

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

Grand Hyatt Hotel, Bali, Indonesia

January 7 -9, 2014

www.ieom.org

Overall Conference Program

January 6, 2014 (Monday)

15:00 – 21:00 Registration

January 7, 2014 (Tuesday)

07:00 – 17:00 Registration

08:00 – 08:30 Opening Ceremony

08:30 – 09:30 **Opening Keynote: Dr. Kenneth Musselman**, Strategic Collaboration Director, Regenstrief Center for Healthcare Engineering at Purdue University, USA and Past IIE President.

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Tea / Coffee Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Tuesday Lunch Keynote: **Dr. Nyoman Pujawan**, Professor, Department of Industrial Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia.

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

18:00 – 20:00 WELCOME RECEPTION

January 8, 2014 (Wednesday)

07:00 – 17:00 Registration

08:30 – 09:30 Wednesday Morning **Keynote: Mr. Made Dana Tangkas**, VP of Toyota Motor Asia Pacific Engineering and Manufacturing and Director of PT. Toyota Motor Manufacturing Indonesia

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Tea / Coffee Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Wednesday Lunch **Keynote: Dr. Robert de Souza**, Executive Director, The Logistics Institute – Asia Pacific

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

19:00 – 23:00 CONFERENCE AWARD DINNER, AND CULTURAL PROGRAMS

January 9, 2014 (Thursday)

07:00 – 15:00 Registration

08:30 – 09:15 Thursday Morning I **Keynote: Dr. John Blakemore**, CEO, Blakemore Consulting International, Australia and Former National President of the Manufacturing Society of Australia

09:15 – 10:00 Thursday Morning II **Keynote: Dr. Petri Helo**, Professor of Logistics, Department of Production, Faculty of Technology, University of Vaasa, Finland

10:00 – 10:15 Break

10:15 – 11:30 Parallel Sessions

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Lunch

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

KEYNOTE SPEAKERS

Opening Keynote (Jan 7, 2014)



Dr. Kenneth Musselman
Strategic Collaboration Director
Regenstrief Center for Healthcare Engineering
Purdue University, USA
And Past IIE President

At the Regenstrief Center for Healthcare Engineering at Purdue University, Dr. Musselman is responsible for directing multi-disciplinary research teams across engineering, science and management to improve healthcare delivery. The center draws on the strengths of Purdue's 10 academic colleges and the center's partnerships with key healthcare organizations to address impactful, leading-edge research in care coordination and population health.

Prior to coming to the center, Dr. Musselman served as a Director for Cantilever Technologies, a high-tech firm specializing in web-based business activity monitoring and response. Before that, he served as a Senior Product Manager for several world-leading ERP companies where he was responsible for value-add reseller relationships as well as supply chain and advanced planning and scheduling software product design. He has also served as a Vice President for Pritsker Corporation where he directed all corporate consulting and training activities for their simulation-based, capacity management and scheduling software.

For over 30 years, Dr. Musselman has been actively engaged in both healthcare and manufacturing, actively consulting in the aerospace, automotive, communications, computers, consumer products, curative care, electronics, metals and transportation industries. He has consulted to more than 100 organizations worldwide, lectured in over 160 venues throughout North America, Latin America and Europe, and authored more than 60 professional publications.

Dr. Musselman is a Fellow and past President of the Institute of Industrial Engineers. He also serves on the clinical advisory board of OurHealth. He holds Ph.D. and M.S. degrees from Purdue University and a B.A. degree from Western Michigan University.

Tuesday Lunch Keynote (Jan 7, 2014)



Dr. Nyoman Pujawan
Professor, Department of Industrial Engineering
Sepuluh Nopember Institute of Technology (ITS)
Surabaya, Indonesia

Nyoman Pujawan is Professor of Supply Chain Engineering and the Head of Graduate Program at the Department of Industrial Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia. He received a bachelor degree in Industrial Engineering from ITS, Indonesia, Master of Engineering in Industrial Engineering from Asian Institute of Technology (AIT) Bangkok, Thailand, and PhD in Management Science from Lancaster University, UK. He is the CSCP (Certified Supply Chain Professional) holder from APICS. He was a Lecturer in Operations Management in Manchester Business School, The University of Manchester, UK in 2003 – 2004. His papers have been published in many international journals including the European Journal of Operational Research, International Journal of Production Research, International Journal of Production Economics, Production Planning and Control, Business Process Management Journal, among others. He is the Editor-in-Chief of Operations and Supply Chain Management: An International Journal and in the Editorial Board of a number of international journals. He is a Board Member of Asia Pacific Industrial Engineering and Management Systems Society (APIEMS). Professor Pujawan worked in industry before moving to the academic world and has been actively delivering professional courses and consultancy services to Indonesian companies in the area of operations and supply chain management. He is now a member of committee responsible for designing national logistics systems under the Coordinating Minister for the Economy, Republic of Indonesia.

Wednesday Morning Keynote (Jan 8, 2014)



Mr. Made Dana Tangkas
Director of Corporate Affairs, External Affairs, Production Logistic Control, & Legal
PT. Toyota Motor Manufacturing Indonesia
Toyota Motor Asia Pacific, Bangkok, Thailand

Mr. Tangkas is the director of corporate affairs, external affairs, production logistic control, and legal of Toyota Motor Manufacturing Indonesia (TMMIN) and Astra (YDBA & YABI). He was a vice president/director of production engineering, and Indonesia project leader at Toyota Motor Asia Pacific. He was an advisor for TMMIN BOD. Mr. Tangkas was a director of technical, quality, production control and logistic, exim, and engineering. He was a senior general manager for purchasing division, operation management consulting division, technical directorate, and corporate planning. Mr. Tangkas was a senior general manager for Karawang Plant Operation. He was general manager of production control of PT. Toyota Motor Manufacturing Indonesia. Mr. Tangkas was division head/ general manager of production control, new model project management chief, and SIP project (ex. Kadera Ar. Indonesia) of PT. Toyota-Astra Motor. He is a trainer and instructor of Toyota Production System, practical problem solving, and assessor for manager development. Tangkas's Professional Activities:

- Chairman of Association of Indonesian Industrial Engineer and Management (ISTMI), in 2008-2015.
- As Speaker and Advisor on Domestic and International for Manufacturing System, Total Quality Management, Demand and Supply System, Project Management, etc.

- Chairman of IGEFI, Chairman of Pelita AI Foundation., Chief of Industry Development in GAIKINDO.
- Chairman of APJP (Asosiasi Perusahaan Jalur Prioritas) in 2012-2015.
- President of AJJIF (Jujitsu-Indonesia) in 2012-2015.
- Head of KADIN's Standing Committee for Industrial Policy and Regional Empowerment in 2012-2015.
- Chairman of AAF-TC#1 Economy in 2013-2015.
- Book Author: Building the Best Indonesia Business Way (Collaboration with ESQ, Mr. Ary Ginanjar Agustian).

Tangkas earned a Bachelor of Science degree in Industrial Engineering (1989) from the Bandung Institute of Technology, Indonesia.

Wednesday Lunch Keynote (Jan 8, 2014)



Dr. Robert de Souza

Executive Director / Chief Executive
The Logistics Institute – Asia Pacific

Dr. Robert de Souza is the Executive Director and Chief Executive of The Logistics Institute – Asia Pacific. TLI – Asia Pacific is a premier institute based in Singapore nurturing logistics excellence in industry, postgraduate research and education. TLI – Asia Pacific is a ninth-time AFSCA (Asian Freight and Supply Chain Award) winner for the best educational course provider since 2003 and third-time Supply Chain Asia Award for training and education on 2009, 2010, and 2011.

Prior to joining TLI – Asia Pacific, Dr de Souza was Executive Vice President for V3 Systems in the Asia Pacific, Corporate Senior Vice President and Global Chief Knowledge Officer at Viewlocity Inc. and Vice Chairman and CEO of SC21 Pte. Ltd. Dr. de Souza is a Professor at the Georgia Institute of Technology in USA and a Senior Fellow at the National University of Singapore. He has published extensively and is a member of the Editorial Boards of the International Journal of Computer Integrated Manufacturing and the International Journal of Logistics Research and Applications and SMBNet.

Dr. de Souza is a Chartered Engineer and serves on multiple industry, government and academic committees. Amongst these are most notably: the Resource Panel for the Government Parliamentary Committee (GPC) on Transport, the Advisory Panel of The Chartered Institute of Logistics and Transport, Singapore (CILTS), the IDA RFID Alliance (now part of the National RFID Centre), the IBM Global University Partners Leadership Advisory Board. Dr. de Souza received his Ph.D., M.Sc. and B.Sc. Honours in the United Kingdom.

Thursday Morning I Keynote Speaker (Jan 9, 2014)



Dr. John Blakemore

CEO, Blakemore Consulting International, Sydney, Australia
Former National President of the Manufacturing Society of Australia

John studied for his first two degrees part-time while working in private industry. In 1966 he was awarded an international fellowship which enabled him to enroll in a PhD which was awarded in 1969 by the University of Newcastle. His earlier part time work was done at the Newcastle University College (UNSW). Later he started his post-doctoral work as a nuclear scientist but quickly moved to research and consulting. John's principal skill is industrial process innovation and performance improvement using a range of methods including lean thinking and his own creative methods. His techniques are the result of numerous study programs and development in Japan, Europe and the USA and training by Harvard staff. He has rescued businesses in distress and innovated numerous new products and processes. Typically his clients show a very significant profit enhancement in 1 year as was the case for Pirelli and Shaw Industries, and many others. John has studied and worked in some of the best companies in the world including Honda, GEC, Canon and Panasonic and consulted to other highly regarded organizations including, Cochlear, Speedo, Meyer, BHP,

Bluescope, Wormald, and the CSIRO division of Mathematics and Statistics. Blakemore Consulting international has consulted in 9 countries (China, Japan, Singapore, France, Italy, NZ, Thailand, Vietnam, and the Philippines). In 2007 John was voted as one of the top 10 Innovative Engineers in Australia. He was previously a fellow of the Australian Graduate School of Engineering Innovation, (a consortium of three Australian Universities). Before setting up his company, operating from 1987, John occupied senior executive positions as Chief R&D, GM, Technical Director, and Marketing Director, with international companies and has been an advisor to the Federal Government on R&D manufacturing and engineering and a Director of the AIM, and Reed Business and the Institution of Industrial Engineers. He was a former National President of the Manufacturing Society of Australia. He has authored numerous papers and has written 6 business books, three were highly recommended and the last three were released in 2012.

Thursday Morning II Keynote Speaker (Jan 9, 2014)



Dr. Petri Helo

Professor of Logistics
Department of Production, Faculty of Technology
University of Vaasa, Finland

Dr. Petri Helo is a Professor of Industrial Management, Logistics Systems and the Head of Networked Value Systems Research Group at Department of Production, University of Vaasa, Finland. His research addresses the management of logistics systems in supply demand networks and use of IT in operations. Dr. Helo is also partner and board member at Wapice Ltd, a software solution provider of sales configurator systems and mass customization solutions. Additionally, he is visiting professor at Kasetsart University in Thailand.

Global Engineering Education DISTINGUISHED SPEAKERS

Tuesday, January 7, 2014

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

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



Dr. Ezendu Ariwa

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

[“Engineering Education in Great Britain: Engineering Education for Sustainability”](#)

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

He is also a member of the Elite Group of The British Computer Society (BCS), member of British Institute of Facilities Management and Fellow of Global Strategic Management, Inc., Michigan, USA and Member of the UK Council for Health Informatics. He is the Coordinator of the Digital Enterprise Research Group (DERG), African Research in Business Group (ARBG) and working with the team to achieve African Business and Enterprise Research Observatory (ABERO) at the London Metropolitan Business School. The ABERO achieved good collaboration with multicultural SMEs in the United Kingdom, with respect to mentoring and working on joint professional development enterprise programmes. He has experience of doctoral research supervision as well as doctoral external examiner for various Universities both in the UK and internationally.

He has a good research profile and the Founding Editor-in-Chief of the International Journal of Green Computing (IJGC), Editor-in-Chief of the International Journal of Computing and Digital Systems (IJCDS), Journal of E-Technology, and the Associate Editor of the International Journal of E-Politics and the Associate Editor of International Journal of Distributed Systems and Technologies (IJDST). He is a member of Policy Co-ordination Committee of the International Research Foundation for Development (A Corporation of NGO in special Consultative status with the Economic and Social Council of the United Nations).

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



Dr. Damodar Acharya

Professor, Indian Institute of Technology Kharagpur
Past Director (2007 - 2012), IIT, Kharagpur

[“Industrial Engineering Profession and Education in India”](#)

Professor Damodar Acharya received his Ph.D. (in 1975) and M. Tech. in IE & OR (in 1972) degrees from IIT, Kharagpur, and B.Sc. (Engineering) degree in Mechanical Engineering with distinction (in 1970) from NIT, Rourkela. Professor Acharya has thirty seven years of diversified experience - twenty seven years of teaching and research experience at IIT, Kharagpur including Director of Indian Institute of Technology Kharagpur from 2007 to 2012, five years of experience in academic administration as Vice-Chancellor, Biju Patnaik University of Technology, Rourkela, and Chairman, All India Council of Technical Education (AICTE), New Delhi. At IIT Kharagpur, he held also several important positions, such as Head of the

Department of Industrial Engineering and Management, Chairman of JEE, Dean of Sponsored Research and Industrial Consultancy, and Chairman of Vinod Gupta School of Management. As Director of IIT Kharagpur he is taking several path breaking initiatives both in academics and administrative front to propel his Institute to newer heights. Under his leadership, the Institute has brought remarkable changes in the academic front giving quantum fillip to number of research publications, number of PhDs, number of Patents and Sponsored research earnings. He has proved himself as an individual possessing exceptional academic leadership and administrative skills.

As an academican, Professor Acharya has the distinction of supervising more than thirty Ph.D. students, and publishing more than 85 papers in journals of repute. He is a consultant to many world-class companies, such as Tata Steel, General Motors, Hindustan Lever, and Tata Chemicals, and handled projects worth more than Rs.15 crore. His areas of interest and research include operation research, production planning and control, supply chain, and maintenance management. He is a fellow of both Indian National Academy of Engineering and National Academy of Sciences (India), and professional member of ORSI, IE(India), and IIIE.

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



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

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

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

Session II Chair: Dr. Kripa Shanker, Professor, Indian Institute of Technology Kanpur, and Former Deputy Director, IIT Kanpur, India

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



Dr. Gulnara Abitova

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

“Engineering Education in Kazakhstan”

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

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

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

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

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

**Dr. Abdul Hakim Halim**

Professor, Manufacturing Systems Research Group
Department of Industrial Engineering, Faculty of Industrial Technology
Bandung Institute of Technology
Bandung, Indonesia

"Industrial Engineering Education in Indonesia"

Dr. Abdul Hakim Halim is a Professor at the Department of Industrial Engineering, Faculty of Industrial Technology, Bandung Institute of Technology, Indonesia. Currently he has been appointed as Head of Coordinating Office for Private Higher Education Institutions located in West Java and Banten Provinces which is directly under Director General of Higher Education, Ministry of Education and Culture, Indonesia. Dr. Halim received Ph.D. in Industrial Engineering / Manufacturing Systems from University of Osaka Prefecture, Osaka, Japan. He has published numerous journal and

conference papers. His research interests are manufacturing systems, scheduling, inventory, quality control, and reliability.

12:30 – 13:00, Tuesday, January 7, 2014

**Dr. Amine Bermak**

Professor, Department of Electronic and Computer Engineering
Hong Kong University of Science and Technology
Clear Water Bay, Kowloon, Hong Kong

"Active and Collaborative Learning in the Engineering context"

Professor Amine Bermak received the Masters and PhD degrees, both in electrical and electronic engineering (microelectronics and Microsystems), from Paul Sabatier University, Toulouse, France in 1994 and 1998, respectively. Over the last decade, Prof. Bermak has acquired a significant academic and industrial experience. He has taught over 20 different courses at the undergraduate and post-graduate levels. He is the recipient of the 2011 University Michael G. Gale Medal for distinguished teaching. Prof. Bermak is also a two-time recipient of the "Engineering School Teaching Excellence Award" in HKUST for 2004 and 2009, respectively. He was also nominated for the 2013 Hong Kong UGC best teacher award.

Together with his students, Prof. Bermak has received five distinguished awards, including the

"Best student paper award" at IEEE International Symposium on Circuits and systems ISCAS 2010 (the conference featured 1081 papers and the paper received the first prize); the 2004 "IEEE Chester Sall Award"; the IEEE Service Award from IEEE Computer Society and the "Best Paper Award" at the 2005 International Workshop on System-On-Chip for Real-Time Applications. He has published over 250 articles in journals, book chapters and conference proceedings and designed over 30 chips. He has served on the editorial board of IEEE Transactions on Very Large Scale Integration (VLSI) Systems and the Sensors Journal. He is also currently serving on the editorial board of IEEE Transactions on Biomedical Circuits and Systems and IEEE Transactions on Circuits and Systems II. Prof. Bermak is a Fellow of IEEE and IEEE distinguished Lecturer.

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

14:00 – 14:30, Tuesday, January 7, 2014

**Dr. Erik Sundin**

Associate Professor in Sustainable Manufacturing
Division of Manufacturing Engineering
Department of Management and Engineering
Linköping University, Sweden

"Industrial Engineering Education in Europe"

Dr. Erik Sundin is an associate professor in manufacturing engineering at the Department of Management and Engineering of Linköping University, Sweden. He received Ph.D. in the area of *Product and Process Design for Successful Remanufacturing* and MS in Applied Physics and Electrical Engineering from Linköping University. Most of his research has been focusing around remanufacturing. Recently he is focusing on Sustainable Production and the development of Product/Service Systems (PSS). In remanufacturing Dr. Sundin is a part of a European Union project

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

14:30 – 15:00, Tuesday, January 7, 2014

**Dr. Eugene Rex L. Jalao**

Assistant Professor, Dept. of Industrial Engineering and Operations Research
University of the Philippines Diliman
Diliman Quezon City, Philippines

"Industrial Engineering Education in Philippines"

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

15:00 – 15:30, Tuesday, January 7, 2014

**Dr. James C. Chen**

Professor, National Tsing Hua University, Taiwan
Adjunct Professor, National Taiwan University, Taiwan
Adjunct Professor, Peking University, China
Consultant, Pou Chen International Group

"Industrial Engineering Education and Application in Taiwan"

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

Dr. Chen's current research interests include lean production and management, business process reengineering, advanced planning and scheduling, system simulation, and project management. He has been working on university-industry collaboration projects with high tech industries such as semiconductor wafer fabs and Thin Film Transistor Liquid Crystal Display (TFT-LCD) fabs in Taiwan as well as traditional industries such as footwear factories and apparel factories in Taiwan, China, India, Indonesia, Vietnam, Cambodia, and Fiji. He has published academic articles in European Journal of Operational Research, European Journal of Industrial Engineering, International Journal of Management Science (Omega), International Journal of Production Research, Computers and Industrial Engineering, Robotics and Computer- Integrated Manufacturing, Journal of the Society for Information Display, Displays, Applied Mathematical Modeling, and Production Planning and Control.

Dr. Chen was awarded IBM Manufacturing Research Graduate Fellowship, Outstanding Teaching Awards at CYCU, Distinguished University-Industry Collaborative Research Award at Chung Hua Picture Tubes, Distinguished Industrial Engineer Award from Chinese Institute of Industrial Engineers (CIIE), Outstanding Research Award at NTUST, Distinguished Intellectual Property and Commercialization Award at NTHU, Distinguished Research Award at NTHU, and Feature Person: Enjoying the International University-Industry Collaboration, Engineering Science and Technology Bulletin, National Science Council, Taiwan.

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

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

**Plenary I****Joseph F Paris Jr**

Chairman; XONITEK® Group of Companies
New York City, USA

Paris is the chairman of the XONITEK® Group of Companies. Paris is also the owner of the Operational Excellence Group on Linked-In. he founded the Operational Excellence Society. Paris is a thought-leader and a prolific writer on all aspects related to the subject of Operational Excellence. Paris is a routine lecturer for professionals and graduate students. In addition to having been an Adjunct Professor at the Johnson School of Management at Cornell University, he lectures at: the Lally School of Management at RPI; the Watson School of Engineering at Binghamton University; and the School of Management at the University at Albany. He has also delivered keynote addresses internationally including to: the Industrial Congress in Monterrey and in Puebla, Mexico; the R.V. School of Engineering in Bangalore India; various venues at the Institute of Industrial Engineers (IIE); the International Society for Pharmaceutical Engineering (ISPE) in Frankfurt Germany; Euro Logistics in Warsaw Poland; the Operational Excellence MENA and Change Management Conferences in Abu Dhabi; and a great many others. Paris currently serves on: the Editorial Board of the *Lean Management Journal*; the Advisory Board of the *Systems Science and Industrial Engineering (SSIE) Department at the Watson School of Engineering at Binghamton University*; and also on the Advisory Board of *IIE Process Industries Division (PID)*. He is a long-time, active member of the *Association for Corporate Growth (ACG)*.

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



Plenary II

Dr. Abdur Rahim

Professor, Faculty of Business Administration
University of New Brunswick, Fredericton, NB, Canada
Visiting Faculty, Department of Systems Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia University

[“Industrial Engineering Education in Middle East”](#)

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

Global Engineering Education

Wednesday, January 8, 2014

Session V Chair:

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



Dr. Ilham Kissani

Engineering & Management Science , School of Science & Engineering
Al Akhawayn University, Morocco

[“Industrial Engineering Education in North and Sub-Saharan Africa”](#)

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

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



Dr. Murat Sonmez

Associate Professor, Mechanical Engineering
Middle East Technical University - Northern Cyprus Campus, Güzelyurt KKTC

Associate Professor Dr. Murat Sönmez was born in Ankara, Turkey, in 1959. He received his PhD degree in Mechanical Engineering from Middle East Technical University (METU), in 1995. He worked as a research engineer, a teaching assistant and then an instructor for METU (Ankara Campus) between 1981-2007. Currently, he is a full-time faculty member in the Mechanical Engineering Program at METU Northern Cyprus Campus. His main research interests include energy saving, energy management, technical education, computer aided design and manufacturing. He is included in the editorial board of the Science PG- Educational Journal. He is one of the peer reviewers of Science PG- American Journal of Energy Engineering, and that of British Educational Research Journal.

