2019 IEOM Awards – Toronto, Canada
October 25, 2019

IEOM Society Distinguished Award

Dr. Gopalan Srinivasan
Honorary Research Professor
Faculty of Business Administration
University of New Brunswick
Fredericton, NB, Canada

IEOM Distinguished Leadership Award

Dr. Devashis Mitra
Dean, Faculty of Business Administration
University of New Brunswick
Fredericton, Canada

Distinguished Professor Award

Dr. Soumaya Yacout
Professor
Department of Mathematical and Industrial Engineering
Ecole Polytechnique de Montreal
Canada

M. Ali Ülkü, Ph.D.
Full Professor and Director of CRSSCA
Rowe School of Business, Dalhousie University
6100 University Ave., Halifax NS, Canada B3H 4R2

Dr. Walid Abdul-Kader
Professor, Mechanical, Automotive & Materials Engineering
University of Windsor, Canada

IEOM Distinguished Educator Awards

Jatin Nathwani, PhD, P.Eng
Professor and Ontario Research Chair in Public Policy for Sustainable Energy
Executive Director, Waterloo Institute for Sustainable Energy (WISE)
Faculty of Engineering and Faculty of Environment
Fellow, Balsillie School of International Affairs (BSIA)
University of Waterloo, Waterloo, Ontario, Canada

Ahmad K. Elshennawy, Ph.D.
Professor and Executive Director of the UCF Quality Institute
Department of Industrial Engineering and Management Systems
University of Central Florida (UCF)
Orlando, Florida, USA
IEOM Society Awards – Toronto, Canada, October 25, 2019

Samir Elhedhli, PhD, PEng
Professor
Department of Management Sciences
Faculty of Engineering
University of Waterloo
Waterloo, Ontario, Canada

Dr. Mohamad Y. Jaber
Professor of Industrial Engineering
Ryerson University
Toronto, Canada

IEOM Distinguished Industry Achievement Awards

Shalabh Bakshi
Director, Digital Enterprise and MindSphere
Digital Factory Division
Siemens Canada Limited
Oakville, Ontario, Canada

Jeffrey Jones
Plant Manager
Etobicoke Casting Plant
Fiat Chrysler Automobiles
Ontario, Canada

Peter Merrill
President
Quest Management Inc.
Canada

Eric Ayanegui, CPMM, CRL
Director Operations Engineering
Cintas Corporation
Houston, Texas, USA

Todd Deaville
Director of Engineering and R&D
Magna International Inc.
Toronto, Canada

Mr. Lee Childers
Chief Executive Officer
Tooling Tech Group
Macomb, Michigan 48042

Sean Congdon
Vice President of Manufacturing
Linamar Machining & Assembly Americas
Linamar Corporation
Guelph, Ontario, Canada

Keynote Speaker Award

Dr. Gursel Suer
Professor
Industrial and Systems Engineering
Ohio University
Athens, Ohio, USA

Andrew K.S. Jardine, PhD, P.Eng., CEng, FCAE, FIIE, FISEAM (Hon.)
Professor Emeritus, Industrial Engineering
Department of Mechanical and industrial Engineering
Founding Director of the Centre for Maintenance Optimization & Reliability Engineering (C-MORE)
University of Toronto, Canada
Dr. Abdur Rahim  
Professor of Quantitative Methods  
Faculty of Faculty of Business Administration area  
University of New Brunswick  
Fredericton, NB, Canada

Dr. Darrell Kleinke  
Professor of Mechanical Engineering  
Director of Professional Engineering Programs  
University of Detroit Mercy  
Detroit, Michigan, USA

**IEOM Outstanding Researcher Award**

Birsen Donmez, Ph.D.  
Associate Professor, Department of Mechanical and Industrial Engineering  
Canada Research Chair in Human Factors and Transportation  
University of Toronto  
Ontario, Canada

**Outstanding Achievement Awards**

Dr. Louis-Martin Rousseau  
Canada Research Chair on Healthcare Analytics and Logistics  
Full Professor  
Department of Mathematical and Industrial Engineering  
École Polytechnique de Montréal  
Montreal, Canada

