Conference Technical Program

September 10, 2015 (Thursday)

08:00 - 09:15 Global Engineering Education I - Salon 5

Session Chair: Dr. Shahram Taj, Lawrence Technological University, Michigan, USA

8:00 - 8:25 am Thursday

Dr. Laura M. Stanley

Associate Professor, Mechanical & Industrial Engineering Department Montana State University, Bozeman, MT, USA

"Addressing the Need for Effective Communications across the Engineering Curricula – A Case Study" [ID 103]

8:25 -8:50 am Thursday

Dr. Nadia Bhuivan

Professor, Department of Mechanical and Industrial Engineering Associate Director, Concordia Institute of Aerospace Design and Innovation (CIADI) Concordia University, Montreal, Quebec, Canada

8:50 - 9:15 am Thursday

Dr. Shahram Taj

Professor and Chair, Department of Management and Marketing College of Management, Lawrence Technological University, Michigan, USA

08:00 - 09:15 Thursday

Operations Research

SALON 6

Session Chair: Vyacheslav Kalashnikov, Tecnologico de Monterrey (ITESM), Monterrey, Nuevo Leon, Mexico

A Benders Based Rolling Horizon Algorithm for a Dynamic Facility Location Problem

Mohammad Marufuzzaman and Ridvan Gedik, Mississippi State University, Starkville, MS, United States

Application of Analytic Hierarchy Process Techniques in Multi-Criteria Decision Making Problems

Richard Hannis, Shahryar Sorooshian and Shariman Bin Mustafa, University of Malaysia Pahang, Kuantan, Pahang, Malaysia

Cold Chain: An interaction analysis of Performance Attributes using Graph Theory

Rohit Joshi, Indian Institute of Management, Shillong, Meghalaya, India

D. K. Banwet, Department of Management Studies, Indian Institute of Technology - Delhi, India

Efficient Metaheuristics for Multi-stage No-Wait Flexible Flowshop Scheduling Problem

Mageed Ghaleb and Ibrahim Alharkan, King Saud University, Riyadh, Saudi Arabia

An Efficient Technique of Computing Pressure on Blades of Hydraulic Machines

Vyacheslav Kalashnikov, Tecnologico de Monterrey (ITESM), Campus Monterrey Monterrey, Nuevo Leon, Mexico Nataliya Kalashnykova, Universidad Autonoma de Nuevo Leon San Nicolas de los Garza, Nuevo Leon, Mexico

08:00 - 09:15 Thursday

Undergraduate Student Paper Competition

SALON 7

Session Chair: Hayder Zghair, Lawrence Technological Unviersty and Kettering Universty, Michigan, USA

Application of the Restricted Boltzmann Machine for the planning of maintenance in databases

Eldon Caldwell Marin, Andrés Li Feng, Karen Molina Rivera and María Amalia Sequeira Morera, University of Costa Rica, San José, Costa Rica

Big Data Analysis and Storage

Khalid Adam Ismail Hammad, Mohammed Adam Ibrahim Fakharaldien, Jasni Mohamed Zain and Mazlina Abdul Majid, University Malaysia Pahang, Kuantan, Malaysia

Some implications of the use of renewable energy in production scheduling

Eldon Caldwell Marin, Jimena Rojas F, Carolina Mora O, Melissa Merino C and Ana Laura Víquez Q., University of Costa Rica, San José, Costa Rica

Increasing Customer Service Level in Distribution Operations

Ayde Yuriko Venegas, Universidad de Monterrey, San Pedro Garza García, N.L., Mexico

08:00 - 09:15 Thursday

Operations Management

SALON 8

Session Chair: Dr. Mohammad Marufuzzaman, Mississippi State University, United States

Lean Manufacturing and Transformational Leadership

Syed Masood, International Islamic University, Islamabad, Pakistan

A Critical Evaluation of Climate-Related Risks Associated With Oil and Gas Industry in Libya

Tawfik Elmhedwi, The Libyan Academy, Tripoli, Libya

A Continuum Approximation Model for One-Way Electric Vehicle Sharing

Xiaopeng Li, Mississippi State University, Starkville, MS, United States

Optimisation Techniques in Civil Works and Electrical Contracting

Basel Alsayyed Ahmad, Amani Alkhodari, Khaled ElSayed and Mansoor Al Jabri, UAEU, Al Ain, United Arab Emirates

Designing a Multimodal Transportation Network under Biomass Supply Uncertainty

Mohammad Marufuzzaman, Sushil Poudel, Linkan Bian and Hugh Medal, Mississippi State University, Starkville, MS, United States

08:00 - 09:15 Thursday

Lean and Six Sigma

SALON 9

Session Chair: Amar Sahay, QMS Global LLC, Sandy, UT, United States

Application of Six Sigma in Service Contracting Company

Ateekh Ur Rehman, King Saud University, Riyadh, Saudi Arabia

Identification of Retention Time & Information Delays Applying Value Stream Mapping Technique in Apparel Manufacturing Organization

Azim Mohammad, Advance Engineering Management (AEM), Bangladesh University of Engineering Technology (BUET) Shibbir Ahmad, Dhaka University of Engineering and Technology (DUET), Gazipur, Bangladesh Mohammad Iqbal, Shah Jalal University of Science and Technology (SUST), Sylhet, Bangladesh

Hoshin Kanri: Harnessing the Collective Thinking of All Employees to Deploy Policies that Operationalize Strategic Goals

Dennis Gawlik, Pinchot University - Bainbridge Graduate Institute, Bainbridge Island, WA, United States Karyn Ross, Naperville, IL, United States

Six Sigma Process Capability Analysis for Normal and Non- Normal: Methods, Measurements, Applications and Computer Analysis_ Case Studies

Amar Sahay, QMS Global LLC, Sandy, UT, United States

08:00 - 09:15 Thursday

Supply Chain Management

SALON 10

Session Chair: Sara Elzarka, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt

Allais Paradox: Outsourcing Decision Making

Samson Oludapo, University Malaysia Pahang, Gambang, Kuantan, Malaysia

Impact of Green Supply Chain Management Attributes on Supply Chain Performance: Measurement Instrument Validity and Reliability Verification

Hansa Lysander Manohar and Ganesh Kumar, College of Engineering Guindy, Anna University, Chennai, Tamil Nadu, India

Remanufacturing and Its Effect on Customer Satisfaction Level

Ahmed Gamal, Arab Academy for Science & Maritime Technology, Alexandria, Egypt

Hospital Logistics, a Tool for an Increased Productivity: Hospital Universitario Mayor (Mederi) Case

Valeria Mendoza Cortes, Santiago Moros Portilla, Eliana Acuña Cardenas, Victor Garcia Urdaneta and Juan Farfan, Universidad Del Rosario, Bogota, Colombia

