Competitions Winners and Best Track Papers – 2016 IEOM Detroit Conference

September 24, 2016 (Lawrence Technological University)

Undergraduate Student Research Competition Awards Sponsored by SIEMENS

1st Place
Plasma Engineered Anti-Oxidant Surfaces as Novel Food Packaging Material
Dominic Flaig and Ali R. Zand, Kettering University, Flint, MI

2nd Place
Growth of Food Tech: A Comparative Study of Aggregator Food Delivery Services in India
Mohan Khond, Mustafa Abbas, Harsh Balihallimath and Nishant Bidichandani, College of Engineering Pune, Maharashtra, India

3rd Place
Continuous Improvement using Time Study and Lean Manufacturing - A Case Study
Ana Magana, Industrial Engineering Program, A. Leon Linton Dept. of Mech. Engineering, Lawrence Technological University

Graduate Student Paper Competition Awards sponsored by EATON Corporation

1st Place
Optimization model for scheduling emergency operations with multiple teams
Behrooz Bodaghi and Palaneeswaran Ekambaram, Swinburne University of Technology, Hawthorn, Victoria, Australia

2nd Place
An ILP Model for Healthcare Facility Location Problem with Long Term Demand
Ruilin Ouyang, Tasnim Ibn Faiz and Md Noor-E-Alam, Northeastern University, Boston, MA

3rd Place
An Intuitionistic Fuzzy-Based DEMATEL to Rank Risks of Construction Projects
Amin Vafadarnikjoo, Department of Management and Accounting, Allameh Tabataba'i University, Tehran, Iran
Mohammadsadegh Mobin, Dept. of Industrial Engineering and Engineering Management, Western New England University, Springfield, MA, USA
Seyyed Mohammad Ali Khatami Firouzabadi, Department of Management and Accounting, Allameh Tabataba'i University, Tehran, Iran

Dissertation Presentation Competition Winner Awards

1st Place
Multi Objective Optimization of Distributed Energy Systems Considering Renewable and Fossil Fuel Resources
Azadeh Maroufmashat, University of Waterloo, Canada

2nd Place
Developing a new Iterative Optimization-based Simulation (IOS) model with Predictable and Unpredictable Trigger Events in Simulated Time
Mohammad Dehghanimohammadabadi, Northeastern University, Boston, Massachusetts, United States

3rd Place
Strategies and Techniques to Enhance Productivity in North American Automotive Industry
Amir Abolhassani, West Virginia University, Morgantown, WV, United States

Reliability Modeling and Optimization of New product Development Process
Mohammadsadegh Mobin, Western New England University, Springfield, MA, United States

Best Poster Awards

1st Place
Wasserstein distance and the distributionally robust TSP
Mehdi Behroozi, University of Minnesota-Twin Cities
John Carlsson, University of Southern California

2nd Place
Applications of Lean Methodologies and Quality Improvement in Textile Industry
Ahmad Yame and Daw Alwerfalli, Lawrence Technological University

3rd Place
Stochastic Hierarchical Approach for Master Surgical Scheduling
Mohammed Baki, Justin Britt, Ahmed Azab, and Ben Chaouch, University of Windsor, Canada
Xiangyong Li, Tongji University, Shanghai, China

Slack Variable Approach for Mixture Experiment
Javier Cruz-Salgado, Research and Technological Development Dept., Universidad Politécnica del Bicentenario, Silao, Gto, México

Best Track Papers Awards

Artificial Intelligence
ID 121 Path planning for a mobile robot using ant colony optimization and the influence of critical obstacle
Jihee Han, Hyungjune Park and Yoonho Seo, Department of Industrial Management Engineering, Korea University, Seoul, South Korea

Manufacturing and Design
ID 346 Design of an automatic tire pressure inflation system for small vehicles
Tawanda Mushiri, Department of Mechanical Engineering, University of Johannesburg, South Africa
Allan T. Muzhanje, Dept. of Mechanical Engineering, University of Zimbabwe, Mt Pleasant, Harare, Zimbabwe
Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

Case Studies
ID 250 An integrated MOEA and MCDM for multi-objective optimization (Case study: control chart design)
Samrad Jafarian-Namin, Industrial Engineering Department, Faculty of Engineering, Yazd University, Yazd, Iran
Mohamad Amin Kaviani, Department of Industrial Engineering, Shiraz branch, Islamic Azad University, Shiraz, Iran
Elaheh Ghasemi, Aghigh Institute of Higher Education, Shahinshar, Isfahan, Iran

Construction Management
ID 254 An Environmental Impact Framework for Evaluating Construction Projects Delays
Richard Hannis Ansah, Shahryar Sorooshian and Shariman Bin Mustafa, Faculty of Industrial Management (FIM), Universiti Malaysia Pahang, Lebuhraya Tun Razak, Kuantan Pahang, Malaysia

Data Analytics

ID 328 Data Analytics and Visualization in Analyzing Mortality Records

Mehul R Patel and Md. Noor-E-Alam, Department of Mechanical and Industrial Engineering, Northeastern University, Boston, MA, USA

Decision Sciences

ID 315 Supply Chain Resilience Assessment: A Grey Systems Theory Approach

Mohamad Amin Kaviani, Department of Industrial Engineering, Shiraz branch, Islamic Azad University, Shiraz, Iran
Mohammad Sadegh Mobin, Department of Industrial Engineering and Engineering Management, Western New England University
Eleonora Bottani, Department of Industrial Engineering, University of Parma, Parma, Italy

