



IEOM Society

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2024 IEOM Awards – 9th North American Conference on Industrial Engineering and Operations Management Washington, DC, USA, June 4-6, 2024

Distinguished Academic Leadership Award

Maurice D. Edington, Ph.D.
President
University of the District of Columbia

Distinguished Industry Leadership Award

Eric L. Moore, Ph.D.
Deputy to the Commanding General
U.S. Army Combat Capabilities Development Command

Mr. Matthew J. Stepura
Systems Engineering and Test Department Head
Naval Air Systems Command

Major General Errol R. Schwartz
Major General (Retired)
Commanding General of the Militia of the District of Columbia National Guard

Distinguished Industry Achievement Award

Javad Mokhbery
CEO
FUTEK Advanced Sensor Technology, Inc.
Irvine, California, United States

Dr. Vivek Dwivedi
Associate Division Chief for the Mechanical Systems Division (MSD)
NASA Goddard Space Flight Center (GSFC)

Robert J. Wenier
Global Head of Cloud and Infrastructure
AstraZeneca Pharmaceuticals LP
Gaithersburg, Maryland, USA

Distinguished Educator Award

Dr. Wesley L. Harris
Charles Stark Draper Professor of Aeronautics and Astronautics
Massachusetts Institute of Technology (MIT)
Vice President of National Academy of Engineering

Devdas Shetty Ph.D., PE
Dean
School of Engineering and Applied Sciences
Professor of Mechanical Engineering
University of the District of Columbia
Washington, DC, USA

Dr. Joyce T. Shirazi
Dean
School of Engineering and Technology
Hampton University
Hampton, Virginia, USA

Dr. Michael Keeve
Dean
The College of Science, Engineering & Technology
Norfolk State University
Norfolk, Virginia 23504

Dr. Derrek B. Dunn
Dean
School of Business and Technology
University of Maryland Eastern Shore
Princess Anne, Maryland 21853

Dawit Haile, Ph.D.
Dean of College of Engineering and Technology
Professor, Department of Applied Engineering Technology
Virginia State University
Petersburg, Virginia

Dr. Oscar Barton, Jr., PE, F.ASME
Dean, Clarence M. Mitchell, Jr. School of Engineering
Morgan State University
Baltimore, Maryland

Distinguished Professor Award

Dr. Efosa C. Idemudia
Chair of the Information Systems and Supply Chain Management Department
School of Business
Howard University

Dr. Tridip Bardhan
Chair, Department of Industrial & Systems Engineering (ISE)
Morgan University

Outstanding Professor in Cellular Manufacturing

Dr. Hamid Seifoddini
Associate Professor
Department of Industrial and Manufacturing Engineering
University of Wisconsin-Milwaukee
United States

Global Engineering Education Award

Professor Ariela Sofer
Divisional Dean, Volgenau School of Engineering
College of Engineering and Computing
George Mason University
4400 University Drive
Fairfax, VA 22030

Outstanding Professor Award in Social Robotics

Anshu Saxena Arora, Ph.D., PMP
Associate Professor of Marketing
School of Business and Public Administration
University of the District of Columbia (UDC)
Director of the AI, Social Robotics, and Behavioral Research Lab @ UDC, funded by the National Science Foundation

Outstanding Professor Award in Supply Chain Management

Amit Arora, Ph.D.
Associate Professor of Supply Chain Management
School of Business and Public Administration
University of the District of Columbia (UDC)

Global Supply Chain Management Award

Tanya Penny-Woods
Director of the Center for Excellence in Supply Chain Management (CESCM)
School of Business
Howard University

Industry Best Practice Award

Dr. Tariq Masood, M.Phil. PhD, P.E. (UK)
Fellowship, Sr. MIEEE, Sr. MAChE, MIET, MCET, MAS CET
Assistant Professor
Department of Engineering
Frostburg State University
Frostburg, Maryland