**IEOM Diversity Award**

Cheryl Thompson  
Founder and CEO of CADIA  
Center for Automotive Diversity, Inclusion & Advancement  
Detroit, Michigan

**IEOM Woman in Industry and Academia Award**

Pr. Loubna Benabbou  
Management Sciences Department  
UQAR- Lévis Campus  
Lévis, QC, Canada

Isha Grewal, MBA Finance, Project Mgmt.  
Key Accounts Driver, PwC Canada  
Marketing Director, Women Who Rock  
Toronto, Canada

**IEOM Global Engineering Education Award**

Daniel M Ferguson, PhD  
CATME Managing Director  
Purdue University

**IEOM Industry 4.0 Champion Award**

David Pistrui, Ph.D.  
Industry Liaison  
Director, Graduate Recruiting  
Clinical Professor of Engineering  
College of Engineering & Science  
University of Detroit Mercy  
Detroit, Michigan, USA
IEOM Industry 4.0 Award

Birgit Oberer
Researcher, Eidgenössische Technische Hochschule
Zurich, Switzerland
Evaluation Panel Group Member - IoT Open Innovation Lab of the IoT Research Center @ Northeastern University

IEOM Industry 4.0 Education Awards

Telukdarie Arnesh
Post Graduate School of Engineering Management
University of Johannesburg, Auckland Park, 2092, South Africa

Dr. Dan Centea
Associate Professor
Associate Director, Undergraduate
W Booth School of Engineering Practice and Technology
Associate Member, Department of Mechanical Engineering
McMaster University
Hamilton, Ontario, Canada

IEOM Teaching Excellence Awards – IE & OM

Dr Daoud Ait-Kadi
Faculté de Sciences et génie
Département de génie mécanique
Université Laval
Québec (QC) Canada G1V 0A6

IEOM Distinguished Service Awards

Dr. Srinivas Ganapathyraju
Conference Co-Chair
Professor and Coordinator, Electromechanical Engineering
Sheridan College Institute of Technology & Advanced Learning
7899 McLaughlin Road
Brampton, Ontario L6Y 5H9, Canada

Dr. Ali ElKamel
Conference Co-Chair
Professor, Department of Chemical Engineering
University of Waterloo
200 University Avenue West
Waterloo, ON, Canada N2L 3G1

Steven Sibrel
Senior Supplier Quality Manager
Harman / Becker
Novi, MI

IEOM Outstanding Service Awards

- Prof. Qipeng (Phi) Zheng, Department of Industrial Engineering & Management Sciences University of Central Florida, Orlando, Florida, USA
- Dr. Saso Krstovski, MBB, Lean Manufacturing Coach /Six Sigma Master Black Belt, Van Dyke Transmission Plant, Ford Motor Company, Michigan, USA

IEOM Special Recognition Award

Dr. Anjali Awasthi
Associate Professor, Concordia Institute for Information Systems Engineering
Faculty of Engineering and Computer Science
Concordia University, Montreal, Canada
Dr. Nabeel Mandahawi
Associate Professor
Humber Institute of Technology and Advanced Learning
Toronto, Canada

IEOM Outstanding Student Award
• Mr. Shrey Srujalkumar Shah, Sheridan College Institute of Technology & Advanced Learning

IEOM Student Leadership Awards
• Alberto Betancourt-Torcat, Univeristy of Waterloo, Canada
• Mohammed Alkatheri, Univeristy of Waterloo, Canada
• Abdulhamid Shalaby, Univeristy of Waterloo, Canada
• Hanin Qabbani, Univeristy of Waterloo, Canada
• Omar Morsy, Univeristy of Waterloo, Canada
• Azadeh Maroufmashat, Univeristy of Waterloo, Canada
• Farzaneh Daneshzand, Univeristy of Waterloo, Canada