Investigating the Impact of Suppliers Relationship Management on Firms' Performance: A Multiple Case Study Approach on Manufacturing Companies in Egypt

Sara Elzarka, Lobna Hafez, Maram Roushdy, Sarah Hesham, and Merihan Mohamed, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt

09:30 - 10:00 Welcome Address

10:00 – 11:00 Opening Keynote: Dr. Pamela McCauley, Professor, Department of Industrial Engineering and Management Systems and Director, Human Factors in Disaster Management Research Team, University of Central Florida, USA – **Ballroom C**

11:00 – 11:30 Networking Break

11:30 – 12:45 Global Engineering Education II (Thursday) – SALON 5

Session Chair: Dr. Kit Fai Pun, The University of the West Indies

11:30 - 11:55 am Thursday

Dr. Kit Fai Pun

Professor of Industrial Engineering

Campus Coordinator and Chair, Graduate Studies & Research, School for Graduate Studies & Research Department of Mechanical and Manufacturing Engineering, Faculty of Engineering The University of the West Indies, St Augustine Campus, Trinidad and Tobago

"Exploring Industrial Engineering and Education: From Illustrated Cases to Best Practice of Graduate Research Supervision"

11:55 am - 12:20 pm Thursday

Dr. K.C. Vora, Vice President SAEINDIA

Member, SAE International Engineering Meetings Board Sr. Dy. Director & Head, ARAI Academy The Automotive Research Association of India Research Institution of the Automotive Industry Pune, India

"Excellence in Skill Development through Engineering Education"

12:20 - 12: 45 pm Thursday

Rumi Tobita

Ashikaga Institute of Technology Ashikaga, Tochigi, Japan

"Developing an Effective ESP Course for Engineering Students integrating Analysis with NIRS" [ID 203]

11:30 – 12:45 Industry Solutions I (Thursday) – SALON 6

Session Chair: Dr. Jeanann Boyce, Montgomery College, Maryland

Nikhil K. Joshi, CEO

SNic India

Vijayanagar, Bangalore, India

Saurabh Gupta

Head, Process Excellence ILTD, ITC, India

"Successful Lean Six Sigma Deployment in Non-Traditional Setting of Agri-Business"

Dr. Jeanann Boyce

Professor, Business, Economics, Accounting Computer Applications and Paralegal Studies (BEACAPS) Montgomery College, Takoma Park / Silver Spring Campus, Takoma Park, MD

"Sustainable Technologies: The Impact Neuromorphic Chips on the Future"

11:30 - 12:45 Thursday

Undergraduate Student Paper Competition

SALON 7

Session Chair: Hayder Zghair, Lawrence Technological Unviersty and Kettering Universty, Michigan, USA

Traceable Petri Nets for the Supply of Multiple Production Lines with Variable Waste

Eldon Caldwell Marin, André Mora Barreira, Roberto Truque Salto, Andrés Mazón Arce and Luis Ricardo García Rodríguez, University of Costa Rica, San José, Costa Rica

Characterization of Alzheimer's disease: An Operations Research Approach

Yazeli Cruz, Yaritza Santiago, Valerie Gonzalez, Clara Isaza and Mauricio Cabrera, Mayaguez, Puerto Rico, United States

Improving a Particle Swarm Optimization model to solve assignment problems in an industrial environment

Javier André, Nathan Suchar, Luis Jiménez, Karol Esquivel and Eldon Caldwell Marin, University of Costa Rica, San Jose, Costa Rica

An integrated model of cellular manufacturing and supplier selection considering product quality

Iraj Mahdavi and Habib Heydari, Mazandaran University of Science and Technology, Babol, Mazandaran Province, Iran Mohammad Mahdi Paydar, Babol University of Technology, Babol, Mazandaran Province, Iran

11:30 - 12:45 Thursday

Engineering Education

SALON 8

Session Chair: Basel Alsayyed Ahmad, UAEU, Al Ain, Abu Dhabi, United Arab Emirates

Important Soft Skills for Engineers to Succeed in a Working Environment

Dyah Hening and David Koonce, Ohio University, Athens, Ohio, United States

Impact of Learning by Objectives in Design & Manufacturing Courses

Basel Alsayyed Ahmad, UAEU, Al Ain, Abu Dhabi, United Arab Emirates

Enhancing the Engineering Ethics Curriculum by Analyzing Students' and Faculty's Perceptions

Brittney Jimerson, North Carolina A&T State University, USA

Eui Park, North Carolina A&T State University, USA

Capacity Building for Sustainable World: A Study on political practices and effect on world economy M.A. Mannan, IIUC, Bangladesh

Implementation of OBE in a MoT Program: Lesson Learned

Alina Shamsuddin, Chee-Ming Chan and Azeanita Suratkon, Universiti Tun Hussein Onn Malaysia, Malaysia

11:30 - 12:45 Thursday

Lean and Six Sigma

SALON 9

Session Chair: Fogliatto, Federal University of Rio Grande do Sul, Porto Alegre, RS, Brazil

Lean six sigma and innovation: A theoretical Frame work

Adel A. Alharthi, Advanced Manufacturing and Enterprise Engineering, Brunel University, Uxbridge, Middlesex, UK Tariq Aziz, Department of Industrial Engineering, King Saud University, Riyadh, KSA

Managing and Improving Quality- Quality Costs and Statistical Process Control

Amar Sahay, QMS Global LLC, Sandy, UT, United States

Impact of Stress on Employee Performance of It Projects In Pakistan

Magadus Igbal, Project Management, SZABIST, Islamabad, Pakistan

Gaps between psychophysical demands and perceived workload - a framework for lean production system

Carlos Ernani Fries, Guilherme Luz Tortorella, Marcelo Pereira da Silva, Fernando Gonçalves Amaral and Flávio Sanson Fogliatto, Federal University of Rio Grande do Sul, Porto Alegre, RS, Brazil

11:30 - 12:45 Thursday

Supply Chain Management

SALON 10

Session Chair: Srikant Raghavan, Lawrence Technological University, Southfield, MI, United States

Multi-Objective Non-Permutation Flowshop with Dependent Setup times and Missing Jobs

Shaya Sheikh, Towson, Maryland, United States

Mohammad Komaki, Cleveland, Ohio, United States

Ehsan Teymourian, Babol, Mazandaran, Iran

Shaya Sheikh, Management Science Department, New York Institute of Technology, New York, NY

Mohammad Komaki, Electrical Engineering and Computer Science Department, Case Western Reserve University, Cleveland, USA Ehsan Teymourian, Department of Industrial Engineering, Mazandaran University of Science and Technology, Babol, Iran Behnam Malakooti, Electrical Engineering and Computer Science Department, Case Western Reserve University, Cleveland, USA

Investigating the Impact of Supply Chain Practices on the Financial Performance of the Most Active Listed Firms in

Islam El-Nakib and Amr Youssef, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