Design and Analysis

ID 284 Design of Experiments and Web Page Designs: Theories and Applications

Lihui Shi, Centerfield Media, El Segundo, CA, USA
Bo Li, School of Arts, Wuhan Sports University, Wuhan, Hubei, China

ID 338 Predictive Control Design of Gas Turbine Using Multi-Objective Optimization Approach

Kamal Jafarian, Biosignal Processing Lab, Department of Biomedical Engineering, Science and Research Branch, Islamic Azad University, Tehran, Iran
Mohammadsadegh Mobin, Department of Industrial Engineering and Engineering Management, Western New England University, Springfield, MA, USA
Zahra Honarkar, Department of Aerospace Engineering, Sharif University of Technology, Tehran, Iran

E-Business/E-Commerce

ID 258 Econometric models for decision making in IT services

Martha M Cuellar Chavez, Faculty of the International Business, San Mateo Educación Superior, Bogotá, Colombia
Joaquín F Sánchez, Faculty of the Telecommunications Engineering, San Mateo Educación Superior, Bogotá, Colombia

e-Manufacturing

ID 233 Computer Aided Process Planning Approach for Cost Reduction and Increase in Throughput

Omar Al-Shebeeb and Bhaskaran Gopalakrishnan, Department of Industrial and Management Systems Engineering, West Virginia University, Morgantown, WV, USA

Energy

ID 172 Experimental Analysis of Power Consumption in Ceiling Fan

Rupesh Bhortake and Vaishali Bhortake, TSSM's PVPIT, Bavdhan, Pune, Maharashtra, India

Engineering Education

ID 042 Improving Quality of Technical Education by Quality Function Deployment (QFD)

Mohan Khond, Shrinivas Patil, Swapnil Sonawane, Chaitanya Shrishrimal and Aarti Bhattu, College of Engineering Pune, Maharashtra, India

Engineering Management

ID 210 Investigating the relationship between team-working and production agility in manufacturing organizations

Donya Nader & Abbas Mahmoudabadi, Department of Industrial Engineering, MehrAstan University, Gilan, Iran

Healthcare Operations and Services

ID 241 Process Improvement Approach to Investigate Low Block Utilization of Operating Rooms: A Case Study

Omar Ashour and Faisal Aqlan, Industrial Engineering Department, Pennsylvania State University, The Behrend College, Erie, PA 16563, USA
Anne Pedersen, UPMC Hamot, Erie, PA 16550, USA

Lean

ID 239 An Investigation of Lean Manufacturing Implementation in Textile Industries of Pakistan
Zahid Abbass Shah and Hadia Hussain, Institute of Quality and Technology Management, University of the Punjab, New Campus, Lahore, Pakistan

ID 180 Effects of Human Stress on Reliability of Lean Systems – a Markovian Approach
Roshanak Akram, Rupy Sawhney and Vahid Ganji, Department of industrial and Systems Engineering, University of Tennessee, Knoxville, TN, USA

Modeling and Simulation

ID 160 Design optimization of an electrolytic hydrogen for the Sarnia-Lambton upgrader
Mohamed Elsholkami, Alexander McKenzie, Reena Paink, Kendra White, Ali Elkamel, and Michael Fowler, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada

ID 161 Design optimization of a microreactor for the production of biodiesel
Mohamed Elsholkami, Timothy Cumberland, Nathan Molyneaux, Stephen Wei, Nicolo Zambito, Ali Elkamel, and Chandra Mouli Madhuranthakam, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada

Operations Research

ID 184 An optimization model for scheduling emergency operations with multiple teams
Behrooz Bodaghi and Ekambaram Palaneeswaran, Faculty of Science, Engineering and Technology, Swinburne University of Technology, Hawthorn, Victoria, Australia

Project Management

ID 234 Considering the time value of money for modeling the risk assessment of cost and time components in construction projects
Abbas Mahmoudabadi, Department of Industrial Engineering, MehrAstan University, Gilan, Iran
Roghaye Mousazade, Construction Engineering and Management, Islamic Azad University, Branch of South Tehran, Tehran, Iran

Quality

ID 326 Optimisation in Cutting Down Parameters for Industrial Bamboo
Hari Agung Yuniarto and Mrs. Kurniawanti, Industrial Engineering, Faculty of Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia, 55281.

Reliability

ID 165 Reliability Modeling for Rotor Systems with Imbalance Based on Vibration Analysis
Mohamed Shafiullah Hussain V, National Institute of Foundry and Forge Technology, Ranchi, Jharkhand
V N A Naikan, Indian Institute of Technology, Kharagpur, West Bengal, India

Six Sigma

ID 303 Optimization of Thermal Profile Process in Assembly Line of Printed Circuit Boards (PCB) Using Design of Experiments
Kamal Alzameli and Daw Alwerfalli, Lawrence Technological University, Southfield, Michigan, USA
Ahmed Alsamarai, Product Devolvement Center, Ford Motor Company, Dearborn, Michigan, USA

Sustainability and Green Systems

ID 251 Warranty Analysis of Remanufactured Electrical Products
Wilkistar Otieno and Yuxi Liu, Department of Industrial and Manufacturing Engineering, University of Wisconsin-Milwaukee, Milwaukee, WI, USA

Transportation and Traffic Track

Public Transport Development Strategy in Supporting Centres Industrial Area at the Mamminasata Corridor
Adris. A. Putra, Usman Rianse, Samdin, and La Ode Muh Magribi, Haluoleo University, Kendari, Indonesia