Undergraduate Student Paper Competition Awards Sponsored by SIEMENS
First Place
ID 156 Implementation of Analytics Procedures to Predict Stock-Outs in Store for a Retailer. A Case in Mexico
Cinthya Yaresi Tamez Silva, Ana Patricia Sepúlveda González, Martín Flores Maradiaga, Juan Ignacio González Espinosa, Business Management Engineering Department, University of Monterrey, Mexico

Second Place
ID 387 Reducing Variation at the Measuring System for the Copper Harpin Quality Inspection in Handling Material Stations
Sara Renata González Cruz and Regina Márquez Reynoso, Instituto Tecnológico y de Estudios Superiores de Monterrey, Querétaro, México

Third Place
ID 307 Incorporate Data Analytics Tools to Optimize the SLP Method with Application to a Plant of a Leading Global Company
Frida Aizaneth Sevilla Medina, Silvia Stephanie Arreola Castillo, Laura Valeria González Aguirre and Edgar Granda, Universidad De Monterrey, Mexico

Graduate Student Paper Competition Awards sponsored by EATON Corporation
First place
ID 100 Aircraft Engine Remaining Useful Life Prediction Framework for Industry 4.0
Hussein A. Taha, Ahmed H. Sakr and Soumaya Yacout, Department of Mathematics and Industrial Engineering, Polytechnique Montréal, Canada

Second Place
ID 434 Neural Network and Internet of Things Implementation to aid Pedestrian Safety
Ujjwal Khanna and Anjali Awasthi, Concordia University Concordia Institute for Information Systems Engineering (CIiSE), Montreal, QC, Canada

Third Place
ID 230 Impact of a Cloud-Based Applied Supply Chain Network Simulation Tool on Developing Systems Thinking Skills of Undergraduate Students
Jeanne-Marie Lawrence, Niamat Ullah Ibne Hossain, Morteza Nagahi and Raed Jaradat, Department of Industrial and Systems Engineering, Mississippi State University, Starkville, MS 39759, USA

Doctoral Dissertation Awards
First place
ID 350 Developing a Dynamic Model for Natural Gas Supply And Demand System to Optimize Pricing and Investment Policy
Farzaneh Daneshzand, University of Waterloo, Canada

2nd place
ID 505 Short-range Electric Cars Used in Multi-Hour Travels
Douglas W.E. Ferrier, College of Technology, Indiana State University, Terre Haute, IN. USA

Third place
ID 229 Development of an Instrument to Assess the Performance of Systems Engineers
Niamat Ullah Ibne Hossain, Morteza Nagahi, Raed Jaradat, Department of Industrial and Systems Engineering, Mississippi State University, USA
Charles Keating, Department of Engineering Management and Systems Engineering, Old Dominion University, VA, USA
Master Thesis Competition Awards

ID 257  Forecast Model for Return Quality in Reverse Logistics Networks  
Aamirah Mohammed Ashraf and Walid Abdul Kader, Department of Mechanical, University of Windsor, Windsor, Canada

Undergraduate Poster Competition Awards

First Place  
ID 407  The 2017-2018 Evaluation of the Operational Excellence Index Impact over the Private Sector Sustainability in Puerto Rico  
Natali A. Camacho Cruz, Department of Industrial and Systems Engineering, Polytechnic University of Puerto Rico, San Juan, PR 00918, USA

Second Place  
ID 501  Using Design of Experiments to Understand Effects of Chemical and Plasma Functionalization on the Surface Tension of Carbon Nanotubes  
Mario Aquino, Yourri-Samuel Dessureault, Gabriela Gomez, Ayon Hao, and Richard Liang, Department of Industrial & Manufacturing Engineering, Florida A&M University – Florida State University College of Engineering, Tallahassee, FL 32310, USA

Second Place  
ID 521: Statistical Analysis of the Drying Process at a Car Wash  
Aisha Torres, Department of Industrial Engineering, Polytechnic University of Puerto Rico

Third Place  
IOT in Healthcare Smart Pill by Veronica Towaianski

Third Place  
ID 494  Computer Guided Laparoscopic Surgery Training  
Gage Driscoll, University of Arizona Honors College, United States

