



IEOM 2012 Track Best Papers Awards Winners

Because of the diversity of the research, entries of real case examples and quality reporting in the papers, it was a very hard decision to select the finalists in each track by our panel of judges. After considering all entries the following papers were awarded for the IEOM 2012 Track Best Papers Awards. The awards will be presented at the IEOM 2012 Istanbul Conference Dinner on Wednesday, July 4, 2012.

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,
Sabanci 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