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

**Dr. Edward Chikuni**

Professor, Department of Electrical Power Engineering
Cape Peninsula University of Technology, Cape Town, South Africa

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

Session VI Chair:

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

**Dr. Gisele Ragusa**

Associate Professor, Viterbi School of Engineering
Division of Engineering Education, Chair, USC STEM Consortium
University of Southern California
University Park Campus, Los Angeles, California, USA

Dr. Ragusa serves as the Associate Director of Education at CREATE. She is an associate professor and the Director of the Center for Outcomes Research and Evaluation. She is jointly appointed in the Rossier School of Education and the Viterbi School of Engineering's Division of Engineering Education. Her research interests and areas of expertise include: teacher education and retention, literacy education, teacher education supervision, content literacy, early childhood special education, deaf education, engineering education as well as assessment and measurement in STEM education. She teaches courses in literacy and language development, courses in learning theory, human development courses, and teacher education research courses. Prior to joining USC Rossier, Dr. Ragusa held an appointment as an assistant professor in special education and bilingual education at California State University, Northridge in addition to a faculty position at Pacific Oaks College. She has taught in distance learning for more than ten years. She is active in many professional associations in the early childhood, distance learning, engineering education, program evaluation and special and deaf education fields. She has been the principal investigator on several federal grants through the US Department of Education and the National Science Foundation.

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

**Dr. Hongyi SUN**

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

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

Dr. SUN Hongyi holds a BS in Computer Science from Harbin University of Science and Technology, a Master's degree in Management Engineering from the Harbin Institute of Technology (HIT), both in China, and a Ph.D. in Technology Management from Aalborg University in Denmark. Dr. SUN received a Certificate of Pedagogy in Higher Education from Bergen University in Norway in 1997. He has taught at the Harbin Institute of Technology in China (1986-1990) and the University of Stavanger in Norway (1994-1998).

Currently Dr. SUN is an Associate Professor in the Department of Systems Engineering and Engineering Management, City University of Hong Kong, where he also serves as programme leader and founding deputy programme leader of the Engineering Doctorate programme in Engineering Management, EngD (EM). His teaching and research areas include the management of technological innovation, manufacturing/operations strategy, quality management, and innovation education. Dr. SUN resides on the editorial board of the International Journal of Technological Innovation, Entrepreneurship and Technology Management, the International Journal of Learning and Changes and International Journal of Quality and Reliability Management.

Dr. SUN has twice been the winner of the Teaching Excellence Award at the City Univ. of Hong Kong and has won several other awards in innovation education His cross-disciplinary PIPE model and his learner-centered approach motivate students to actively acquire a broad range of new knowledge along the innovation process. Dr. SUN's teaching methods, reported in academic conferences and journals, are widely recognized. He is a regular speaker on innovation education and innovation management.

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



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

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

Rapid Manufacturing process together with co-inventors and provisional South African patents.

Session VII Chair: Dr. Tasho Angelov Tashev, Technical University of Sofia, Bulgaria

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



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

Dr. Ajay Garg obtained Bachelor's and Master's qualifications in first class with distinction from Indian school of Mines Dhanbad, India during the year 1987 (Mining Engineering) and 1990 (Longwall Mine Mechanisation) respectively. He further graduated from FMS, New Delhi with MBA qualification in 1994 and was awarded Doctorate of Business Leadership from SBL, University of South Africa during 2003. He has 25 years of industry, academic and administrative experience. Dr. Garg is currently employed at TUT business school, where he is responsible for teaching Research methodology course and responsible for all Masters and Doctoral research coordination work. The Business School is the largest in terms of post graduate student enrolment at the university. Prior to joining TUT, he set up Mining Engineering department at University of Botswana and also worked for Botswana Government for more than a decade. He has taught several Engineering and management courses at graduate programs and supervised a number of Masters students successfully.

Dr. Garg has widely published in Engineering and Management fields in reputable journals, his publications are spread around the world. He is an Established Researcher, a Rating that he received from NRF (National Research Foundation) of South Africa based on his quality of publications and contributions made. Dr. Garg also advises mineral industry in Africa. Currently he is special advisor to a Canadian based NGO and provides advice to several Central African Governments (DRC, Rwanda, Burundi, Tanzania, etc.) in the mineral sector in the implementation of mineral certification scheme. He was instrumental in the implementation of Kimberley process Certificate Scheme (KPCS) in Botswana and also represents NGOs in committees of KPCS.

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



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

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

Enterprise Intelligent Systems. His research and teaching interests include Enterprise Computing, Business-IT Alignment, Business Process Modeling, Process Aware Information Systems and Process Mining.

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

**Prof. Dr. Shahrin Mohamed**

Chairman of the Society of Engineering Education of Malaysia
Chairman, Engineering Deans Council
Universiti Teknologi Malaysia

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

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

Session VIII Chair: Dr. James Chen, Professor, National Tsing Hua University, Taiwan

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

**Plenary III****Dr. Loon Ching Tang**

Elected Region Vice President (Asia) of IIE, 2013 to 2016
Professor and Head, Department of Industrial and Systems Engineering
National University of Singapore

“Development of IE in East Asia and Future Challenges”

Loon Ching TANG is Professor and Head of Department of Industrial & Systems Engineering (ISE) in National University of Singapore (NUS). He is currently the Region Vice President (Asia) of Institute of Industrial Engineers (IIE); member of the Advisory Board of the Singapore Innovation and Productivity Institute; and member of the Academic Panel of the Institute of Engineers Singapore Academy.

Professor Tang obtained his PhD in 1992 from Cornell University. He has been with the ISE Department in NUS since then. He has published widely in many renowned international journals, of which more than 100 papers are cited in SCI. He was presented the IIE Transactions 2010 Best Application Paper Award and the prestigious Ralph A. Evans/P.K. McElroy Awards for the best paper presented at 2011 Reliability and Maintainability Symposium (RAMS); and the Stan Ofsthun Award for the most outstanding technical paper at the 2004 RAMS. He has been on the editorial review board of the Journal of Quality Technology, the flagship journal of ASQ, since 2006, among others. He is the main author of the book: Six Sigma: Advanced Tools for Black Belts and Master Black Belts (which is the winner of the inaugural Masing Book Prize by International Academy of Quality); and a co-author of Markov-Modulated Processes and Semiregenerative phenomena.

Besides being active in the forefront of research in quality and reliability management, Prof Tang has also been consulted by many government agencies and MNCs in this region. In particular, he has trained and mentored more than 50 Master Black Belt and provided training to more than 3000 analysts, engineers and managers, from Singapore, Malaysia, Thailand, China, USA, Indonesia, India and the Philippines in the areas of Lean Six Sigma, Design for Six Sigma, Operations Research and Reliability Engineering.

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

**Plenary IV****Dr. Abhijit Deshmukh**

James J. Solberg Head and Professor of Industrial Engineering
School of Industrial Engineering
Purdue University, West Lafayette, Indiana, USA

“Global Industrial Engineering Education and Future Challenges”

Abhijit Deshmukh is the James J. Solberg Head and Professor of Industrial Engineering at Purdue University. Before joining Purdue, Dr. Deshmukh was the Rockwell International Professor in the Department of Industrial and Systems Engineering and Director of the Institute for Manufacturing Systems at Texas A&M University. Prior to that, he was a professor of mechanical and industrial engineering at the University of Massachusetts Amherst. From 2004 to 2007, he served as a program director in the National Science Foundation's Engineering Directorate and the Office of Cyberinfrastructure.

Dr. Deshmukh received a PhD from the School of Industrial Engineering at Purdue University in 1993. His research interests are in distributed decision-making, system complexity, mechanism design, healthcare policy, and cyberinfrastructure for engineering applications.

He is a Fellow of the Institute of Industrial Engineers. He has received the NSF Director's Award for Collaborative Integration, Ralph R. Teeter Educational Award from Society of Automotive Engineers, Milton C. Shaw Outstanding Young Manufacturing Engineer Award from Society of Manufacturing Engineers, and was a Lilly Teaching Fellow at the University of Massachusetts Amherst.

Global Engineering Education

Thursday, January 9, 2014

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

10:15 – 10:45: Thursday, January 9, 2014



Prof. Dr. Tasho Angelov Tashev
Dean, Faculty Management and Administration
English Language Faculty of Engineering
Technical University of Sofia
Sofia, Bulgaria

10:45 – 11:15: Thursday, January 9, 2014



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

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

Session X Chair: Dr. Budi Santosa, Surabaya Institute of Technology (ITS), Indonesia

11:30 – 12:00: Thursday, January 9, 2014



Dr. Abdurazzag Ali Aburas
Faculty of Engineering and Natural Sciences
International University of Sarajevo
Ilidza, 71000, Sarajevo, Bosnia and Herzegovina

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

12:00 – 12:30: Thursday, January 9, 2014



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

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

Dr. Muhammad H. Zaman is Director of Laboratory of Engineering Education and Development, Associate Professor and Associate Chair of Biomedical Engineering and Associate Director of Kilachand Honors College at Boston University. Prof. Zaman is actively involved in

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

12:30 – 13:00: Thursday, January 9, 2014



Dr. Abdel Magid Hamouda

Professor and Chairman
Mechanical and Industrial Engineering Department
Qatar University, Qatar

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

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

Dr. Hamouda has supervised/supervising more than 15 Ph.D. and more than 50 Master degree students (By Research Thesis). Furthermore, he has published over 300 papers of which 120 Journal Publications. He has often been invited as keynote and invited speaker for various conferences, seminars and workshops. He has several US and Malaysian patents, and has edited several conference proceedings. He is editor-in-chief of international journal of virtual technology and multimedia, Deputy Editor in-Chief of Journal Achievements in Materials and Manufacturing Engineering and Editor of Engineering and Applied Sciences Journal. He set in the editorial board of many international journals. His research focuses on advanced design tools, development of novel materials and structures with enhanced performance. Key focus areas of his research are characterization of advanced materials, developing new design concepts, multifunctional and smart structures, design evaluation, crashworthiness, robotics, Lean management as well as Artificial intelligence and adaptive control.

He and his co-workers have received a number of prestigious awards; Gold Medal at the British Invention Show Alexandra Palace, UK, in 2004 and 2006, Silver Medal and Bronze at the 32nd International Exhibitions on Inventions, New Techniques and Products, Geneva, Switzerland, and another Silver Medal at the 63rd IENA, Nuremberg, Germany. In December 2007, he won the 2nd place at the Arab Business Plan competition in Amman, Jordan. Dr. Hamouda was selected by the Organization of Islamic Countries (OIC) as one of the 200 Top scientists within the OIC courtiers.

He Chaired and organized a good number (about 50) of symposium and international conferences in the areas of composite materials and computational mechanics in different parts of the world namely, Ireland, Japan, USA and Malaysia. He is assessor/ examiner to academic programs and faculty academic promotion to many universities. Dr. Hamouda is approached regularly by the members of the media for clarification of engineering issues concerning the public safety and invention; to name few Reader's Digest magazine and Women's Weekly magazine.

Session XI Chair: Dr. Shamsuddin Ahmed, University of Malaya, Kuala Lumpur, Malaysia

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



Dr. Bidyut Kumar Bhattacharyya

Professor, Mechanical Engineering Department
Director, School of Safety & Occupational Health Engineering
Bengal Engineering & Science University
Shibpur, Howrah, West Bengal, India

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

Research, and Safety & Occupational Health. Dr. Bhattacharyya has supervised many doctoral students and published many conference and journal papers. He is a Member of Academic Council, School of Management Science, Bengal Engineering and Science University, India.

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

**Dr. Ali R. Kaylan**

Professor, Department of Industrial Engineering
Chair of the Graduate Program in Engineering & Technology Management
Bogazici University
Istanbul, Turkey

"Industrial Engineering Education in Turkey"

Ali R. Kaylan is a professor of Industrial Engineering and the Chair of the Engineering and Technology Management graduate program at Bogazici University in Istanbul. After completing his undergraduate studies in 1973 in the Mechanical Engineering Department of Bogazici University, he pursued his graduate studies in the Department of Industrial Engineering and Operations Research at Syracuse University in the U.S.A. He has received his M.S. degree in 1975 and Ph.D. in 1979 both from the same University. He joined the Industrial Engineering Department of Bogazici University in 1979. He was promoted to full professorship in 1990.

He has served as the Industrial Engineering Department Chair and the Information Technology Director of the Bogazici University. He was elected as the Engineering Dean for two terms during 2000-2006. During that period, he was a member of the Steering Committee of the Turkish Engineering Deans Council. He was elected as the General Secretary of this Council for the period December 2003 – May 2006. Being a founder member of the Turkish Association for Evaluation and Accreditation of Engineering Programs, he participates as an evaluator in the accreditation process of Industrial Engineering Programs in Turkey.

Prof. Kaylan has also been active in KalDer, the Turkish Quality Society. He was the President of this Society during 2008-2010. Besides, during his membership in the Executive Committee for 12 years, he has served as the Chairman of the National Quality Award Steering Committee, the Head of the Advisory Board of the Turkish Customer Satisfaction Index and the Head of the Editorial Board for the Turkish quality journal entitled as *Quality First*. He is a founder board member of R&D Engineers and Managers Association.

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

**Dr. Yun-Hae Kim**

Professor, Korea Maritime and Ocean University, Korea
Vice-President, Korean Society for Engineering Education, Korea
Editor-in Chiefs, Nano Hybrids, Advanced Engineering Forum, IJOSE, JOET
Director and Editor, Korean Society of Composite Materials (KSCM)

Yun-Hae Kim is a founder of Asian Conference for Engineering Education (ACEE) and Chair of the 3rd ACEE2013. He holds the position of Professor at the Division of Marine Equipment Engineering, Korea Maritime and Ocean University, Korea, with major in Composite Materials. He is also the Vice-president of the Korean Society for Engineering Education (KSEE). He was a Visiting Professor at National Institute of Standards and Technology (NIST, 1997-1998), U.S.A. and a Visiting Professor, The University of Tokushima (2004-2005), Japan. He was the Coordinator of The First International On-Board Seminar for the Development of Environment-

friendly Technology and Secretariat General of International Conference on Marine Engineering funded by Busan Metropolitan City.

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

He is a Chair of the 3rd Asian Conference of Engineering Education 2013(ACEE2013) and he is a Chair of the 7th Advanced Materials Development and Performance (AMDP) 2014. He is the Co-chairs of 2nd International Conference Mechatronics and Control Engineering, ICMCE2013, International Forum on Mechanical and Material Engineering 2013, IFMME2013 and 3rd International Conference on Advanced Engineering Materials and Technology, AEMT2013. International Conference on Sensors, Measurement and Intelligent Materials, ICSMIM2013.

He gave Special lecture for the Japanese Students in Mexico, 2006-2007, Keynote speech, 1st Asian Conference on Engineering Education 2009 (ACEE2009), Korea, Special lecture at Dali University, 2010, China, Keynote speech, ISMST 2010, China, Invited lecture at the 2nd International On-Board Symposium, 2010, Japan, Invited lecture at the Korean

Society of Composite Materials, 2010, Korea, Special lecture, The University of Tokushima, Summer school, 2010, Japan, Keynote speech, 2nd Asian Conference on Engineering Education 2011 (ACEE2011), Japan, Keynote speech, Nanocon012, 2012, Pune, India, Keynote Speech, IUSWNM2013, Cochin, India, Keynote Speech, National Taiwan University, 2012, Taiwan, Keynote speech, 1st IJSEE2013, Busan, Korea, Keynote speech, 2nd IJSEE2013, Kumamoto, Japan, Keynote speech, IUSWNM2012, 2013, India, Keynote speech, ICMCE2013, 2013, Dalian, China, Keynote speech, IFMME2013, 2013, Gwangzhou, China, Keynote speech, AEMT2013, 2013, Zhangjiajie, China, The University of Tokushima, Summer school, 2013, Japan, Keynote speech, ICACME2013, 2013, Beijing, China.

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

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

Plenary V

“Engineering Education in Americas”

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

Plenary VI

“Industrial Engineering Education in Latin America”

Overall Program – IEOM 2014
Grand Hyatt Bali, Indonesia
January 7 – 9, 2014

Tuesday, January 7

Time	ROOM							
	Tabanan I	Tabanan II	Tunjung	Jepun	Bangli I	Bangli II	Rijasa I	Rijasa II
08:30	Opening Keynote: Dr. Kenneth Musselman, Purdue University, USA and Past IIE President, BALLROOM I							
09:45	Global Engineering Education I	Operations Management I	Manufacturing and Design I	Artificial Intelligence I	Quality Control and Management I	Modeling and Simulation I	Case Studies I	Project Management I
11:15	Break							
11:30	Global Engineering Education II	Operations Management II	Manufacturing and Design II	Artificial Intelligence II	Quality Control and Management II	Modeling and Simulation II	Case Studies II	Project Management II
13:00	Lunch Keynote: Dr. Nyoman Pujawan, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia BALLROOM I (Box Lunches Provided)							
14:00	Global Engineering Education III	Operations Management III	Manufacturing and Design III	Facilities Planning	Quality Control and Management III	Modeling and Simulation III	Computer and Information Systems I	Project Management III
15:30	Tea / Coffee Break							
15:45	Global Engineering Education IV	Operations Management IV	Manufacturing and Design IV	E-Business and Engineering Economy	Quality Control and Management IV	Modeling and Simulation IV	Computer and Information Systems II	Construction Management
18:00	WELCOME RECEPTION - Pre-Functional Area							

Wednesday, January 8

Time	ROOM							
	Tabanan I	Tabanan II	Tunjung	Jepun	Bangli I	Bangli II	Rijasa I	Rijasa II
08:30	Keynote: Mr. Made Dana Tangkas, Toyota Motor Manufacturing Indonesia, BALLROOM I							
09:45	Global Engineering Education V	Operations Management V	Inventory Management I	Engineering Education I	Supply Chain Management I	Modeling and Simulation V	Engineering Management I	Reliability and Maintenance I
11:15	Break							
11:30	Global Engineering Education VI	Operations Research I	Inventory Management II	Engineering Education II	Supply Chain Management II	Modeling and Simulation VI	Engineering Management II	Reliability and Maintenance II
13:00	Lunch Keynote: Dr. Robert de Souza, Executive Director, The Logistics Institute-Asia Pacific, Singapore BALLROOM I (Box Lunches Provided)							
14:00	Global Engineering Education VII	Operations Research II	Inventory Management III	Engineering Education III	Supply Chain Management III	Energy I	Engineering Management III	Reliability and Maintenance III
15:30	Tea / Coffee Break							
15:45	Global Engineering Education VIII	Operations Research III	Inventory Management IV	Student Paper Competition	Supply Chain Management IV	Energy II	Engineering Management IV	Service Systems
18:00	Conference Award Dinner and Cultural Program							

Thursday, January 9

Time	ROOM							
	Tabanan I	Tabanan II	Tunjung	Jepun	Bangli I	Bangli II	Rijasa I	Rijasa II
08:30	Thursday Morning I Keynote: Dr. John Blakemore, CEO, Blakemore Consulting International, Sydney, Australia, BALLROOM I							
09:15	Thursday Morning II Keynote: Dr. Petri Helo, Professor of Logistics, University of Vaasa, Finland, BALLROOM I							
10:00	Break							
10:15	Global Engineering Education IX	Operations Research IV	Lean and Six Sigma I	Human Factors I	Supply Chain Management V	Sustainability and Green Systems I	Logistics Management I	Healthcare Systems I
11:30	Global Engineering Education X	Production Planning I	Lean and Six Sigma II	Human Factors II	Supply Chain Management VI	Sustainability and Green Systems II	Logistics Management II	Healthcare Systems II
13:00	Lunch: On Your Own							
14:00	Global Engineering Education XI	Production Planning II	Lean and Six Sigma III	Human Factors III	Supply Chain Management VII	Sustainability and Green Systems III	Logistics Management III	Healthcare Systems III
15:30	Tea / Coffee Break							
15:45	Global Engineering Education XII	Production Planning III	Lean and Six Sigma IV	IE/OM in Asia	Supply Chain Management VIII	Sustainability and Green Systems IV	Technology Management	Systems Engineering

Muflih Safitra, Ali Ahmad, and Abdulrahman M. Al-Ahmari, King Saud University, Saudi Arabia

ID 475: Cost-Benefit Analysis of Flexible Manufacturing System (FMS)

Mohammed Al-Kahtani, Muflih Safitra, Ali Ahmad, and Abdulrahman Al Ahmari, King Saud University, Riyadh, Saudi Arabia

ID 385: Optimization of Machining Parameters for Surface Roughness during 2.5D Milling

Pankaj Chandna, NIT Kurukshetra, Haryana, India

Arun Kumar Gupta, Vaish College of Engineering, Rohtak, Haryana, India

ID 27: Analysis of Main Output Parameters in AISI 304 Steel Turning

Ramezan Ali Mahdavinejad, University of Tehran, Tehran, Iran

ID 461: Performance Improvement of Flexible Manufacturing System (FMS) with a Proper Dispatching Rules Planning

T. Yuri M. Zagloel, Ferdinand Jahja, and Armand Omar Moeis, University of Indonesia, Depok, Jawa Barat, Indonesia

TU 09:45 – 11:15

Artificial Intelligence - I

Jepun

Session Chair: Dr. Zanariah Zainudin, Universiti Teknologi Malaysia, Johor, Malaysia

ID 264: Implementation of Safety Instrumented Systems by Fuzzy Risk Graph

Nouara Ouazraoui, Bilal Rabah, Rachid Nait-Said, and Mouloud Bourareche, Laboratory of Research in Industrial Prevention (LRIP), Health and Occupational Safety Institute, University of Batna, Algeria

ID 271: Cellular Manufacturing through Composite Part Formation: A Genetic Algorithm Approach

