

- **ID 056** Transforming green logistics practice into benefits - A case of 3PLs
  - Noorliza Karia and Muhammad Hasmi Abu Hassan Asaari, Universiti Sains Malaysia, USM, Penang, Malaysia

**ID 092** The Analysis of Airport Operational Performance Case Study: Chiangmai International Airport, Thailand
  - Tipavinee Suwanwong, Chiang Mai University, Muang District, Chiang Mai, Thailand

**ID 295** Model and Simulation Design of Stacking Rules in Container Terminal with Discrete Event Simulation Approach
  - Armand Omar Moes and Muhammad Harisuddin, University of Indonesia, Depok, West Java, Indonesia

**ID 629** Near Optimal Solution for Green Vehicle Routing Problem
  - Mandy Taha, Production Engineering Department, Alexandria University, Alexandria, Egypt

**11:30 – 12:45, THURSDAY**

**Inventory Management**

*Session Chair: Ehsan Shekarian, University of Malaya, Kuala Lumpur, Malaysia*

- **ID 222** Value Chain Optimization in Overseas Procurement
  - Aman Sinha, Bher India LTD., Pune, Maharashtra, India
  - Deepak Chandra, National Institute of Industrial Engineering, Mumbai, India

**ID 337** Analyzing optimization techniques in inventory models: the case of fuzzy economic order quantity problems
  - Ehsan Shekarian, Nima Kazemi, Ezutah Udoncy Olugu and Salwa Hanim Abdul-Rashid, University of Malaya, Kuala Lumpur, Malaysia

**ID 300** The effect of human learning with cognitive and motor capabilities on a fuzzy EOQ model
  - Ehsan Shekarian, Nima Kazemi, Ezutah Udoncy Olugu, Salwa Hanim Abdul-Rashid and Raja Ariffin Bin Raja Ghazilla, University of Malaya, Kuala Lumpur, Selangor, Malaysia

**11:30 – 12:45, THURSDAY**

**Artificial Intelligence**

*Session Chair: Ali Asghar Heidari University of Tehran, Iran*

- **ID 315** Evaluations of Crossover and Mutation Probability of Genetic Algorithm in an Optimal Facility Layout Problem
  - Maryam Mohammadi and S. Nurmaya Musa, University of Malaya, Kuala Lumpur, Malaysia

**ID 120** Two Calibrated Metaheuristic Algorithms for Solving a Multi-Plant Capacitated Lot-Sizing Problem in an Integrated Production-Distribution Network
  - Maryam Mohammadi and S. Nurmaya Musa, University of Malaya, Kuala Lumpur, Malaysia

**ID 374** Conceptual Framework for Using System Identification in Reservoir Production Forecasting
ID 643  Let a CPSO+ algorithm explore your high-quality shortest paths: an effective chaos-enhanced PSO-based strategy
Ali Asghar Heidari and Rahim Abaspour, University of Tehran, Iran

11:30 – 12:45, THURSDAY  Lean and Six Sigma  Bintang VII
Session Chair: Taiwo Samuel, Olabisi Onabanjo University, Nigeria

ID 426  Production Management Model Integrating Green and Lean Six Sigma
Cherrafi Anass, Khalid Bnhida, Ahmed Mokhils, Fatima Zohra Elamrani and Elfezzai Said Cadi Ayyad University, Safi, Morocco

ID 579  Improvement of the Production Process via Kaizen: Case Study of a wiring company
Ilham Kissani, AI Akhawayn University, Ifrane, Morocco

ID 586  Solving Quality Issues in Automotive Component Manufacturing Environment by utilizing Six Sigma DMAIC Approach and Quality tools
Mohd Norzaimi Che Ani, Manufacturing Engineering Section, Universiti Kuala Lumpur – Malaysian Spanish Institute, Kulim, Kedah, Malaysia
Ishak Abdul Azid, Mechanical Engineering Section, Universiti Kuala Lumpur – Malaysian Spanish Institute, Kulim, Kedah, Malaysia
Shahrul Kamarudin, Mechanical and Industrial Engineering Department, Universiti Teknologi Petronas, Tronoh, Perak, Malaysia

ID 653  Anthropometric Data Variation Within Gari-frying Population
Taiwo Samuel, Olabisi Onabanjo University, Ago-Iwoye, Ogun, Nigeria

Michael Mutingi, School of Engineering, Namibia University of Science & Technology, Windhoek, Namibia and Faculty of Engineering & the Built environment, University of Johannesburg, Johannesburg, South Africa
Charles Mbohwa, Faculty of Engineering & the Built environment, University of Johannesburg, Johannesburg, South Africa
Herbert Mapfaira, Mechanical Engineering Department, University of Botswana, Gaborone, Botswana

11:30 – 12:45, THURSDAY  Case Studies  Mayang Sari I
Session Chair: Pornwasin Sirisawat, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand

ID 362  Energy sector process control system to ensure achievement of energy efficiency targets in Latvia: a case study
Ineta Geipele, Institute of Civil Engineering and Real Estate Economics, Riga Technical University, Riga, Latvia
Gita Actina, Energy Efficiency Center, Institute of Physical Energetics, Riga, Latvia
Sanda Geipele, Institute of Civil Engineering and Real Estate Economics, Riga Technical University, Riga, Latvia
Namejs Zeltins, Energy Efficiency Center, Institute of Physical Energetics, Riga, Latvia