Application of the Methodology Deflection in Humanitarian Logistics: A Supply approach from Agrifood Chains

Fernando Salazar, Universidad del Rosario, Bogotá D.C., Colombia

Jordi Poch, Universidad de Girona, Girona, Catalunya, Spain

Judith Cavazos, UPAEP, Puebla, Puebla, Mexico

Loecelia Ruvalcaba, Universidad Autónoma de Aguascalientes Aguascalientes, Aguascalientes, Mexico

Harnessing the Technology of Cloud Computing with Supply Chain Management

Srikant Raghavan, Lawrence Technological University, Southfield, MI, United States

Galia Novakova, Sofia University, Sofia, Bulgaria

Shahram Taj, Lawrence Technological University, Southfield, MI, United States

13:00 – 14:00 *Lunch Keynote:* **Thomas Seubert,** North American Delivery Lead for Manufacturing Execution Systems (MES), Tata Technologies, Novi, Michigan, USA

14:00 - 14:30 Break

14:30 – 15:45 Global Engineering Education III (Thursday) – SALON 5

Session Chair: Dr. Jose R. Deliz, Universidad Turabo, Puerto Rico

2:30 - 2:55 pm Thursday

Dr. Charles Mbohwa

Professor and Vice-Dean Postgraduate Studies, Research and Innovation Faculty of Engineering and the Built Environment (FEBE) University of Johannesburg's (UJ), South Africa

2:55 - 3:20 pm

Dr. Shannon Flumerfelt

Associate Professor, Educational Leadership Director of Lean Thinking for Schools, Pawley Learning Institute Oakland University, Rochester, MI 48309, USA

3:20 - 3:45 pm

Dr. Jose R. Deliz

Associate Dean, School of Engineering Professor and Director of Industrial and Management Engineering Universidad Turabo, Puerto Rico

Jacqueline Mullen

Vice-chancellor Sponsored Research and Programs Universidad del Turabo, Ana G. Mendez University System, Inc., Puerto Rico

"How to achieve academic excellence through assessment in IE Education" [ID 286]

14:30 – 15:45 Industry Solutions II (Thursday) – SALON 6

Session Chair: Dr. Sushil K. Shetty, Lean Specialist II, Temple, Texas, USA

2:30 - 2:55 pm

Charles Bradley

Director HFC Reliability Engineering and Sourcing Standardization Charter Communications, Greenwood Village, Colorado, USA

2:55 - 3:20 pm

Dr. Sushil K. Shetty

Lean Specialist II, Temple, Texas, USA

"Listen to your Employees as much as you listen to your Customer"

3:20 - 3:45 pm

Dr. Joseph M. Ogundu, MBB

Principal – Emerald Global Consulting Inc. West Bloomfield, Michigan, USA

14:30 - 15:45 Thursday

Undergraduate Research Competition

SALON 7

Session Chair: Hayder Zghair, Lawrence Technological Unviersty and Kettering Univeristy, Michigan, USA

Domestic Buildings Thermal Demand from Renewable Energy Sources-A Case Study of UK

Majid Baseer, Sarhad University of Science and Information Technology, Peshawar, Pakistan

Ghulam Qadir, Loughborough University, United Kingdom

M. Arif, Sarhad University of Science and information Technology, Peshawar, Pakistan

Design and fabrication of automated loading trolley for missile and canister

Nazishuddin Quadri Syed College of Engineering Pune, Maharashtra, India

Mohan Khond, College of Engineering Pune, Maharashtra, India

Improvement of Productivity Rate of Jit # 262, Creams, Liquids, Lotions Department of Avon Products Manufacturing Inc.

Ezrha C. Godilano and Rachel C. Villanueva, Department of Industrial Engineering, Malayan Colleges Laguna, Cabuyao City, Laguna, Philippines

One Right Way to Make Use of Energy In Accordance With the Second Law of Thermodynamics: The "Technical Polo" Of Engineering Faculty of Catania University.

Francesco Patania, Department of Industrial Engineering of Catania University, Catania, Italy

14:30 - 15:45 Thursday

Engineering Education

SALON 8

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

Roadmap for Stimulating the Innovative Use of Technology in Higher Education

Nasser Alaeddine, Hamid Parsaei and Muhammad Ismail, Texas A&M University at Qatar, Qatar

An Innovation Model with Representative Variables of Marketing and Trading

Javier D. Fernández-Ledesma and Santiago Duque, Department of Industrial Engineering, University Pontificia Bolivariana Medellín, Antioquia, Colombia

An Emerging STEM Era in the Middle East

Hamid R. Parsaei, Nimir Elbashirb, and Nasser Alaeddinec, Texas A&M University at Qatar, Education City of Qatar Foundation, Doha, Qatar

Human Factors System Approach to Identify Factors that Affect the Adoption of Ergonomic Technology in Healthcare

Brittney Jimerson, North Carolina A&T State University, USA

Eui Park, North Carolina A&T State University, USA

Steven Jiang, North Carolina A&T State University, USA

Reviewing the Grades, Activities and Assessment in an Engineering Technology Course with relation to the Learning Styles

Alina Shamsuddin, Chee-Ming Chan and Azeanita Suratkon, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

14:30 - 15:45 Thursday

Quality and Reliability

SALON 9

Session Chair: Shih-Wen Liu, National Taiwan University of Science and Technology, Taipei, Taiwan

Insights of Quality Management Concepts in the Supply Chain

Cassandra Elrod, Elizabeth Cudney and Cui Zou, Missouri University of Science and Technology, Rolla, MO United States

A SVM-based Quality Assessment using Thermal Image DATA in Sealer Dispensing Process

Moise Busogi, Namhun Kim and YeongGwang Oh, UNIST, Ulsan, Korea

A Bayesian Approach to Early Reliability Predicting of Evolutionary Products

Mahtab Jahanbani Fard and Sattar Ameri, Wayne State University, Detroit, Michigan, USA Ali Zeinal Hamadani, Isfahan University of Technology, Isfahan, Iran

Developing a new variables sampling plan for products with multiple quality characteristics based on process yield

Shih-Wen Liu, National Taiwan University of Science and Technology, Taipei, Taiwan

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

14:30 - 15:45 Thursday

Supply Chain and Logisttics

Session Chair: Hao Fu, UC Berkeley, CA, United States

SALON 10

The Impact of Managing Medicine Storage and Distribution Chain on Medicine Shortage: A Simulation Model for Managing Medicine Storage and Distribution in the Egyptian Market

Ahmed Kassem, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Louran, Egypt

The Investigation of Purchasing Process and Supplier Development Practices: Multiple Case Studies on Food Processing Sector in Alexandria, Egypt

Sara Elzarka and Lobna Hafez, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt

A Risk Adverse Model for Hazardous Material Transportation

Jose Santivanez, Universidad del Turabo, Gurabo, Puerto Rico, United States

Anticipatory Shipping: A Commercial Application of Pre-positioning with Stochastic Programming Hao Fu, UC Berkeley, CA, United States

15:45 - 16:00 Break

16:00 – 17:15 Global Engineering Education IV (Thursday) – SALON 5

Session Chair: Dr. Hamid Parsaei, Texas A&M University (College Station)/ Qatar

4:00 - 4:30 pm

Dr. Hamid Parsaei

Professor of Industrial and Systems Engineering Texas A&M University (College Station) and Professor of Mechanical Engineering and Director of Acade

Professor of Mechanical Engineering and Director of Academic Outreach Texas A&M University Qatar

4:30 - 5:00 pm

Dr. Christoph Wunck

Professor, Business Computing Systems, Industrial Engineering College of Management, Information, Technology Jade University, Wilhelmshaven, Germany

"Raising intercultural awareness of engineering students – Strategies, challenges and lessons learned from six years of German-American Engineering Summer Programs"

5:00 - 5:30 pm

Dr. Bidyut Kumar Bhattacharyya

Professor, Mechanical Engineering Department
Director, School of Safety & Occupational Health Engineering
Indian Institute of Engineering Science & Technology, Shibpur, West Bengal, India

"Globalizing Engineering and Management Education in India"

16:00 - 17:15 Industry Solutions III (Thursday) - SALON 6

Session Chair: Foad Hosseinkhanli, Amor Health Services, Inc., Brownsville, Texas, USA

4:00 - 4:30 pm

Gil Lugo, Certified *RABQSA* (Exemplar Global) QMS Lead Auditor Certified SCS FSC & PEFC CoC Lead Auditor President, Green and Sustainable Solutions, Inc. Fort Lauderdale Florida. USA

"Battle of the Improvement Methodologies"

4:30 - 5:00 pm

Foad Hosseinkhanli

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

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

5:00 - 5:30 pm

Ahmed Al-Jabr, CMBB President, Saudi IEOM Society Dhahran, Saudi Arabia

"Challenges and Opportunities of Lean and Six Sigma for Saudi Industries"

16:00 - 17:15 Thursday

Graduate Student Paper Competition

SALON 7

Session Chair: Hayder Zghair, Lawrence Technological Unviersty and Kettering Univeristy, Michigan, USA

Autonomous Vehicle Sensors and Systems

Jaycil Varghese, University of Michigan – Dearborn, Macomb, MI, United States

Centralized Carrier Collaboration and Multi-Hub Location Optimization Using a Genetic Algorithm

Jose Espiritu and Eduardo Castillo, The University of Texas at El Paso, Texas, United States

Employees' Resistance to Change: Correspondence Tracking System Development

Mostafa Fawzy, Iowa State University, USA

Threshold Function for the Optimal Stopping of Arithmetic Ornstein-Uhlenbeck Process

Alon Dourban and Liron Yedidsion, Technion - Israel Institute of Technology, Haifa, Israel

16:00 - 19:00 Thursday

Workshop on Geometric Dimensioning and Tolerencing (GD&T)

SALON 8

Dr. Ahad Ali

Associate Professor

Director, Bachelor of Science in Industrial Engineering (BSIE)

Director, Master of Science in Industrial Engineering (MSIE)

Director, Smart Manufacturing and Lean Systems Research Group

A. Leon Linton Department of Mechanical Engineering

Lawrence Technological University

Southfield, Michigan 48075, USA

16:00 - 17:15 Thursday

Human Factors and Ergonomics

SALON 9

Session Chair: Shih-Wen Liu, National Taiwan University of Science and Technology, Taipei, Taiwan

Human Factors Analysis for Railway Coach and Bogie Maintenance Using AHP

Subhash Chandra Panja, Jadavpur University, Jadavpur, Kolkata, West Bengal, India Sanghamitra Poddar, Institute of Engineering & Management, Kolkata, West Bengal, India Malay Gangopadhyaya, Institute of Engineering & Management, Kolkata, West Bengal, India

Usability assessment of a headrest accessory used for wheelchairs

Laura Stanley and Kaysha Young, Montana State University, Bozeman, Montana, United States

Usability assessment of an adjustable wheel-locking system for a child's wheelchair

Laura Stanley and Kaysha Young, Montana State University, Bozeman, Montana, United States

Chatbots in Online Environments - A Linguistic Analysis

Netaya Lotze, Leibniz University of Hanover, Deutsches Seminar, Hanover, Niedersachsen, Germany

Gaze-Based Metrics for Consumers' Viewings of Printed Advertisements

Hirotaka Aoki, Tokyo Institute of Technology, Tokyo, Japan

16:00 – 17:15 Thursday

Operations Research

SALON 10

Session Chair: Thien-My Dao, ETS/University of Quebec, Montreal, QC, Canada

Managing Congestion in a Dynamic Multi-Modal Facility Location Problem

Mohammad Marufuzzaman, Mississippi State University, Starkville, MS, United States

Evacuation of a Highly Congested Urban City: the Case of Beirut

John El Khoury, Department of Civil Engineering, Lebanese American University, Byblos, Lebanon Jean-Paul M. Arnaout, Department of Business Administration, Gust University for Science and Technology (GUST), Kuwait Caline El Khoury, Lebanese American University, Byblos, Lebanon

Cuckoo Search Algorithm for Hybrid Flow Shop Scheduling Problem with Multi-layer Assembly Operations

Mohamed Komaki, Dept. of Electrical Engineering and Computer Science, Case Western Reserve University, Cleveland, USA Shaya Sheikh, Management Science Department, New York Institute of Technology, New York, NY, USA Ehsan Teymourian, Department of Industrial Engineering, Mazandaran University of Science and Technology, Babol, Iran Behnam Malakooti, Dept. of Electrical Engineering and Computer Science, Case Western Reserve University, Cleveland, USA

A new part routing-based decisional algorithm for urgent fabrication through a cost-time model in a flexible manufacturing system

Thien-My Dao, ETS/University of Quebec, Montreal, QC, Canada

Open Configuration: Framework and Definition

Xiaoyu Chen, Nanterre, Paris, France Linda Zhang, Puteaux, Paris, France

Friday, Septemebr 11, 2015

08:00 – 09:30 Global Engineering Education V (Friday) – SALON 4

Session Chair: Jairo Alfonso Vargas, Fundación Universitaria Konrad Lorenz, Bogotá, Colombia

8:00 - 8:30 am, Friday

Jairo Alfonso Vargas, IE, BBSS

Department Head, Department of Industrial Engineering Fundación Universitaria Konrad Lorenz, Bogotá Colombia Regional VP of IIE, Central and South America

8:30 – 9:00 am, Friday

Vladimir Robles Bykbaev

Coordinator of the Research Group on Artificial Intelligence and Assistive Technologies Universidad Politécnica Salesiana Cuenca, Ecuador