Nirjhar Roy and V.R. Komma, Motilal Nehru National Institute of Technology, Allahabad (U.P.), India

ID 411: A Comparative Study of Improved Simulation Annealing on Multi-Depot Vehicle Routing Problem with Time Windows

Subodha Dharmapriya, Asela Kulathunga and Pradeep Jayathilake, University of Moratuwa, Sri Lanka

ID 250: Rostering Problem for Medical Doctor Using Hybrid Genetic Algorithm: A Case Study at Malaysian Hospital

Zanariah Zainudin, Azurah A.Samah and Hairudin Abdul Majid, Operational and Business Intelligence (OBI) Research Group, Universiti Teknologi Malaysia (UTM), Skudai, Johor, Malaysia

ID 500: Implementation of Safety Instrumented Systems Using Fuzzy Risk Graph Method

Nouara Ouzraoui, Bilal Rabah, Rachid Nait Said, and Mouloud Bourarech, Institute of Health and Occupational Safety, University of Batna, Algeria

ID 280: Artificial Neural Network powered Virtual Well Testing

Avi Aggarwal, Indian School of Mines, India

TU 09:45 – 11:15

Quality Control and Management - I

Bangli I

Session Chair: Dr. Wonjoon Kim, Korea Advanced Institute of Science & Technology (KAIST), South Korea

ID 106: Optimal Sampling Strategy of Incoming Quality Control in In-Mold Decoration Manufacturing

Kataoka Hirohiko and Kuo-Hao Chang, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan

ID 279: Designing a Variables Two-Plan Sampling System with Process Loss Consideration

Nani Kurniati, and Ruey-Huei Yeha, National Taiwan University of Science and Technology, Taiwan

Chien-Wei Wu, National Tsing Hua University, Taiwan

ID 462: Mitigation of WIP inventory related problems at IC production line through a suitable inspection sampling plan

A.N.M. Karim, and Mohamed Bin Abd. Rahman, International Islamic University Malaysia

Nornilawati Yosop, Hi-essence Cable Sdn Bhd, Malaysia

ID 420: Integrating a Modified Desirability Function Approach and Ant Colony Strategy to Solve Two-stage Multiresponse Optimization Problem

Sasadhar Bera, Indian Institute of Management Ranchi, India

Indrajit Mukherjeeb, Indian Institute of Technology Bombay, India

ID 511: Technology Strategy under Technological Convergence Phenomenon: In the Case of Printed Electronics Industry

Wonjoon Kim, Korea Advanced Institute of Science & Technology (KAIST), South Korea

TU 09:45 – 11:15**Modeling and Simulation - I****Bangli II**

Session Chair: Dr. Abderrahmane Benbrik, University M'Hamed Bougara, Boumerdes, Algeria

ID 233: **Response Surface Models for Optimization of Wheat Straw-Polypropylene Composite Formulations**

Rois Fatoni, Universitas Muhammadiyah Surakarta, Indonesia

Ali ElKamel, and Leonardo Simon, University of Waterloo, Canada

ID 134: **Student Modeling of Archimedes Turbine for Low Head Hydro Power Plant in Simulink MATLAB**

Ali Raza and Yasir Saleem, University of Engineering and Technology Lahore, Pakistan

Mian Saleem, Rachna College of Engineering & Technology, Gujranwala, Pakistan

ID 108: **Quantile-Based Stochastic Optimization Using Modified Stochastic Nelder-Mead Simplex Method**

Hou-Kuen Lu and Kuo-Hao Chang, National Tsing Hua University, Taiwan

ID 111: **The Effects of System Failures in a Robotic Assembly Line- Simulation Modeling and DOE Analysis**

Annamalai Pandian, University of Wisconsin - Stout, USA

ID 218: **Modeling of Radiative Heat Transfer of a real Gas in 2D Enclosure**

Mohammed Cherifi, Siham Laouar-Meftah, and Abderrahmane Benbrik, University M'Hamed Bougara, Boumerdes, Algeria

TU 09:45 – 11:15**Case Studies - I****Rijasa I**

Session Chair: Dr. Zanele Mpanza, University of Johannesburg, South Africa

ID 144: **The Application of Queuing Theory in Multi-Stage Production Line**

Muhammad Marsudi, King Abdulaziz University, Saudi Arabia

Hani Shafeek, Suez Canal University, Egypt

ID 153: **Case Study of Management System Improvement for Plant Construction - User Needs Identification through Field Observation**

Eizaburo Takegami and Takafumi Kawasaki, User Experience Research Department, Hitachi, Ltd., Tokyo, Japan

Hisako Okada, Global Innovation Project Management Department, Power Systems Company, Hitachi, Ltd., Ibaraki, Japan

Masatoshi Takada, Nuclear Plant Department, Hitachi Works, Hitachi-GE Nuclear Energy, Ltd., Ibaraki, Japan

Kazuaki Yamagata, Power Plant Project Management Center, Hitachi ICC Co., Ibaraki, Japan

ID 240: **Towards a Conceptual Model of Team-Based Innovation: Enablers and Obstacles of Innovation Productivity**

Theresa-M. Myskowszky von Myrow, Susanne Mütze-Niewöhner and Sönke Duckwitz, Institute of Industrial Engineering and Ergonomics, RWTH Aachen University, Germany

ID 382: **Religiosity and Customer Satisfaction in Public Sector Of Pakistan: An Empirical Study**

Muhammad Muzammil Tanveer, National University of Sciences & Technology, Islamabad, Pakistan

Rida Khurshid, Fatima Jinnah Women University, Rawalpindi, Pakistan

ID 170: **Improving Operating Methods in a South African Foundry Company: A Case Study**

Zanele Mpanza and Didier Nyembwe, University of Johannesburg, South Africa

TU 09:45 – 11:15**Project Management - I****Rijasa II**

Session Chair: Dr. Stefan Creemers, IESEG School of Management, Lille, France

ID 78: **A Modern Approach to Resource – Constrained Project Scheduling Problem**

Amer Boushaala, Garyouins University, Libya

ID 143: **Proactive R&D project scheduling with a bi-objective genetic algorithm**

Gündüz Ulusoy, and Canan Capa, Sabanci University, Turkey

ID 154: **Application of ELECTRE Method for Sub-Contractor Selection using Interval-Valued Fuzzy Sets - Case Study**

Hassan Hadipour, Azad University, Qazvin, Iran

Roozbeh Azizmohammadi and Abbas Mahmoudabadi, Payam-e-Noor University, Tehran, Iran

Mohammad Khoshnoud, Farabi Institute of Higher Education, Karaj, Iran

ID 342: **Periodic Validation – A Must for Success on EPC Projects**

Madhu Pillai, Kentz Engineering International Co. Ltd., Saudi Arabia

ID 289: **The Resource-Constrained Project Scheduling Problem with Stochastic Activity Durations**
Stefan Creemers, IESEG School of Management, Lille, France

11:15 – 11:30 Coffee/Tea Break

PARALLEL SESSION II – TUESDAY (TU), 11:30 – 13:00

TU 11:30

GLOBAL ENGINEERING EDUCATION II

Tabanan I

Session Chair: **Dr. Kripa Shanker**, Professor, Industrial and Management Engineering Department, Indian Institute of Technology Kanpur, and Former Deputy Director, IIT Kanpur, India

Dr. Gulnara Abitova, Professor, Eurasian National University, Kazakhstan, "**Engineering Education in Kazakhstan**"

Dr. Abdul Hakim Halim, Bandung Institute of Technology, Indonesia: "**Industrial Engineering Education in Indonesia**"

Dr. Amine Bermak, Professor, Hong Kong University of Science and Technology: "**Active and Collaborative Learning in the Engineering context**"

TU 11:30

Operations Management - II

Tabanan II

Session Chair: **Dr. Wafaa Chafi Fathi**, BMCE Bank Foundation, Morocco

ID 003: **Quality of Service and Customer Satisfaction in Pakistan International Airlines**
Faizan Hayat, and M. Asim, National University of Science and Technology (NUST), Islamabad, Pakistan

ID 516: **The Impact of Job Stress to Job Satisfaction among Engineers: A Literature Review**
Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn Malaysia

ID 390: **The Influence of OSH Management System on Firm Competitive Advantage**
Noorliza Karia, Universiti Sains Malaysia

ID 381: **Investigation into Issues Related to the Productivity of Employees in an Oil and Gas Industry**
Khalida Al Hakmani, Oman Gas Company, Muscat, Oman
Hamdi Bashir, University of Sharjah, United Arab Emirates

ID 353: **An Alternative Heuristics for Bin Packing Problem**
Nurul Afza Hashim, Faridah Zulkipli, Siti Sarah Januri, and S. Sarifah Radiah Shariff, Universiti Teknologi MARA, Malaysia

ID 199: **Corporate Social Responsibility**
Wafaa Chafi Fathi, BMCE Bank Foundation, Morocco

TU 11:30

Manufacturing and Design - II

Tunjung

Session Chair: **Dr. Javier Cruz-Salgado**, Centro de Innovación Aplicada en Tecnologías Competitivas, Guanajuato, México

ID 145: **Empirical Analysis and Finite Element Simulation of the Crush on Circular Thin-walled Grooved Tubes**
Majid Elyasi, Babol Noshirvani University of Technology, Babol, Mazandaran, Iran
Ali Tajdin, Amin Moradpour, and Saharnaz Montazeri, Babol, Mazandaran, Iran

ID 408: **Modeling and Optimization of WEDM Parameters for Surface Finish Using Design of Experiments**
I.K. Chopde, Visvesvaraya National Institute of Technology, India
Chandrashekhkar Gogte, Marathwada Institute of Technology, Aurangabad, India
Dhobe Milind, P.E.S. College of Engineering, Aurangabad, India

ID 530: **An Efficient Heuristic for Parallel Machine Scheduling with Rejection and Release Dates**
Jinwen Ou, Jinan University, China

ID 535: **Statistical Process Monitoring of the Mean Vector of High-Dimensional Processes**

Mao Ya-jie, and Li Yan-ting, Department of Industrial Engineering, Shanghai Jiaotong University, Shanghai, China

ID 71: Kronecker Models Versus Scheffé's Mixture Models

Javier Cruz-Salgado, and Sergio Alonso, Roberto Zitzumbo, Centro de Innovación Aplicada en Tecnologías Competitivas (CIATEC, A.C.), Guanajuato, México

TU 11:30

Artificial Intelligence II

Jepun

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

ID 208: Practical ABC Intelligence Solution for Quadratic Assignment

Golnar Behzadi and Balan Sundarakani, University of Wollongong in Dubai, United Arab Emirates

ID 484: Data Mining Based Strategic Decision Making Support Tool

Kemal Kilic, Sabanci University, Turkey

ID 363: Bootstrap Approach for Constructing Interval Estimation of Capability Index under Non-Normal Distributions

Hui-Chuan Chen and Yan-Hung Lee, National Taiwan University of Science and Technology, Taiwan
Chien-Wei Wu, National Tsing Hua University, Taiwan

ID 378: An Intelligent Mathematical Model in the New Product Development Based on Random Fuzzy Variables

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

ID 513: Improving DFR Models for Information Retrieval in Cognitive Contexts by Adjusting the Documents Length Normalization

Eldon Caldwell Marín, and Mauricio Zamora, University of Costa Rica
Antonio Ferrández Rodríguez, University of Alicante, Spain

TU 11:30

Quality Control & Management II

Bangli I

Session Chair: Sarina Abdul Halim Lim, University of Strathclyde, UK

ID 102: A New Variables Sampling System Based on Exact Sampling Distribution

Jih-Jia Lin and Shih-Wen Liu, National Taiwan University of Science and Technology, Taiwan
Chien-Wei Wu, National Tsing Hua University, Taiwan

ID 247: Comparing the Median Run Length (MRL) Performances of the Max-EWMA and Max-DEWMA Control Charts for Skewed Distributions

Teh Sin Yin, Michael Boon Chong Khoo, and Ker Hsin Ong, Universiti Sains Malaysia
Wei Lin Teoh, Universiti Tunku Abdul Rahman, Perak, Malaysia

ID 457: A Mahalanobis Taguchi System-based Approach for Correlated Multiple Response Process Monitoring

Sagar Sikder, Indian Statistical Institute, Mumbai, India
Indrajit Mukherjee, Indian Institute of Technology, Bombay, India
Subhash Chandra Panja, Jadavpur University, Kolkata, India
Sasadhar Bera, Indian Institute of Management, Ranchi, India

ID 434: Improving the Competitiveness of Organizations by Using a Link between Established Quality Management System and Balanced Scorecard

Štefan Kolumber and Petr Briš, Tomas Bata University in Zlin, Czech Republic

ID 379: Implementation of Statistical Process Control in the Food Industry: A Systematic Review

Sarina Abdul Halim Lim, and Jiju Antony, University of Strathclyde, UK

TU 11:30

Modeling and Simulation II

Bangli II

Session Chair: Dr. Raj Kumar, Faculty of Management Studies, Banaras Hindu University, U.P., India

ID 180: Analysis of Delivery and Assembly Operations in a Furniture Company Using Discrete Event Simulation

Mehmet Savsar, Ameen Nadoom, Dalal Al-Muraished, Reem Ibrahim, and Meshari Al-Debasi, Kuwait University, Kuwait

ID 249: Simulation Modeling and Analysis for Stitching Line of Footwear Industry

James C. Chen, National Tsing Hua University, Taiwan
Aryka Pradhana Putra and Nikita Anggono, National Taiwan University of Science and Technology, Taiwan
Jeff. Chen, IET, Pou Chen International Group, Taoyuan, Taiwan
Yung-Sheng Su, National Tsing Hua University, Taiwan

ID 088: Optimization of Box Type Girder of Overhead Crane for Different Spans with Fixed Capacity

Muhammad Abid and Shahbaz M. Khan, GIK Institute of Engineering Sciences and Technology, Topi, Swabi, Pakistan

ID 443: The Design and Operating Characteristics of a Flexible Auction Logistics Center (FALC): The Simulation Study

George Q. Huang, Xiang TR. Kong, and H. Luo, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong, Hong Kong

TU 11:30**Case Studies II****Rijasa I**

Session Chair: Sanda Geipele, Institute of Civil Engineering and Real Estate Economics, Riga Technical University, Latvia

ID 021: Structural Analysis: Challenges and Opportunities

Abdussalam Shibani, Coventry University, UK

ID 281: Implementation of Process Conformance to COPC Standards in a Global BPO Company: A Case Study

Sunil Sharma and Anuradha R Chetiya, University of Delhi, India

ID 294: A Comparative Analysis of Methanol Production Routes: Synthesis Gas versus Co₂ Hydrogenation

Camila Ribeiro, UFRJ - Federal university of Rio de Janeiro, School of Chemistry, Brazil

ID 538: The Study of Stability Control Systems for the Technological Processes

Gulnara Abitova, Mamyrbek Beisenbi and Janar Yermekbayeva, Department of System Analysis and Management, Eurasian National University, Astana, Kazakhstan

ID 504: Comprehension of Social Responsibility of Entrepreneurs, Media and Experts: Case Study in Latvia

Raja Kočanova, Sanda Geipele, and Ineta Geipele, Institute of Civil Engineering and Real Estate Economics, Riga Technical University, Latvia

TU 11:30**Project Management II****Rijasa II**

Session Chair: Dr. Ali Reza Afshari, Islamic Azad University, Iran

ID 056: Background Access for the Project Utility and Success: Integrated Smart History

Banu Ozkeser, Temsa Global, Turkey
Arzu Uzun, Cukurova University, Turkey

ID 070: Application of Delphi Method and Quality Function Deployment on Requirements for Website Development - A Survey of Website Developers in Taiwan

Gary Y. Chen, and Zhong-Han Yu, Chung Yuan Christian University, Industrial & Systems Engineering, Chung Li, Taiwan
Jamie Rogers, University of Texas – Arlington, Industrial & Mfg. Systems Engineering, Arlington, TX, USA

ID 095: Project Management Performance Measures on Construction Project in Libya

Nawal Gherbal, Coventry University, UK

ID 551: When We Miss Disruptive Technologies

Hye-Kyung Pang, Hallym University, Korea

ID 550: Costs of Quality and Six Sigma

Rathindra Nath De, Bengal Engineering and Science University, Shibpur, West Bengal, India

ID 210: Linguistic Project Manager Selection

Ali Reza Afshari, Islamic Azad University, Iran

13:00 – 14: 00 Tuesday Lunch Keynote: Dr. Nyoman Pujawan, Professor, Department of Industrial Engineering, Sepuluh Nopember Institute of Technology, ITS Sukolilo, Surabaya, Indonesia., Ballroom I (Box Lunches Provided)

PARALLEL SESSION III – TUESDAY (TU), 11:30 – 13:00

TU 14:00**GLOBAL ENGINEERING EDUCATION III****Tabanan I**

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

Dr. Eugene Rex L. Jalao, University of the Philippines Diliman: "Industrial Engineering Education in Philippines"

Dr. James C. Chen, National Tsing Hua University, Taiwan: "Industrial Engineering Education and Application in Taiwan"

Dr. Erik Sundin, Linköping University, Sweden: "Industrial Engineering Education in Europe"

TU 14:00**Operations Management III****Tabanan II**

Session Chair: Michael Mutingi, University of Botswana

ID 009: **A Facility Layout Selection Model using MACBETH Method**

Prasad Karande, Government Polytechnic, Mumbai, India

ID 300: **The Development of Simulated Annealing Algorithm for Hybrid Flow Shop Scheduling Problem to Minimize Makespan and Total Tardiness**

Budi Santosa and Ainur Rofiq, Surabaya Institute of Technology, Indonesia

ID 120: **Assessment of Applying Chaos Theory for Daily Traffic Estimation**

Abbas Mahmoudabadi, Payam-e-Noor University, Tehran, Iran

Saeed Andalibi, High Institute of Education and Research in Planning and Management, Tehran, Iran

ID 075: **Intermittent Demand Forecast: Robustness Assessment for Group Method of Data Handling**

Perna Mishra and Guangbin Huang, Nanyang Technological University, Singapore

Xue-Ming Yuan, and Truong Ton Hien Duc, Singapore Institute of Manufacturing Technology (SIMTech), Singapore

ID 068: **Healthcare Staff Scheduling in a Fuzzy Environment: A Fuzzy Genetic Algorithm Approach**

Michael Mutingi, University of Botswana

TU 14:00**Manufacturing and Design III****Tanjung**

Session Chair: Dr. A.F. Van der Merwe, University of Stellenbosch, South Africa

ID 228: **Assessing and Improvement of Manufacturing Systems through the Integrated Taguchi Method**

Sina Miri-Nargesi, Qazvin Islamic Azad University, Iran

ID 012: **Experimental Investigations for Circumferential Temperature Distributions in Journal Bearings with MRF as Lubricant**

Sachin Bhosle, Vidya Pratishtan's College of Engineering, Baramati, Pune, India

R. K. Pandey, Indian Institute of Technology Delhi, New Delhi, India

ID 444: **Modeling and Simulation of Automotive Engine Sub-Assembly for Production Improvement**

Eno Ludavicius, Lawrence Technological University, USA

ID 464: **Low-Cost USB-Based Data-Logger for LVDT Sensor**

Rifat Zaman, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 438: **Engineering Education and Regional Economic Development**

Gerrit Jordaan, Central University of Technology, Free State, Bloemfontein, South Africa

ID 053: **Decision support system for Van-der-Waals forces actuated micro-material handling operations**

Stephen Matope, and A.F. Van der Merwe, University of Stellenbosch, South Africa

TU 14:00**Facilities Planning****Jepun**

Session Chair: Andrew Kiekhaefer, John Deere, USA

ID 495: **Layout Design of Multiple Blocks Class-Based Storage Strategy Warehouses**

Maram I. Shqair, University of Jordan, Amman, Jordan

Safwan A. Altarazi, German-Jordanian University, Amman, Jordan

ID 204: **Facility Location in a Three-Echelon Supply Chain with Stochastic Demand - A Discrete-Event Simulation Approach**

Morteza Elahi, Yazd University, Iran

ID 492: **Evaluation of a Medical Center Lab Layout by Applying a Heuristic Algorithm with a Flexible-bay Structure**
Soroor Alkhafaji, Baghdad University, Iraq

ID 164: **Decision Support for Developing Rural Accessibility to Policing Services in Developing Countries**
Jozine Botha, University of Pretoria, South Africa

ID 182: **Factory Master Planning at John Deere**
Andrew Kiekhaefer, John Deere, USA

TU 14:00**Quality Control & Management III****Bangli I**

Session Chair: Dr. Hendry Raharjo, Chalmers University of Technology, Gothenburg, Sweden

ID 113: **Optimal Sampling Policy in Semiconductor Manufacturing**
Ci-An Rong and Kuo-Hao Chang, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan

ID 474: **The Indian Pharmaceutical Industrial Progress and the Role of Software in Implementing Schedule M in SME of Indian Pharmaceutical Sector**
Sagaram.Sudhakar, and Mohamed Massoud Agnan, Al-GabalAL-Garbi University, Zawia, Libya
S.V.S.L. Sujatha, Sconcord Pharmaceutical Consultance, Hyderabad, India

ID 161: **Variables Multiple Dependent State Sampling Plans Based on Process Performance Index**
Chien-Wei Wu, and Yen-Wen Chen, National Tsing Hua University, Taiwan

ID 536: **The Necessity for Research and Education Field Convergence In View of Concurrent Engineering**
Hye-Kyung Pang, Hallym University, Korea

ID 235: **What can we learn from Swedish Quality Award? An empirical investigation of the causal relationships**
Hendry Raharjo and Henrik Eriksson, Chalmers University of Technology, Gothenburg, Sweden

TU 14:00**Modeling and Simulation III****Bangli II**

Session Chair: Erik S. Chang, National Tsing Hua University, Taiwan

ID 031: **Simulating King Khalid University Outpatient Hospital Pharmacy queuing system**
Tariq Aziz, King Saud University, Saudi Arabia

ID 026: **Optimization of Cutting Speed in Steel Turning**
Ramezan Ali Mahdavinejad, University of Tehran, Iran

ID 272: **Understanding Dynamics of Green House Gases Impacts on Jakarta's Urban Development Using Model-Based Policy Simulator to Support Policy Making**
Akhamad Hidayatno, Irvanu Rahman, and Ricki Muliadi, University of Indonesia, Jakarta, Indonesia

ID 039: **Recent Developments in the Field of Magnetic Refrigeration**
Bakhodirzhon Siddikov, Ferris State University, Michigan, USA

ID 265: **Simulation Modeling and Analysis of Line Length and Batch Size in Footwear Factory**
James C. Chen, National Tsing Hua University, Taiwan
Nikita Anggono and Aryka Pradhana Putra, National Taiwan University of Science and Technology, Taiwan
River Chou, IET, Pou Chen International Group, Taoyuan, Taiwan
Erik S. Chang, National Tsing Hua University, Taiwan

TU 14:00**Computer & Information Systems I****Rijasa I**

Session Chair:

ID 219: **Time Interval for Collaborating Multi-organizational Workflows**
Bambang Jokonowo, Institut Teknologi Sepuluh Nopember, Indonesia

ID 371: **A Study on Under Graduate Students' Internet Usage and Habits**
Murat Durucu, Istanbul Technical University, Turkey

ID 489: **Interpretive Structural Modeling of the inhibitors of wireless control system in Industry**
B. Jayalakshmi, N.S.S. College of Engineering, India

ID 451: A Comprehensive Evaluation of Direct and Indirect Network-on-Chip Topologies

Mehdi Baboli, Nasir Shaikh Husin and Muhammad Nadzir Marsono, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

ID 532: Mobile Phone APP Software Browsing Behavior using Clustering Analysis

Chui-Yu Chiu, Ju-Min Liao and I-Ting Kuo, Department of Industrial Engineering and Management, National Taipei University of Technology, Taipei, Taiwan

Po-Chou Shih, Graduate Institute of Industry and Business Management, National Taipei University of Technology, Taipei, Taiwan

TU 14:00**Project Management III****Rijasa II**

Session Chair: Dr. AHM Shamsuzzoha, University of Vaasa, Finland

ID 008: The Effects of the Project Management Office on Companies Performance – A Case Study on a Project-Oriented Company

Shakib Zohrevandi, Payam Noor University of Tehran, Iran

ID 202: Identification, Evaluation and Classification of Time Delay Risks of Construction Project in Iran

Amir Hossein Alavifar, BSTech Engineering Co. Yavari St., Resalat SQ, Tehran Iran

Shadab Motamedi, UPM University, Serdang, Malaysia

ID 205: An Approach for Project Scheduling Using PERT/CPM and Petri Nets (PNs) Tools

Amer Boushaala, Garyouins University, Libya

ID 198: Systematic Strategic Planning

Hakan Bütüner, Industrial Management and Engineering Company (IMECO), İstanbul, Turkey

ID 029: Creating `Optimal Teams` through `Transformational Leadership`!