ID 668  Relationship between Human Errors in Maintenance and Overall Equipment Effectiveness in Food Industries
Yunos Ngadiman, Nor Aziati Ab Hamid, Rohaizan Ramlan and Liew Kai Boon, Department of Production and Operation Management, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

ID 459  Numerical Study of Non-Premixed Combustion of Pulsed Swirling Co-axial Jets
Shiferaw Regassa Jufar and Berihun Mamo Negash, Department of Petroleum Engineering, Universiti Teknologi Petronas, Perak Darul Ridzuan, Malaysia

ID 596  Towards Risk Managed Cloud Adoption - A Conceptual Framework
Anil Kumar Saini, University School of Management Studies, New Delhi, India
Shikha Gupta, Ansal University, Gurgaon, Haryana, India
Kulbhushan Saxena, FIIB, Gurgaon, Haryana, India

Pornwasin Sirisawat and Tossapol Kiatcharoenpol, Department of Industrial Engineering, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand
Ninlawan Choomrit and Pliada Wangphanich, Department of Industrial Engineering, Srinakharinwirot University, Bangkok, Thailand

11:30 – 12:45, THURSDAY  Sustainable Manufacturing  Mayang Sari II

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Session Chair:

Egon Müller and Hendrik Hopf, Technische Universität Chemnitz, Germany, Chemnitz, Germany

ID 311 Development of Sustainable Performance Measurement System for Electronic and Plastics Industrial Cluster Based Industrial Symbiosis Scenario in the Industrial Estate
Ahmad Mubin, University of Muhammadiyah Malang, Jawa Timur, Indonesia

ID 452 Enabling CMOS 0.13µm technology at 0.18µm equipment platform on 200mm Semiconductor Manufacturing Industry
Thung Beng Joo and Kader Ibrahim, Silterra Malaysia Sdn BhdKulim, Kedah, Malaysia
Nurul Fahrin Bin Abd Manap and Fauziyah Binti Salehuddin, Universiti Teknikal Malaysia Melaka, Durian Tunngal, Melaka, Malaysia

ID 645 Sustainable Suppliers’ Selection in Ready-Made Garments: Toward Sustainable Manufacturing
Maha Morss, Arab Academy for Science, Technology and Maritime Transport (AASTMT), Alexandria, Egypt

ID 455 Development of Comprehensive WIP Performance Monitoring Systems for Semiconductor Fabrication Foundry
Mohamad Zambr Mohd Darudin, Silterra Malaysia Sdn. Bhd., Kulim, Kedah, Malaysia
Nor’ Azah binti Khushairi, Silterra Malaysia Sdn. Bhd., Kulim Hi
Hasbullah Haji Ashaari, School of Technology Management and Logistic, Universiti Utara Malaysia, Kedah, Malaysia

11:30 – 12:45, THURSDAY Service Systems and Service Management Mayang Sari III
Session Chair: Aziz E. ElSayed, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

ID 035 Activating Organizational Learning Capabilities through Service Operations Design
Christopher Backhouse, Loughborough University, Loughborough, Leicestershire, United Kingdom
Ayham Jaaron, An-Najah National University, Nablus, West Bank, Palestine

ID 578 The Role of Service Providers on Cloud Computing Technology for a Sustainable Computer Network
Ramesh Chandra Rath, Einstein Academy of Technology and Management, Khordha, Bhubaneswar, Odisha, India

ID 588 Developing KPIs for organizations with similar objectives
Charles Mbohwa, Jan Harm Christiaan Pretorius and Edoghogho Ogbeifun, University of Johannesburg, Gauteng, South Africa

ID 099 D-Optimal Equivalent-Estimation Second-Order Strip-Strip-Plot Designs for Three Multi-Stage Processes
Prapassorn Tantiphanwadi and Prapaisri Sudasna na Ayudhya, Kasetsart University, Chatuchak, Bangkok, Thailand

ID 456 Network Management and Bandwidth Resource Allocation in Educational Institutions

11:30 – 12:45, THURSDAY Modeling and Simulation Mayang Sari IV
Session Chair: Basel Aleideh, Kuwait University

ID 339 Application of Monte Carlo Analytic Hierarchical Process (MCAHP) in the Prioritization of Theme Park Service Quality Elements
Lindley Bacudio, Mc Joren Banzon and Michael Angelo Promentilla, De La Salle University, Manila, Philippines

ID 373 History matching of the PUNQ-S3 reservoir model using proxy modeling and multi-objective optimizations
Berihun Mamo Negash, Universiti Teknologi Petronas, Bandar Seri Iskandar, Perak Darul Ridzuan, Malaysia

ID 404 Numerical Modelling and Optimization of Square Microneedle Array for Efficient Transdermal Drug Delivery
Raja Rajeswari Nachiappan, Saveetha Engineering College, Anna University, Chennai, TamilNadu, India

ID 493 Impact of the geometrical parameters of labyrinth seal on the efficiency of gas pumping unit
Bellaouar Abderrahmane, University of Laghouat, Laghouat, Algeria, Algeria
Volodimir Kopey, Ivano-Frankivsk National Technical University of Oil and Gas, Ivano-Frankivsk, Ukraine
Mokhtar Aouissi, Mechanical Engineering Laboratory, Amar Telidji University of Laghouat Laghouat, Laghouat, Algeria