Graduate Poster Competition Awards

First Place  
ID 392  The Impact of Machine Learning Algorithms on Benchmarking Process in Healthcare Service Delivery  
Egbé-Etu Emmanuel Etu, Celestine Aguwa, and Leslie Monplaisir, Dept. of Industrial & Systems Engineering, Wayne State University, Detroit, USA  
Suzan Arslanturk, Department of Computer Science, Wayne State University, Detroit, MI 48202, USA  
Joseph Miller, Department of Emergency Medicine, Henry Ford Hospital, Detroit, MI 48202, USA

Second Place  
ID 504  Computational Modeling Using Multi-omics to Extract Early Predictive Signatures of T-cells Quality  
Odeh-Couvertier V1, Dwarshuis N2, Colonna M3, Huang D2, Edison A3, Fernandez F1, Roy K2, Kotanchek T1, and Torres-Garcia W1  
1Department of Industrial Engineering, University of Puerto Rico, Mayaguez, P.R  
2Georgia Institute of Technology, Atlanta, GA  
3University of Georgia, Athens, GA  
4Evolved Analytics

Third Place  
Towards Optimization by Matching of Response Surfaces: finding Windows of Maximal Similarity  
Díaz Pacheco, Verónica, Acosta Cervantes, Mary C. and Cabrera-Rios, Mauricio, The Applied Optimization Group at Mayagüez, Industrial Engineering Department, University of Puerto Rico, Mayagüez, PO Box 9043, Mayagüez, PR, 00681, USA

Third Place  
ID 508  Dynamic Operations of Distributed Data Center Electricity Load for use as Distributed Energy Resource (DER)  
David D Gower, Department of Systems Science and Industrial Engineering, Binghamton University, Binghamton, NY 13902, USA

Undergraduate STEM Research Competition Awards

First Place  
ID 507  WIP: How 3D Printing and CAD/CAM Design can Influence Students in Classes Outside of STEM; Inspiring Them to Pursue Careers in STEM  
Fernando Monroy Faudoa, University of Texas, El Paso, United States

Second Place  
ID 503  Temperature Regulation of the Human Body using Thermoelectric Peltier Modules  
Brandon Soundara, Department of Engineering Technology, Middle Tennessee State University, 1301 E Main St, Murfreesboro, TN, USA

Third Place  
ID 361  Humans' Perceptions of Handwritten Digits Generated by a Generative Adversarial Network  
Jia Lin Cheoh, Department of Computer Science, Research Center for Open Digital Innovation, Purdue University, West Lafayette, Indiana, USA  
Sabine Brunswicker, Research Center for Open Digital Innovation, Purdue University, West Lafayette, Indiana, USA
Simulation Competition Awards

First Place
ID 440 Using of Optimal Simulation Modelling to Reduce Radiotherapy Cancer Waiting Time and Improve Survival
Malakeh Saberi and Anjali Awasthi, Concordia Institute for Information Systems Engineering (CIISE), Concordia University, Montreal, QC, Canada

Second Place
ID 424 Impact of Bus Rapid Transit Efficiency on Vehicle Traffic of a Brazilian City
Augusto Ghiraldi, Felipe K. Sousa Pereira, Henrique Ewbank de M. Vieira and Rodrigo Luiz Gigante, Industrial Engineering Department, Facens, Sorocaba, Brazil

Third Place
ID 430 Simulation and Optimization of Manufacturing Systems
Kaustubh Kale, Lawrence Technological University, Michigan, USA

Supply Chain Competition Award
ID 435 Utilizing the Blockchain Technology as an Effective Means for Supply Chain Traceability
Chinedu Egbuonu, Concordia University, Montreal, Quebec, Canada