9:00 – 9:30 am, Friday

Carlos Ernani Fries and Guilherme Luz Tortorella

Federal University of Santa Catarina, Florianopolis, SC, Brazil

"Application of Focus Groups and Learning Cycles on the A3 Thinking Methodology:

The case of increasing machinery capacity at a steel plant" [ID 210]

08:00 - 09:15 Friday

Transportation

Session Chair: Peng Sun, Eindhoven, Netherlands

A Peer-to-Peer Public Health Intervention - A Case Study in Transportation Safety

Laura Stanley, Montana State University, Bozeman, Montana, United States

A Statistical Approach to Estimate the Correlation between Charging Stations Availability and Plug – In Electric Vehicles Sales in Canada

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

A Three-Stage Approach for Solving Location-Routing Problem in Hazardous Materials Transportation

Abbas Mahmoudabadi, Mehrastan University, Astaneh, Gilan, Iran Reza Tavakkoli-Moghaddam and Azadeh Abolghasem, Tehran, Iran

Hybrid column generation and large neighborhood search for the time-dependent selective PDPTW

Peng Sun, Eindhoven University of Science and Technology, Eindhoven, Netherlands

Supply Chain Innovation - A Modern Application of Lean and Agile Methodologies

Samson Oludapo, University Malaysia Pahang, Gambang, Kuantan, Malaysia

08:00 - 09:15 Friday

Graduate Student Paper Competition

SALON 9

SALON 3

Session Chair: Hayder Zghair, Lawrence Technological Unviersty and Kettering Universty, Michigan, USA

Simulation Analysis for futuristic manufacturing: A green roadmap

Amandeep Singh, Deepu Philip, Janakranjan Ramkumar and Suman Samanta, Indian Institute of Technology Kanpur, India

Multi-Objective Supply Chain Network Design under Demand Uncertainity Using Robust Goal Programming Approach

Raghda Taha, AASTMT, Cairo, Egypt

Yomna Sadek, Amin Elkharbotly and Nahid Afia, ASU, Cairo, Egypt

Khaled Abdallah, AASTMT, Cairo, Egypt

Biofuel Production: Potential Requirements Integration

Mostafa Fawzy, Iowa State University, USA

Paul Componation, The University of Texas at Arlington, USA

08:00 - 09:15 Friday

Entrepreneurship and Innovation

SALON 10

Session Chair: Nor Mahirah Mustapha, Universiti Malaysia Pahang, Kuantan, Pahang, Malaysia

Assessing Capabilities for Innovation - The Case of Iranian Kalleh Meat Product Company

Reza Farrokhian Kaach of Solico Group, Amol, Mazandaran, Iran

Faezeh Soleimani, Amol, Mazandaran, Iran

A New Performance Measurement Framework for Small and Medium Enterprises

Syafiah Norsyahira Jubidin, Shahryar Sorooshian and Fatimah Mahmud, University Malaysia Pahang, Kuantan, Pahang, Malaysia

A Performance Measurement Systems; How is it differ for Malaysian SME Perspectives

Nor Mahirah Mustapha, Universiti Malaysia Pahang, Kuantan, Pahang, Malaysia

Analysis of Availability of Fire Fighting Equipment in Selected Knitting Garment Factories in Bangladesh

Shibbir Ahmad and Mohammad Kamruzzaman, Mechanical Engineering Department, Dhaka University of Engineering and Technology (DUET), Gazipur, Bangladesh

08:00 - 09:15 Friday

Healthcare Operations and Services

SALON 11

Session Chair: Hansa Lysander Manohar, Anna University, Chennai, Tamil Nadu, India

A System Approach Linking Quality Culture, Employee Health and Organizational Effectiveness – A Case Study Rina Sadia, Shenkar College of Engineering and Design, Kfar Saba, Israel

eHealth: Hurdles and Progress in K.S.A

Abdul Rauf Malik, King Abdulaziz University, Jeddah, Makkah, Saudi Arabia

Predictive Model for Forecasting Clinical Outcomes of Rehabilitation Patients Using Advanced Technologies Marvin Rothwell, Florence, Kentucky, United States

Impact of Magnesium Intake and Supplementation on Improving the Quality of Life in Type II Diabetes Mellitus Patient Shamitha Manohar, Hansa Lysander Manohar, and Chelliah Manohar Ratnakumar, College of Engineering Guindy, Anna University, Chennai, Tamil Nadu, India

Implementing a Taxonomy for the Development of a Database for a Type 2 Diabetes Mellitus Preventative Care Personalized Learning System

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

08:00 - 09:15 Friday

Manufacutirng and Design

SALON 12

Session Chair: Rupy Sawhney, University of Tennessee-Knoxville, TN, United States

Planning and Executing Manufacturing Facilities for Global Supply Chains

Shahram Taj, Lawrence Technological University, Southfield, MI, United States

Optimal Hull and Mold Storage in a Lean Boat Manufacturing

Mostafa Ghafoorivarzaneh, Rupy Sawhney and Tron Dareing, University of Tennessee-Knoxville, TN, United States

Design of a small scale cereal packaging machine suitable for developing countries

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

Impact of Cutting Forces on Machining Quality

Basel Alsayyed Ahmad, UAEU, Al Ain, Abu Dhabi, United Arab Emirates

Review of Image Processing Techniques for Detection of Age-related Macoular Degeneration (ARMD) Literature Review Samina Khalid, Mirpur University of Science and Technology, Mirpur, Azad Jammu Kashmir, Pakistan

10:00 – 11:00 *Morning Keynote:* **Alastair Orchard,** Director Digital Enterprise Projects, Siemens PLM Software, Genoa, Italy "The Role of Manufacturing Engineering in the Digital Enterprise"

11:00 – 11:30 Networking Break at Exhibition Hall

11:30 – 13:00 Global Engineering Education VI (Friday) – SALON 4

Outcome-Based Education (OBE) Workshop:

The Essence of OBE and Implementation Experiences in Malaysia

Dr. Chan Chee-Ming

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

Dr. Alina Shamsudin

Associate Professor
Deputy Dean (Teaching, Learning and Academic Training)
Centre for Academic Development and Training
Universiti Tun Hussein Onn Malaysia
Johor, Malaysia

Dr. Azeanita Suratkon

Senior Lecturer at the Faculty of Civil & Environmental Engineering Lead – Department of Building and Construction Engineering Universiti Tun Hussein Onn Malaysia Johor, Malaysia

11:30 - 12:45 Friday

Sustainability

Session Chair: Elizabeth Ojo, University of Johannesburg, South Africa

Driving TQM/BE Model based Sustainable Excellence Enterprise Framework

Syed Masood, International Islamic University, Islamabad, Pakistan Muhammad Tasleem, Asim Nisar and Nawar Khan, NUST, Islamabad, Pakistan

SALON 3

Global Warming Potential and Cost Minimization for the Centralized Carrier Collaboration and Multi-Hub Location Problem

Jose Espiritu, Heidi Taboada, Juan Fernandez, Eduardo Castillo, Claudia Valles and Ileana Delgado, The University of Texas at El Paso, Texas, United States

Style & Sustainability using precast insulated concrete for educational buildings in hot climate: Case studies in UAE Mohammed Sherzad, Ajman University of Science & Technology, Ajman, nited Arab Emirates

Sustainability- Competitive edge?