ID 440 Statistical Analytical Study of Traffic Accidents and Violations in the State of Kuwait and its Social and Economic Impact on the Kuwaiti Society

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Basel Aleideh, Kuwait University, Showaikh, Kuwait City, Kuwait

13:00 Thursday Lunch Keynote:
Rajiv Ghatikar, Vice President and General Manager, Siemens PLM, ASEAN/Australasia
Mayang Sari Grand Ballroom

14:00 – Networking break – Exhibition hall

14:30 – 15:45, THURSDAY
Global Engineering Education XI Starhill 4
Session Chair: Nidhi M B, MarBaselios College of Engineering & Technology (MBCET), Kerala, India

2:30 – 2:55 (Thursday)
Professor Khedidja Allia
Research Laboratory of Science in Industrial Process Engineering (LSGPI)
USTHB - FGMGP, Bâb-Ezzouar
Algiers- Algeria

ID 546 Trends in engineering education: Programs’ content, implementation to meet current challenges.

2:55 – 3:20 (Thursday)
Shri. Mahesh Anant Kakade
MIE, MISTE, MIV, MIEEES
Controller of Examinations, Shivaji University, Kolhapur
Chairman, Indian Society for Technical Education
Maharashtra- Goa Section, India

3:20 – 3:45 (Thursday)
Dr. Abdur Rahim
Professor, Faculty of Business Administration
University of New Brunswick, Fredericton, NB, Canada

14:30 – 15:45, THURSDAY
Industry Solutions XI Starhill 5
Session Chair:

2:30 – 2:55 pm
Parth Rashmikant Patel
Executive Director
Apollo Techno Equipments Limited
Ahmedabad, Gujarat, India

2:55 – 3:20 pm
ID 457 Eliminate Salicide Residues in Wafer Fabrication Front-End Pre-Metal Layer Cleaning Process
Johann Ong and Bee Hoon Tan, SilTerra Malaysia Sdn Bhd, Kulim, Kedah, Malaysia

3:20 – 3:45 pm
ID 267 Developing Productivity Monitoring System in a governmental organization with multi-performance objectives: A case study in National Iranian Gas Company
Ali Massaeli, National Iranian Gas Company, Tehran, Iran

14:30 – 15:45, THURSDAY
Smart Manufacturing Workshop Starhill 6

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

14:30 – 15:45, THURSDAY
Reliability and Maintenance Starhill 7
Session Chair: Joe Amadi-Echendu, University of Pretoria, Gauteng, South Africa

ID 005 Optimized Measures to Improve TAT in Product Maintenance

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ID 050  Development of a condition index matrix to support technical feasibility of life extension in the offshore oil and gas industry
Mahmood Shafiee and Isaac Animah, Cranfield University, Bedford, Bedfordshire, United Kingdom

ID 058  Prediction of Failures by Using Crow/AMSAA Model in Microsoft Excel
Masdi Muhammad, Tahir Raza and Mohd Amin Bin Abd Majid, Universiti Teknologi Petronas, Tronoh, Perak, Malaysia

ID 080  Identifying Optimal Intervene Hazard for Cutting Tools Considering Cost-availability Optimization
Soumaya Yacout, Ecole Polytechnique, Montreal, Quebec, Canada
Yasser Shaban, Faculty of Engineering, Helwan University, Cairo, Egypt

ID 083  An empirical case study of engineering asset management decision making in an electrical utility
Joe Amadi-Echendu and Ouma Bosaletsi, University of Pretoria, Gauteng, South Africa

14:30 – 15:45, THURSDAY  Entreprenuership Workshop  Starhill 8
2:00 to 8:00 pm
Professor Donald M. Reimer
Director of Entrepreneurial Programs
College of Engineering
Lawrence Technological University
Southfield, Michigan, USA

14:30 – 15:45, THURSDAY  Sustainable Manufacturing  Bintang V
Session Chair: Mohd Nizam Ab Rahman, Universiti Kebangsaan Malaysia

ID 266  Augumenting Excellence in Manufacturing: A Strategic Dynamic Approach
Mridula Sahay, Amrita Business School, Amrita Vishwa Vidyapeetham, Coimbatore, Tamil Nadu, India

ID 303  Identification of Energy Efficiency Measures during Factory Planning Processes
Manuela Krones and Egon Müller, Technische Universität Chemnitz, Chemnitz, Saxony, Germany

ID 428  ProSET: A Decision Support System for Sustainability Performance Evaluation
Muhammad Zameri Mat Saman, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia
Mohd Fahrul Hassan, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia
Safian Sharif, Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia

ID 495  The Challenge in Malaysian Industries in Implementing Design of Experiment
Mohd Nizam Ab Rahman, Haris Jamaluddin, Jaharah A. Ghani and Baba Md Deros, Universiti Kebangsaan Malaysia / National University of Malaysia, Bangi, Selangor, Malaysia

ID 623  Waste management for sustainable development in industrial parks. A case study of Wadesville industrial area, Johannesburg
Tatenda T Chingono and Charles Mbohwa, Department of Quality and Operations Management, FEBE, University of Johannesburg, Johannesburg, South Africa