Best Track Papers Awards

Case Studies
ID 41 Use of Biogas as Alternative Fuel for Tobacco Curing: Case for Zimbabwe
Ignatio Madanhire, Department of Mechanical Engineering, University of Zimbabwe, Zimbabwe
Simon Chinguvu, Department of Mechanical Engineering, University of Zimbabwe, Zimbabwe
Tendai Sakala, Department of Mechanical Engineering, University of Zimbabwe, Zimbabwe
Charles Mbbohwa, Department of Quality Management and Operations Management, University of Johannesburg, South Africa

Data Analytics
ID 90 Data-driven Power generation Design and Operation under Demand Uncertainty
Ali Elkamel, Khalifa University of Science and Technology, United Arab Emirates

Design and Analysis
ID 135 Improved design of metered-dose inhaler techniques
Aezeden Mohamed, Department of Mechanical Engineering, Papua New Guinea University of Technology, Lae, Papua New Guinea
Peter Oyekola, Department of Mechanical Engineering, Papua New Guinea University of Technology, Lae, Papua New Guinea
John Pumwa, Department of Mechanical Engineering, Papua New Guinea University of Technology, Lae, Papua New Guinea

Energy
ID 167 An Optimization Strategy for Managing Surplus Electricity through P2G Pathways
Lingyi Gu, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada
Jeeyoung Kim, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada
Joohyung Ko, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada
Azadeh Maroufsmashat, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada
Ali Elkamel, Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada

Engineering Education
ID 155 The Difference between Teams with No Female Students and Teams with Female Students for Peer Evaluation Behavior in Engineering Education
Chuhan Zhou, Department of Engineering Education, Purdue University, West Lafayette, USA
Sunjae Choi, Department of Engineering Education, Purdue University, West Lafayette, USA
Behzad Beigpourian, Department of Engineering Education, Purdue University, West Lafayette, USA
Siqing Wei, Department of Engineering Education, Purdue University, West Lafayette, USA
Daniel M Ferguson, Department of Engineering Education, Purdue University, West Lafayette, USA
Matthew W Ohland, Department of Engineering Education, Purdue University, West Lafayette, USA

Engineering Management
ID 14 Modeling of Enablers for Implementing ICT Enabled Wireless Control in Industry: an Integrated ISM and Fuzzy MICMAC Approach
Dr. Jayalakshmih.B, Instrumentation and Control Engineering Department, NSS College of Engineering, Palakkad, Kerala, India.
Haritha .H, Programmer Analyst, Cognizant Technology Solutions, Kochi, INDIA
Abijith Maniyeri, MENS, University of Southern Queensland, Toowoomba, AUSTRALIA

Sustainability
ID 141 Fuzzy AHP-based Study of Barriers to the Implementation of Cleaner Production in Textile Industry
Farzana Islam, Ahmed Shoyeb Raihan, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

Industry 4.0
ID 203 An Affordable and Portable Technology for Real-Time Scheduling of Appliances in Smart Homes
Raman, R. Sowers, Department of Industrial and Enterprise Systems Engineering, University of Illinois at Urbana-Champaign, Urbana, USA
Industry Solutions
ID 227 Implementing IoT for the Detection of Production Machine Failures
Ahmed Badwelan, Department of Industrial Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia
Moath Alatiefi, Department of Industrial Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia
Atef M. Ghaleb, Department of Industrial Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia
Ali M. Alsamhan, Department of Industrial Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia

Innovation
ID 180 Technology-Push based Product Engineering based on Future Scenarios: Application for deriving product strategies at BMW AG
Florian Marthaler, IPEK – Institute of Product Engineering, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany
Bo Hu, IPEK – Institute of Product Engineering, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany
Albert Albers, IPEK – Institute of Product Engineering, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

Lean
ID 160 Design of new plant layout using lean tools by eliminating wastes in material flow process
Sriram Srinivasan, Department of Mechanical Engineering, University of Windsor, Windsor, Canada
Harita Zikre, Department of Mechanical Engineering, University of Windsor, Windsor, Canada