Elizabeth Ojo, Charles Mbohwa and Esther Akinlabi, University of Johannesburg, South Africa

Performance Measurement and Process Improvement In Terms Of Overall Equipment Effectiveness in Specific Section of Specific RMG Sector

Shibbir Ahmad and Mohammad Kamruzzaman, Mechanical Engineering Department, Dhaka University of Engineering and Technology, Gazipur, Bangladesh

11:30 - 12:45 Friday

Automation and Control

SALON 9

Session Chair: Rina Sadia, Shenkar College of Engineering and Design, Kfar Saba, Israel

A case study job-shop project planning and scheduling problem

Milad Akrami, Alireza Ghasemi, Uday Venkatadri and Mahdi Tajbakhsh, Dalhousie University, Halifax, NS, Canada

Impact of 5S on quality, productivity and organizational climate. Two Analysis Cases

Paloma Martinez, Bogota, Cundinamarca, Colombia

Process Improvement in Emergency Units. Two Analysis Cases

Paloma Martinez, Bogota, Cundinamarca, Colombia

Paloma Martínez Sánchez and Carolina Montoya Rodriguez, Engineering Faculty, Bosque University, Bogota, Colombia Ursula Maruyama, Engineering and Business Department, CEFET-RJ, Maracana – Rio de Janeiro, Brazil Fernando Salazar, School of Management, Rosario University, Bogota, Colombia

Inventory Assessment of the cleaning of Plant Off-gas in the recovery process of PGM at the Anglo American Platinum LTD. South Africa

Junior Mabiza and Charles Mbohwa, University of Johannesburg, South Africa

11:30 - 12:45 Friday

Energy

SALON 10

Session Chair: Bidyut Kr. Bhattacharyya, Indian Institute of Engineering Science and Technology, Shibpur, India

Renewable Sources and CCHP Techniques in "Technological Polo" (TP) of University of Catania (First step)

Francesco Patania, Antonio Gagliano, Francesco Nocera and Antonio Agrifoglio, Department of Industrial Engineering, Catania University, Italy

Effect of EGR on the Performance of Diesel Engine Fueled By Mauha Oil and its Blends

Rajendra Patil, TSSM's PVPIT Bavdhan, Pune, Maharashtra, India

Performance Evaluation of the Proposed and Existing Waste Management System: Economic Analysis

Swapan Das and Bidyut Kr. Bhattacharyya, Indian Institute of Engineering Science and Technology, Shibpur, Howrah, India

A Critical Evaluation of Climate-Related Risks Associated with Oil and Gas Industry in Libya

Tawfik Elmhedwi, The Libyan Academy, Tripoli, Libya Saber Elmabrouk, University of Tripoli, Tripoli, Libya Taher Elmhidwi Tripoli, Libya

11:30 - 12:45 Friday

Healthcare Operations and Services

SALON 11

Session Chair: Majid Baseer, Sarhad University of Science and Information Technology, Pakistan

A System Dynamics Model of Flow of Patients from the ICU through the Step-Down Units

Sankar Sengupta and Ozge Civit, Oakland University, Rocsheter, Michigan, United States

Impact of Knowledge and Attitude on Practices of Over the Counter Medications

Hasitha Diana Manohar and Hansa Lysander Manohar, India College of Engineering Guindy, Anna University, Chennai, Tamil Nadu, India

A Fuzzy AHP & Extent Analysis Based Approach for Commercial Software Evaluation.

Majid Baseer, Sarhad University of Science and Information Technology, Peshawar, Pukhtunkhwa, Pakistan

X-ray Image Segmentation by using Fuzzy Index measure Combined with Principle Component Analysis

Mohamed Shajahan and Munir M Al Haddad, College of Engineering and Information Technology, Jeddah, Mecca, Saudi Arabia

11:30 - 12:45 Friday

Manufacturing and Design

SALON 12

Session Chair: Mohammad Eslamipour, MAPNA, Karaj, Alborz, Iran

Applications for Multi Criteria Decision Making in New Product Development

Brendan Sullivan, Las Cruces, New Mexico, United States

Product Life Cycle Key to Sustainable Innovation

Mohammad Eslamipour, MAPNA, Karaj, Alborz, Iran

Horizontal Directional Drilling Quality

Basel Alsayyed Ahmad, Amani Alkhodari, Khaled ElSayed, Mansoor Al Jabri and Shamsa Al Neyadi, UAEU, Al Ain, Abu Dhabi, United Arab Emirates

Vendor Managed Inventory: A Case Study on Faragalla Food Industries in Egypt

Sara Elzarka, Eman Elakkad, Abdallah Shaalan and Khaled Abbas, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt

1:00 – 1:45 *Lunch Keynote:* **Dr. Miguel Gastón Cedillo-Campos**, Professor in Logistics Systems Dynamics, Senior Researcher, Mexican Institute of Transportation and Founding President, Mexican Logistics and Supply Chain Association (AML)

1:45 – 2:30 Friday *Lunch Keynote:* **Uriel R. Cukierman**, Professor, Facultad Regional Buenos Aires, Universidad Tecnológica Nacional, Buenos Aires, Argentina and President, International Federation of Engineering Education Societies (IFEES)

2:30 - 3:00 Competition Awards and Recognitions

3:00 - 3:30 Break

15:30 – 16:45 Global Engineering Education VII (Friday) - SALON 4

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

3:30 - 3:55 pm Friday

Dr. Srinivas R. Chakravarthy

Professor and Department Head, Industrial and Manufacturing Engineering Kettering University, Flint, MI-48504, USA

"Modeling and Simulation in Undergraduate Education in Industrial Engineering Program:
Opportunities and Challenges"

3:55 - 4:20 pm Friday

Dr. Sabah Abro

Professor and Program Director, Master of Science in Engineering Technology Department of Engineering Technology Lawrence Technological University, Southfield, Michigan, USA

"Multi-Approach Evaluation of Entrepreneurial Senior Project Course" [ID 104]

4:20 - 4:45 pm Friday

Dr.-Eng. Eldon Caldwell

Director, Industrial Engineering Department Engineering School, University of Costa Rica

"Using Robotics as Educational Framework Strategy in Industrial Engineering: The Experience at University of Costa Rica"