14:30 – 15:45, THURSDAY  Computer and Computing  Bintang VI
Session Chair: Hanane Zermane, Batna 2 University, Algeria

ID 240  Development of a Computer Aided Learning Tool for PIC Microcontroller
Md. Liakot Ali and Mainur Rahman, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 636  Prediction of Oil Well Flowing Bottom-hole Pressure in Petroleum Fields
Medhat Awadalla and Hassan Yousef, SQU, Muscat, Oman

ID 681  Decision Analysis View of Higher Education Planning Activities of Admission and Recourses Allocation in Oman
Mahmood Al Kindi, Mechanical and Industrial Engineering, Sultan Qaboos University, AlKhoud, Oman

ID 718  Organizational factors for implementing TQFD
Hari Krishnan Thampi and Pramod V. R., N.S.S College of Engineering, Palakkad, Kerala, India

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ID 065  Development of an internet-based fuzzy control system of manufacturing plant  
Hanane Zermane and Hayet Mouss, Batna 2 University, Batna, Algeria

ID 174  Literature review of Industrial Competitiveness Index: research gap  
Teuku Yuri M. Zagloel and IB Putra Jandhana, Department of Industrial Engineering, University of Indonesia, Depok, West Java, Indonesia

ID 182  PSI-Cockpit: A Supply-Demand Planning System Focusing on Achieving Goals through Resolving KPI Conflicts  
Shintaro Urabe, Satoshi Munakata and Huang Shuangquan, Hitachi Solutions East Japan, Ltd., Sendai, Miyagi, Japan

ID 204  Modified Barrier and Operational Risk Analysis using Bayesian approach: Towards Bayesian–BORA methodology  
Nouara Ouazraoui, University of Batna-Algeria, Batna, Algeria  
Mouloud Bourareche, Health and Occupational Safety Institute, University of Batna, Batna, Algeria  
Rachid Nait Said, University of Batna-Algeria, Batna, Algeria

ID 659  The Impact of Quality Management Tools in Municipal Water Distributors: Case of Namibia  
Michael Mutingi, School of Engineering, Namibia University of Science & Technology, Windhoek, Namibia  
Timothy Silombela and Damas Mashauri1, School of Engineering, Namibia University of Science & Technology, Windhoek, Namibia  
Charles Mbohwa, Faculty of Engineering and the Built Environment University of Johannesburg, Johannesburg, South Africa

ID 383  Analyzing the Success Rate of Strategic and Tactical Economic Sanctions; A strategy for Russian economic planning  
Seyed Amirhossein Alavifar and Zaernjuk Victor Makarovitch, Russian State university of Tourism and Services, Moscow, Russia

ID 543  Using Mathematical Programming for Investment Assessment and Optimal Investment  
Hohyun Lee, Jinwoo Lee and Myeonghun Ji, Data Science Lab, Paul Math School, Goesan-gun, Chungcheongbuk-do, Korea

ID 180  Low Energy and Low Cost Freshwater Production by Membrane Distillation  
Rubina Bahar, Tasnim Firdaus Ariff and Mohammad Jaber Perves Bappy, International Islamic University Malaysia, Kuala Lumpur, Malaysia

ID 264  Remote-Controlled Microcontroller-Based Temperature System: An Economical Design  
Thabit Sultan Mohammed, Dhofer University, Salalah, Dhofer, Oman

ID 454  Measuring Product Sustainability Using Fuzzy Method  
Muhammad Zameri Mat Saman, Universiti Teknologi Malaysia, Skudai, Johor, Multary  
Abdul Rahman Hemdi, Universiti Teknologi Mara, Permatang Pauh, Pulau Pinang, Malaysia  
Saifian Sharif, Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia  
Salwa Mahmood, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

ID 453  Measuring Product Sustainability Using Fuzzy Method  
Abdul Rahman Hemdi, Universiti Teknologi Mara, Permatang Pauh, Pulau Pinang, Malaysia

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ID 670 On-Grid Solar Power Systems with Net Metering and Solar Irradiance in Pakistan
Hafsa Qamar, Gulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, KPK, Pakistan

ID 069 Introducing of smart work – opportunity to increase economical development of municipalities in Latvia
Ilze Jodrupa, Riga Technical University, Riga, Latvia

ID 077 Income inequality and human capital as factors influencing economic development of region – case study of Latvia
Liga Kamola, Uldis Kamols and Svetlana Ivanova, Riga Technical University, Riga, Latvia

ID 472 Ontology-Based User Guidance for Energy Efficiency Optimization Measures
Markus Brandmeier and Joerg Franke, Friedrich-Alexander-University Erlangen-Nuremberg, Erlangen, Bavaria, Germany

14:30 – 15:45, THURSDAY  Statistics and Optimization  Mayang Sari III
Session Chair: Albert Luguterah Uds, Navrongo, Upper East Region, Ghana

ID 331 An Analysis on Process Parameters of Solder Jet Bonding to Increase the Shear Strength of Solder Joint in HGA
Krisada Asawarungsangkul and Jakawat Deeying, Department of Industrial Engineering, King Mongkut’s University of Technology, North Bangkok, Bangkok, Thailand