Global AI and Machine Learning Award

Jonathan Conrad
Principle AI Researcher – Amazon
Reston, Virginia
United States

Mohammad Islam
Associate Director
Optum – United Healthcare Inc.
New Jersey, USA

Woman in Industry and Academia Award

Rachel R. Hughes, MBA
Department Manager, Acquisition Strategy and Management
MITRE Corporation

Outstanding Teaching Award

Dr. Denice Clarke (DC) Ware
Associate Director
School of Business
Howard University

Teaching and Learning Award - Cybersecurity

Bob Burke
Program Manager and Adjunct Faculty
Associate Director of the Cybersecurity Education and Research Center (CERC)
Howard University

Outstanding Student Award

Feiyang (Kevin) Bai
Ph.D. Candidate in Computer Science and Engineering
University of the District of Columbia (UDC)

Zachary Rennard
Department of Engineering and Physics
Southern Arkansas University
Magnolia, Arkansas, USA

Farah Altarazi
Department of Systems Science and Industrial Engineering
Binghamton University, The State University of New York
New York, United States

Outstanding Conference Contributor Award

Pablo Sanchez Guerrero, MS
Ph.D. Candidate in Computer Science and Engineering
Laboratory Manager and Adjunct Professor
School of Engineering and Applied Sciences
University of the District of Columbia (UDC)

Hung Ha
IT Specialist
School of Engineering and Applied Sciences
University of the District of Columbia (UDC)

Outstanding Society Service Award

Dr. Luis Rabelo
Professor
Department of Industrial Engineering & Management Systems
University of Central Florida
Orlando, Florida, USA

Competition Winners

Undergraduate Student Paper Competition sponsored by Siemens - ONLINE

First Place

ID 24 A Proposed Ergonomic Memory Foam Cervical Curve Pillow Made with Alternative Organic Wool Material Designed Specifically for Patients with Scoliosis

Bianca Andrea G. Eleria, Gabrielle Francine DC. Gonzales, Virgilio S. Pangilinan Jr. and Wynona Zia J. Peregrino, Department of Industrial Engineering, University of Santo Tomas, Sampaloc, Manila 1008, Philippines
Carlos Ignacio P. Lugay Jr., Professor of Industrial Engineering, University of Santo Tomas, Sampaloc, Manila, Philippines

ID 257 Detection of Soiling Events in Solar Photovoltaic Systems Using In-situ Optical Sensing and Machine Learning

Nicholas Percarpio and Ahmed Aziz Ezzat, Rutgers, The State University of New Jersey, Piscataway, NJ, 08854, USA

Second Place

ID 184 Implementation of an Agile Receivables Management Model Using Kanban to Reduce Delinquency Rates in Digital Transformation Consultancies

Ximena Naomi Paredes-Chirinos, Bachelor in Industrial Engineering, Faculty of Engineering, University of Lima, Peru
Nicolás Mateo Caballero-Carpio, Bachelor in Industrial Engineering, Faculty of Engineering, University of Lima, Peru
Juan Carlos Quiroz-Flores, Research Professor, Faculty of Engineering, University of Lima, Peru

Third Place

ID 206 Enhancing Production Efficiency and Quality in the Carbonated Beverage Industry: A Lean Manufacturing Approach

Bianca Joyce Vargas-Romero, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Borys Gastón Urbizagastegui-Jaramillo, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

Undergraduate Student Paper Competition sponsored by Siemens - Onsite

First Place

ID 131 Power Consumption Optimization for Sustainable Subtractive Manufacturing Operation

Zachary Rennard, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Jeffrey Sumner, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA

Second Place

ID 137 Machining Variables Optimization for Sustainability Manufacturing

Noah Bretz, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Jeffrey Sumner, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA

Third Place

ID 215 Integrate In-process Steel Bar Straightness SPC Validation

Ashay Gandhi, Mike Hofmann, Shilong Zhu and Nitin Kumar, University of Illinois at Urbana-Champaign, United States

Undergraduate Research Competition sponsored by Daikin Applied

First Place

ID 284 Enhancing Operational Efficiency in Hydrocarbon Supply Chains through Engineering Methods: A Case Study in Fuel Dispatch Optimization