3:30 - 4:45 Friday

Systems Engineering and Technology Management

SALON 3

Session Chair: Rekha Mishra, GGSIPU, New Delhi, India

Computation of Manufacturing Complexity in a Mixed Model Assembly

Moise Busogi, YeonGGwang Oh, Namhun Kim and Wooyeol Lee, UNIST, Ulsan, Korea

A Multi-Criteria Decision Making Tool to Prioritize Network Component for Recovery based on Importance Measures Nazanin Morshedlou, Yasser Almoghathawi and Angela Oommen, University of Oklahoma, Norman, OK, United States

Best Performance Measurement System for Malaysian Small and Medium Enterprises

Nor Filianie, Universiti Malaysia Pahang, Kuantan, Pahang, Malaysia

Best Performance Measurement System for Malaysian Small and Medium Enterprises

Nor Filianie Aziz, Universiti Malaysia Pahang, Kuantan, Pahang, Malaysia

Business Intelligence and Analytics: Paving way for Operational Excellence, Quality and Sustainability in Indian Banks Rekha Mishra and A. K. Saini, GGSIPU, New Delhi, India

3:30 - 4:45 Friday

e-Business and e-Services

SALON 9

Session Chair: Dr. Galia Novakova, Sofia University, Bulgaria

Linking e-fulfillment dimensions to shopping satisfaction and repurchase intention in e-tailing

Nikunj Kumar Jain, FORE School of Business, New Delhi, India Preeti Jain, Nokia Networks Pvt. Ltd., Noida, Uttar Pradesh, India

Impact of Operational Drivers on Repurchase Intention in e-fulfillment

Nikunj Kumar Jain, FORE School of Business, New Delhi, India

Comparative Study between "Neuro-Logit" and Logistic Regression Analysis in Corporate Financial Distress Forecasting

Waleed Almonayirie, Swiss Business School, Abu Dhabi, United Arab Emirates

3:30 - 4:45 Friday

Energy

SALON 10

Session Chair: Seyed Amirhossein Alavifar, Bstech, Moscow, Russia

Energy Optimization

Mohamed Ibrahim Ahmed Al-Hargeisa, Woqooyi Galbeed, Somalia

Economic Risk Management in Oil and Gas infrastructure; A Case study - Low Density Polyethylene (LDPE) production unit of Amir Kabir Petrochemical complex in Iran

Seyed Amirhossein Alavifar, Bstech, Moscow, Russian Federation

Developing a Polynomial-Fourier Series Model for Building's Electricity Consumption Forecasting

Wei Tong Chen, Cho-Liang Tsai and Chin-Shiang Chang, Naitonal Yunlin University of Sci. & Tech. Touliu, Yunlin, Taiwan

Framework of Simulation Approach to Increase Energy Efficiency

Mostafa Ghafoorivarzaneh and Rupy Sawhney, University of Tennessee-Knoxville, TN, United States

3:30 - 4:45 Friday

Modeling and Simualtion

SALON 11

Session Chair: Neda Javadieh, Melbourne, Victoria, Australia

Modeling Trading & Procurement Cycle based on Insourcing and Outsourcing strategy

Mohamed Laradi, Coventry University, Coventry, Midland, United Kingdom

Optimization of an Asynchronous Manufacturing Production System Incorporating Mixed Operational Cycle Time Variation

Saso Krstovski and Ahad Ali, Lawrence Technological University, Michigan, United States

Analysis of a gear train using finite element modelling

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

Driving behaviour of elderly people: the Challenges and Opportunities

Neda Javadieh, Melbourne, Victoria, Australia

3:30 - 4:45 Friday

Manufacturing and Design

SALON 12

Session Chair: Jose Espiritu, The University of Texas at El Paso, United States

Variety Impact Sources on the Inducible Manufacturing Complexity of the Flexible Automated Lines

Hayder Zghair, University of Baghdad, Iraq and Lawrence Technological University, Southfield, MI, United States Ahad Ali, Lawrence Technological University, Southfield, MI, United States

Optimal Scheduling of an Anaerobic Digester Considering Multiple Feedstocks Using Genetic Algorithms Jose Espiritu and Ana Cram, The University of Texas at El Paso, United States

Environmental Impacts Assessment of the Cleaning of Plant Off-gas in the recovery process of PGM at the Anglo American Platinum LTD, South Africa

Junior Mabiza and Charles Mbohwa, University of Johannesburg, South Africa

Short Term Load Forecasting Using Optimized Neural Network with Harmony Search

Javad Olamaei and Ehsan Barzamini, Dept. of Electrical Engineering, Islamic Azad University, South Tehran Branch, Iran

Applications of Petri nets Based Models in Manufacturing Systems: a review

Husam Kaid, Abdulaziz M. El-Tamimi, Emad Abouel Nasr and Abdulrahman Al-Ahmari, King Saud University, Riyadh, Saudi Arabia

Design of a crushing system that improves the crushing efficiency of gold ore at a local mine: case of Zimbabwe Tawanda Mushiri and Charles, Mbohwa, University of Johannesburg, Johannesburg, Gauteng, South Africa

4:45 - 5:00 Break

5:00 - 6:15 pm, Friday

Global Engineering Education VIII (Friday) - SALON 4

Session Chair: Dr. Muhammad H. Zaman, Boston University, USA

5:00 - 5:25 pm Friday

Dr. Muhammad H. Zaman

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

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

5:25 – 5:50 pm Friday

Mrs. Ghamande Manasi Vyankatesh

Vishwakarma Institute of Technology Bibwewadi, Pune, Maharashtra, India

"Challenges of Self-Financing Engineering Institutes for Better Survival in Future"

5:50 – 6:15 pm Friday

Dr. Hansa Lysander Manohar

Associate Professor, Department of Management Studies Anna University, Chennai, India

"A Roadmap to Integrate Sustainability and Innovation in Engineering Education"

5:00 - 6:15 Friday

Product and Processes

SALON 3

Session Chair: Charles Mbohwa, University of Johannesburg, Gauteng, South Africa

Composites Product and Process Quality

Basel Alsayyed Ahmad, Naseefa Al Ameri, Ghubaisha Al Ameri, Abdul Rehman, Abeer Seraidy, Balqis Al Braiki and Fatmah Abdouli, UAEU, Al Ain, Abu Dhabi, United Arab Emirates

A Fuzzy Approach for Analyzing the Gap between the Desired and the Current Factors Pertaining to the Research and Development of the Iranian Nanotechnology

Shahla Yassaei and Farhad Ghassemi Tari, Sharif University of Technology, Tehran, Iran

Inspection and Analysis of an Electrical Heating Element Production Facility and Validation of a Proposed Strategy to Reduce Rejections in the Line

Muhammad Sami uz Zaman, Rawalpindi, Pakistan

Finite element analysis of a car rocker arm

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

Use of Augmented Reality in Technical Documentation

Catherine Badras, Martin Schuler and Alexander Baechli, Winterthur, Zurich, Switzerland

