

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 **Welcome:** Dr. Ir. Tri Yogi Yuwono, President, Institut Teknologi Sepuluh Nopember, Indonesia

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

Technical 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

Technical Program – IEOM 2014

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Tuesday, January 7

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

PARALLEL SESSION I – TUESDAY (TU), 09:45 – 11:15

TU 09:45 GLOBAL ENGINEERING EDUCATION I Tabanan I

Session Chair: Dr. Cecilia Nembou, Vice President Divine Word University, Port Moresby Campus, Papua New Guinea

Dr. Ezendu Ariwa, Professor, Department of Computer Science and Technology University of Bedfordshire, UK, “Engineering Education in Great Britain: Engineering Education for Sustainability”

Dr. Damodar Acharya, Professor, Indian Institute of Technology Kharagpur, India and Past Director (2007 - 2012) “Industrial Engineering Profession and Education in India”

Dr. Khalid Hafeez, Professor, University of Sharjah, Sharjah, UAE, “The Theory of Core Competence: A Melting Pot for Management and Engineering Education”

TU 09:45 – 11:15 Operations Management I Tabanan II

Session Chair: Dr. Cucuk Nur Rosyidi, Sebelas Maret University, Indonesia

ID 317: Preparing the Readiness of Tourism Activities for Destinations along the Mekong River to Become the ASEAN Community: A Case Study in Chiang Khan at Loei Province, Thailand
Patthira Phon-ngam, Loei Rajabhat University, Thailand

ID 287: Profit Maximization by Integrating Production Planning, Maintenance Scheduling, Quality Aspects and Sales Decisions

Hossein Beheshti Fakher, Laval University Quebec Canada
Mustapha Nourelfath, Kuwait University, Safat, Kuwait
Michel Gendreau, École Polytechnique of Montreal, Canada

ID 455: An Optimization Model for Production Allocation in a Large Steel Manufacturing Company
Cucuk Nur Rosyidi, Anandhyta Yunan Perdana, and Yusuf Priyandari, Sebelas Maret University Indonesia

ID 463: Improvement of Workflow and Productivity through Application of Maynard Operation Sequence Technique (MOST)

Saravanan Tanjong Tuan, S Automotive Industry Sdn Bhd, Shah Alam, Malaysia
A. N. M. Karim, H. M. Emrul Kays, A. K. M. N. Amin, and M. H. Hasan, International Islamic University Malaysia

TU 09:45 – 11:15 Manufacturing and Design I Tanjung

Session Chair: Dr. Yuri M. Zagloel, University of Indonesia, Depok, Jawa Barat, Indonesia

ID 085: Manufacturing and Fractional Cell Formation Using the New Binary Digit Grouping Algorithm
Mroue Hassan and Dao Thiên-My, École de Technologie Supérieure (University of Quebec), Montreal, Quebec Canada

ID 472: Experimental Design of a Flexible Manufacturing System
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 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. Michael Mutingi, University of Botswana

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

Michael Mutingi, University of Botswana

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 Yeh, 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

Yongrae Cho, Euseok Kim and 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 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 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 565: Implementation of Costs of Quality and Six sigma in a Small Scale Industry

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

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. Jinwoo Park, Professor, Department of Industrial Engineering, Seoul National University, South Korea

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, Penang, 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

TU 11:30 **Manufacturing and Design II** **Tanjung**

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

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

ID 137: A Generic Model for Integrated Sales, Product, and Production Configuration
Linda L. Zhang, IESEG School of Management, France

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 071: Kronecker Models Versus Scheffé's Mixture Models
Javier Cruz-Salgado, Sergio Alonso, and Roberto Zitzumbo, 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 & Operating Characteristics of a Flexible Auction Logistics Center (FALC): The Simulation Study

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

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

Messaoud Saidani and Abdussalam Shibani, Coventry University, UK

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

Camila Ribeiro, UFRJ - Federal University of Rio de Janeiro, Brazil

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

Gulnara Abitova, Mamyrbek Beisenbi and Janar Yermekbayeva, 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, Riga Technical University, Latvia

TU 11:30

Project Management II

Rijasa II

Session Chair: Hye-Kyung Pang, Hallym University, South Korea

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, and Amrit Sagoo, Coventry University, UK

ID 551: When We Miss Disruptive Technologies

Hye-Kyung Pang, Hallym University, South Korea

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, RussiaDr. Erik Sundin, Linköping University, Sweden: "**Industrial Engineering Education in Europe**"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**"**TU 14:00****Operations Management III****Tabanan II****Session Chair:** Michael Mutingi, University of BotswanaID 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 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

