# IEOM Forum

#### 2012 IEOM Awards

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#### 1. Distinguished Service Awards

- Dr. Louis A. Martin-Vega, North Carolina State University, USA
- Dr. Gündüz Ulusoy, Sabanci University, Istanbul, Turkey
- Mr. Akın Aydemir, TOFAS (a JV between FIAT and KOC), Bursa, Turkey
- Dr. Robert D. Austin, University of New Brunswick at Fredericton, Canada.

#### 2. Outstanding Service Awards

- Dr. Fethi Calisir, Istanbul Technical University, Turkey
- Murat Durucu, Istanbul Technical University, Turkey
- Dr. M. Khadem, Sultan Qaboos University, Muscat, Oman
- Dr. M. Anwar Rahman, The University of Southern Mississippi, USA
- Dr. Sule Itir Satoglu, Istanbul Technical University, Turkey

#### 3. Outstanding Educator Awards

- Dr. Abdur Rahim, Univeristy of New Brunswick Fredericton, Canada
- Dr. Kamran Yeganegi, Head, Industrial Engineering Department, Islamic Azad University – Zanjan, Iran

#### 4. Outstanding Student Awards

- Dedy Suryadi, Department of Industrial Engineering, Parahyangan Catholic University, Bandung, Indonesia
- Siew Hong Ding, Universiti Sains Malaysia

#### **5. Outstanding Industry Awards**

- Teslime Sen Arikan, Ford Otosan Kocaeli Plant, Turkey
- Ali Massaeli, National Iranian Gas Company, Iran

#### 6. Best Track Chair Award

 Dr. Md. Mamun Habib, American International University - Bangladesh (Logistics and Supply Chain Track)

#### 7. Student Paper Competition Winner Awards

- 1<sup>st</sup> place: Maryse F. Chemali, Department of Industrial and Mechanical Engineering, Lebanese American University, Blat, Jbeil, Lebanon (Standard operation process applied on Lebanese dairy)
- 2<sup>nd</sup> place: Saeka Rahman, Dhaka University, Bangladesh (Assessment of reliability of Hamilton-Tompkins algorithm to ECG parameter detection)
- 3rd place: O'Keeffe, Department of Science and Technology, School of Computing & School of Construction, University of Southern Mississippi, Hattiesburg, Mississippi, USA (Developing 6D BIM energy informatics for IFC GDL LEED model Bidirectional green BIM parametric methodology)



### 8. Best Track Papers Awards

#### **Artificial Intelligence Track**

#### An Artificial Immune System Approach for Flexible Job Shop Scheduling Problem

Aydin Sipahioglu and Alper Aladag, Department of Industrial Engineering, Osmangazi University, Eskisehir, Turkey

#### **Computer and Information Systems Track**

#### Study of Access Control Issue for Web Services

Hadiseh Seyyed Alipour and Mehdi Sabbari, Department of Software Engineering, Qazvin Islamic Azad University, Qazvin, Iran

#### **E-Business and E-Commerce Track**

# Development of a Real Time Online Procurement Method to Reduce Cost and Time in Business for Central Bank of Bangladesh

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

Tania Sultana, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

#### **Energy Engineering Track**

#### Forecasting Electricity Demand Using Dynamic Artificial Neural Network Model

Mohammad Y. El-Sharkh, University of South Alabama, Mobile, Alabama, USA Mohammad Anwar Rahman, University of Southern Mississippi, Hattiesburg, Mississippi, USA

#### **Engineering / Project Management Track**

#### An Application of Fuzzy numbers in Quantitative Strategic Planning Method with MCDM

Hasan Hosseini-Nasab, Department of Industrial Engineering, Yazd University, Yazd, Iran

#### **Engineering Economy Track**

#### Analysis of Hydrogen Economy for Hydrogen Fuel Cell Vehicles in Ontario

Ali Almansoori, Department of Chemical Engineering, The Petroleum Institute, Abu Dhabi, UAE Hui Liu, Ali Elkamel and Michael Fowler, Chemical Engineering Department, University of Waterloo, Waterloo, Ontario, Canada

#### **Engineering Education Track**

#### **Evaluation and Student Perception of Augmented Reality-Based Design Collaboration**

Chih-Hsiang Ko and Ting-Chia Chang, Department of Industrial and Commercial Design, National Taiwan University of Science and Technology, Taipei, Taiwan, ROC



#### **Facilities Planning and Management Track**

#### An Improved Approach to Exchange Non-Rectangular Departments in CRAFT Algorithm

Danial Esmaeili Aliabadi and Behrooz Pourghannad, Faculty of Engineering and Natural Sciences, Sabancı University, Orhanli-Tuzla, Istanbul, Turkey

#### **Healthcare Systems Track**

#### Optimal Budget Allocation of Health Care Resources for End Stage Renal Disease

Yu-Fan Chen and Ue-Pyng Wen, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan

#### **Human Factors and Ergonomics Track**

# WERA Tool for Assessing Exposure Risk Factors of Work Related Musculoskeletal Disorders - A Reliability and Validity Study

Mohd Nasrull Abdol Rahman, Department of Manufacturing & Industrial Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), 86400 Parit Raja, Johor, Malaysia