5:00 - 6:15 Friday

Project Management

SALON 9

Session Chair: Wei Tong Chen, Taiwan Naitonal Yunlin University of Sci. & Tech., Touliu, Yunlin, Taiwan

Building Management Performance Assessment Using Data Envelopment Analysis

Wei Tong Chen, Jian Jien-Bin and Chen Hong Long, Taiwan Naitonal Yunlin University of Sci. & Tech., Touliu, Yunlin, Taiwan

Project Planning and Activity Alternative Selection Considering Stochastic Reliability

Devdatta Deo and Michael Kuhl, Rochester Institute of Technology, Rochester, New York, United States

General Satisfaction Index (GSI) Applied to Organizational Climate Researches: a new approach focused on banking Carlos Ernani Fries and Guilherme Luz Tortorella, Federal University of Santa Catarina, Florianopolis, SC, Brazil

Reasons for adopting an ERP system in a public University in Southern Brazil

Carlos Ernani Fries and Guilherme Luz Tortorella, Federal University of Santa Catarina, Florianopolis, SC, Brazil

5:00 - 6:15 Friday

Construction Management

SALON 10

Session Chair: Shahryar Sorooshian, University of Malaysia Pahang, Kuantan, Pahang, Malaysia

An Environmental Impact Framework for Improving the Performace of Projects

Richard Hannis, Shahryar Sorooshian and Shariman Bin Mustafa, University of Malaysia Pahang, Kuantan, Pahang, Malaysia

Lean Construction Techniques: A Framework towards Elimination of Waste in Construction Industry

Richard Hannis, Shahryar Sorooshian and Shariman Bin Mustafa, University of Malaysia Pahang, Kuantan, Pahang, Malaysia

Evaluating Projects Delay Sources through '4 Ps' Framework Analysis

Richard Hannis, Shahryar Sorooshian and Shariman Bin Mustafa, University of Malaysia Pahang, Kuantan, Pahang, Malaysia

Greening the construction industry

Elizabeth Ojo, Charles Mbohwa and Esther Akinlabi, University of Johannesburg, South Africa

Sustainable project selection: A novel MCDA method

Anissa Frini, Université du Québec à Rimouski, Lévis, QC, Canada Sarah BenAmor, Telfer School of Management, Ottawa, ON, Canada

5:00 - 6:15 Friday

Modeling and Simulation

SALON 11

Session Chair: Khalaf Sultan, King Saud University, Riyadh, Saudi Arabia

Modeling and Simulation of Berthing Processes for a Panamanian Container Terminal using BPMN and Discrete Event Simulation

Rebeca Caceres, UMIP, Ancon, Panama Luis Rabelo, UCF, Orlando, Florida, United States Hector Mendoza Mendoza, Panama Guimara Tuñon, Panama John Pastrana, UCF, Orlando, Florida, United States

Statistical Analysis of Sliding Resistance of Braided Glass Fiber Reinforced Composite Orthodontic Brackets and Archwires

Sarder Sadique, Marshall University, Huntington, WV, United States

Robust Regression Analysis Using Redescending M and MM Estimators Based on Modified Cauchy Function Khalaf Sultan, King Saud University, Riyadh, Saudi Arabia

Improving PID Integrated Active Suspension System by using TLBO optimized parameters

Yash Gandhi, Pandit Dendayal Petroleum University, Bhilai, Chhattisgarh, India Mayuri Patel, Pandit Dendayal Petroleum University, Mehsana Gujarat, India Vedant Mehta, Pandit Dendayal Petroleum University, Baroda, Gujarat, India Bhargav Gadhvi, Pandit Deendayal Petroleum University, Mehsana, Gujarat, India Markana Anilkumar, Pandit Deendayal Petroleum University, Gandhinagar, India

Operational Improvement of Warehouse Operations

Gomanth Duvvuru, Ahad Ali and Don Reimer, LTU, United States

5:00 - 6:15 Friday

Case Studies Session Chair: Abdel Magid Hamouda, Qatar University, Doha, Qatar **SALON 12**

Improving Obstacle Detection of Automated Guided Vehicles via Analysis of Sonar and Infrared Sensors Output Ademola Abodunrin, Morgan State University, Baltimore, MD, United States

Quantitative risk analysis in Oil and Gas Project using Monte Carlo Simulation

Mohammad M. Khadem and Mahmoud Al Kindi, Department of Mechanical and Industrial Engineering, Sultan Qaboos University Al-Khod, Muscat, Sultanate of Oman

One Right Way to Make Use of Energy In Accordance With the Second Law of Thermodynamics: The "Technical Polo" Of Engineering Faculty of Catania University.

Francesco Patania, Department of Industrial Engineering of Catania University, Catania, Italy

Technology Transfer conceptual model in Oil and Gas Industry in developing countries

Abdel Magid Hamouda, Nagi Elmagrabi and Khalifa Al-Khalifa, Qatar University, Doha, Qatar

Designing a Reliable Bio-fuel Supply Chain Network considering Link Failure Probabilities

Mohammad Marufuzzaman, Sushil Poudel and Linkan Bian, Mississippi State University Starkville MS, United States

Poster Sesssion

Improving the quality of engineering education; using a Pitot tube system at fluid mechanics laboratories

Pedro Ferreira, Iara Lima, Tulio Vivaldini, Alexandre Frugoli and Pedro Frugoli, Universidade Paulista (UNIP), São Paulo, SP,

Thais Santos, Universidade Paulista (UNIP)/Universidade São Judas Tadeu (USJT), São Paulo, SP, Brazil

A case study on the use of practical problem-solving activities to quantitatively improve physics learning in engineering education

Thais Santos, Universidade Paulista (UNIP)/Universidade São Judas Tadeu (USJT), Brazil Lilian Pereira, Universidade Paulista (UNIP), Brazil Pedro Ferreira, Universidade Paulista (UNIP), Brazil Iara Lima, Universidade Paulista (UNIP), Brazil

Tulio Vivaldini, Universidade Paulista (UNIP), Brazil

Alexandre Frugoli, Universidade Paulista (UNIP), Brazil

Pedro Frugoli, Universidade Paulista (UNIP), Brazil

Theoretical and Practical Integrated: Engaging Engineering Students in Fluid Mechanics Class

Iara Lima, Universidade Paulista (UNIP), Brazil

Pedro Ferreira, Universidade Paulista (UNIP), Brazil

Tulio Vivaldini, Universidade Paulista (UNIP), Brazil

Alexandre Frugoli, Universidade Paulista (UNIP), Brazil

Pedro Frugoli, Universidade Paulista (UNIP), Brazil

Thais Santos, Universidade Paulista (UNIP)/Universidade São Judas Tadeu (USJT), Brazil