Helen Alejandra Alvarado-Davila, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

Second Place

ID 278 Optimizing Logistics and Inventory Management in SMEs: Integrating Economic Order Quantity and Systematic Layout Planning in a Peruvian Distribution Company

Jose Luis Adrianzén-Nuñez, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Gabriel Berrospi-Gálvez, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

Third Place

ID 57 An Evaluation of E-Banking Services among Filipino Senior Citizen Population in the National Capital Region

James William Agliam and Andrei Omar Esguerra, Department of Industrial Engineering, Faculty of Engineering, University of Santo Tomas Sampaloc, Manila, Metro Manila, Philippines

Doctoral Dissertation Competition sponsored by Airbus

First Place

ID 237 Machine learning approach to predict the Laurenty index in wine bottling process

Luis Francisco Lillo Otárola, Hanns de la Fuente Mella and Jose Ceroni Diaz, Escuela de ingeniería Industrial, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile

Second Place

ID 241 A Systematic Literature Review of Performance Management of University Holding Company

Pennapat Jirachai and Natcha Thawesaengskulthai, Department of Industrial Engineering, Faculty of Engineering, Chulalongkorn University, Bangkok, Thailand

Third Place

ID 236 A Solar Energy Framework: Solar System Design for Thermal Applications with Implementation of Fpga

Hafiz Usama Hashmat, Department of Mechanical Engineering, Faculty of Engineering and Technology, The University of Lahore, Lahore, 54000, Pakistan

ID 260 Integration of sequence stratigraphic and structural analysis in identifying the petroleum system in the Odigba Field, Offshore Niger Delta Basin

Edo Osehon, Peoples friendship University of Russia, Russia

Graduate Student Paper Competition sponsored by Eaton Corporation

First Place

ID 142 Predictive and prescriptive analytics models to support the internal audit capacity planning system of an IT company

Patricio Alejandro Zamora Navarro, Rafael Alejandro Ruiz Miller, Roberto Serna Zuazua, José D. Morcillo, Ph.D., Escuela de Ingeniería y Tecnologías, Universidad de Monterrey, México

Second Place

ID 87 Data-Driven Generative Design (dGD) of a Soft Robot Digital Twin by an Intuition Evolutionary Algorithm (iEA)

Chenxi Tao, Roger J. Jiao and Seung-Kyum Choi, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, USA

Third Place

ID 75 Feasibility Restoration in Heuristic Scheduling Problems

Moddassir Khan Nayeem and Omar Abbaas, Department of Mechanical Engineering, University of Texas at San Antonio, San Antonio, TX, USA

Senior Design Project Competition sponsored by Tooling Tech Group

First Place

ID 99 Torque Tactician: A Senior Design Manufacturing Case

Kevin Ayala, Marquis Amador, Steven Casillas, Alexis Orozco, Ronald Martinez and Sepideh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge 91330, California, USA

Second Place

ID 306 Improving Surgical Outcomes: Developing a Machine Learning Spine MRI Triage Tool

Satyar Foroughi, Gerardo Torres and Edward Ventura, Undergraduate Student, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA

Dr. Mansoor Mollaghasemi and Dr. Luis Rabelo, Supervisor, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA

Tony Mango, Project Sponsor, Orlando Health, Florida, USA

ID 135 Increase Reliability: Improve OTC Boilers Cycle

Shaiel Enid Suárez de Jesús BSIE, LSSGB and Jannette Perez Barbosa, MSIE, PE, Department of Industrial and Management Engineering Universidad Ana G. Méndez-Gurabo Campus, Gurabo, Puerto Rico

Third Place

ID 176 Design and Development of an Adjustable Pattern for Roller Shell Casting

Abu Huraira Atta Ullah, Industrial and Manufacturing Engineering, University of Engineering and Technology, Lahore, Pakistan

Lean Six Sigma Competition sponsored by Tooling Tech Group

First Place

ID 291 Improving the Productivity of an MYPE in the Province of Palpa Applying 5S and SLP Methodology