S. Asiya Z. Kazmi, Josu takala, and Marja Naaranoja, University of Vaasa, Finland

15:30 Tea / Coffee Break**PARALLEL SESSION IV – TUESDAY (TU), 15:45 – 17:15****TU 15:45****GLOBAL ENGINEERING EDUCATION IV****Tabanan I**

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

Plenary I: Joseph F Paris Jr, Chairman; XONITEK® Group of Companies, New York City, USA

Plenary II: Dr. Abdur Rahim, Professor, University of New Brunswick, Fredericton, Canada, and Visiting Faculty, Department of Systems Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia:

“Industrial Engineering Education in Middle East”

TU 15:45**Operations Management IV****Tabanan II**

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

ID 076: The art of managing production disruptions in pump industry through visual management

Johannes Mapokgole, University of Johannesburg, South Africa

ID 089: Customer Attrition in Retailing: An Application of Multivariate Adaptive Regression Splines

Vera Miguéis, Faculdade de Engenharia da Universidade do Porto, Portugal

ID 099: Why Shortage Cost is More Suitable for Computing “Pull” Systems While Backorder Cost is Preferred in “Push”

Alvin Ang, Systems and Engineering Management (SEM), Nanyang Technological University (NTU), Singapore

ID 297: Monopoly Sponsored Entry in the Face of Demand Uncertainty and Constrained Capacity

Farooq Sheikh, State University of New York (SUNY), Geneseo, USA

ID 047: Calculating the Amount of Annual Financial Saving for Steam Boilers based on its Most Effecting Factors: A Case Study

Rajab Abdullallah, Tripoli University, Libya

TU 15:45**Manufacturing and Design IV****Tanjung**

Session Chair: Dr. Sebastian Reuter, RWTH Aachen University, Dennewartstraße, Aachen, Germany

ID 310: Modeling an Ergonomic Driving for In-Car Interaction: A Propose Framework

NurulHuda Ahmad, Seri Rahayu Kamat, Mohamad Minhat, and Ahmad Yusairi Bani Hashim dan Isa Halim, Universiti Teknikal Malaysia Melaka (UTeM), Malaysia

ID 447: Cell Loading and Scheduling in Synchronized Manufacturing Cells

Gürsel A Süer, Dyah Ariningtyas Hening and Fatih Yarimoglu, Ohio University, Athens, Ohio, USA

ID 274: Facing Ramp-Up Challenges in the RoboCup Logistics League

Sebastian Reuter, Daniel Ewert, and Sabina Jeschke, RWTH Aachen University, Dennewartstraße, Aachen, Germany

ID 359: Process Performance Evaluation for Non-normal Distributions

Yan-Hung Lee, and Jhih-Jia Lin, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

Chien-Wei Wu, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan

TU 15:45**E-Business / Engineering Economy****Jepun**

Session Chair: S.M. Tofayel Ahmad, Bangladesh Bank, Dhaka, Bangladesh

ID 038: Impacts of E-learning systems vis-à-vis Online Education Systems are – Boon or Bane for the Learners?

Aftab Alam, and Meraj Salim, King Abdulaziz University, Saudi Arabia

ID 206: E-shopping Success Dimensions – An Empirical Study in Kuwait

Kamel Rouibah, College of Business Administration, Kuwait

ID 192: A Portfolio Comparison of a Kelly Criterion with Markowitz Model: A Case Study with KOSPI 200

Kim, Gyutai and Suhee Jung, Chosun University, Kwangju, South Korea

ID 510: Examining Relationship between Macroeconomic Variables Using Var Approach

Imran Arshad, IBA Sukkur, Pakistan

ID 347: Intranet, A New Approach Communication: Green Banking Aspects in Bangladesh Bank

S. M. Tofayel Ahmad, Mohammad Rahat Uddin, and Munira Jahan, Bangladesh Bank, Head Office, Dhaka, Bangladesh

ID 101: Robust Power Supply Model for Hybrid Renewable Energy System under Parameter Uncertainty

Yi-Ling Tsai and Kuo-Hao Chang, National Tsing Hua University, Taiwan

TU 15:45**Quality Control & Management IV****Bangli I**

Session Chair: Dr. Omar K. Gnieber, Industrial and Manufacturing Systems Engineering Department, University of Benghazi, Benghazi, Libya

ID 103: Constructing Variables Resubmitted Sampling Plan for Lot Sentencing Based on the Process Yield Index

Shih-Wen Liu, and Shi-Woei Lin, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

Chien-Wei Wu, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan

ID 024: Assessing Service Quality in Higher Education using SERVQUAL Tool

Grace Kanakana, Tshwane University of Technology, South Africa

ID 148: An Improvement on the Handling Time for Unsymmetrical Product during Visual Inspection: A Case Study

Nur Syazwani Abd Suki, and Shahrul Kamaruddin, School of Mechanical Engineering, Universiti Sains Malaysia
Elmi Abu Bakar, School of Aerospace Engineering, Universiti Sains Malaysia, Penang, Malaysia

ID 276: Optimization of Process Parameters in Synergic MIG Welding of Mild Steel

Reeta Wattal, Department of Mechanical and Production & Industrial Engineering, Delhi Technological University, India
Rahul Mehendiratta, Mechanical Engineering Department, University Of California at Berkeley, California, USA

Abhishek Kaushik, Rahul Goyal, and Kunga Jamyang, Department of Production and Industrial Engineering, Delhi College of Engineering, Shahbad Daultpur, Delhi, India

ID 323: Reviewing the Validation of the MBNQA Model

Hongyi Sun, Department of Systems Engineering and Engineering Management, City University of Hong Kong, China

ID 398: Applying Process Capability Analysis in Measuring Clinical Laboratory Quality: A Six Sigma Project

Khaled N. El-Hashmi and Omar K. Gnieber, Industrial and Manufacturing Systems Engineering Department, University of Benghazi, Benghazi, Libya

TU 15:45

Modeling & Simulation IV

Bangli II

Session Chair: Dr. Mehmet Savsar, Kuwait University, Kuwait

ID 187: An Innovative Approach to Integrate Design of Experiments in Simulation - Case Study on Optimal Allocation of Staff in a Center for Medical Care

Morteza Elahi and Mahboobe Honarvar, Faculty of Industrial Engineering, Yazd University, Yazd, Iran

Hamed Elahi, Faculty of Industrial Engineering, Sadjad Institute, Mashhad, Khorasan Razavi, Iran

ID 25: Optimization of ED Machining of SiC Parameters

Ramezan Ali Mahdavinejad, University of Tehran, Tehran, Iran

ID 248: Experimenting Maintenance Strategies using Discrete Event Simulation to Improve Customer Waiting Time at Vehicle Inspection Centre

Khibtiyah Ilyas, Azurah A.Samah, and Hairudin Abdul Majid, University Technology Malaysia, Johor, Malaysia

ID 507: Flood Disaster Planning and Management in Jeddah, Saudi Arabia: A Survey

Shougi Suliman Abosuliman, Arun Kumar and Firoz Alam, School of Aerospace Mechanical and Manufacturing Engineering, RMIT University, Melbourne, Australia

ID 427: Multi-Server System with Multi-Threshold Service Policy

Fu-Min Chang, Department of Finance, Chaoyang University of Technology, Taichung, Taiwan

Jau-Chuan Ke, Department of Applied Statistics, National Taichung University of Science and Technology, Taichung, Taiwan

Cheng-Hwai Liou, Department of Accounting Information, National Taichung University of Science and Technology, Taichung, Taiwan

ID 229: Productivity Analysis of a Flexible Manufacturing Cell

Mehmet Savsar, and Majid Aldaihani, Kuwait University, Kuwait

TU 15:45

Computer & Information Systems II

Rijasa I

Session Chair: William Eduardo Mosquera Laverde, Universidad Cooperativa De Colombia

ID 157: An Automated Workflow System Geared Towards Consumer Goods and Services Companies

Javier D. Fernandez, Department of Industrial Engineering, University Pontificia Bolivariana, Medellín, Antioquia, Colombia

ID 234: Advertisement about the Activities of Our Company

Azeez Adeniyi Olateju, Otaland Nig Ltd, Nigeria

ID 466: Results on the Relationship between the Decision Making the Media and the Management of ICT in Industrial Sector SMES

William Eduardo Mosquera Laverde, Universidad Cooperativa De Colombia

ID 547: A Qualitative Study of the Critical Success Factors of ERP System: A Case Study Approach

Aamir Ijaz, University of the Punjab, Lahore, Pakistan

Rab Lodhi, COMSATS Institute of Information Technology, Sahiwal, Pakistan

Umie Habiba, National College of Business Administration and Economics, Lahore, Pakistan

Syed Irfan, COMSATS Institute of Information Technology, Lahore, Pakistan

TU 15:45

Construction Management

Rijasa II

Session Chair: M.N. Fars, Department of Industrial Engineering, University of Alexandria, Alexandria, Egypt

ID 196: Submerged Geotextile Breakwater Construction Modeling

Amarjit Singh and Jerre Hansbrough, Department of Civil and Environmental Engineering, University of Hawaii at Manoa, Honolulu, HI, USA

ID 214: **Housing Demands & Spatial Preferences of Young Potential First Time Residential Property Buyer in Kuching**
Doh Shu Ing, Faculty of Engineering and Green Technology, Universiti Tunku Abdul Rahman, Kampar, Malaysia

ID 266: **The Performance of Eggshell as Filler in Concrete Mixtures**
Doh Shu Ing, Faculty of Engineering and Green Technology, Universiti Tunku Abdul Rahman, Kampar, Malaysia

ID 333: **Fuzzy Gathering for Factors Affecting Construction Contractor's Performance in Egypt**
H. S. Hassaan and M.S. Shehata, Department of Structural Engineering, University of Alexandria, Alexandria, Egypt
M.N. Fars, Department of Industrial Engineering, University of Alexandria, Alexandria, Egypt

18:00 WELCOME RECEPTION - Pre-Functional Area

Wednesday, January 8

08:30 Keynote: Mr. Made Dana Tangkas, Vice President of Toyota Motor Asia Pacific Engineering and Manufacturing and Director of PT. Toyota Motor Manufacturing Indonesia, Ballroom I

PARALLEL SESSION V – WEDNESDAY (WD), 09:45 – 11:15

WD 09:45 GLOBAL ENGINEERING EDUCATION V Tabanan I

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

Dr. Ilham Kissani, Engineering & Management Science, Al Akhawayn University, Morocco: "**Industrial Engineering Education in North and Sub-Saharan Africa**"

Dr. Murat Sonmez, Middle East Technical University - Northern Cyprus Campus, Turkey

Dr. Edward Chikuni, Cape Peninsula University of Technology, Cape Town, South Africa

WD 09:45 Operations Management V Tabanan II

Session Chair: Dr. Murphy Choy, School of Information System, Singapore Management University, Singapore

ID 028: **Abrupt Organizational Transformational Process Hinders Collaborative Innovation Initiatives!**
S. Asiya Z. Kazmi, and Marja Naaranoja, University of Vaasa, Finland

ID 301: **The Development of Hybrid Cross Entropy-Genetic Algorithm for Multi-Product Inventory Ship Routing Problem with Heterogeneous Fleet**
Budi Santosa and Rita Damayanti, Surabaya Institute of Technology, Indonesia

ID 433: **An Identical Parallel Machine Problem with Maintenance Activity**
Wen-Chiung Lee, Feng Chia University, Taichung, Taiwan
Jen-Ya Wang, Hungkuang University, Sha Lu, Taiwan

ID 391: **Investigation of the Performance Characteristics of a Rotary Electronic Tablet Counter**
Adekunle Jinadu, BCN PLC, Lagos, Nigeria

ID 416: **Real Time Process Compliance Checking using Nomenclature Approach**
Murphy Choy, Ma Nang Laik and Koo Ping Shung, School of Information System, Singapore Management University, Singapore

WD 09:45 Inventory Management I Tunjung

Session Chair: Dr. Denisa Ferenčíková, Tomas Bata University in Zlín, Czech Republic

ID 178: **Optimal Lot Sizing and Setup Cost Reduction for Deteriorating Production System**
Kuo-Lung Hou, Overseas Chinese University, Taichung, Taiwan
Li-Chiao Lin, National Chinyi University of Technology, Taichung, Taiwan

ID 185: Inventory Reduction by Applying Inventory Management Tools of a Selected Tannery Factory
 Mohammad Iqbal and Shibbir Ahmad, Shah Jalal University of Science and Technology, Sylhet, Bangladesh.
 AHM Shamsuzzoha, University of Vaasa, Finland
 M. Roomi, Maxin Ercon Limited, Dhaka, Bangladesh

ID 242: Inventory Analysis for a Manufacturing/Remanufacturing System under Product Substitution
 Fethullah Gocer, and S. Sebnem Ahiska, Galatasaray University, Ortakoy, Istanbul, Turkey

ID 453: Retailer's Policy When Customers Are Given Trade Credits with Possibility of Uncertain Delay in Payments
 T.P.M. Pakkala, and Mohini Kumari, Mangalore University, Karnataka, India

ID 166: Inventory Management in Small and Medium-Sized Manufacturing Companies and Its Main Dilemmas
 Denisa Ferenčíková, Tomas Bata University in Zlín, Czech Republic

WD 09:45**Engineering Education I****Jepun**

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

ID 213: Six Sigma Certification within an Industrial Engineering Program
 Leonard Perry and Bradley Chase, Industrial & Systems Engineering, University of San Diego, CA, USA

ID 388: Achievement of the Program Outcomes in Outcomes Based Education Implementation: A Meta-Analysis
 Yuzainee Md Yusoff, Universiti Tenaga Nasional, Malaysia

ID 445: Missing Data Imputation Method Comparison in Ohio University Student Retention Database
 Dyah Hening, and David A. Koonce, Ohio University, USA

ID 413: New Methods for Course Development and Management in Engineering Education
 Peter Toth and Imre J. Rudas, Obuda University, Budapest, Hungary

ID 509: Reforms in Engineering Education for Sustainable development: A study on Engineering Education in Bangladesh
 Mohammad Abdul Mannan and Md. Tanvir Alam, Dhaka University of Engineering & Technology (DUET), Bangladesh

WD 09:45**Supply Chain Management I****Bangli I**

Session Chair: Dr. Md. Mamun Habib, American International University-Bangladesh (AIUB), Dhaka, Bangladesh

ID 285: Supply Chain Network Design with Preferential Tariff under Economic Partnership Agreement
 Kenichi Funaki, Hitachi Ltd., Yokohama Research Lab., Japan

ID 201: An Integrated Structural Model for Supply Chain Management Practices (SCMP), Supply Chain Performance Measurement (SCPM) and its impact on Supply Chain Profitability (SCP)
 Shradha Gawankar, National Institute of Industrial Engineering (NITIE), India

ID 386: Strategic DSS using a Heuristic Algorithm for Practical Outlet Zones Allocation to Dealers in a Beer Supply Distribution Network
 Michelle Cheong, Singapore Management University, Singapore

ID 64: Study of Performance Measurement Practices in Supply Chain Management
 Hamid Kazemkhanlou, and Hamid Reza Ahadi, Iran University of Science & Technology, Tehran, Iran

ID 421: Comparative Analysis of Supply Chain Management for Universities through ITESCM Model
 A.K. Mahbul Hye, Bishwajit Banik Pathik, Mahmud Habib Zaman, and Md. Mamun Habib, American International University-Bangladesh (AIUB), Dhaka, Bangladesh

WD 09:45**Modeling & Simulation V****Bangli II**

Session Chair: Dr. Hala A. Farouk, Arab Academy for Science, Technology, and Maritime Transport, Abu Kir Campus, Alexandria, Egypt

ID 431: A Standby Redundant System with F-Policy
 Jau-Chuan Ke, and Chia-Jung Chang, National Taichung University of Science and Technology
 Fu-Min Chang, Chaoyang University of Technology, Taiwan

ID 430: Efficient Computation of the Area and Length of a Planar Contour Using Digital Elevation Model Data

Hiroyuki Goto, Hosei University, Japan
Yoichi Shimakawa, Salesian Polytechnic, Japan

ID 318: **Prediction Model for Speedy Customer's Category at Pt Telekomunikasi Indonesia, Tbk.**
Judi Alhilman and Mochamad Rian M., Telkom University, Bandung, Indonesia

ID 230: **Optimal Control Applied to Production and Process in Industrial Engineering**
M H A Biswas, Khulna University, Bangladesh

ID 499: **Optimization using Simulation of Traffic Light Signal Timings**
Ahmed A. Ezzat, Hala A. Farouk, Khaled S. El-Kilany, and Ahmed F. Abdelmoniem, Arab Academy for Science, Technology, and Maritime Transport, Abu Kir Campus, Alexandria, Egypt

WD 09:45

Engineering Management I

Rijasa I

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

ID 096: **The Improvements of Positive Quality Planning and Application upon a Live Construction Project**
Abdussalam Shibani, Coventry University, UK

ID 151: **A Framework for the Development of Halal Food Products in Malaysia**
Norizah Mohamad, Univesiti Sains Malaysia

ID 174: **The using of elements of lean production to increase efficiency and competitiveness of organizations in the engineering industry**

Jana Petru, Tomas Zlamal, Robert Cep, and Marek Pavlica, VSB-Technical University of Ostrava, Czech Republic

ID 361: **Implementation Model and Roadmap of Manufacturing Process Standardization**
Kwai Sang Chin, City University of Hong Kong

ID 79: **The Wafer Breakages Reduction using Kaizen Approach**
Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia

WD 09:45

Reliability and Maintainability I

Rijasa II

Session Chair: Dr. Hsin-Nan Tsai, National Taiwan University of Science and Technology, Taiwan

ID 069: **System Reliability Optimization: A Fuzzy Genetic Algorithm Approach**
Michael Mutingi, University of Botswana

ID 46: **Design of Operational Risk Measurement in Consumer Finance Companies with Risk Breakdown Structure (RBS) and Analytic Network Process (ANP) Methods**

Armin Darmawan, Hasanuddin University, Makassar, Indonesia
Farizal and Dendi Prajadhiana, University of Indonesia, Depok, Indonesia

ID 370: **Contactless Smart Card Based Prepaid Gas Metering System**

Md. Liakot Ali, Mohammad Imam Hasan Bin Asad, and Md. Saiful Islam, Institute of Information and Communication Technology (ICT), Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 522: **Reconstruction of free form Surfaces in Reverse Engineering Technology Applications**

Tahseen Fadhil Abbas, and Ahmed Abdullah Ebraheem, University of Technology, Baghdad, Iraq
Norain Farhana Ahmad Fuaad, Universiti Kebangsaan Malaysia

ID 471: **Extend Optimal Replacement Model for a Deteriorating Systems with Inspections**

Shey-Huei Sheu, Providence University, National Taiwan University of Science and Technology, Taiwan
Hsin-Nan Tsai, and Fu-Kwun Wang, National Taiwan University of Science and Technology, Taiwan

11:15 – 11:30 Coffee/Tea Break

PARALLEL SESSION VI – WEDNESDAY (WD), 11:30 – 13:00

WD 11:30

GLOBAL ENGINEERING EDUCATION VI

Tabanan I

Session Chair: Dr. Shahrin Mohamed, Universiti Teknologi Malaysia, Johor Baru, Malaysia