TU 14:00**Manufacturing and Design III****Tunjung****Session Chair:** Dr. A.F. Van der Merwe, University of Stellenbosch, South AfricaID 444: **Modeling and Simulation of Automotive Engine Sub-Assembly for Production Improvement**

Eno Ludavicius, Nirav Sheth and Parth Patel, Lawrence Technological University, USA

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

Md. Saiful Islam, Md. Liakot Ali, Institute of Information and Communication Technology, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

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

Zubaer Md Tanvir, Institute of Information and Communication Technology, 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, USAID 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**

Hasan Hosseini Nasab and Morteza Elahi, Faculty of Industrial Engineering, Yazd University, Iran

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

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

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 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 Concurrent Engineering Method: The Necessity for the Convergence of Research and Education**
Hye-Kyung Pang, Hallym University, South 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 Mahdavejad, 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**
Akhmad 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: Dr. Olufolorunsho Oludayo Olugbara, Durban University of Technology, South Africa

ID 219: **Time Interval for Collaborating Multi-Organizational Workflows**
Bambang Jokonowo, and Riyanarto Sarno, Institut Teknologi Sepuluh Nopember, Indonesia

ID 371: **A Study on Under Graduate Students' Internet Usage and Habits**
Murat Durucu, Istanbul Technical University, Turkey
Selcuk Cebi, and Behice Meltem Kahyan, Karadeniz Technical University, Turkey

ID 489: **Interpretive Structural Modeling of the inhibitors of Wireless Control System in Industry**
B. Jayalakshmi, and Pramod. V. R., 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, National Taipei University of Technology, Taipei, Taiwan

Po-Chou Shih, 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 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: Dr. Andrew Gung, Managing Director, Leave a Nest Singapore Pte. Ltd., Singapore

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

Rajab Abdullaah, Tripoli University, Libya

Nabil Muhaisen, High Institute for Training, Libya

ID 456: **Model of Integrated Production and Delivery Batch Scheduling under JIT Environment to Minimize Inventory Cost**

Endang Prasetyaningsih, Suprayogi, TMA Ari Samadhi, and Abdul Hakim Halim, Bandung Institute of Technology, Indonesia

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

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

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 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 359: **Process Performance Evaluation for Non-normal Distributions**

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

Chien-Wei Wu, National Tsing Hua University, Hsinchu, Taiwan

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

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

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**

Gyutai Kim 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, Munira Jahan, and Ayasha Noor, Bangladesh Bank, 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, 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, National Taiwan University of Science and Technology, Taipei, Taiwan

Chien-Wei Wu, 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 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, University of Benghazi, Benghazi, Libya

TU 15:45

Modeling & Simulation IV

Bangli II

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

ID 025: **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, 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, 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
 R. K. Malik, Bahria University, Islamabad, Pakistan
 Rab Nawaz Lodhi, COMSATS Institute of Information Technology, Sahiwal, Pakistan
 Umie Habiba, National College of Business Administration and Economics, Lahore, Pakistan
 Syed Muhammad Irfan, COMSATS Institute of Information Technology, Lahore, Pakistan

ID 563: MARKCLOUD: Software for Data Confidentiality and Security in Cloud Computing Environments

Rashidah. Olanrewaju, Saqib Hakak and Othman Khalifa, International Islamic University Malaysia, Kuala Lumpur, Malaysia

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

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
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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. Jinwoo Park, Department of Industrial Engineering, Seoul National University, South Korea: "**IE / Management Science in Korea**"

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

WD 09:45	Operations Management V	Tabanan II
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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, Singapore Management University, Singapore

WD 09:45	Inventory Management I	Tanjung
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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 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
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Session Chair: Dr. Peter Toth, Obuda University, Budapest, Hungary

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

Norain Farhana Ahmad Fuaad, Ruhizan Bt. Mohammad Yasin and Norngainy Mohd Tawil, Universiti Kebangsaan 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, and Junko Hosoda, Yokohama Research Laboratory, Hitachi Ltd., Yokohama, Kanagawa, 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 064: **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. Mahbulul 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: Ahmed A. Ezzat, Arab Academy for Science, Technology, and Maritime Transport, 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 Alhilmam and Mochamad Rian M., Telkom University, Bandung, Indonesia

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 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 079: 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. Shey-Huei Sheu, Providence University, National Taiwan University of Science and Technology, Taiwan