Mercedes Fernández-Durán, Vanessa Quispe-Contreras and Carlos Urbina-Rivera, Faculty of Industrial Engineering, Lima University, Av. Javier Prado Este 4600, Santiago de Surco, Lima – Perú

Second Place

ID 86 The Effectiveness of Teaching Systematic Problem-solving Based on The Revised Bloom's Taxonomy In Lean Manufacturing Training

Catherine Maware, Fujio Cho Engineering Technology, Stanely and Karen College of Engineering, Assistant Professor of Lean Systems Engineering Technology, University of Kentucky, Lexington, KY, USA

David M Parsley, Fujio Cho Engineering Technology, Stanely and Karen College of Engineering, Assistant Professor of Lean Systems Engineering Technology, University of Kentucky, Lexington, KY, USA

Third Place

ID 79 Lean Thinking in Healthcare 5.0 Technologies: An Exploratory Review

Goksu Avdan and Sinan Onal, School of Engineering, Department of Industrial Engineering, Southern Illinois University Edwardsville Edwardsville, IL, USA

Graduate Student Paper Competition sponsored by Eaton Corporation - Onsite

First Place

ID 26 Human Resources Analytics: Determining Possible Turnovers with Feature Engineering Approach

Eren Darici, Kira K. Hamelink and Ilgin Acar, Department of Industrial and Entrepreneurial Engineering and Engineering Management, Western Michigan University, Kalamazoo, MI, USA

Second Place

ID 263 Small Data and Sparse Bayesian Learning for Sequential Inference of Network Connectivity

Jinming Wan, Jun Kataoka, Hiroki Sayama and Changqing Cheng, Department of Systems Science and Industrial Engineering, Binghamton University, Binghamton, NY 13902, USA

Jayanth Sivakumar, Citibank, N.A. company, New York, NY 10013, USA

Eric Peña, Motional company, Boston, MA 02210, USA

Yiming Che, School of Computing and Augmented Intelligence, Arizona State University, Tempe, AZ 85281, USA

Third Place

ID 170 Optimizing Equipment Maintenance: A Predictive Analytics Approach to Enhance Operational Efficiency

Ernesto Rodriguez, Graduate Student, Masters of Engineering Management and Leadership, Rice University, Houston, TX, USA

ID 49 The Role of Generative AI in Supply Chain Resilience: A Fuzzy AHP Approach

Hamid Reza Maghroor, Faraz Madanchi and Thomas O'Neal, Department of Industrial Engineering and Management Systems (IEMS), University of Central Florida, Orlando, Florida, USA

Human Factors and Ergonomics Competition sponsored by CINTAS

First Place

ID 52 Exploring the Impact of Telemedicine and Referral on Carbon Emissions from Healthcare Organizations

Yao-Te Tsai, Associate Professor, Department of Information Management, National Kaohsiung University of Science and Technology Kaohsiung, Taiwan

Chia-Hui Yu, Assistant Professor, Department of Business Administration, National Taipei University of Business, Taipei, Taiwan

Shao-Jen Weng, Dean, College of Interdisciplinary Innovation, Chair, Professor, Department of Industrial Engineering and Enterprise Information

Tunghai University, Taichung, Taiwan

Second Place

ID 63 Assessment of Health Problems and Hazards Prevalent among Garment Workers in a Developing Country: An Approach using Risk Priority Number and Best-Worst Method

Farzana Islam, Department of Industrial and Management Systems Engineering, West Virginia University, Morgantown, WV 26506, United States

Third Place

ID 92 Parental Perspectives on the Impact of COVID-19 on Children's Education

Tarek Q. Qasim, Mohamed Said Obeidat and Dalia Yousef Saaydeh, Department of Industrial Engineering, Faculty of Engineering, Jordan University of Science and Technology, Irbid 22110, Jordan

ID 16 Cost Estimation for Healthcare Service Delivery

Sang-Oh Shim, Professor of Business Administration, Hanbat National University, Daejeon, 34158, South Korea