Dr. Gisele Ragusa, University of Southern California, USA and Chair, USC STEM Consortium

Dr. Hongyi Sun, Department of Systems Engineering and Engineering Management, City University of Hong Kong: “**Culture and Innovation Education for Engineering Students: The PIPE Model at City University of Hong Kong**”

Dr. Franz-Josef Kahlen, University of Cape Town, Upper Campus, Rondebosch, South Africa

WD 11:30**Operations Research I****Tabanan II**

Session Chair: **Dr. Chaimongkol Limpianchob**, Kasetsart University, Nakhonpathom, Thailand

ID 298: Hybrid Differential Evolution and Bottleneck Heuristic Algorithm to Solve Bi-Objective Hybrid Flow Shop Scheduling Unrelated Parallel Machines Problem

Riza Auliya Rahman, Budi Santosa, and Stefanus Eko Wiratno, Sepuluh Nopember Institute of Technology, Surabaya, Indonesia

ID 437: An Integer Programming Approach for Balancing the Production Line Having Shared Resources

H. M. Emrul Kays, International Islamic University Malaysia

ID 288: MIP-based Models vs. Heuristics Algorithms for Solving Dynamic Network Flow Problems

Mojahid Saeed Osman, King Fahd University of Petroleum & Minerals, Saudi Arabia

ID 082: An Evaluation Model for Tourism-Sport Dealer Selection

Shahryar Sorooshian, Ahmad Nazif Bin Noor Kamar, and Ali Asghar Jomah Adham, University Malaysia Pahang, Malaysia

ID 312: Mixed Integer Linear Programming Approaches to Aggregate Production Planning in Tangerine Supply Chain

Chaimongkol Limpianchob, and Kamphaeng Saen, Kasetsart University, Nakhonpathom, Thailand

WD 11:30**Inventory Management II****Tanjung**

Session Chair: **Shao Hung Goh**, SIM University, Singapore

ID 237: A Single Manufacturer - A Single Buyer Partnership with Vendor Managed Inventory and Consignment

Docki Saraswati, Trisakti University, Indonesia

Andi Cakravastia, Bermawi P. Iskandar, A. Hakim Hallim, Institut Teknologi Bandung, Indonesia

ID 246: A Technical Note on the Single-Vendor Multi-Buyer Integrated Inventory Supply Chain Problem

Md Abdul Hoque, University Brunei Darussalam

ID 527: Analysis of WIP Inventory Control and Simulation of KANBAN System within Wiring Harness Company

Ilham Kissani, Al Akhawayn University, Morocco

ID 449: System Dynamics Model for a Stackelberg Game in Multi-Echelon Inventory System under Demand and Supply Uncertainty

Noviana Dwi Harsiwi, Menghadiri Universitas Islam Indonesia, Central Java Province, Indonesia

ID 194: Centralizing Slow-Moving Items in a Retail Network – A Case Study

Shao Hung Goh, and Boon Lian Lim, SIM University, Singapore

WD 11:30**Engineering Education II****Jepun**

Session Chair: **Dr. Markéta Gregušová**, VŠB – Technical University of Ostrava, Czech Republic

ID 316: Integrating ICT for Improving Training Methodology of a Training Academy: Bangladesh Perspective

S.M. Tofayel Ahmad, Bangladesh Bank, Dhaka, Bangladesh

Md. Abdur Rashid and Md. Kamrul Hasan, National Academy for Planning and Development (NAPD), Dhaka, Bangladesh

ID 42: Systematic Development of a Multifunctional Passenger Safety Bar Based on a Reference Project Frame for Student Design Projects

Karl Hain, Christoph Rappl, and Josef Süß, DIT - Deggendorf Institute of Technology, Deggendorf, Bavaria, Germany
Walter Steining, Max Streicher GmbH & Co. KG, Deggendorf, Germany

ID 362: Effective Engineering Education through Cloud Computing in India

Harshit Jain, Netaji Subhas Institute of Technology, University of Delhi, India

ID 544: Teaching Process Safety - Development of a HAZOP Study Teaching Module

Gordon McKay, John Barford, and David C.W. Hui, Hong Kong University of Science and Technology, China

ID 191: Expanding Knowledge of Students of Engineering Using E-Learning Support in Education

Markéta Gregušová, Ivana Šajdlerová, Martin Zuskáč, Jan Kedroň, and Jana Petrů, VŠB – Technical University of Ostrava, Czech Republic

WD 11:30

Supply Chain Management II

Bangli I

Session Chair: Dr. Suhaiza Zailani, Universiti Malaya, Kuala Lumpur, Malaysia

ID 336: A Mathematical Model for Waste Management in Reverse Supply Chain

Zahra Hosseini and Iraj Mahdavi, Mazandaran University of Science and Technology, Babol, Iran
Hamed Fazlollahtabar, Iran University of Science and Technology, Tehran, Iran, Niroogostar Energy Optimization Research Group, Tehran, Iran

ID 341: Managing Multiple Outsourcing: Service Quality and Volume Issues

Samar Mukhopadhyay, Sungkyunkwan University-GSB, Korea

ID 534: Worm Optimization: A Novel Optimization Algorithm Inspired by C. Elegans

Jean-Paul Arnaout, Gulf University for Science & Technology, Kuwait

ID 357: Investigation on Service Supply Chain in Private Hospitals Malaysia

Suhaiza Zailani, Universiti Malaya, Kuala Lumpur, Malaysia

ID 407: Analysis of Different Criteria for Workload Balancing on Identical Parallel Machines

Ouazene Yassine, Yalaoui Farouk, Chahade Hicham, and Yalaoui Alice, Université de Technologie de Troyes, France

WD 11:30

Modeling and Simulation IV

Bangli II

Session Chair: Dr. M. Y. El-Sharkh, University of South Alabama, Mobile, USA

ID 63: Forced Convective Heat Transfer over a Circular Cylinder in Cross Flow

Ali Jawad, University of Technology, Iraq

ID 086: Implementing the Lean Six Sigma Framework in a Small Medium Enterprise (SME) – A Case Study in a Printing Company

Joshua Chan Ren Jie, Shahrul Kamaruddin, and Ishak Abd Azid, Universiti Sains Malaysia, Malaysia

ID 293: Development of Simulation Game for Teaching Strategic and Operational Aspect of Production System

Akhmad Hidayatno, Armand Omar Moeis, and Rama Raditya, University of Indonesia

ID 503: DMFC Models and Applications: A Literature Survey, Part I

S. Patrabansh, M. Y. El-Sharkh, and M. Alam, Department of Electrical and Computer Engineering, University of South Alabama, Mobile, USA

WD 11:30

Engineering Management II

Rijasa I

Session Chair: Dr. Paulo Augusto Cauchick Miguel, Federal University of Santa Catarina – UFSC, Brazil

ID 329: Project Timor: A study to the industrial development of East Timor

Mário Cabral, Universidade Nacional de Timor Lorosa'e, Timor-Leste, East Timor
Filipa Vieira, University of Minho/CGIT, Portugal
Cristina S. Rodrigues, University of Minho/ Centre Algoritmi, Portugal

ID 273: Assembly Line Balancing Problem of Sewing Lines in Garment Industry

James C. Chen, National Tsing Hua University, Hsinchu, Taiwan
Chun-Chieh Chen, Chung Yuan Christian University, Chung Li, Taiwan
Yi-Jhen Lin, Chun-Ju Lin, and Tiffany Y. Chen, National Tsing Hua University, Hsinchu, Taiwan

ID 105: Potential Saving for Steam Boilers Based on the Impact of Most Affecting Factors: A Case Study

Rajab Abdullallah Hokoma, Tripoli University, Libya

ID 48: Corrosion Management in Gas Treating Plants: Comparison between contamination build up and corrosion rate of DEA and MDEA

Reza Mesgarian National Iranian Gas Company (NIGC), Tehran, Iran

ID 167: Modular Design And Production: An Investigation on Practices in an Assembler and Two First-Tier Suppliers
Edilson Alves Rodrigues, Post-graduate Program in Production Engineering, University of São Paulo – USP, Brazil
José Antonio Carnevalli, Pontifical Catholic University of Campinas – PUCAMP, Brazil
Paulo Augusto Cauchick Miguel, Federal University of Santa Catarina – UFSC, Brazil

WD 11:30**Reliability and Maintenance II****Rijasa II**

Session Chair: Dr. Dong Ho Park, Department of Information and Statistics, Hallym University, Chuncheon, Korea

ID 109: Deriving Failure and Effect Data of New Machinery for Preventive Maintenance (PM) Planning – A Case Study
Ernie Illyani Basri, Universiti Sains Malaysia

ID 115: Establishments of Predictive Maintenance Control Limits

Omar M Elmabrouk and Mariam Azraga, University of Benghazi, Faculty of Engg. Industrial and Manufacturing System Engineering Department, Benghazi Libya

ID 128: Early Warning System in Preventive Maintenance as a Solution to Reduce Maintenance Cost

Tiena Gustina Amran, and Leonardus Sujarto, Industrial Engineering Department, University of Trisakti, Jakarta, Indonesia

ID 267: Implementation of Computerized Maintenance Management System in National Iranian Gas Company and Sub-Companies

Saeed Salimi Beni, National Iranian Gas Company, Tehran, Iran

ID 406: Exploring Maintenance Management in Service Sector: A Case Study

Noorliza Karia, School of Management, Universiti Sains Malaysia, Penang, Malaysia
Muhammad Hasmi Abu Hassan Asaari, School of Distance Education, Universiti Sains Malaysia, Penang, Malaysia
Hayati Saleh, School of Housing, Building and Planning, Universiti Sains Malaysia, Penang, Malaysia

ID 215: Maintenance Policy for Repairable Systems Using Minimal Repair and Replacement under Warranty

Minjae Park, College of Business Administration, Hongik University, Seoul, Korea
Ki Mun Jung, Department of Informational Statistics, Kyungsoong University, Busan, Korea
Dong Ho Park, Department of Information and Statistics, Hallym University, Chuncheon, Korea

13:00 – 14:00 Wednesday Lunch Keynote: Dr. Robert de Souza, Executive Director / Chief Executive, The Logistics Institute – Asia Pacific, Ballroom I (Box Lunches Provided)

PARALLEL SESSION VII – WEDNESDAY (WD), 14:00 – 15:30
WD 14:00**GLOBAL ENGINEERING EDUCATION VII****Tabanan I**

Session Chair: Dr. Tasho Angelov Tashev, Technical University of Sofia, Sofia, Bulgaria

Dr. Ajay K Garg, Faculty of Management Sciences, Tshwane University of Technology, Pretoria, South Africa

Dr. Riyanarto Sarno, Professor & Head of Research Laboratory, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

Prof. Dr. Shahrin Mohamed, Chairman of the Society of Engineering Education of Malaysia, Chairman, Engineering Deans Council, Universiti Teknologi Malaysia: **“Engineering Education in the 21st Century: Malaysian Perspectives”**

WD 14:00**Operations Research II****Tabanan II**

Session Chair: Dr. Roel Leus, KU Leuven, Belgium

ID 041: Determining the Slack Capacity of Testers thru Model Simulation

Herwina Richelle C. Andres, Operations Research – Test Equipment Engineering, Analog Devices, Inc., Cavite, Philippines

ID 054: A Product-Mix Optimization of Commercial Chicken Feeds in a Feed Milling Company Using Linear Programming (LP) Model

Ronald Mariano, Colegio De San Juan De Letran, Philippines

ID 119: Development and evaluation of an industrial prototype for supporting real-time train dispatching decisions

D'Ariano Andrea, D'Ariano Paolo, Samà Marcella, and Pacciarelli Dario, Dipartimento di Ingegneria, Università degli Studi Roma Tre, Rome, Italy

ID 139: Reducibility of Some Multi-criteria Scheduling Problems to Bi-criteria Scheduling Problems
 Saheed Akande, Department of Mechanical and Mechatronics Engineering, Afe Babalola University, Ado-Ekiti, Nigeria
 Ayodeji. E. Oluleye, Department of Industrial and Production Engineering University of Ibadan, Ibadan, Nigeria
 E.O. Oyetunji, Department of Mechanical Engineering, Lagos State University, Lagos, Nigeria

ID 367: A Robust Constrained Markov Decision Process Model for Admission Control in a Single Server Queue
 Erim Kardes, Department of Industrial Engineering, Ozyegin University, Istanbul, Turkey

ID 188: Some Comments on Discrete Sequential Search with Group Activities
 Kris Coolen, Fabrice Talla Nobibon, and Roel Leus, KU Leuven, Belgium

WD 14:00**Inventory Management III****Tanjung**

Session Chair: Shintaro Urabe, Hitachi Solutions East Japan, Ltd., Japan

ID 482: An Optimal Inventory Policy of Tools with Maximum Allowable Lifespan
 Bhaba R. Sarker, Department of Mechanical & Industrial Engineering, Louisiana State University, Baton Rouge, LA, USA
 Cun Rong Li, School of Mechanical & Electronics Engineering, Wuhan University of Technology, Wuhan City, P. R. China
 Hui Zhi Yi, Department of Mechanical & Industrial Engineering, Louisiana State University, Baton Rouge, LA, USA

ID 383: An Inventory Model with Demand Dependent Replenishment Rate for Damageable Items and Shortage
 Mehdi Sajadifar and Ahmad Mavaji, University of Science and Culture, Poonak, Tehran, Iran

ID 319: Inventory Replenishment for Profit Maximization over a Finite Horizon
 F. J. Arcelus, Faculty of Business Administration, University of New Brunswick, Fredericton, Canada.
 T.P.M. Pakkala, Department of Statistics, Mangalore University, Mangalagangothri, India
 Gopalan Srinivasan, Faculty of Business Administration, University of New Brunswick, Fredericton, Canada.

ID 127: Designing a New Particle Swarm Optimization for Make-with-Buy Inventory Model
 Saeed Poormoaled, Georgia Institute of Technology, Atlanta, USA
 Mahsa Yavari, Ferdowsi University of Mashhad, Mashhad, Iran

ID 528: Optimizing Inventory and Pricing Decisions for a Periodic-Review System with Batch Ordering
 Ying Wei, Jinan University, China

ID 369: Best Practice for Inventory Optimization based on a Restructuring of the Organization, its Functions, and its Information Systems
 Shintaro Urabe and Masaru Tezuka, Hitachi Solutions East Japan, Ltd., Japan

WD 14:00**Engineering Education III****Jepun**

Session Chair: Dr. Rathindra Nath De, Bengal Engineering and Science University, West Bengal, India

ID 348: Building Marketing Strategy for Promotion of Online Study Material
 Vikram Singh, Baddi University of Emerging Sciences and Technology, Baddi, Himachal Pradesh, India

ID 446: Soft Skills through Engineering Cooperative Education Settings at Ohio University
 Dyah Hening, and David A. Koonce, Ohio University, Athens, OH, USA

ID 468: Effect of Work Instruction Support Device on Equipment Maintenance and Inspection
 Seiko Taki, Chiba Institute of Technology, Japan

ID 483: Engineering Education in the 21st Century: Malaysian Perspectives
 Shahrin Mohammad, University Technology Malaysia

ID 531: Implementing the Participant-Center Learning Program for the Engineering Classes in Taiwan – A Case Study
 JrJung Lyu, Department of Industrial and Information Management, National Cheng Kung University, Taiwan

ID 549: Application of ISO –9001: 2008 Academic Institutions
 Rathindra Nath De, Bengal Engineering and Science University, West Bengal, India

WD 14:00**Supply Chain Management III****Bangli I**

Session Chair: Dr. Olufemi Adetunji, University of Pretoria, South Africa

ID 074: Quality Enhancement Techniques to Stabilize Consumption in a Dynamic Emergency Medical Supply Chain

Manisha Mohan, Anna University, India

ID 091: Two Step Approach of Structural Equation Modeling in Supply Chain Practices (Case Study: Indonesian Small Medium Enterprises)

James C. Chen, National Tsing-Hua University, Taiwan
Imam Baihaqi, Institute of Technology Sepuluh Nopember, Indonesia
Nadia Aulia Arifin, National Tsing-Hua University, Taiwan

ID 152: Market Adaptive Supply Chain Model of Global Automotive Players

Gwang Seok Kim, Dong Uk Jeon, Sun Hoon Kim, and Young Hoon Lee, Yonsei University, South Korea

ID 049: Vulnerability as a Relevant Supply Chain Attribute for SCOR

Olufemi Adetunji, University of Pretoria, South Africa

WD 14:00

Energy I

Bangli II

Session Chair: Mohammadreza Joulaie, National Iranian Oil Company, Iran

ID 132: Energy Source from Hydrogen Production via Methane Dry Reforming

Anis. H. Fakeeha, A.A. Ibrahim and Ahmed S.A. Al-Fatesh, Chemical Engineering Department, King Saud University, Riyadh Saudi Arabia

ID 017: Priority of reduction ways for heating systems in Yazd greenhouse

Alimohammad Rezai, Yazd Gas Co, Iran

ID 282: Enhanced Coal Bed Methane Recovery by CO₂ Injection

Avi Aggarwal, Indian School of Mines, India

ID 255: Electricity Generation under Multiple Pollutant Consideration

Ibrahim Alhajri, College of Technological Studies, Kuwait

ID 283: Electricity Generation Schemes in Java-Bali Power System with CO₂ Reduction Considerations

Wenty Eka Septia, University of Indonesia

WD 14:00

Engineering Management III

Rijasa I

Session Chair: Dr. Mohan Khond, College of Engineering, Pune, India

ID 112: The Strategy Making Process in Petroleum Reservoir Management in Iranian National Oil Company (NIOC): The Case of Soroosh Field

Amirnaser Akhavan, Petroleum Dept, AmirKabir University of Technology, Iran
Nooshin Jabbari, University of Malaya, Kuala Lumpur, Malaysia
M. Hamdi, Advanced Manufacturing and Material Processing (AMMP) Centre, University of Malaya, and Department of Engineering Design & Manufacture, Faculty of Engineering, University of Malaya

ID 156: Self-restrain or Discrimination: Participation of Women Engineers in India

Seema Singh, Department of Economics, Delhi Technological University, Delhi, India

ID 159: Operations-Based Knowledge Management (OBKM)

Rafed Zawawi, UTS, Australia
Hasan Akpolat and Ravindra Bagia, University of Technology, Sydney, Australia

ID 176: The Marketing Mix Strategy in Influence to the Competitive Advantage

Endang Chumaidiyah, Faculty of Industrial Engineering, Institut Teknologi Telkom, Bandung, Indonesia

ID 040: Stimulate Active Participation and Managing Change

Mohan Khond, College of Engineering, Pune, India

WD 14:00

Reliability and Maintenance III

Rijasa II

Session Chair: Dr. Armin Darmawan, Department of Industrial Engineering, Hasanuddin University, Makassar, Indonesia

ID 023: Seismic Image Analysis and Pattern Recognition to Identify Fault Diagnosis for Roller Bearing

Madhavendra Saxena, Singhania University, Rajasthan, India
R.P. Rajoria, and Manoj Gupta, Poornima University, India

ID 087: Nonlinear Mixed-Effects Models for Multiple Repairable Systems

Byeong Min Mun, and Suk Joo Bae, Hanyang University, Korea

ID 100: Application of Reliability Centered Maintenance (RCM) in Electrical Power Plant

Hadi Abou-Chakra and Ramzi Fayad, Department of Industrial Engineering – Beirut Arab University, Lebanon

ID 290: Risk-Averse Newsboy Problem with Incomplete Demand Information

Bibhas Giri, Department of Mathematics, Jadavpur University, Kolkata, India

ID 410: The Effects of Salvage Value on the Age-Replacement Policy under Renewing Warranty

Yu-Hung Chien, Department of Applied Statistics, National Taichung University of Science and Technology, Taichung, Taiwan

Fu-Min Chang, Department of Finance, Chaoyang University of Technology, Taichung, Taiwan

Tzu-Hsin Liu, Department of Statistics and Informatics Science, Providence University, Taichung, Taiwan

ID 189: Design of Operational Risk Measurement in Consumer Finance Companies with Risk Breakdown Structure (RBS) and Analytic Network Process (ANP) Methods

Armin Darmawan, Department of Industrial Engineering, Hasanuddin University, Makassar, Indonesia

Farizal and Dendi Prajadhiana, Department of Industrial Engineering, University of Indonesia, Depok, Indonesia

15:30 – 15:45 Coffee/Tea Break**PARALLEL SESSION VIII – WEDNESDAY (WD), 15:45 – 17:15****WD 15:45****GLOBAL ENGINEERING EDUCATION IX****Tabanan I****Session Chair:** Dr. James C. Chen, Professor, National Tsing Hua University, Taiwan**Plenary III:** Dr. Loon Ching Tang, Professor and Head, Department of Industrial and Systems Engineering, National University of Singapore, Elected Region VP (Asia) of IIE, 2013 to 2016: **“Development of IE in East Asia and Future Challenges”****Plenary IV:** Dr. Abhijit Deshmukh, James J. Solberg Head and Professor of Industrial Engineering, Purdue University, West Lafayette, Indiana, USA: **“Global Industrial Engineering Education and Future Challenges”****WD 15:45****Operations Research III****Tabanan II****Session Chair:** Dr. Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University, Koganei, Tokyo, Japan**ID 160: Application of Memetic Algorithm to Solve Truck and Trailer Routing Problems**

Seyedmehdi Mirmohammadsadeghi and Shamsuddin Ahmed, University of Malaya, Kuala Lumpur, Malaysia

ID 107: Green Supply Chain Design with Multi-Objective Optimization

Kartina Puji Nurjanni, Postgraduate Program of Industrial Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia,

Algoritmi Research Center, Department of Production and System, Universidade do Minho, Portugal

Maria S. Carvalho and Lino A.A.F da Costa, Department of Production and System, Universidade do Minho, Portugal

Fauzun, Department of Mechanical and Industrial Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia

ID 258: An Efficient Heuristic Approach for Solving the Transportation Problem

Mohamed Silmi Juman Zeinul Abdeen, University Brunei Darussalam, Brunei

ID 403: Unrelated Parallel Machines Scheduling Problem with Sequence Dependent Setup Times