ID 069: System Reliability Optimization: A Fuzzy Genetic Algorithm Approach

Michael Mutingi, University of Botswana

ID 046: 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 (IICT), 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. 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

Professor Donald Reimer, Director of Entrepreneurial Programs, Lawrence Technological University, Michigan, USA: “**Entrepreneurship in Engineering Education**”

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: Formulation of Integer Programming Model for Balancing and Scheduling of Production Line Having Shared Resources

H. M. Emrul Kays, A.N.M. Karim, M. Abdesselam, Muataz H.F. Al Hazza, International Islamic University Malaysia
R.A. Sarker, University of New South Wales Canberra

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
 Bala Ram, North Carolina A&T State University, USA
 Mohamed Ismail Wahab, Ryerson University, Canada

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, and Elisa Kusriani, 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 042: Systematic Development of a Multifunctional Passenger Safety Bar Based on a Reference Project Frame for Student Design Projects

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

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 Petru, 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, South 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 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, Depok, Indonesia

ID 263: Parameter-based Preemptive Objective Optimization for Solar Cell ManufacturingLi-Chih Wang^{1,3} Yu-Jie Wong¹, Tzu-Li Chen², Shuo-Tsung Chen³, Cheng-Mei Li¹¹Department of Industrial Engineering and Enterprise information, Tunghai University, Taichung, Taiwan²Department of Information Management, Fu Jen Catholic University, New Taipei City, Taiwan³Tunghai Green Energy Development and Management Institute (TGEI), Tunghai University, Taichung, Taiwan**ID 503: DMFC Models and Applications: A Literature Survey, Part I**

S. Patrabanish, M. Y. El-Sharkh, and M. Alam, 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 048: 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, 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. A. John Rajan, Sathyabama University, Rajeeve Gandhi Salai, Chennai, India**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, South Korea
Ki Mun Jung, Department of Informational Statistics, Kyungsoong University, Busan, South Korea
Dong Ho Park, Department of Information and Statistics, Hallym University, Chuncheon, South 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

Dr. Kurt Junshean Espinosa, Chair, Department of Computer Science, University of the Philippines Cebu, Philippines

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, 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 Tunjung

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 127: Designing a New Particle Swarm Optimization for Make-with-Buy Inventory Model

Saeed Poormoaid, 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: Rathindra Nath De, Bengal Engineering and Science University, West Bengal, 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
Yasuhiro Kajihara, Tokyo Metropolitan University, Hino, Tokyo, 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 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 557: A Strategic Procurement Concept for Physical Asset Management Framework

Ananda S Jeeva, and Ahmed Mohsen Salem Baswaid, Curtin Business School, Curtin University, Perth, Australia

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, Ahmed A. Ibrahim, Muhammad Awais Naeem and Ahmed S. Al-Fatesh, King Saud University, Riyadh Saudi Arabia

ID 017: Priority of Reduction Ways for Heating Systems in Yazd greenhouse

Alimohammad Rezai, Yazd Gas Co, Iran
Hasan Hkadehi Zare, Mohammadhosien Abooei, and Ali Mostafaeipour, Yazd Universit, Iran
Fatemah Hakimi, NIOPDC, Iran

ID 255: Electricity Generation under Multiple Pollutant Consideration

I. Alhajri, College of Technological Studies, Kuwait
M. Elsholkami, S. Giovinazzo, R. D'Souza, E. Kim, and A. Elkamel, University of Waterloo, Canada

ID 283: **Electricity Generation Schemes in Java-Bali Power System with Co₂ Reduction Considerations**

Farizal and Wenty Eka Septia, University of Indonesia, Depok, West Java, 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 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, Singhanian 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, South 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. 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”**

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

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

Seyedmehti 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****Tanjung**

Session Chair: Dr. Salvatore Miranda, University of Salerno, Italy

ID 055: 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, South Korea

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

Salvatore Miranda, M. Fera, R. Iannone, and S. Riemma, University of Salerno, Fisciano, 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

Mohammad Kamran Mumtaz, Center for Entrepreneurial Development, Institute of Business Administration (IBA), Karachi, Pakistan & Suleman Dawood School of Business, Lahore University of Management Sciences (LUMS), DHA, Lahore, Pakistan

Muhammad Naiman Jalil and Kamran Ali Chatha, Suleman Dawood School of Business, Lahore University of Management Sciences (LUMS), DHA, Lahore, 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

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

A. K. Azad, Sylhet Gas Field Limited, Sylhet, Bangladesh

ID 051: 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 065: A Framework for Evaluation of Renewable Energy Policies