Poster Competition

First Place

ID 62 Resilience-Driven Scheduling in Critical Infrastructure Network – A Multi Agent Reinforcement Learning Approach

Pavithra Sripathanallur Murali and Shima Mohebbi, Department of Systems Engineering and Operations Research, George Mason University, 4400 University Drive, Fairfax, Virginia, 22030, USA

Second Place

ID 67 An Interactive Approach to Backward Compatible Modular System Configuration

Hari Elangeswaran, John Jung-Woon Yoo and Gangjian Guo, Department of Industrial & Manufacturing Engineering & Technology, Bradley University, Peoria, IL, USA

Third Place

ID 85 Ensemble Learning and Generative Adversarial Networks in chronic kidney disease: Optimizing Dialysis Prediction through Advanced Sampling and Model Tuning

Hamed Khosravi, Srinjoy Das, Abdullah Al-Mamun and Imtiaz Ahmed, Department of Industrial and Management Systems Engineering, West Virginia University, Morgantown, WV 26505, USA

Simulation Competition

First Place

ID 171 Aerospace Part Manufacturing Analysis Using Simulation

Christopher Rowley, Miguel Correa and M. Ali Montazer, Ph. D., University of New Haven, United States

Second Place

ID 134 Methodologies to Model Urban Transportation Networks

Ahmed Alkarboly, Forerunner Advanced Systems & Solutions, Richardson, Texas, United States

Third Place

ID 38 Hydrogen production from waste plastics

Bishwash Paneru, TU, Nepal

Supply Chain and Logistics Competition

First Place

ID 51 Deploying Internet of Things in Green Supply Chain with Applications in Dental Equipment Industry

Alireza Namdari, Connecticut State University, New Britain, CT, USA

Pardis Roozkhosh and Vahideh Bafandegan Emroozi, Operations Research, Department of Management, School of Economics and Administrative Sciences, Ferdowsi University of Mashhad, Mashhad, Iran

Second Place

ID 192 Driving Green Innovation: Lifecycle Assessment and Product Design in the Automotive Supply Chain Using Fuzzy BWM

Syed Aqib Jalil, Faculty of Business, Sohar University, Sohar, Oman

Ameen Siddiqui, Wm Michael Barnes '64, Department of Industrial and Systems Engineering, Texas A&M University, College Station, TX, USA

Third Place

ID 173 Desert into field: Environmental Corporate Social Responsibility in Fostering Sustainable Technological Innovation in the agriculture sector in UAE

Nilakshi Galahitiyawe, Heriot Watt University, United Kingdom

Masters Thesis Competition

First Place

ID 265 Strategic Forecasting for Electric Vehicle Sales and Battery Returns: Integrating Statistical Methods and Monte Carlo Simulation

Leila Talebi and Lin Guo, Department of Industrial Engineering, South Dakota School of Mines and Technology, Rapid City, SD, USA

Second Place

ID 60 The Effect of Data Quality on Decision-Making A Quasi-Experimental Study

Afnan Alabduljabbar and Abdulaziz Alshammari, College of Computer and Information Sciences, Department of Information Systems, Imam Mohammad bin Saud Islamic University, Riyadh, Saudi Arabia

Third Place

ID 140 Predicting Rheology of UV- Curable Nanoparticle Ink Components and Compositions for Inkjet Additive Manufacturing

Cameron Lutz, MS Industrial Engineering Student, Department of Industrial and Manufacturing Engineering, California Polytechnic University – San Luis Obispo, San Luis Obispo, CA 93407 USA

Xuan Wang, Assistant Professor of Industrial Engineering, Department of Industrial and Manufacturing Engineering, California Polytechnic University – San Luis Obispo, San Luis Obispo, CA 93407 USA

Erik Sapper, Associate Professor of Chemistry, Department of Chemistry and Biochemistry, California Polytechnic University – San Luis Obispo, San Luis Obispo, CA 93407 USA