Human Factors and Ergonomics
ID 151 Product Design Development of Ergonomic Mop: ANOMALI (An Ergonomic Mop for Healthy Life)
Zakka Ugih Rizqi, Department of Industrial Engineering, Islamic University of Indonesia Yogyakarta, Indonesia
Nurahunnun Saet, Department of Industrial Engineering, Islamic University of Indonesia Yogyakarta, Indonesia

Supply Chain and Logistics
ID 202 Vehicle Routing Challenges in the Automotive
Robert R. Inman, Chief Data and Analytics Office General Motors Company, Warren, MI, USA
Rana Afzali-Baghdadabadi, Global Purchasing and Supply Chain General Motors Company, Warren, MI, USA
Baiyang Liu, Global Purchasing and Supply Chain General Motors Company, Warren, MI, USA

ID 99 A Stochastic Optimization Approach for Locating Humanitarian Disaster Relief Centers
Parmis Emadi, Department of Industrial Engineering, University of Windsor, Windsor, ON
Zbigniew J. Pasek, Department of Industrial Engineering, University of Windsor, Windsor, ON

ID 142 Modeling of Supply Chain Risk in the Leather Industry
Ahmed Shoyeb Raihan, Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology Dhaka, Bangladesh
Farzana Islam, Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology Dhaka, Bangladesh
Syed Mithun Ali, Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology Dhaka, Bangladesh

Systems Dynamics
ID 140 System Dynamics as a Solution in Increasing Regional Cash of Daerah Istimewa Yogyakarta by Considering Employment Availability and Traffic Congestion
Zakka Ugih Rizqi, Department of Industrial Engineering, Islamic University of Indonesia, Yogyakarta, Indonesia

Manufacturing
ID 235 Analysis and Optimization of MRR in Powder-mixed EDM of AISI 5160 Steel
Neeraj Sharma, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Republic of South Africa
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Republic of South Africa

Sustainable Manufacturing
ID 233 Analysis and Optimization of Surface Roughness while Machining SS304 using Green Lubricant
Neeraj Sharma, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Republic of South Africa
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Republic of South Africa

Modeling and Simulation
ID 309 Kinematics and Jacobian analysis of a three DOF sufficiently actuated large scale cable-driven robot with insufficient actuated structure
Kambiz Ghaemi Osgouie, Mechanical Engineering Department, Caspian Faculty of Engineering, University Of Tehran
Assal Haqiat Pars, Mechanical Engineering Department, Caspian Faculty of Engineering, University Of Tehran
Ali ElKamel, Department of Chemical Engineering, University of Waterloo, Waterloo, Canada.
Azadeh Maroufamashat, Department of Chemical Engineering, University of Waterloo, Waterloo, Canada.

Mathematical Modeling/ Heuristics and Meta-heuristics
ID 181 A Lower Bound Analysis for the Flowshop Scheduling Problem with Makespan Minimization
Bruno de Sousa Alves, Electrical Engineering Department, Polytechnique de Montréal Montréal, Canada
Carlos Ernani Fries, Department of Production and Systems Engineering, Federal University of Santa Catarina, Florianópolis, SC, Brazil

Project Management
ID 149 The influence of early stage project performance: Some project performance and outcome correlate
Hong Long Chen, Department of Business and Management, National University of Tainan, Tainan, Taiwan

Quality
ID 255 Lean Management and Analysis - An Empirical Study of a Traditional Shipbuilding Industry in Indonesia
Yugowati Praharisi, Shipbuilding Institute of Polytechnic Surabaya, JI. Teknik Kimia Kampus ITS, Indonesia
M. Abu Jamil’in, Shipbuilding Institute of Polytechnic Surabaya, JI. Teknik Kimia Kampus ITS, Indonesia
Reliability and Maintenance
ID 298 A Novel Framework For Calculating The Maintenance Improvement Factor Based On Human Error Factors And Unbiased Expert Judgment
Rogelio Emmanuel Jáuregui Miramontes, Centre for Management of Technology and Entrepreneurship, University of Toronto, Canada
Yuri A. Lawryshyn, Centre for Management of Technology and Entrepreneurship, University of Toronto, Toronto, Canada