Michael Mutingi, University of Botswana, Botswana

Charles Mbohwa, University of Johannesburg, South Africa

ID 066: 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
 Kristian Edi Nugroho Soebandrija, Bina Nusantara University, Indonesia

ID 355: ABM (Activity-Based Management) System Implementation in Islamic Azad University of I.R. Iran
 Milad Ziaeiian, Reza Kiani Mavi and Gohar Rahmani, Islamic Azad University, Qazvin Branch, Qazvi, Iran

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

Oscar Vasquez Bernal, 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 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, 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
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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
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Session Chair: Rene Estember, Mapua Institute of Technology, Philippines

ID 498: Optimization Model for the Dairy Sector

Javier D. Fernandez and Beatriz Angel, 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, National Taipei College of Business, Taipei, Taiwan

Cheng-Hwai Liou, 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
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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, and Nancy López, Universidad de Monterrey, Mexico

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 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, and Leslie Ann Francisco, Mapua Institute of Technology, Philippines

ID 296: **A Kinetikk Study: Understanding Hand and Finger Motion Whilst Squeezing Bottles**
Seri Rahayu Kamat, Department of Manufacturing Management, University Technical Malaysia Malacca
Alaster Yoxall, Sheffield Hallam University, Sheffield, United Kingdom

ID 554: **Psychological Service Quality Analysis: A Cross-Cultural Approach**
Hye-Kyung Pang, Hallym University, South Korea

ID 303: **The Prevalence of Work Related Musculoskeletal Disorders among Workers Performing Industrial Repetitive Tasks in the Automotive Manufacturing Companies**
Nurhayati Mohd Nur, Siti Zawiah Md Dawal and Mahidzal Dahari, Department of Engineering Design and Manufacture, University of Malaya, Kuala Lumpur, Malaysia

ID 061: **Understanding Physician's Decision Making in Trauma Centers**
Policarpos deMattos, Eui Park, and Daniel Miller, 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, Yamagata University, Kojirakawa-machi, Yamagata-shi, Japan
ChenGuang Liu, Institute for Manufacturing, 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 Escorcía, Department of Industrial Engineering, Universidad Autonoma Del Caribe, Barranquilla, Colombia
Rene A. Amaya, Department of Industrial Engineering, Universidad Del Norte, Barranquilla, Colombia

ID 454: **Empty Containers Repositioning in South African Seaports**
RD Al-Rikabi, Olufemi Adetunji and VSS Yadavalli, 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: Dr. Md. Ataur Rahman, International Islamic University Malaysia, Kuala Lumpur, Malaysia

ID 428: **An Exploratory Study on "Enviropreneurial" Value Chain: A Conceptual Framework for Malaysian Small and Medium Enterprises**
Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn Malaysia, Jhor, Malaysia

ID 480: **Study on Key Factors of Adopting Sustainable Supply Chain Management in Indonesia**
Caroline Himadewi Santoso, Jinshyang Roan, and Jei-Zheng Wu, Soochow University, Taipei, Taiwan

ID 490: **New Indicator System for Evaluation of Land Use Efficiency**
Armands Auziņš, Sanda Geipele, and Ineta Geipele, Riga Technical University, Riga, Latvia

ID 394: **On Sustainability of it Service Business in India: A Financial Operation Perspective**
Jagadish Kundu, Cognizant, India

ID 562: **Noble Evaporative Battery Thermal Management System for EVs/HEVs**
Ataur Rahman, Helmi Ahmed and MNA Hawlader, International Islamic University Malaysia, Kuala Lumpur, Malaysia

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
 Byungjun Song, KTNET, South Korea

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, 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

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 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, 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 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 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 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: Dr. Farag Elfeituri, University of Benghazi, Libya

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, 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**

Nushin Kamali Sajjad and Badri Abbasi, Islamic Azad University, Astara, Iran

TH 11:30**Supply Chain Management VI****Bangli I**

Session Chair: Dr. Safwan Altarazi, German Jordanian University, Jordan

ID 123: **Supply Chain Networks Reliability by Considering Dependencies between Elements of the Chain**

Mohsen Babashahi, Iran University of Science and Technology, Iran

ID 034: **Dashboard User Interface for Measuring Performance Metrics: Concept from Virtual Factory Approach**

Ahm 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 337: **The impact of SCM on Business Performance: A Case Study in Tehran Stock Exchange Market**