ID 476 optimization of the acid catalyst concentration for synthesis of anti-cancer agent gamavuton-0 by using mathematical and statistical software
Sabtanti Harimurti, Hari Widada, Ismanurrahman Hadi and Didy Putra Wijaya, Universitas Muhammadiyah Yogyakarta, Daerah Istimewa Yogyakarta, Indonesia

ID 501 Aircraft Ground Movement Delay: A Descriptive Statistical Analysis at Kuala Lumpur International Airport
Jafri Rohani, Mohd Izuddin Md Ithnan and Istaq Fazrurrazzaq Nusyirwan, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

ID 248 Yield Stability and Genotype by Environment Interaction of Fifteen Rice (Oryza Sativa L) Genotypes Evaluated under Rainfed and Irrigated Conditions in Northern Ghana
Albert Luguterah Uds, Navrongo, Upper East Region, Ghana
Desmond S. Adogoba, CSIR - SARI Tamale, Northern Region, Ghana

ID 703 A study on how to improve PMBOK guidelines performance by simulation - Case Study: National Gas Company of Lorestan province
F. Jaferi, Department of Industrial Engineering, Islamic Azad University, Najafabad Branch, Isfahan, Iran
Moslem Parsa, Industrial Engineering, Lorestan Gas Company, Khorramabad, Iran
S.M. Sajadi, Faculty of Entrepreneurship, University of Tehran, Tehran, Iran

14:30 – 15:45, THURSDAY  Modeling and Simulation  Mayang Sari IV
Session Chair: Rene Estember, Mapua Institute of Technology, Manila, Philippines

ID 155 Thermochemical Processing of Biomass: Graphic User Interface Models for Costing and Material Balances
Ali Elkamel, University of Waterloo, Waterloo, Ontario, Canada
Rois Fatoni, Chemical Engineering Department, Universitas Muhammadiyah Surakarta, Surakarta Jawa Tengah, Indonesia
Abdulhalim Abdulrazik, University of Waterloo, Waterloo, Ontario, Canada

ID 189 Empirical Analysis and Modeling of Learning Curves in the Apparel Manufacturing Industry
Thilini Ranasinghe, University of Peradeniya, Sri Lanka
Chanaka Senanayake, University of Peradeniya, Sri Lanka
Kanthi Perera, University of Peradeniya, Sri Lanka

ID 669 Assembly Line Optimization using Arena Simulation
Abdul Talib Bon and Nur Nasihah Shahrin, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia

ID 298 On the Energy detection of unknown signals over fading channel for different diversity combining techniques
Rupali Agarwal, Neelam Srivastava and Himanshu Katiyar, Babu Banarasi Das National Institute of Technology and Management, Lucknow, Uttar Pradesh, India

ID 192 Forecasting of Stock Prices Using Brownian Motion – Monte Carlo Simulation
Rene Estember, Mapua Institute of Technology, Manila, Philippines
Michael John Maraña, Mapua Institute of Technology, Manila, Philippines

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15:45 - Break

16:00 – 17:30, THURSDAY  Global Engineering Education XII  Starhill 4

Session Chair:

4:00 – 4:30 (Thursday)

Nidhi M B

NidhiA/HoD Mechanical Engineering Department
MarBaselios College of Engineering & Technology (MBCET)
Thiruvananthapuram, Kerala, India
National Executive Council Member ISTE

*Enhancing outcome Based Education through Self awareness*

4:30 – 5:00 (Thursday)

5:00 – 5:30 (Thursday)

14:30 – 15:45, THURSDAY  Industry Solutions XII  Starhill 5

Session Chair:

4:00 – 4:30 (Thursday)

4:30 – 5:00 (Thursday)

5:00 – 5:30 (Thursday)

16:00 – 17:00, THURSDAY  Smart Manufacturing Workshop  Starhill 6

*Dr. Rupy Sawhney*

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

16:00 – 17:30, THURSDAY  Operations Excellence  Starhill 7

Session Chair: Rajendra K. Patil, TSSM's Padmabhooshan Vasantdada Patil Institute of Technology, Bavdhan, Pune, India

**ID 693 Green Supply Chain Management: Do They Improves Operational Efficiency and Operational Performance**
Raja Zuraidah Rasi, Md Fauzi Ahmad and Siti Sarah Omar, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia

**ID 702 Investigating Software Detection Methods**
Kiran Khatter, School of Engineering & Technology, Ansal University, Gurgaon, India
Arvind Kalia, Department of Computer Science, Himachal Pradesh University, Shimla, India

**ID 709 Design of a Crushing and Propagation Screw Mechanism for Progressive Pelletising in Food Waste**
R. Masike, W. Mutenhabundo and R. Muchadenyika, Harare Institute of Technology, Box 277, Ganges Road, Belvedere Harare, Zimbabwe

**ID 716 A relationship framework and Critical application in between strategy and operational plans for manufacturing industry**
John M. Ikome, Department of Industrial Engineering, Faculty of Engineering, Tswane University of Technology, Pretoria, South Africa
Martha M. Ikome, Technology Transfers and Innovation (TTI), Vaal University of Technology, Vanderbijlpark, South Africa.