Vahid Kayvanfar, Amirkabir University of Technology, Iran

ID 356: Fuzzy Data Envelopment Analysis to Rank Engineering Design Requirements in QFD

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

ID 136: Multi-Objective Path Search Problem Based on an Extended Network Model

Yoichi Shimakawa, Salesian Polytechnic, Japan

Hiroki Osuna, Advanced Course in Production Systems Engineering, Salesian Polytechnic, Machida, Tokyo, Japan

Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic, Machida, Tokyo, Japan

Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University, Koganei, Tokyo, Japan

WD 15:45**Inventory Management IV****Tunjung****Session Chair:** Dr. Salvatore Miranda, University of Salerno, Italy

ID 55: Optimal Ordering Policies for Inventory Problems in Supermarkets under Stochastic Demand: A Case Study of Milk Powder Product

Kizito Mubiru, Makerere University, Uganda

ID 268: Excess and Obsolete Raw Materials Depletion through Reworks: A Case Study in Wastes Minimization

James C. Chen, National Tsing-Hua University, Taiwan

Ana M. Chiu, National Tsing-Hua University, Taiwan

ID 448: Comparative Analysis of AHP-TOPSIS and GA-TOPSIS Methods for Selection of Raw Materials in Textile Industries

D. K. Banwet and Abhijit Majumdar, Department of Management Studies, Indian Institute of Technology Delhi, India

ID 441: Optimal Economic Manufacturing Quantity and Process Target for Imperfect Systems

Salih Duffuaa, King Fahd University of Petroleum and Minerals, Saudi Arabia

ID 552: Stock Dependent Inventory Models under Parameter Uncertainty

Sungmook Lim, Department of Business Administration, Korea University, Sejong, Republic of Korea

ID 141: Experimental Analysis of the Applicability of a Multi-Item Constrained EOQ Calculation Algorithm

Salvatore Miranda, University of Salerno, Italy

WD 15:45**STUDENT PAPER COMPETITION****Jepun****Session Chair:** Dr. M. Anwar Hossain, The University of Southern Mississippi, USA**ID 179: Selecting a Material for an Electroplating Process Using AHP and VIKOR Multi Attribute Decision Making Method**

Md. Masud Kaoser, Md. Mamunur Rashid and Sharif Ahmed, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 245: Designing the Milk Collection Network using Integrated Location Routing Approach

Mohammad Mumtaz, Naiman Jalil and Kamran Ali Chatha, LUMS, Pakistan

ID 555: Routing Lean and Green in UPS

Patricia Molina, Katia Nuñez, Lorena Cantú and Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza García, México

ID 553: Increasing Customer Satisfaction through Lean Distribution

Etna Muraira, Lorena Garzafox and Bernardo Villarreal, Departamento de Ingeniería, Universidad de Monterrey, San Pedro Garza García, México

ID 155: An Adaptive Neuro-Fuzzy Inference System based Algorithm for Long Term Demand Forecasting of Natural Gas Consumption

Ferdous Sarwar, Md. Mamunur Rashid, and Debasish Ghosh, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 002: The impact of IT based services on Service Quality in Conventional Banks of Pakistan

M. U. Nisa, Zaineb M. Nazir, and M. Asim, Business School, National University of Sciences and Technology, Pakistan

WD 15:45**Supply Chain Management IV****Bangli I****Session Chair:** Dr. Mark Goh, The Logistics Institute – Asia Pacific, and Business School, National University of Singapore**ID 142: The Joint Contract to Coordinate Price Changing Apparel Supply Chain**

Qi Xu and Wenjie Wang, Donghua University, China

ID 236: Managing Upstream Supply Chain Complexity based on Purchasing Competencies: A Framework

Alhasan Y. Hakami, School of Aerospace, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Australia

Linda L. Zhang, Department of Management, IESEG School Management, Lille, France

Arun Kumar, School of Aerospace, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Victoria, Australia

ID 450: Developing a New Model of Supplier Selection and Lot-Sizing for Disruptive Supply Chain Network under Uncertainty

Zahra Safaei Koletia, Kamran Jamali Firouzabadia, and Seyed Ahmad Sheibat Alhamdya, Department of Industrial Management, Islamic Azad University Firoozkooch Branch, Iran
 Navid Sahebjamnia, School of Industrial and Systems Engineering, College of Engineering, University of Tehran, Tehran, Iran

ID 146: **A Methodology to Optimize Value in Discrete Event Simulation for Production Planning and Control Studies**
 NurAmalina Muhammad, and Chin JengFeng, University Sains Malaysia

ID 548: **Mitigating Inefficiencies in Humanitarian Supply Chains**

Colin Wee, Robert de Souza, and Jonas Stumpf, The Logistics Institute – Asia Pacific, National University of Singapore
 Mark Goh, The Logistics Institute – Asia Pacific, and Business School, National University of Singapore

WD 15:45

Energy II

Bangli II

Session Chair: Dr. Ali Jawad, University of Technology, Bagdad, Iraq

ID 395: **Wind Energy Analysis for 3 Prospective Costal Sites of Bangladesh**

Muhammad Mahbubul Alam, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

ID 51: **Policy implications on industrial energy consumption: a DEA Sensitivity approach**

Oludolapo A. Olanrewaju, Department of Industrial Engineering, Tshwane University of Technology, Pretoria, South Africa
 Adisa A. Jimoh, Department of Electrical Engineering Tshwane University of Technology, Pretoria, South Africa
 Pulek A. Kholopane, Department of Industrial Engineering University of Johannesburg, South Africa

ID 65: **A Framework for Evaluation of Renewable Energy Policies**

Michael Mutingi, University of Botswana, Botswana
 Charles Mbohwa, University of Johannesburg, South Africa

ID 66: **Alternative Fuels for Cement Industry: A Review**

Rajendra Patil, Universal College of Engineering and Research Pune, India

ID 526: **Investigation of Mixture formation and Flame Development in Emulsified Biodiesel Burner Combustion**

Amir Khalid, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

ID 400: **The Technical – Economic Investigation of LNG Projects and Natural Gas in the South Pars Gas Complex (Iran) Based On Cost – Benefit Model**

Mohammadreza Joulaie, National Iranian Oil Company, Iran

WD 15:45

Engineering Management IV

Rijasa I

Session Chair: Dr. Cristina S. Rodrigues, University of Minho/ Centre Algoritmi, Portugal

ID 376: **Industrial Engineering and Operations Management Perspectives: A Research in Management on Leadership**

Khristian Edi Nugroho Soebandrija, Bina Nusantara University, Indonesia

ID 355: **ABM (Activity-Based Management) System Implementation in Islamic Azad University of I.R. Iran**

Milad Ziaeeian and Gohar Rahmani, Iran

ID 425: **Documentary Analysis of Professionalization and Certification Processes - Case Study: Certification of Professional Engineering in Colombia**

Oscar Vasquez Bernal, School of Basic Science, Technology and Engineering, Industrial Engineer Program.
 National Distance Open University (UNAD), Bogotá, Colombia

ID 401: **How can We Develop a Risk Management Plan for Our Organization?**

Rujee Charupash, Sirindhron College of Public Health KhonKaen, Thailand

ID 330: **Project Empreede TIMOR. How to promote entrepreneurship among students?**

Tomas Xavier, National University of East Timor
 Filipa Vieira, University of Minho/CGIT, Portugal
 Cristina S. Rodrigues, University of Minho/ Centre Algoritmi, Portugal

WD 15:45

Service Systems

Rijasa II

Session Chair: Dr. Elkanah Oyetunji, Department of Mechanical Engineering, Lagos State University, Nigeria

ID 149: **Service Productivity Evaluation with Knowledge Intensive Business Service Performance Indicators (KIBS-PI)**

Andreas Petz and Sönke Duckwitz, Institute of Industrial Engineering and Ergonomics, RWTH Aachen University, Aachen, Germany

ID 486: **On Servitization and Maintenance of Diamond Press Machines**
Joe Amadi-Echendu, University of Pretoria, South Africa

ID 209: **On the Airport Check-In Counter Allocation Problem – A Stochastic Dynamic Programming Approach Supported By Empirical Data**

Mahmut Parlar, McMaster University, Canada
Brian Rodrigues, and Sharafali Moosa, Singapore Management University, Singapore

ID 459: **Perspectives from Technology Acceptance Model on consumers' Adoption of IPTV Service: An Empirical Research in Taiwan**

JrJung Lyu, Fan-Kuei Chiou, and Chia-Wen Chen, Department of Industrial and Information Management, National Cheng Kung University, Tainan City, Taiwan

ID 169: **Comparison of Service Quality of Two Commercial Banks in Upper East Region of Ghana**

E. O. Oyetunji, Department of Mechanical Engineering, Lagos State University, Nigeria
B. B. Baguri and A. E. Otis, Department of Computer Science University for Development Studies, Ghana

18:00 – 21:00 Conference Award Dinner and Cultural Program

Thursday, January 9

08:30 – 09:15 Thursday Morning Keynote I: Dr. John Blakemore, CEO, Blakemore Consulting International, Australia and Former National President of the Manufacturing Society of Australia

09:15 – 10:00 Thursday Morning Keynote II: Dr. Petri Helo, Professor of Logistics, Department of Production, Faculty of Technology, University of Vaasa, Finland

10:00 – 10:15 Break

PARALLEL SESSION IX – THURSDAY (TH), 10:15 – 11:30

TH 10:15

GLOBAL ENGINEERING EDUCATION IX

Tabanan I

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

Dr. Atanas I. Lazarov, Professor Emeritus, Technical University of Sofia, Bulgaria

Dr. C. B. Gupta, Birla Institute of Technology & Science, Pilani, India

TH 10:15

Operations Research IV

Tabanan II

Session Chair: Dr. Rene Estember, Mapua Institute of Technology, Philippines

ID 498: **Optimization Model for the Dairy Sector**

Javier D. Fernandez and Beatriz Angel, Department of Industrial Engineering, University Pontificia Bolivariana, Medellín, Antioquia, Colombia

ID 496: **A Genetic Algorithm Based Solution Approach for the Time Dependent Vehicle Routing Problem**

M. Selçuk Korkmaz, Marmara University, Engineering Management Program, Istanbul, Turkey
Serol Bulkan, Marmara University, Industrial Eng. Dept., Istanbul, Turkey
Ekrem Duman, Ozyegin University, Industrial Eng. Dept., Istanbul, Turkey

ID 452: **Reliability-based Measures of a System with an Unreliable Repairman with Geometric Reneging Under Threshold-based Recovery Policy**

Dong-Yuh Yang and Zong-Ru Wu, Institute of Information and Decision Sciences, National Taipei College of Business, Taipei, Taiwan

Cheng-Hwai Liou, Department of Accounting Information, National Taichung University of Science and Technology, Taichung, Taiwan

ID 221: **A Framework on the Administrative Decision Model for Resource Loading**
Rene Estember, Mapua Institute of Technology, Philippines

TH 10:15**Lean and Six Sigma I****Tanjung**

Session Chair: Dr. Nihal Erginel, Anadolu University, İki Eylül Campus, Eskisehir, Turkey

ID 004: **To What Degree Is Sustainability Practiced In South African Paper Manufacturing Companies?**
Johannes Mapokgole, University of Johannesburg, South Africa

ID 158: **Silhouette Image-based Technique for Flexible Printed Circuit (FPC) Models for Automated Visual Inspection.**
Nurul Aida Harun, Universiti Sains Malaysia

ID 013: **A TOC-OEE Based Scheme to Improve Productivity**
Bernardo Villarreal, Universidad de Monterrey, Mexico

ID 546: **Reduce the Failure Rate of the Screwing Process with Six Sigma Approach**
Nihal Erginel and Aytac Hasirci, Industrial engineering Department, Anadolu University, İki Eylül Campus, Eskisehir, Turkey

TH 10:15**Human Factors I****Jepun**

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

ID 343: **A Predictive Model of the Severity of Musculoskeletal Disorders among Poultry Layer Workers**
Ma. Janice Gumasing, Mapua Institute of Technology, Philippines

ID 296: **A Kinetikk Study: Understanding Hand and Finger Motion Whilst Squeezing Bottles**
Seri Rahayu Kamat, University Technical Malaysia Malacca, Malaysia

ID 302: **A Study on Push-Pull Analysis Associated with Awkward Posture among Workers in Aerospace Industry**
Norhidayah Hashim, Universiti Teknikal Malaysia Melaka, Malaysia

ID 303: **The Prevalence of Work Related Musculoskeletal Disorders among Workers Performing Industrial Repetitive Tasks in the Automotive Manufacturing Companies**
Nurhayati Mohd Nur, University of Malaya, Kuala Lumpur, Malaysia

ID 061: **Understanding Physician's Decision Making in Trauma Centers**
Eui Park, North Carolina A&T State University, USA

TH 10:15**Supply Chain Management V****Bangli I**

Session Chair: Dr. Hikmet Erbiyik, Department of the Industrial Engineering, University of Yalova, Turkey

ID 278: **The Supply Chain Design in Japan's Auto Industry**
Yong Yin, Department of Economics and Business Management, Yamagata University, Kojirakawa-machi, Yamagata-shi, Japan
ChenGuang Liu, Institute for Manufacturing, Department of Engineering, University of Cambridge, Cambridge, United Kingdom
Ikou Kaku, Faculty of Environmental and Information studies, Tokyo City University, Japan

ID 295: **Benchmarking c2c Performance Approach for Supply Chains: A Colombian Case Study**
Juan Pablo Escorcia, Department of Industrial Engineering, Universidad Autonoma Del Caribe, Barranquilla, Colombia
Rene A. Amaya, Department of Industrial Engineering, Universidad Del Norte, Barranquilla, Colombia

ID 337: **The impact of SCM on Business Performance: A Case Study in Tehran Stock Exchange Market**
Ali Tajdin, Saba Shabaninikoo, and Iraj Mahdavi, Hamed Fazlollahtabar, Mazandaran University of Science and Technology, Iran

ID 454: **Empty Containers Repositioning in South African Seaports**
Olufemi Adetunji, University of Pretoria, South Africa

ID 491: **A Case Study about Retailing Market of Industrial Sector in Turkey**

Ayşenur Erdil, University of Marmara, Faculty of Engineering, Department of the Industrial Engineering, University of Yalova, Faculty of Engineering, Department of the Industrial Engineering, Turkey
 Mehtap Erdil, University of Marmara, Faculty of Engineering, Department of the Environment Engineering, Turkey
 Hikmet Erbiyik, University of Yalova, Faculty of Engineering, Department of the Industrial Engineering, Turkey

TH 10:15**Sustainability and Green Systems I****Bangli II****Session Chair:****ID 428: An Exploratory Study on “Enviroprenurial” Value Chain: A Conceptual Framework for Malaysian Small and Medium Enterprises**

Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn Malaysia, Jhrhor, Malaysia

ID 480: Study on Key Factors of Adopting Sustainable Supply Chain Management in Indonesia

Caroline Himadewi Santoso, Jinshyang Roan, and Jei-Zheng Wu, Global Business Program, School of Business, Soochow University, Taipei, Taiwan

ID 490: New Indicator System for Evaluation of Land Use Efficiency

Armands Auziņš, Sanda Geipele, and Ineta Geipele, Institute of Civil Engineering and Real Estate Economics, Faculty of Engineering Economics and Management, Riga Technical University, Riga, Latvia

ID 394: On Sustainability of it Service Business in India: A Financial Operation Perspective

Jagadish Kundu, Cognizant, India

TH 10:15**Logistics Management I****Rijasa I****Session Chair: Dr. Jekka Subramanian Gnanasekaran, K.L.N. College of Information Technology, Tamil Nadu, India****ID 183: Stochastic Optimization for Procurement of International Shipping Services**

Sang Hwa Song, Graduate School of Logistics, Incheon National University, South Korea
 Taesu Cheong, Department of Industrial and Systems Engineering, National University of Singapore, Singapore

ID 387: Determining Optimum Route and Load Transfers in a Multiple Route-based Flat Rate Transportation Problem

Ketut Gita Ayu, Nike Septivani, and Verola Lollyta, Department of Industrial Engineering, Bina Nusantara University, Jakarta, Indonesia

ID 424: TUT Student Bus Transport System: A Case Study

Venessa Ranjit, Tshwane University of Technology, South Africa

ID 429: Planning of Oil Distribution Network with Artificial Intelligence Techniques

Malinga Borukgama, Subodha Dharmapriya, Asiri Senasinghe and Asela Kulathunga, Sri Lanka

ID 542: Studies on Manufacturing Logistics by Using Data Mining Approach

Jekka Subramanian Gnanasekaran, K.L.N. College of Information Technology, Tamil Nadu, India

TH 10:15**Healthcare Systems I****Rijasa II****Session Chair: Victoria Jordan, University of Texas MD Anderson Cancer Center, USA****ID 193: Developing a Total Quality Management Framework for the Healthcare Organizations**

Abdulsattar Al-Ali, Department of Management, The World Islamic University for Sciences & Education, Amman, Jordan

ID 140: Designing Optimal Incentives to Encourage Healthy Behaviors

Sara McComb,^{1,2} Brandon Pope,^{1,3} Alison Schroeder,¹ Bart Collins,^{3,4} and Carmen Jones²

¹School of Industrial Engineering, Purdue University, West Lafayette, IN, USA

²School of Nursing, Purdue University, West Lafayette, IN, USA

³Regenstrief Center for Healthcare Engineering, Purdue University, West Lafayette, IN, USA

⁴Brian Lamb School of Communication, Purdue University, West Lafayette, IN, USA

ID 165: Benchmarking hospital services: an application of the Data Envelopment Analysis technique

Ana S. Camanho, and Isabel M. Horta, Faculdade de Engenharia da Universidade do Porto, Portugal
 Maria C. Portela, Universidade Católica Portuguesa, Porto, Portugal

ID 177: Factors Influencing the Sustainability of Results Following Lean Projects in Healthcare Environments

Stéphanie Desmeules and Denis Lagacé, Department of Industrial Engineering, Université du Québec à Trois-Rivières, Québec, Canada

ID 222: **Transforming Healthcare Using Systems Engineering in an Academic Health System**
Victoria Jordan, University of Texas MD Anderson Cancer Center, USA

PARALLEL SESSION X – THURSDAY (TH), 11:30 – 13:00

TH 11:30

GLOBAL ENGINEERING EDUCATION X

Tabanan I

Session Chair: Dr. Budi Santosa, Surabaya Institute of Technology (ITS), Indonesia

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

Dr. Muhammad H. Zaman, Associate Chair for Undergraduate Affairs, Department of Biomedical Engineering, Boston University, USA: "**Engineering Education in Africa: Impact for Development and Sustainability**"

Dr. Abdel Magid Hamouda, Professor and Chairman of Mechanical and Industrial Engineering Department, Qatar University, Qatar: "**Innovation and Entrepreneurship in Higher Education: Status; Challenges and Future Trends**"

TH 11:30

Production Planning I

Tabanan II

Session Chair: Dr. Saad Suliman, University of Bahrain

ID 077: **Evaluating Performance of Production Scheduling from an Economic Perspective**
Johannes Mapokgole, University of Johannesburg, South Africa

ID 118: **A Reference Model for Development of Production Scheduling Systems**
Shigeru Fujimura, Graduate School of Information, Production and Systems, Waseda University, Fukuoka, Japan

ID 207: **Applying Fuzzy Linear programming approach for Dynamic Multi-Item Lot-sizing Problem**
Navid Sahebjamnia, Iran

ID 275: **Batch Scheduling for a Single Deteriorating Machine to Minimize Total Actual Flow Time**
Rinto Yusriski, Bandung Institute of Technology, Indonesia

ID 007: **An Algorithm for Solving Lot Sizing and Cutting Stock Problem within Aluminum Fabrication Industry**
Saad Suliman, University of Bahrain

TH 11:30

Lean and Six Sigma II

Tanjung

Session Chair: Dr. Asela Kulatunga, University of Peradeniya, Sri Lanka

ID 331: **Experimental Design in the Military Sector: Reducing Helicopter Maintenance Time**
Leonard Perry, University of San Diego, USA
David Englehart, United States Navy, USA

ID 292: **A Conceptual Model for Full-Blown Implementation of Lean Manufacturing System in Malaysian Automotive Industry**
Eida Nadirah Roslin, University of Malaya, Kuala Lumpur, Malaysia

ID 543: **Why Lean Six Sigma Matters for Next-Gen ERP?**
Anil Kumar Saini, University School of Management Studies, India
Rashmi Jha, Gitarattan International Business School (GIBS), Affiliated to Guru Gobind Singh Indraprastha University, India
Aman Jha, Kalinga Institute of Industrial technology, India

ID 389: **An Analysis of Predictor Variables for Operational Excellence through Six Sigma**
Anuradha R Chetiya, and Sunil Sharma University of Delhi, India

ID 476: **Process Visualization of a Manufacturing Plant Based on Lean Concept**
H.M.M.M. Jayawickrama, S. Samarasena, and A.K. Kulatunga, University of Peradeniya, Sri Lanka

ID 097: **Application of Toyota's Production System to Reduce Traffic Accidents in Abha's Region (Case Study)**
Abdelhakim Abdelhadi, King Khalid University, Saudi Arabia

TH 11:30**Human Factors II****Jepun****Session Chair:****ID 171: An Investigation of the Effects of Noise on Cognitive tasks**

Farag Elfeituri, University of Benghazi, Libya

ID 062: Development of a Graphical User Interface as Data Collection Tool for Cognitive Performance

Eui Park, North Carolina A&T State University, USA

ID 186: Development and Evaluation of a Collision Avoidance Display for Supporting Pilots' Decision Making in a Free Flight Environment

Yakubu Ibrahim, Peter Higgins and Peter Bruce, Faculty of Engineering and Industrial Sciences, Swinburne University of Technology (SUT), Melbourne, Australia

ID 223: The Effects of Coping Mechanism, Gender and Shift to Stress Risk Level of Inbound Call Centers