Ali Tajdin, Saba Shabaninikoo, raj Mahdavi, and IHamed Fazlollahtabar, Mazandaran University of Science and Technology, Iran

ID 567: **Bull Whip and Reverse Bullwhip Effect in After Sales Service Supply Chains**

Manish Shukla, Malaysia Institute for Supply Chain Innovation, Shah Alam, Selangor, Malaysia

TH 11:30**Sustainability and Green Systems II****Bangli II**

Session Chair: Dr. Evelyn 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 DesignLi-Chih Wang^{1,2}, Ming-Chung Tan¹, I-Fan Chiang¹, Yin-Yann Chen³, Sheng-Chieh Lin¹, and Shuo-Tsung Chen¹¹ Department of Industrial Engineering and Enterprise information Tunghai University Taichung, Taiwan, ROC²Tunghai Green Energy development and management Institute (TGEI) Tunghai University Taichung, Taiwan, ROC³ Department of Industrial Management National Formosa University Yunlin County, 632, Taiwan, ROC.**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

Christian Mascle, École Polytechnique de Montréal, Canada

Daoud Ait Kadi, Université 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 232: Planning of Oil Distribution Network with Artificial Intelligence Techniques

B.S.M Borukgama, U.S.S. Dharmapriya and A.P. Senasinghe, 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

ID 559: Innovative Vehicle and Traffic Control in the Next Generation of Road Transportation [Invited Paper]

M.A.S. Kamal, Japan Science and Technology Agency (JST), Institute of Industrial Science, The University of Tokyo, Japan

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 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 and Brandon Pope, Purdue University, USA

ID 067: 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

Nasr Al Hinai, Mohammad Khadem, and Mahmoud Al Kindi, 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, 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, South 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 Brahimi, University of Sharjah, United Arab Emirates

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 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 and Mohammed Sharaf Fathe, King Saud University, Saudi Arabia

ID 550: **Costs of Quality and Six Sigma**
Rathindra Nath De, Bengal Engineering and Science University, Shibpur, West Bengal, India

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, 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, South Korea

ID 520: Understanding Safety Dimensions among Logistics Personnel in Malaysia: Approaches from Social Psychology

Huinee AuYong and Lilis Surienty, School of Management, Universiti Sains Malaysia, Penang, Malaysia
 Suhaiza Zailani, Faculty of Business and Accountancy, Universiti Malaya, Kuala Lumpur, Malaysia

ID 302: A Study on Push-Pull Analysis Associated with Awkward Posture among Workers in Aerospace Industry
 Seri Rahayu K., Norhidayah Hashim and Shahrizan M.O., Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia, Melaka, Malaysia

TH 14:00**Supply Chain Management VII****Bangli I**

Session Chair: Dr. Sanjay Jharkharia, Indian Institute of Management Kozhikode, India

ID 506: Considering Holding Cost in Optimal Core Acquisition and Remanufacturing Policy under Deterministic Process Times

Mostafa Pazoki and Walid Abdul-Kader, University of Windsor, Canada

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 057: Challenges and Uncertainties in Collaborative Forecasting

Madhavendra Saxena, Poornima University, India
 Chinmoyee S.Despande, USA

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

Khristian 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, 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 375: **A Bargaining Framework Planning for Maintenance Service under Governmental Arms Offset Intervention**
Jong-Jang Lin, Yi-Kuei Lin and Ruey-Huei Yeh, 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, 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: **Living to 100 – Comparison Analysis between Customer and Economic View of Attributes for Wellness and Quality of Life**

Hye-Kyung Pang, Hallym University, South 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, The University of Texas Medical Branch, Galveston, TX, USA

Susan Seidensticker, 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: Dr. Paulo Augusto Cauchick Miguel, Adjunct Professor, Dept. of Industrial and Systems Engineering Federal University of Santa Catarina – UFSC, Brazil: “*IE Education in Brazil: Fast Growing and Future Perspectives*”

Plenary VI: Ing. Oscar Gamboa C., Coordinator, Maestria en Sistemas Modernos de Manufactura, Instituto Tecnológico de Costa Rica: “*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, 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 291: A Heuristic Approach to Solve Production Planning Problem with Machine Failure in a Series Parallel Multi-State System

Mustapha Nourelfath, Kuwait University, Safat, Kuwait
 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 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 Mollaei, 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, Indonesia

ID 561: Evaluating the Performance of State University, National Important Institute and Private Deemed Universities in Chennai (India) by using Data Envelopment Analysis