**ID 675 Design and Development of Drilling Jig for Spinning Rings used in Textile Industry**
Rajendra K. Patil, Shivam C. Shinde, Suraj Madhukar Takale and Bhawarlal Choudhary, Dept. of Mechanical Engineering, TSSM’s Padmabhooshan Vasantdada Patil Institute of Technology, Bavdhan, Pune, India

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IEOM Kuala Lumpur Conference  Preliminary Technical Program  March 8-10, 2016

16:00 – 17:30, THURSDAY  **Entreprenuership Workshop**  Starhill 8

Professor Donald M. Reimer
Director of Entrepreneurial Programs
College of Engineering
Lawrence Technological University
Southfield, Michigan, USA

16:00 – 17:30, THURSDAY  **Case Studies**  Bintang V

ID 682  Occupational Health & Safety Issues Affecting Worker Performance in Omani Industries
Mohammad Khadem, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman

ID 661  Diverse Possibility of Fit Manufacturing Principle into Value Stream Mapping (VSM) and Its Impact: A Review
Tan Chan Sin, Gwee Wan Theng, Rosmaini Ahmad, Hussain. M.I., and C.C. Lee, School of Manufacturing Engineering, University Malaysia Perlis, Kampus Tetap Pauh Putra, Malaysia

16:00 – 17:30, THURSDAY  **OPEN**  Bintang VI

16:00 – 17:30, THURSDAY  **OPEN**  Bintang V

16:00 – 17:30, THURSDAY  **IFEES Meeting – Board of Directors**  Mayang Sari I

**International Federation of Engineering Education Societies (IFEES) Meeting**
Board of Directors

16:00 – 17:30, THURSDAY  **IEOM Student Chapter Development Meeting**  Mayang Sari II

16:00 – 17:30, THURSDAY  **IEOM Chapter Meeting**  Mayang Sari III

16:00 – 17:30, THURSDAY  **IEOM Chapter Meeting**  Mayang Sari IV

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<td>Ali Elkamel, University of Waterloo, Waterloo, Ontario, Canada Rois Fatoni, Chemical Engineering Department, Universitas Muhammadiyah Surakarta, Jawa Tengah, Indonesia Manoj Mathew, Chemical Engineering Department, University of Waterloo, Waterloo, ON, Canada</td>
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<td>Mounira Bourebia, Research center in Technologies Industrielles.CRTI.ex-CSC, Chéraga, Algérie, Annaba, Algeria Lakhder Laouar, Badji M okhtar University BP12 -2300, Industrial Mechanics Laboratory Annaba, Algeria Hamid Hamadache, Annaba University, Algeria</td>
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<td>Effect of inclination of the walls mold on the primary cooling during the continuous casting</td>
<td>Mounira Bourebia, Research center in Technologies Industrielles.CRTI.ex-CSC, Chéraga, Algérie Annaba Algeria Algeria Lakhder Laouar Badji M okhtar University BP12 -2300, Industrial Mechanics Laboratory Annaba, Algeria</td>
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Vijayakumar Manupati and Chaitanya Gangal, Vit University, Vellore, Tamilnadu, India

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Rishabh Ranka, Biswajita Mohanty, Manidhar Darisi Venkata, Raj Kumar Singh, Pavan Kumar Kulkarni and Vijayakumar Manupati, School of Mechanical and Building Sciences, Vellore Institute of Technology, Vellore, Tamil Nadu, India

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Ali I. Al-Mosawi, Free Consultation, Babylon, Hilla, Iraq
Muhammad A. Al-Najar, Asia Cell Company, Iraq
Shaymaa Abbas Abdulsada, University of Kufa, Collage of Engineering, Iraq

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Abderrezak Hocine, University Badji Mokhtar, Sidi Amar, Annaba, Algeria

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Yao-Chin, Wang Blue Bee System Integration Ltd., Tainan, Taiwan

ID 255  A Hybrid Genetic Algorithm for Solving Facility Location-Allocation Problem
Farzad Firouzi Jahantigh, Department of Industrial Engineering, University of Sistan and Baluchestan, Zahedan, Iran
Behnam Malmir, Department of Industrial and Manufacturing Systems Engineering, Kansas State University, Manhattan, USA

ID 260  Lean Supplier Selection: A Data Envelopment Analysis (DEA) Approach
Masoud Rahiminezhad Galankashi, Department of Material, Manufacturing and Industrial Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Johor, Malaysia
Muhammad Hisjam, Department of Industrial Engineering, Faculty of Engineering, Sebelas Maret University, Surakarta, Indonesia
Syed Ahmad Helmi, Department of Material, Manufacturing and Industrial Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Johor, Malaysia

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Ishat Islam, SQBL, Rangpur, Rangpur, Bangladesh

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Mohammad Hisjam, Masoud Rahiminezhad Galankashi and Syed Ahmad Helmi, UTM, Skudai, Johor, Malaysia

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Sherif Mostafa, University of South Australia, Adelaide, South Australia, Australia

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Yao Zhang and Xin Guan, School of Business Administration, Northeastern University, Shenyang, China

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Zaina Norhallis Zainol and Masine Md Tap, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia

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Innah Dominique Puertollano and Michelle Joy Macapuno, Mapua Institute of Technology, Manila, Philippines
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Fethi H. Bellamine, The National Institute of Applied Science and Technology in Tunis, Centre Urbain Nord, Tunis Cedex, Tunisia
Muhammad Fariz Failaka and Ali Elkamel, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada

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Suwilai Areejit, Bangkok Thonburi University, Taweewatana, Bangkok, Thailand
ID 364  An alternative approach to criticality analysis of industrial risks
Nouara Ouazraoui, University of Batna-Algeria, Batna, Algeria

ID 378  Quantitative Optimization of Nurses in Emergency Department of Teaching Hospital: A case study
Ali Mouseli, Health Care Management, Research Center for Health Services Management, Institute of Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran
Mohammad Hosein Mehrholahsani, Research Center for Health Services Management, Institute of Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran, Mechanical and Industrial Engineering
Zahra Mastaneh, Department of Health Information Management and Technology, School of Paramedicine, Hormozgan University of Medical Sciences, Bandar-Abbas, Iran
Leila Vali, Environmental Health Engineering Research center, Kerman University of Medical Sciences, Kerman, Iran

ID 380  Reduction of chatter vibrations by management of the cutting tool
Bourdim Abdelghfour, University of Tiemcen, Tiemcen, Algeria
Bourdim Mokhtar, University Center of Relizane, Tiemcen, Algeria

ID 434  Identifying Factors Affecting Entrepreneurial Sustainable Development (Case Study: Knowledge-Based Start-Ups of Science and Technology Park of Tehran University)
Niloofar Tavakoly Nabavy, Babak Zia and Shiva Vosoughi, Tehran, Iran

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Mohamed Ariff Shri Abdul Aziz and Mohamad Zambri Mohd Darudin, Silterra Malaysia Sdn Bhd, Kulim, Kedah, Malaysia
Samad Ramlan, Mohamed Ariff Shri Abdul Aziz and Mohamad Zambri Mohd Darudin, Silterra Malaysia Sdn. Bhd., Kulim Hi-Tech Park, Kulim, Kedah, Malaysia
Muhammad Hafidz Fazli Md Fauadi and Mohd Razali Muhamad, Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia - Melaka, Malaysia

ID 482  Using several intelligences for complex industrial process monitoring: detection and diagnosis
Hayet Mouss, Nafissa Rezki, Okba Kazar, Laid Kahloul and Djamil Rezki, Batna 2 University, Batna, Algeria

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Shaiju Eapen, Department of Veterans Affairs USA, Shelby Township, Michigan, United States

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Hui-Chiung Lo, Tamkang University, New Taipei City, Taiwan

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Meidhi Bijari, Nasim Karimy and Jamshid Parvizian, Isfahan University of Tech., Isfahan, Iran

ID 528  Analytical Study of Pecking Order Theory of Capital Stucture; Evidence from Malaysia
Hamed Emami, Project Management Office, ZKJ Co., Esfahan, Iran
Maryam Rahimi Tehrani, Finance Division, DejDis Sepahan, Esfahan, Iran

ID 530  A study on the Profitability Analysis of Power Grid Corporation of India Ltd
Prabhneet Kaur Sethi, Department of Applied Mathematics, Amity University, Noida, Uttar Pradesh, India
Surbhi Gupta, Amity University, Noida, Uttar Pradesh, India
Prabhneet Kaur Sethi, Amity University, Noida, Uttar Pradesh, India
Mohit Gupta, Power Grid Corporation of India Ltd., Delhi, India

ID 562  Contour Approach for Analysis of Minimum Regions for the Economic Statistical Design of X-bar Control Charts
Abdur Rahim, University of New Brunswick, Fredericton, New Brunswick, Canada
Santiago-Omar Caballero-Morales, Universidad Popular Autónoma del Estado de Puebla, Puebla, Mexico

ID 563  A Review of Models for Optimal Bio-products Syntheses from Oil Palm Empty Fruit Bunch (EFB)
Ali Elkamel, University of Waterloo, Ontario, Canada
Rois Fatoni, Chemical Engineering Department, Universitas Muhammadiyah Surakarta, Jawa Tengah, Indonesia
Abdulhalim Abdulrazik and Mahyar Abolhallaj, University of Waterloo, ON, Canada

ID 571  The Effects of Lean Production Tools and Techniques Implementation at Malaysian Manufacturing and Service Industries: A Case Study Review
Musli Mohammad, Badrul Omar, Mohd Shahir Yahya and Edly Ferdin Ramly, Universiti Tun Hussein Onn, Parit Raja, Batu Pahat, Johor, Malaysia

ID 574  Crystallization kinetics and thermal behaviors of nanoclay dispersed jute reinforced composite
Sazib Mollik, IIUM, Gombak, Selangor, Malaysia

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ID 575  Model of Logistics Management of the Supply Chain (LMSC) to Improve the Production Sector of Perishable Food Integrated by Small and Medium Enterprises in Mexico
Gladys Bonilla Enriquez, Universidad Popular Autonoma del Estado de Puebla, Mexico
Cano Olivos, Universidad Popular Autonoma del Estado de Puebla, Mexico

ID 622  Creating shared value in South Africa. A case study of Rustenburg and Emalahleni regions
Charles Mbohwa University of Johannesburg, South Africa
Tatenda Talent Chingono, University of Johannesburg, South Africa

ID 641  Alternative solution for the pipeline transport of viscous oil using the heaters in pumping stations.
Amar Benmounah and Ammar Chebouba, Department of Transport and Equipment of Hydrocarbons, Faculty of Hydrocarbons and Chemistry, UMHB, Boumerdes, Algeria