Rene Estember, Mapua Institute of Technology, Philippines

ID 084: Quality of Work Life and Organizational Commitment

Badri Abbasi, Azad Islamic university, Iran

ID 211: Resilience and Brittleness of Team Performance during a Nuclear Emergency Response Simulation

Paulo Carvalho, Jose Orlando Gomes, and Marcos R. S. Borges, Instituto de Engenharia Nuclear, Brazil

TH 11:30**Supply Chain Management VI****Bangli I****Session Chair: Dr. Safwan Altarazi, German Jordanian University, Jordan****ID 506: Considering Holding Cost in Optimal Core Acquisition and Remanufacturing Policy under Deterministic Process Times**

Walid Abdul-Kader, University of Windsor, Canada

ID 123: Supply Chain Networks Reliability by Considering Dependencies between Elements of the Chain

Mohsen Babashahi, Iran University of Science and Technology, Iran

ID 533: Robustness and Efficiency of L1 Exponential Smoothing for Tracking Time Series

Yi Zhang and Wei Jiang, Antai College of Economics and Management, Shanghai Jiaotong University, Shanghai, China

ID 034: Dashboard User Interface for Measuring Performance Metrics: Concept from Virtual Factory ApproachAhm Shamsuzzoha, Yuqiuge Hao and Petri Helo, Department of Production, University of Vaasa, Finland
MMR Khan Khadem, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman**ID 485: Concurrent Design of Manual-Order Picking Warehouses via Simulation**

Safwan Altarazi, German Jordanian University, Jordan

TH 11:30**Sustainability and Green Systems II****Bangli II****Session Chair: Dr. Evelyne Vanpoucke, Maastricht University, Netherlands****ID 465: Implementation of Sustainable and Green Logistics Initiative as Supply Chain Strategy in FMCG Industry**

Shaliha Anistia, University of Hawaii at Manoa, USA

ID 374: Environmental Sustainability Issues in Malaysian Metal and Fabrication SMEs: Comparative Analysis from a Case Study Perspectives

Atiah Abdullah Sidek, International Islamic University Malaysia

ID 262: Genetic Algorithm Approach for Multi-objective Green Supply Chain Design

Li-Chih Wang, Tunghai University, Taiwan

ID 133: Auto Manufacturers and Applying Green Practices in the Presence of Rivals (The Case of End of Life Vehicles)

Samira Keivanpour, Universite Laval, Canada

ID 440: Motivation to Pursue Green Supply Chain Management

Evelyne Vanpoucke, Maastricht University, Netherlands

TH 11:30**Logistics Management II****Rijasa I**

Session Chair: Dr. Christopher Backhouse, Loughborough University, United Kingdom

ID 426: **Outsourcing Strategy in Reverse Logistics Network: A Markov Decision Process and Simulation Approach**
Walid Abdul-Kader, University of Windsor, Canada

ID 334: **Remanufacturing Network Design Modeling: A Case of Diesel Particulate Filter**
Gözde Kızılboğa and Müjde Erol Genovois, Department of Industrial Engineering, Galatasaray University, Istanbul, Turkey
Guillaume Mandil and Peggy Zwolinski, Grenoble Institute of Technology, Grenoble, France

ID 232: **Planning of Oil Distribution Network with Artificial Intelligence Techniques**
B.S.M Borukgama, U.S.S. Dharmapriya and A.P. Senasinghe, 1Department of Transport and Logistics Management, University of Moratuwa, Moratuwa, Sri Lanka
A.K. Kulathunga, Department of Production Engineering, University of Peradeniya, Sri Lanka

ID 226: **Sustainable Food Supply Networks in the Chinese Supermarket Sector**
Christopher Backhouse and Chong Xu, Loughborough University, UK
Norizah Mohamad, Univesiti Sains Malaysia
Reshpal Plaha, Crystal Quality UK Ltd, UK

TH 11:30**Healthcare Systems II****Rijasa II**

Session Chair: Dr. Jamie Rogers, The University of Texas at Arlington, USA

ID 150: **Investigating the Role of Incentives in Improving Efficiency of Healthcare Systems**
Abhijit Deshmukh, Purdue University, USA

ID 67: **Home Healthcare Staff Scheduling: A Clustering Particle Swarm Optimization Approach**
Michael Mutingi, University of Botswana

ID 197: **Improve the Health Care Service and Patients Flow at Ophthalmology Clinic at Sultan Qaboos University Hospital using Six Sigma**
Mohammad Khadem, Sultan Qaboos University, Oman

ID 539: **The Description of the Control Factors on the Complex Immune System**
Janar Yermekbayeva, Tolkinai Myrzakul, Onlaisyn Dauletbakova and Gulnara Abitova, L. N. Gumilev Eurasian National University, Kazakhstan

ID 037: **Statistical Models for Hospital Readmission Prediction with Application to Chronic Obstructive Pulmonary Disease (COPD) Patients**
Li Zeng, Smriti Neogi, and Jamie Rogers, Department of Industrial and Manufacturing Systems Engineering, The University of Texas at Arlington, Arlington, USA
Susan Seidensticker, Carlos Clark, Lindsey Sonstein, Rick Trevino, and Gulshan Sharma, Department of Internal Medicine, The University of Texas Medical Branch, Galveston, USA

13:00 – 14:00 Lunch: On Your Own

PARALLEL SESSION XI – THURSDAY (TH), 14:00 – 15:30

TH 14:00**GLOBAL ENGINEERING EDUCATION XI****Tabanan I**

Session Chair: Dr. Shamsuddin Ahmed, University of Malaya, Kuala Lumpur, Malaysia

Dr. Bidyut Kumar Bhattacharyya, Director, School of Safety & Occupational Health Engineering, Bengal Engineering & Science University, West Bengal, India

Dr. Ali R. Kaylan, Dept. Industrial Engineering, Bogazici University, Turkey: **“Industrial Engineering Education in Turkey”**

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

TH 14:00**Production Planning II****Tabanan II**

Session Chair: Dr. Christina Thomas, Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University, Germany

ID 497: **A Relax-And-Fix Heuristic for a Production Planning Problem with Order Acceptance and Flexible Due Dates**
Nadjib Brahim, University of Sharjah, United Arab Emirates

ID 456: **Model of Integrated Production and Delivery Batch Scheduling Under JIT Environment to Minimize Inventory Cost**
Endang Prasetyaningsih, Bandung Institut of Technology, Indonesia

ID 304: **Minimizing Total Weighted Tardiness in Single Machine Problem with Non-Identical Job Sizes**
Mehdi Bijari, Isfahan University of Technology, Iran

ID 224: **The Effect of Inserted Idle Time on the Performance of Dispatching Rules in a Flow Shop**
Ahmed El-Bouri, Sultan Qaboos University, Oman

ID 277: **Improving Decision Making within Production Control**
Christina Thomas, Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University, Germany

TH 14:00

Lean and Six Sigma III

Tanjung

Session Chair: Dr. Tariq Aziz, King Saud University, Saudi Arabia

ID 092: **Improving Agility in Distribution Operations**
Bernardo Villarreal, Javier Arriaga, Ciro Cardenas, Juan Pablo Rivera, and Humberto Campos, Universidad de Monterrey, Mexico

ID 006: **Sensitization of an Indian SME towards Quality Enhancement**
Manisha Mohan, Department of Industrial Engineering, Anna University, Chennai, India

ID 351: **Implementation of Integrated System Six Sigma and Importance Performance Analysis for Quality Improvement of HSDPA Telecommunication Network and Customer Satisfaction**
Slamet Pranoto and Rahmat Nurcahyo, Department of Industrial Engineering, University of Indonesia, Jakarta, Indonesia

ID 270: **Case Study: Innovative Implementation of Several Lean Principles in a Flat Steel Plant**
Sameh M. Fahmi, Tamer M. Abdelwahab, Yaseen Amin, Mohamed S. Emam, Haytham Youssef and Ahmed Ragab, Al Ezz Dekheila Steel Co. (EZDK), Alexandria, Egypt

ID 015: **Application of Lean Six Sigma in Entertainment Industry by Integration of Risk management**
Tariq Aziz, King Saud University, Saudi Arabia

TH 14:00

Human Factors III

Jepun

Session Chair: Dr. Sunil Sharma, Faculty of Management Studies, University of Delhi, India

ID 423: **Digital Human Modeling and Clothing Virtual Try-on**
Yueh-Ling Lin and Mao-Jiun J. Wang, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan

ID 502: **Safe Backpack Mass for Students in Tertiary Institutions**
Salami O. Ismaila, Department of Mechanical Engineering, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria
Kolawole T. Oriolowo, Department of Mechanical Engineering, The Polytechnic, Ibadan, Oyo State, Nigeria

ID 360: **A Survey on Interaction Techniques in Virtual Environments**
Jaemoon Jung, Hanjun Park, Dongwook Hwang, Minseok Son, Donghyun Beck, Juhee Park, and Woojin Park, Department of Industrial Engineering, Seoul National University, Seoul, Korea

ID 520: **Understanding Safety Dimensions among Logistics Personnel in Malaysia: Approaches from Social Psychology**

Huinee AuYong and Lilis Surity, School of Management, Universiti Sains Malaysia, Penang, Malaysia
Suhaiza Zailani, Faculty of Business and Accountancy, Universiti Malaya, Kuala Lumpur, Malaysia

ID 554: **Psychological Service Quality Analysis: a Cross-Cultural Approach**
Hye-Kyung Pang, Hallym University, Korea

TH 14:00

Supply Chain Management VII

Bangli I

Session Chair: Dr. Sanjay Jharkharia, Indian Institute of Management Kozhikode, India

ID 519: **Weighting Suppliers Using Fuzzy Inference System and Gradual Covering in a Supply Chain Network**
 Mohammad Asghari, Department of Industrial Engineering, Ferdowsi University of Mashhad, Azadi Sq., Mashhad, Iran

ID 305: **Modelling Supply Chain Management Systems Using Lean Procurement Tools to Mitigate the Bullwhip Effect: A Case Study of a Pharmaceutical Manufacturing Company**

William Msekiwa Goriwondo, National University of Science and Technology, Zimbabwe
 Culvin Makota Esau, Ellay Products (Pvt) LTD, Zimbabwe
 Samson Mhlanga, National University of Science and Technology, Zimbabwe

ID 57: **Challenges and Uncertainties in Collaborative Forecasting**

Madhavendra Saxena, Poornima University, India
 Chinmoyee S.Despande, USA

ID 541: **The Service Supply Chain on International Meeting Service Operations**

Yun-Hui Lin, Wen-Yu Hsieh and Wei-Shuo Lo, Meiho University, Taiwan

ID 135: **Characteristics of Automotive Supply Chains-An Exploratory Study**

Sanjay Jharkharia, Indian Institute of Management Kozhikode, India

TH 14:00

Sustainability & Green Systems III

Bangli II

Session Chair: Dr. Ana S. Camanho, Faculdade de Engenharia da Universidade do Porto, Portugal

ID 418: **Assessment on the Ergonomic Factors and Green Building Features of the Selected 2012 Green Classrooms in the Philippines Luzon Area**

Hermie M. del Pilar, Department of Civil Engineering, Malayan Colleges Laguna, Cabuyao Laguna, Philippines
 Rachel C. Villanueva, Ivan Jesrael Nagpala, Christian Garcia, and Mark Joseph Pablo, Department of Industrial Engineering, Malayan Colleges Laguna, Cabuyao Laguna, Philippines

ID 380: **Sustainability perspectives: a research on leadership, innovation, performance and competitive advantage**

Kristian Edi Nugroho Soebandrija, Bina Nusantara University, Indonesia

ID 467: **European Directives Sustainability of Biofuels and Brazilian Market, Panorama Biodiesel**

Mariana Bittar, Universidade Federal do Rio de Janeiro-PRH, Brazil
 Claudia Morgado, Victor Esteves, and Ofélia Araujo, Federal University of Rio de Janeiro, Brazil

ID 339: **Abandoned Development as a Brownfield Site: Case Study Kemayan City, Johor Bahru**

Nurlaila Ali, Land Administration and Development, Malaysia
 Khadijah Hussin, and Ismail Ashmat, University Technology Malaysia
 Kamalludin Bilal, Universiti Tun Hussein Onn Malaysia

ID 325: **Enhancing the Performance of Quota Managed Fisheries Using Seasonality Information: The Case of the Portuguese Artisanal Dredge Fleet**

Ana S. Camanho, Faculdade de Engenharia da Universidade do Porto, Portugal
 Manuela M. Oliveira, and Miguel B. Gaspar, Instituto Português do Mar e da Atmosfera I.P., Portugal

TH 14:00

Logistic Management III

Rijasa I

Session Chair: Dr. George Q. Huang, The University of Hong Kong, China

ID 306: **An Exact Solution for a Class of Green Vehicle Routing Problem**

Mandy Taha, M. Nashat Fors, and Amin Ahmed Shoukry, Production Engineering Department, University of Alexandria, Egypt

ID 307: **Investigating Supply Chain Risk Factors: An Empirical Assessment Approach**

Lhoussaine Ouabouch, Ibnou Zohr University, Morocco

ID 350: **Optimization of Multistage Logistic Network under Disruption Risk Considering Continuity Rate**

Muhammad Rusman and Syamsul Bahri, Department of Industrial Engineering, Hasanuddin University, Makassar, Indonesia
 Yoshiaki Shimizu, Department of Mechanical Engineering, Toyohashi University of Technology, Japan

ID 365: **Location-Routing-Inventory Problem with Transshipment**

Haliza Ahmad, Pa'ezah Hamzah, Zaitul Anna Melisa Md Yasin and S.Sarifah Radiah Shariff, Centre for Statistical and Decision Science Studies, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia

ID 375: **A Bargaining Framework Planning for Maintenance Service under Governmental Arms Offset Intervention**
Jong-Jang Lin, Yi-Kuei Lin and Ruey-Huei Yeh, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

ID 405: **Conceptual Modelling on Economic Sustainability of Computer Part Recovery Systems**

Roesfiansjah Rasjidin^{1,2}, Arun Kumar¹ and Firoz Alam¹

¹ School of Aerospace, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Australia

² Industrial Engineering Department, Faculty of Engineering, Esa Unggul University, Jakarta, Indonesia

TH 14:00

Healthcare Systems III

Rijasa II

Session Chair: Dr. Y. P. Singh, Somany P.G.Institute of Engineering & Technology, Rewari, Haryana, India

ID 252: **Using Simulation to Examine the Respond Time Taken by Medical Responder during Radiological and Nuclear Emergency**

Lau Kee Wah, Azurah A Samah, and Hairudin Abdul Majid, University of Technology Malaysia

ID 326: **A Method to Improve the Accessibility and Quality of a Brazilian Public Emergency Hospital Service**

Francisco Santos Sabbadini, Department of Industrial Engineering, University of State of Rio de Janeiro, Brazil

Mário Jorge Ferreira de Oliveira, Department of Production Engineering, University of State of Rio de Janeiro, Brazil

Antonio Augusto Gonçalves, Business School, Estácio de Sá University, Rio de Janeiro, Brazil

Antonio H. A. Junior, José G. M. Barros Ali and Rosinei Batista, Department of Industrial Engineering, University of State of Rio de Janeiro, Brazil

ID 402: **Embedding Process Improvement and Operations Management Technologies for Sustainable Service Quality and Performance Improvements: A Conceptual Framework**

Rohaizan Ramlan, Kamilah Ahmad, and Siti Anisah Atan, Universiti Tun Hussein Onn Malaysia

ID 537: **Weight Analysis of Servicescape Factors for Wellness and Quality of Life**

Hye-Kyung Pang, Hallym University, Korea

ID 060: **Use of Systems Engineering Tools and Concepts to Improve Chronic Disease Management**

Gulshan Sharma, Carlos Clark and Lindsay Sonstein, Department of Internal Medicine, The University of Texas Medical Branch, Galveston, TX, USA

Rick Trevino, Department of Clinical Data Management, The University of Texas Medical Branch, Galveston, TX, USA

Laura Grady, Department of Information Services – Clinical Documentation, The University of Texas Medical Branch, Galveston, TX, USA

Susan Seidensticker, Department of Quality and Healthcare Safety, The University of Texas Medical Branch, Galveston, TX, USA

15:30 – 15:45

Tea / Coffee Break

PARALLEL SESSION XII – THURSDAY (TH), 15:45 – 17:15

TH 15:45

Global Engineering Education

Tabanan I

Session Chair: Dr. Bernardo Villarreal, Department of Industrial Engineering, Universidad de Monterrey, Mexico

Plenary V: “Engineering Education in Americas”

Plenary VI: “Industrial Engineering Education in Latin America”

TH 15:45

Production Planning III

Tabanan II

Session Chair: Dr. Ray Y. Zhong, The University of Hong Kong, Hong Kong, China

ID 050: **A Real-time Planning and Scheduling Model in RFID-enabled Manufacturing**

Ray Y. Zhong, and George. Q. Huang, Department of Industry and Manufacturing Systems Engineering, The University of Hong Kong, Hong Kong, China

Q. Y. Dai, School of Information Engineering, Guangdong University of Technology, Guangzhou, China

T. Zhang, T.Y. Luo and D.P. Lin, Huaiji Dengyun Auto Parts (Holding) Co., Ltd. Zhaoqing, China

ID 231: **Application of Simulated Annealing Algorithm in Advanced Planning and Scheduling System for TFT-LCD Color Filter Fab**

James C. Chen, National Tsing-Hua University, Taiwan
 Chih-Cheng Chen, Yu-Yao Wei, Chin-Ping Liu, Chunghwa Picture Tubes Ltds, Taiwan
 Jim Z. Lin, National Tsing-Hua University, Taiwan

ID 263: Parameter-based Preemptive Objective Optimization for Solar Cell Manufacturing

Li-Chih Wang^{1,3}, Yu-Jie Wong¹, Tzu-Li Chen², Shuo-Tsung Chen³, Cheng-Mei Li¹

¹Department of Industrial Engineering and Enterprise information, Tunghai University, Taichung, Taiwan

²Department of Information Management, Fu Jen Catholic University, New Taipei City, Taiwan

³ Tunghai Green Energy Development and Management Institute (TGEI), Tunghai University, Taichung, Taiwan

ID 291: A Heuristic Approach to Solve Production Planning Problem with Machine Failure in a Series Parallel Multi-State System

Mustapha Nourelfath, Laval University, Canada

Yuvraj Gajpal, University of Manitoba, Canada

TH 15:45

Lean and Six Sigma IV

Tanjung

Session Chair: Abdullah Dhafer, Aramco, Saudi Arabia

ID 458: A Quality Model for a Multi-Layered Sourcing Supply Chain

JrJung Lyu and Chia-Wen Chen, Department of Industrial and Information Management, National Cheng Kung University, Tainan, Taiwan

ID 033: How Lean Six Sigma can help me to be a better Industrial Engineer?

Gibran Lamas, ITESM, Mexico

ID 073: Applying an Alternative Heuristic Algorithm to Gupta Method for Sequencing Lean Software Processes

Eldon Caldwell, University of Costa Rica

Oscar Gamboa, Technological Institute of Costa Rica

ID 473: Implementation of Lean Manufacturing through Supplier Kaizen framework: a case study

Mohd Hazri Mohd Rusli, Toyota Malaysia

Ahmed Jaffar, and Suzilawati Muhamud-Kayat, Universiti Teknologi Mara, Malaysia

ID 521: Value Stream Mapping using Simulation at Metal Manufacturing Industry

Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn, Johor, Malaysia

Rohana Abdullah, and Nooririnah Omar, Universiti Teknikal Malaysia Melaka

ID 320: Aramco Riyadh Refinery Lean Six Sigma Projects, Case Study

Abdullah Dhafer, Aramco, Saudi Arabia

TH 15:45

IE/OM in Asia

Jepun

Session Chair: Navid Mollae, Rayan Marketing Co., Tehran, Iran

ID 125: ASEAN Industrial Engineering and Work Measurement Practices Phenomenon

Sze Yee Thong, Universiti Malaysia Perlis (UniMAP), Perlis, Malaysia

ID 540: Women Engineers-their Life Values in Australia

Susan Fenton, Fenton Partners Pty Ltd, Australia

ID 349: Upscaling Efficiency of Extension for Development of Agri-horticulture and Livestock in Semi-arid Rajasthan

Prakash Kalla, S K Rajasthan Agricultural University, India

ID 460: Readiness of Indonesian Companies for ASEAN Economic Community (AEC): Preliminary Findings from Automotive and Garment Industries

Mahendrawathi ER, Anisah Herdiyanti and Hanim Maria Astuti, Institut Teknologi Sepuluh Nopember, Surabaya, East Java, Indonesia

ID 508: The Novel & Flamboyant Application of Industrial Engineering in Government / Administration Establishment

Ashok Ippa, Ashoka Consultancy, India

TH 15:45

Supply Chain Management VIII

Bangli I

Session Chair: Dr. Xin Zhai, Peking University, Beijing, P.R. China

ID 175: A Study of Incentives and its Policies for Sustainability in Supply Chain

James C. Chen, National Tsing Hua University, Taiwan

Tien-Chi Shen, Chia-Ping Fun and Jason Wen-Hsien Chang, Service Systems Technology Center, Industrial Technology Research Institute, Taiwan

Tien-Yang Chang, Zih-Sian Lin and Yi-Jhen Lin, National Tsing Hua University, Taiwan

ID 328: Logistics and Supply Chain Management Approach to SMEs in Noodle Factory Industry: Lean and Six Sigma Tool

Parinya Pattanawanporn, Kamphaeng Saen Kasetsart University Kamphaeng Saen Campus, Thailand

ID 335: Data Mining on Return Items in a Reverse Supply Chain

Lida Mohammadi, Iraj Mahdavi, and Ali Tajdin, Mazandaran University of Science and Technology, Babol, Iran

Hamed Fazlollahtabar, Iran University of Science and Technology, Tehran, Iran / Niroogostar Energy Optimization Research Group, Tehran, Iran

ID 432: Barriers in implementing Green Supply Chain Management in Construction industry

Elizabeth Ojo and Esther T. Akinlabi, and Charles Mbohwa, University of Johannesburg, South Africa

ID 529: Impacts of Information Visibility on a Distribution System: A Modeling Perspective

Xin Zhai, Department of Management Science and Information Systems, Guanghua School of Management, Peking University, Beijing, P.R. China

TH 15:45**Sustainability and Green Systems IV****Bangli II****Session Chair:** Dr. Caroline Himadewi Santoso, Soochow University, Australia**ID 239: Recovery and Remanufacturing Targets versus Taxation/Subsidy Policies for Product Reuse**

Sam Aflaki and Shumail Mazahir, HEC Paris, France

ID 340: A Review on Criteria for Green Infrastructure to be adopted by Local Authorities

Kamalludin Bilal, Universiti Tun Hussein Onn Malaysia

Hishammudin Mohd Ali, and Ibrahim Atan Sipan, University Technology Malaysia

Nurlaila Ali, Land Administration and Development, Malaysia

ID 518: A Nondominated Sorting Genetic Algorithm for Sustainable Reverse Logistics Network Design

Mohammad Asghari, Ferdowsi University of Mashhad, Mashhad, Iran

ID 479: Study on Key Factors of Adopting Sustainable Supply Chain Management in Indonesia

Caroline Himadewi Santoso, Soochow University, Australia

ID 545: The Influence of Innovation Performance towards Manufacturing Sustainability Performance

Mohd Razali Muhamad, and Zuhriah Ebrahim, Universiti Teknikal Malaysia Melaka, Malaysia

Norsiah Hami, Universiti Utara Malaysia

TH 15:45**Technology Management****Rijasa I****Session Chair:** Dr. Prakash Narayan Kalla, S.K. Rajasthan Agricultural University, Bikaner, Rajasthan, India**ID 098: A new program for incorporative research between research centers and Oil and Gas industry in I.R. of IRAN, involving Scientific Centers of Excellence – Case study in NIGC**

Ali Massaeli, National Iranian Gas Company, Iran

ID 377: Improving Technology through Tacit and Codified Knowledge for SMEs in Developing Economies (Empirical Study)

Fourry Handoko, National Institute of Technology, ITN Malang, East Java, Indonesia

ID 505: Technology Transfer Model through Industrial Collaboration for Product Development and Technopreneurship in Polytechnic Education

Mohammad Nurdin, Polytechnic for Manufacturing of Bandung (POLMAN Bandung), Indonesia

ID 439: Resolving Conflicting Requirements in the Management of Technology and Innovation - Insights from a Comparative Case Study of ADSL Technology

Annelies Geerts, Annelies Geerts, and Bart Van Looy, KU Leuven, Belgium

Klaasjan Visscher, and Petra de Weerd-Nederhof, University of Twente, Netherlands

ID 030: Challenges Associated with Cool Chain Management System!