Mat Rebi Abdul Rani and Jafri Mohd Rohani, Department of Manufacturing & Industrial Engineering, Universiti Teknologi Malaysia (UTM), Johor, Malaysia

#### IE in Asia / Europe Track

#### To Apply the Passive Defense in Positioning Industrial Estates

Kamran Yeganegi, Industrial Engineering Department, Islamic Azad University, Zanjan Branch, Iran Elham Bayat, Department of Urban Design, Islamic Azad University, Zanjan Branch, Iran

#### **Inventory Management Track**

A Unified Model for Optimizing Inventory Decisions in a Centralized or Decentralized Supply Chain Comprising a Vendor without/with Lot Streaming and a Buyer with a Fixed Ratio of Partial Backorders

Kit-Nam Francis Leung, Department of Management Sciences, City University of Hong Kong, China

#### **Lean and Six Sigma Track**

A Case Study of Defects Reduction in a Rubber Gloves Manufacturing Process by Applying Six Sigma Principles and DMAIC Problem Solving Methodology

Ploytip Jirasukprasert, Warwick Manufacturing Group, University of Warwick, Coventry, UK Jose Arturo Garza-Reyes, School of Technology, University of Derby, Derby, UK Horacio Soriano-Meier, Northampton Business School, University of Northampton, Northampton, UK Luis Rocha-Lona, National Polytechnic Institute of Mexico, Business School, Mexico City, Mexico

#### **Logistics and Supply Chain Track**

#### A Multi-Agent Architecture for Distributed Supply Chain

Bharat Bansal, School of Computer Science, University of Nottingham, UK

Nishikant Mishra, School of Management and Business, Aberystwyth University, UK

Felix T.S. Chan and A. Prakash, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hung Hom, Hong Kong

Vikas Kumar, Department of Management, Dublin City University, Dublin, Republic of Ireland



#### **Manufacturing and Design Track**

#### A Decision Support System for Robot Selection Based on Axiomatic Design Principles

Mehmet Cagatay Bahadir, Department of Management Engineering, Istanbul Technical University, Faculty of Management, Macka, Istanbul, Turkey

Sule Itir Satoglu, Department of Industrial Engineering, Istanbul Technical University, Faculty of Management, Macka, Istanbul, Turkey

#### **Modeling and Simulation Track**

#### Stochastic Data Analysis and Modeling of a Telephone Call Center

M. S. Shafae, M. H. Elwany, M. N. Fors and Y. Abouelseoud, Production Engineering Department, Faculty of Engineering, Alexandria University, Alexandria, Egypt

#### **Operations Research / Management Track**

# Dynamic and Stochastic Knapsack-Type Models for Foreclosed Housing Acquisition and Redevelopment

Armagan Bayram and Senay Solak, Isenberg School of Management, University of Massachusetts, Amherst, Massachusetts, USA

#### **Production Planning and Management**

#### Integrated Cellular Manufacturing System Design: an Evolutionary Algorithm Approach

Michael Mutingi, Department of Mechanical Engineering, University of Botswana, Gaborone, Botswana Charles T. Mbohwa, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

Samson Mhlanga and William Goriwondo, Department of Industrial and Manufacturing Engineering, National University of Science and Technology, Bulawayo, Zimbabwe

#### **Quality Control and Management Track**

## A Scheme for Balanced Monitoring and Accurate Diagnosis of Bivariate Correlated Process Mean Shifts

Ibrahim Masood, Faculty of Mechanical and Manufacturing Engineering, University Technology Malaysia, Johor, Malaysia

Adnan Hassan, Faculty of Mechanical Engineering, University Technology Malaysia, Johor, Malaysia

#### **Reliability and Maintenance Track**

#### Capacity and Availability Analysis of Power Plants in Kuwait

Mehmet Savsar, Industrial & Management Systems Engineering Department, College of Engineering and Petroleum, Kuwait University, Kuwait

Mohsen Alardhi, Automotive and Marine Engineering Department, College of Technological Studies, PAAET, Kuwait

Abdulla Almazrouee, Manufacturing Engineering Technology Department, College of Technological Studies, PAAET, Kuwait



#### **Service Systems Track**

#### Scenario based Service-Engineering

Volker Grienitz and André-Marcel Schmidt, University of Siegen, Germany

#### **Sustainability and Green Systems Track**

Visualizing Sustainability Performance of Manufacturing Systems using Sustainable Value Stream Mapping (Sus-VSM)

William Faulkner, William Templeton, David Gullett and Fazleena Badurdeen, College of Engineering, University of Kentucky, Lexington, Kentucky, USA

#### System Dynamics Model for Sustainability Analysis of Mobile Phone Reverse Logistics

Maria G. Gnoni and Alessandra Lanzilotto, Department of Innovation Engineering, University of Salento, Lecce, Italy

#### **Case Studies Track**

Fuzzy Multi Criteria Decision Making Model for Prioritizing the Investment Methods in Technology Transfer in Shipping Industries

Reza Radfar and Leila Ebrahimi, Department of Industrial Management, Islamic Azad University, Science and Research Branch, Tehran, Iran