ID 666:  Desalination of Seawater Research Project on the Basis of the Positive Results of Water Treatment by Magnetic Field
Abderrahmane Belfaouar, Department of Process Engineering, Amar Telidji University of Laghouat, Laghouat, Algeria
Farid Touis, Research and Development Technologies Laboratory, Afro-Energy Corporation Ltd., Metlili, Algeria

ID 674  Rework Reduction in KHS Machinery Pvt. Ltd.
Dharmil Bavishi, Juhi Gupta, Gaurav Banthia, Parul Maroo, and Richa Grover, Industrial Engineering, Pandit Deendayal Petroleum University

ID 685  Need for Deployment of RFID Technology in Indian Hospitals
Parul Maroo, Industrial Engineering, Pandit Deendayal Petroleum University, Raisan, Gandhinagar, Gujarat, India

ID 698  Predicting Seasonal Demand with Bayesian Generalized Linear Model
Mohammad Anwar Rahman, Manufacturing & Construction Management, Central Connecticut State University, New Britain, Connecticut, USA
Ahad Ali, Lawrence Technological University, Southfield, Michigan, USA

ID 699  Impacts of 5S Implementation
Richa Grover, Shailee Dalal and Aditya Singh, Industrial Engineering Department, Pandit Deendayal Petroleum University, India

ID 701  Resource Management for Workflows in Cloud Computing Environment Based On Group Technology Approach
Saleh Shahdi-Pashaki, Department of Industrial Engineering, Shomal University, Amol, Iran
Ehsan Teymourian, School of Mechanical, Industrial, and Manufacturing Engineering, Oregon State University, Corvallis, USA
Vahid Kayvanfar, Department of Industrial Engineering, Amirkabir University of Technology, Tehran, Iran
Koorosh Mashhadi Alizadeh, Department of Industrial Engineering, Sadjad University of Technology, Mashhad, Iran

ID 719  Mean-Variance Portfolio Optimization on Some Stocks By Using Non Constant Mean and Volatility Models Approaches
Endang Soeryana Hasbullah, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran Bandung - Indonesia
Nur Fadhilina bt Abdul Halim, School of Informatics and Applied Mathematics, Universiti Malaysia Terengganu, Malaysia
F. Sukono, Endang Rusyaman and Sudradjat Supian, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung – Indonesia

ID 720  Applications De Bruijn Graphs of Hamiltonian and Eulerian Cycles to Fault Tolerant Networks
Mochamad Suyudi, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung, Indonesia
Roslan Bin Hasni Abdullah, School of Informatics and Applied Mathematics, Universiti Malaysia Terengganu, Malaysia
Sudrajat Supian and Asep Kuswandi Supriatna, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung - Indonesia

Senior Design Project / Final Year Project (FYP) Poster Presentation Competition

ID 310  Optimization of Warehouse Operations for Logistics Company in the Philippines
Stephanie B. Duque, Maricar M. Navarro, Bernaliza O. Verrey, Jovale C. Vitao, Sherilyn M. Zantua and Rosalia F. Gabuya, Industrial Engineering Department, Technological Institute of the Philippines, Quezon City, Philippines

ID 461  Investigation of Propagation and Permeability Modification of Grafted Bentonite Particles in Porous Media

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ID 604  Prioritization of patients with Communication Disorders
Daoud Ait Kadi, Samira Abbasgholizadeh Rahimi and Angel Ruiz, Université Laval, Quebec, QC, Canada
Exhibition Opportunities at IEOM 2016 Kuala Lumpur Conference

IEOM Society is organizing the Sixth International Conference on Industrial Engineering and Operations Management (IEOM) to be held at JW Marriot, Kuala Lumpur, Malaysia during March 8-10, 2016. Fifth IEOM Conference was held at Hyatt Regency Dubai during March 3-5, 2015 with over 500 participants from 64 countries and 752 submissions. We have received more than 700 submissions from 65 countries for the 2016 IEOM Kuala Lumpur Conference. INFORMS, IEEE, Eaton and Siemens are co-sponsoring it. All papers will be published in IEEE Xplore and indexed by Scopus.

Your company has a strong interest in the global market and the growth potential of this segment. Your support of the 2016 IEOM Conference will provide access to global marketing opportunities. The Kuala Lumpur Conference provides an excellent networking opportunity with a global foot print to communicate your brand and value proposition. Table Top Exhibit will cost $1,000 for three days (March 8-10, 2016). It includes the items below:

- Electronic list of post-conference attendees
- One complimentary conference registration per booth
- Six (6) foot table with drape in carpeted foyer
- Two (2) chairs and wastebasket
- Breaks and lunches (Tuesday, Wednesday and Thursday)
- One conference award dinner
- Conference roster
- Logo and product/service description on conference website and on-site materials
- Link to your website from the IEOM website
- Listing in Final Program distributed to all attendees

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Let us know if you have any question. See details in the conference exhibition page: [http://ieomsociety.org/ieom2016/?page_id=46](http://ieomsociety.org/ieom2016/?page_id=46)

Dr. Ahad Ali and Dr. Abdul Talib Bon
Conference Co-Chairs, IEOM 2016
talib@uthm.edu.my  info@ieomsociety.org  www.ieomsociety.org/ieom2016/