S. Asiya Z. Kazmi, and Marja Naaranoja, University of Vaasa, Finland

TH 15:45

Systems Engineering

Rijasa II

Session Chair: Dr. Md. Liakot Ali, Institute of Information and Communication Technology (IICT), Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 104: Integration of Multivariate Statistical Process Control and Engineering Process Control

Yasir Abdullah Siddiqui, King Fahad University of Petroleum and Minerals, Saudi Arabia

ID 121: EFQM Constructive or Destructive the Business Excellent

Mohammad Eslamipour, Mapna Generator Co., Iran

ID 414: Die Preparation Time Reduction Optimization of Automotive Stamping Operations

Nirav Sheth, Abass Enzi, Parth Patel, Don Reimer and Ahad Ali, Lawrence Technological University, USA

ID 368: Mathematical Programming based Synthesis of Rice Drying Processes

Wongphaka Wongrat, Kasetsart University, Kamphaeng Saen Campus, Thailand

A. Elkamel, P. L. Douglas, and A. Younes, University of Waterloo, Canada

ID 481: Investigation Novel Matched Valve-Actuator with Atomizer Insert Design For Two-Fluid With 50% Fill Ratio

Norzewelawati Asmuin, Centre for Energy and Industrial Environment Studies (CEIES), Universiti Tun Hussein Onn Malaysia

Posters – IEOM 2014 Conference

ID 010: Practices and Problems: Fixing Loose Ends of Shared Services Governance

Simon Maabe, and Charles Mbohwa, University of Johannesburg, South Africa
Paulin Mbecke, Council for Scientific and Industrial Research, South Africa

ID 011: Performance and Evaluation of Piercing Punch Coated With Tialn

S. Olivernesaraj, J. Thavamani, S. Shashi Kumar, and S. Balaji, SRM University, Kattankulathur, India

ID 016: A Comparative Analysis between Small and Medium Scale Manufacturing Company through Total Quality Management Techniques

Mohammad Israr, Balaji Engineering College, Junagadh, Gujarat, India
Anshul Gangele, Institute of Technology & Management, Gwalior, India

ID 020: Use of Physical and Numerical Models in Engineering Design Education

Saidani, Messaoud and Abdussalam Shibani, Faculty of Engineering and Computing, Coventry University, UK

ID 032: Determination of Insulation Active Component of an Insulated Neutral Electrical Supply Network

Abderrezzak Hocine, Department of Electromechanical, Badji Mokhtar University, Annaba, Algeria

ID 043: A Structural Equation Model for Identifying Critical Success Factors of Implementing ERP in Iranian, Kalleh Food Products Company

Reza Farrokhan and Faezeh Soleimani, Industrial Management Institute – North Branch, Amol, Iran
Yousef Gholipour-Kanani, Department of Management, Islamic Azad University - Qaemshahr Branch, Qaemshahr, Iran
Seyed Mehrdad Moghaddam Ziabari, Department of Management, Industrial Management Institute – North Branch, Amol, Iran

ID 044: Magnetic Field Assisted Machining

F. Najariana, M.Y. Noordin and D. Kurniawan, Universiti Teknologi Malaysia, Skudai, Malaysia

ID 045: A Study on Personnel Commitment Factors in Trauma Hospitals

Farzaneh Bayat, Shiraz Medical Science University, Iran

ID 059: The Survey of Role of Freight Forwarders in the Coordination Supply Chain

Ehsan Jamshidi Meyabadi and School of Business, Payam Noor University, Branch of Karaj, Iran
Razieh Maleki, School of Business, Islamic Azad University, Branch of Kermanshah, Iran

ID 081: A Modified Failure Mode and Effect Analysis

Shahryar Sorooshian, Ahmad Nazif Bin Noor Kamar, and Ali Asghar Jomah Adham, University Malaysia Pahang, Malaysia

ID 83: Supply Chain Security with IT Application

Shahryar Sorooshian, and Ahmad Nazif Bin Noor Kamar, Faculty of Technology, University Malaysia Pahang, Malaysia

ID 094: Critical Quality Factors and Financial Performance of the Libyan Construction Firms

Nawal Gharbal, Amrit Sagoo and Abdussalam Shibani, Coventry University, UK

ID 110: A Bi-Objective Model for Locating and Sizing Emergency Medical Service Stations

Nasrin Ramshe and Elahe Amiri, Department of Industrial Engineering, Amirkabir University of Technology, Tehran, Iran

ID 116: E-Development: Place of Citizen Rights

Md. Abdullah Al Noman, Dhaka University of Engineering & Technology (DUET), Gazipur, Bangladesh
Khan Manjur Morshed, Director, Bangladesh Power Development Board (BPDB), Khulna, Bangladesh

ID 117: A Comparative Study of Investor-Financial Advisor Perspectives on Wealth Management Services: An AHP Approach

Jui-Chu Chen, Hsiu-I Ting, Department of Money and Banking, National Kaohsiung First University of Science and Technology Kaohsiung, Taiwan
Vincent F. Yu, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

ID 122: Material and Structural Investigation into a Novel Material

Messaoud Saidani, Faculty of Engineering and Computing, Coventry University, United Kingdom
Abdussalam Shibani, Department of Civil Engineering, Coventry University, United Kingdom
Sam George, Architecture and Building, Coventry University, United Kingdom

ID 124: Materialized Views Maintenance in the Mobile Environment

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

ID 129: Automatic Evaluations of the Results of Segmentation

Soraya Tighidet, University of Bejaia, Algeria
Aloui Abdelouhab, University A/Mira, Bejaia, Algeria

ID 138: Step-Stress Accelerated Life Testing Plans against Model Misspecification for the Weibull Distribution

Cheng-Hung Hu, Department of Industrial Engineering and Management, Yuan Ze University, Chung-Li, Taiwan

ID 163: Spanning Tree of Residual Energy Based on Data Aggregation for Maximizing the Lifetime of Wireless Multimedia Sensor Networks

Pu-Tai Yang, Department of Business Administration, Tunghai University, Taichung, Taiwan
Seokcheon Lee, School of Industrial Engineering, Purdue University, West Lafayette, IN, USA

ID 168: Quality Management and Supply Chain Management Integration: a conceptual model proposal

Ana Cristina Fernandes, Paulo Sampaio, Maria do Sameiro Carvalho, Systems and Production Department, University of Minho, Braga, Portugal

ID 181: Industrial Maintenance Management – A Practical Approach

Hani Shafeek, Department of Industrial Engineering, King Abdulaziz University, Rabigh, Saudi Arabia; Suez Canal University, Industrial College of Education

ID 190: Industrial Engineering Curriculum Restructuring

Hani Shafeek, Department of Industrial Engineering, King Abdulaziz University, Rabigh, Saudi Arabia; Suez Canal University, Industrial College of Education, Suez, Egypt
Mohammed Aman and Muhammad Marsudi, Department of Industrial Engineering, Faculty of Engineering, King Abdulaziz University, Rabigh, Saudi Arabia

ID 241: Techno-Economic Study for Lignocellulosic Biomass Processing and Ethanol Fermentation Refinery Design

Rois Fatoni, Universitas Muhammadiyah Surakarta, Indonesia
A. Elkamel, G. DeSouza, M. Ortiz, H. Park, and D. Wang, University of Waterloo, Ontario, Canada

ID 243: Modeling Biomass Gasification in a Fluidized Bed Reactor

R. Fatoni, Universitas Muhammadiyah Surakarta, Indonesia
S. Gajjar, S. Gupta, S. Handa, and A. Elkamel, University of Waterloo, Ontario, Canada

ID 253: Optimization Model for the Integration of Biomass into a Conventional Oil Refinery

Ibrahim Alhajri, College of Technological Studies, Kuwait
I. Z. Al-Syed, A. Jetly, J. Tordiff, and A. Elkamel, University of Waterloo, Ontario, Canada

ID 254: Optimization Model for the Integration of Nuclear Energy in Oil Sand Operations

Ibrahim Alhajri, College of Technological Studies, Kuwait

ID 256: A Hybrid Heuristic for Inventory Routing Problem with Stochastic Demand

Anak Agung Ngurah Perwira Redi, Meilinda F.N. Maghfiroh and Vincent F. Yu, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

ID 257: Development of Steam Management Technologies for the Oil Sands Industry

Ibrahim Alhajri, College of Technological Studies, Kuwait
S. Shankar, M. Walawalkar, M. Mehta, A. Merchant, and A. Elkamel, University of Waterloo, Ontario, Canada

ID 260: Integrating a Cogeneration System in Food Process Manufacturing

Wongphaka Wongrat, Faculty of Engineering, Kasetsart University, Kamphaeng Saen Campus, Thailand
O. Yuksel Orhan and E. Alper, Hacettepe University, Ankara, Turkey
J. Massicotte, D. Meyer, Y. Sung, and A. Elkamel, University of Waterloo, West Waterloo, ON N2L 3G1, Canada

ID 261: Modeling Fouling Mitigation Options for Cellulosic Ethanol Distillation

Wongphaka Wongrat, Faculty of Engineering, Kasetsart University, Kamphaeng Saen Campus, Thailand
M. Northey, K. Ali, A. Garusinghe, and A. Elkamel, University of Waterloo, Ontario, Canada

ID 269: Benefits of using Unit Production System (UPS) Line over Conventional Line in the Sewing Section of a Garment Industry

Md. Atikul Islam, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology (KUET), Bangladesh

ID 286: Possibilities of using computer simulation in production process

Michal Pivnička and Denisa Ferenčíková, Department of Industrial Engineering and Information Systems, Tomas Bata University in Zlín, Zlín, Czech Republic

ID 309: Achieving Efficient Remanufacturing through Product-Service Systems

Erik Sundin, Linköping University, Sweden

ID 314: Gasification of Oil Refinery Waste for Power and Hydrogen Production

O. Yuksel Orhan, and E. Alper, Hacettepe University, Ankara, Turkey
K. McApline, S. Daly, M. Sycz, and A. Elkamel, University of Waterloo, Waterloo, Ontario, Canada

ID 315: Optimal Design of T2 Multivariate Statistical Chart for Process Monitoring

M. A. Bin Shams, Department of Chemical Engineering, University of Bahrain, , Isa Town, Kingdom of Bahrain
O. Yuksel Orhan and E. Alper, Chemical Engineering Department, Hacettepe University, Ankara, Turkey
K. Moorthy, J. Rafinejad, A. Saxena, and A. Elkamel, University of Waterloo, Waterloo, Ontario, Canada

ID 322: Analysis characteristics of premix injector involve (diesel, water, and air) in burner system using ANSYS CFX

M. Farid Sies, M. Faris Sies, Hanis Zakaria, Norrizal Mustaffa, B. Manshoor, and N. Asmuin, Centre for Energy and Industrial Environment Studies (CEIES), Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

ID 327: Improving Productivity under Cost Constraints: A Discrete Simulation Case Study Improving Productivity under Cost Constraints: A Discrete Simulation Case Study

Raed EL-Khalil, School of Business, Lebanese American University, Beirut, Lebanon

ID 332: Novel Framework for Sustainability Based On Hybrid Architecture-Green Management

Shahryar Sorooshian and Ahmad Nazif Bin Noor Kamar, Faculty of Technology, University Malaysia Pahang, Malaysia
Siavash Rashidi Sharif Abad, Department of Art and Architecture, Islamic Azad University, Rafsanjan, Iran

ID 344: Overall Improvement for the Design of Motorized Tricycles in the Philippines – An Ergonomic Study

Ma. Janice J. Gumasing, Department of Industrial Engineering and Engineering Management, Mapua Institute of Technology, Intramuros, Manila, Philippines

ID 345: Evaluating Supply Chain Performance and Risks through Data Mining

Muhammad Rashid, CESET - Centre for Emerging Sciences, Engineering & Technology, Pakistan

ID 346: Determinants of Supplier Selection and Evaluation, their Impact on Business Key Performance Indication of Buying Companies: In the Context of Telecom Companies in Pakistan

Muhammad Rashid, CESET - Centre for Emerging Sciences, Engineering & Technology, Pakistan

ID 352: Job Shop Lean Production Implementation Using Program Evaluation and Review Technique (Pert)

Ramiz Assaf, Industrial Engineering Department, An-Najah National University, Nablus, Palestine

ID 358: Evaluation of Pliers in a Maximum Gripping Task

Hyun-Sung Kang, Ji-Su Kim, Dae-Min Kim, and Yong-Ku Kong, Department of Industrial Engineering, Sungkyunkwan University, Suwon, Korea
Myung-Chul Jung, Department of Industrial Engineering, Ajou University, Suwon, Korea

ID 364: Study for the Effect of Middle Finger Grip Span on Ring Finger Force in the Maximum Gripping Task

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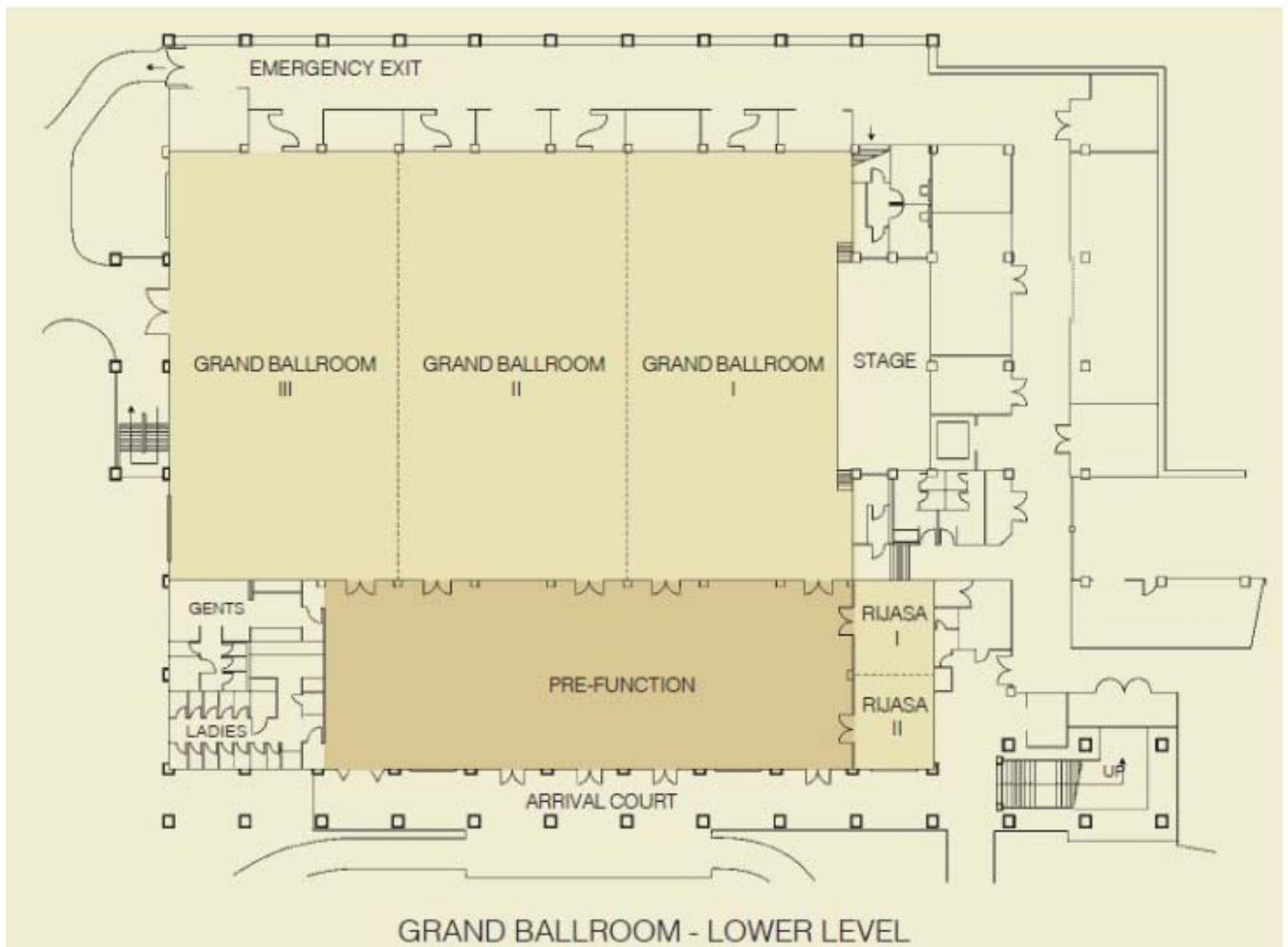
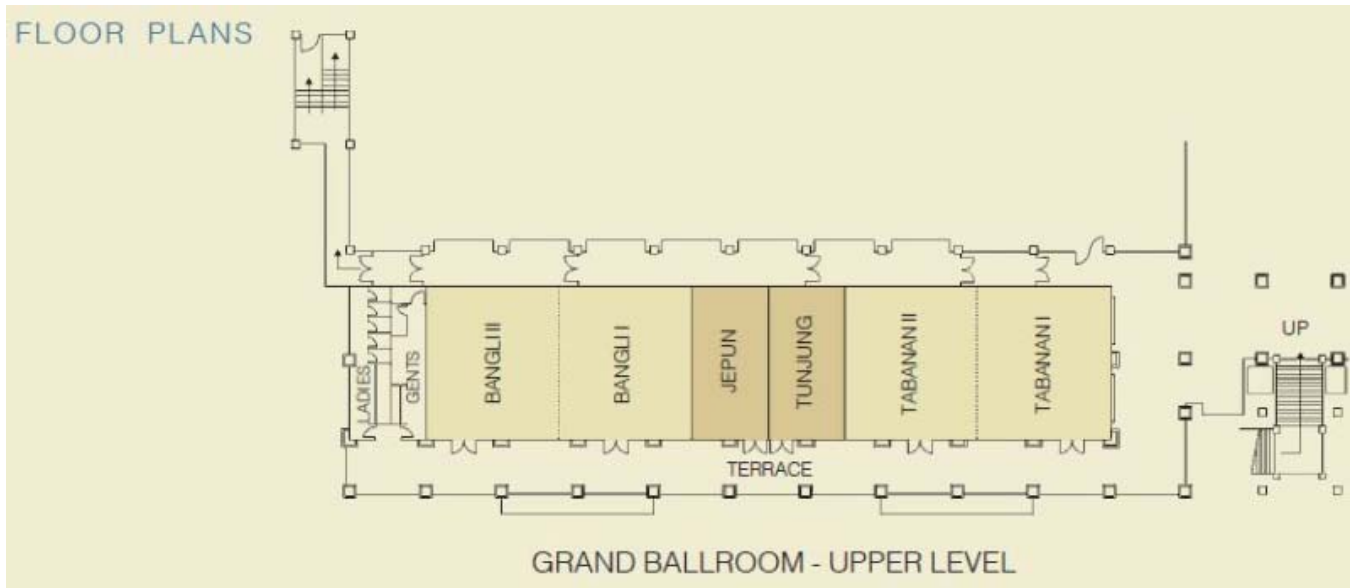
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| 12. Canada | 29. Iraq | 47. Portugal | 63. United Kingdom (UK) |
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| 14. China | 31. Japan | 49. Russian Federation | 65. West Bank and Gaza |
| 15. Colombia | 32. Jordan | 50. Saudi Arabia (KSA) | 66. Zimbabwe |
| 16. Costa Rica | 33. Kazakhstan | 51. Singapore | |
| 17. Czech Republic | 34. Kuwait | | |
| | 35. Latvia | | |