A. John Rajan, Sathyabama University, Rajeeve Gandhi Salai, Chennai, India

TH 15:45

Supply Chain Management VIII

Bangli I

Session Chair: Rahat Uddin, Bangaldesh Bank, Dhaka, Bangladesh

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, 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

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, Jinshyang Roan, and Jei-Zheng Wu, Soochow University, Taiwan

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 Naraian 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**

Mohammed A. Rahim, University of New Brunswick, Fredericton, Canada
Yasir A. Siddiqui and Moustafa Elshafei, King Fahad University of Petroleum and Minerals, Dhahran, 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 481: **Investigation Novel Matched Valve-Actuator with Atomizer Insert Design For Two-Fluid With 50% Fill Ratio**

Norzelaawati 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 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 Farrokhian 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

Farhad Najarian, M.Y. Noordin and D. Kurniawan, Universiti Teknologi Malaysia, Skudai, Malaysia

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 083: 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, 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, 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

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**

I. Alhajri, College of Technological Studies, Kuwait
E. Alper and G. Is, Hacettepe University, Ankara, Turkey
J. Fung, J. Lo, K. Yanez, and Ali Elkamel, University of Waterloo, Canada

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**

M. Elsholkami, A. Elkamel, I. Al-Syed, A. Jetly, and J. Tordiff, University of Waterloo, Canada
I. 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**

M. Elsholkami, S. Shankar, M. Walawalkar, M. Mehta, A. Merchant, and A. Elkamel, University of Waterloo, Canada
I. Alhajri, College of Technological Studies, Kuwait

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, Khulna University of Engineering & Technology (KUET), Bangladesh

ID 286: **Possibilities of using computer simulation in production process**

Michal Pivnička and Denisa Ferenčíková, Tomas Bata University in Zlín, Zlín, Czech Republic

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

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

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Erik Sundin, Linköping University, Sweden

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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 Mustafa, 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

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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

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Ma. Janice J. Gumasing, Mapua Institute of Technology, Intramuros, Manila, Philippines

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Muhammad Rashid, CESET - Centre for Emerging Sciences, Engineering & Technology, Pakistan

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Muhammad Rashid, CESET - Centre for Emerging Sciences, Engineering & Technology, Pakistan

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Ramiz Assaf, Industrial Engineering Department, An-Najah National University, Nablus, Palestine

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Hyun-Sung Kang, Ji-Su Kim, Dae-Min Kim, and Yong-Ku Kong, Sungkyunkwan University, Suwon, South Korea
Myung-Chul Jung, Department of Industrial Engineering, Ajou University, Suwon, South Korea

ID 364: Study for the Effect of Middle Finger Grip Span on Ring Finger Force in the Maximum Gripping Task

Dae-Min Kim, Hyun-Sung Kang, Ji-Su Kim, and Yong-Ku Kong, Sungkyunkwan University, Suwon, South Korea
Myung-Chul Jung, Department of Industrial Engineering, Ajou University, Suwon, South Korea

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Chang-Hyun Park, Pukyong National University, Busan, South Korea

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Mahmood Al Kindi and Mujtaba Al Lawati, Sultan Qaboos University, Muscat, Oman

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Syed Quddus and A. Bhagirov, The University of Ballarat, The University of Technology Papua New Guinea

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Irina Livshits, Marina Letunovskaya, Ilya Mimorov and Vladimir Vasilyev, National Research University of Informational Technologies, Mechanics and optics, Russia
Paul Urbach, Optics Research Group, Delft University of Technology, The Netherlands

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Cheng-Hwai Liou, National Taichung University of Science and Technology, Taiwan
Chia-Hui Yeh, Moore Stephens Certified Public Accountants, Taichung, Taiwan

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Iman Vasheghani Farahani, and Rasoul Haji, Sharif University of Technology, Iran

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Síria Barros, and Paulo Sampaio, University of Minho, Portugal
Pedro Saraiva, Universidade de Coimbra, Portugal

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Xiao Han and Dong Mu, School of Economics and Management, Beijing Jiaotong University, China

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Hemendra Nath Roy, Sudipta Saha, Md. Shohel Parvez, Sufal Chandra Goldar and Tarapada Bhowmick, Khulna University of Engineering and Technology, Khulna, Bangladesh

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Qasim M. Doss, Baghdad University, Baghdad, Iraq
Tahseen F. Abaas and Aqeel S. Bedan, University of Technology, Baghdad, Iraq

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M. A. Vahdat, Sh. Golestany, M. H. Abooie and M. Honarvar, Yazd University, Iran

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