



IEOM Society

"Achieving and Sustaining Operational Excellence"

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2024 IEOM Awards – Industrial Engineering and Operations Management World Congress Detroit, Michigan, USA, October 9-11, 2024

Venue: Lawrence Technological University, Southfield
Awards Presented at LTU UTLC Gallery at 6:00 - 9:00 pm on October 11, 2024

Distinguished Leadership Award in EV

Darren Palmer
Vice President Global EV Programs
Ford Motor Company
Dearborn, Michigan

Distinguished Leadership Award

Sylvester Hester
President and CEO
LM Manufacturing
Detroit, Michigan

Distinguished Industry Achievement Award

Greg MacLean
Sr. Vice President
Huf North America
Farmington Hills, Michigan, USA

Tony Tyll
President and COO
Belmont Equipment & Technologies
Madison Heights, Michigan, USA

Outstanding Industry Leadership Award

Vijaya Neela
Founder, President and CEO
aThingz
Southfield, Michigan

Chris Reed
SVP of R & D for the Americas
Nissan Motor Corporation
Farmington Hills, Michigan

Outstanding Industrial Automation Award

Damien Duclair
Vice President of Industrial & Transformation

FORVIA
Rochester, Michigan

Outstanding EV Practitioner Award

Jim Hall
Director, Battery & Fuel Cell Mfg. Engineering
General Motors
Sterling Heights, Michigan

Lisa Sheth and Shannon Dare
Operations Managers for Electric Vehicle, Digital, & Design
Ford Motor Company
Dearborn, Michigan, USA

Outstanding Woman in Industry and Academy Award

Dr. Donna Bell, Ph.D., IE
Chief Executive Officer, Dr. Donna Bell Consulting
Past Executive Vice President, Engineering, Product Creation, & Procurement, Lordstown Motors Corporation
Past Vice President, Ford Credit
Past Director, AV & Mobility Strategy, Ford Motor Company

Innovation and Entrepreneurship Award

Sebastian Wicklein, Ph.D.
Director, R&D Coordination and Business Development
Fraunhofer USA, Inc.
Riverdale, MD 20737

Dr. Steven Marshall
CFD Senior Expert
Valeo Climate Control
Auburn Hills, Michigan

Outstanding Industry Practitioner Award

Dr. Neil Murray
Senior Technical Specialist
ZF Group
Farmington Hills, Michigan

Outstanding Quality Practitioner Award

Rick Bobowski
Production Manager
ElringKlinger Automotive Manufacturing, Inc.
Southfield, MI 48075

Industry Solutions Award

Raghu Gurumurthy
Director of Operations
Crossover Solutions
Livonia, Michigan

Outstanding Industrial Engineering Practitioner Award

Pablo Ripodas
Senior Industrial Engineer
ElringKlinger Automotive Manufacturing, Inc.
Southfield, Michigan

Supply Chain Management Practice Award

Kiran Kumar Dandu
Associate Director, Supply Chain Planning Systems
Moderna
Cumming, Georgia, United States

Outstanding GD&T Practitioner Award

Mohammad Maksud Haq
Manager, Stamping Quality Metrology Center
Stellantis
Warren, Michigan

Outstanding Leadership Award

Nick Skope
Vice President -Vendor Relations and New Business Development
Electro-Matic, a SunSource Company
Farmington Hills
Michigan, USA

Outstanding Community Service Award

Jill Woodward
President & Chief Operating Officer
Ford Piquette Plant Museum
Detroit, Michigan

Global Engineering Education Award

Dr. Quamrul Mazumder
Professor
Department of Engineering
College of Innovation and Technology
The University of Michigan-Flint

Outstanding Teaching and Learning Award

Dr. Lee Wells
Associate Professor
Industrial and Entrepreneurial Engineering & Engineering Management
Western Michigan University
Kalamazoo MI, USA

Outstanding Professor Award

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

Outstanding Researcher Award

Dr. Samira Keivanpour
Associate Professor
Department of Mathematics and Industrial Engineering
Polytechnique Montréal
Polytechnique Montréal

AI in Manufacturing Award

Revansidha D. Chabukswar
Product Design and Development Lead
AGC Automotive Americas
Farmington Hills, Michigan

IEOM Fellow, 2024

Dr. Saso Krstovski
Associate Dean Industrial Technologies
Henry Ford College
Dearborn, Michigan

Outstanding Conference Service Award

Steven Sibrel
Senior Supplier Quality Manager
Harman International
Novi, Michigan

Outstanding Contributor Award

Dr. Alaa Fouad Mohammed Momena
Assistant Professor
Department of Industrial Engineering
College of Engineering
Prince Sattam Bin Abdulaziz University
Al-Kharj, Saudi Arabia

Outstanding Student Award

Nils Hammarsten
Bachelor of Science in Industrial Engineering (BSIE)
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University
Southfield, Michigan

Tasfia Tarannum
Department of Data Analysis and Supply Chain Management
Southern Arkansas University
Magnolia, Arkansas, USA

Dinesh Thalla
Master of Science in Industrial Engineering (MSIE)
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University
Southfield, Michigan

Outstanding Student Conference Volunteer Award

Dinesh Thalla
Master of Science in Industrial Engineering (MSIE)
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University
Southfield, Michigan

Karthik Saladi, Naveen Gajjela, Shiva Prasad Yallamla and Snehal Arun Barge
Master of Science in Industrial Engineering (MSIE)
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University
Southfield, Michigan

Competition Winners

Doctoral Dissertation Competition sponsored by Airbus

First Place

ID 84 Smart In-process Inspection with Human-automation Symbiosis for Industry 5.0 Manufacturing Systems

Shu Wang, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA, USA

Roger J. Jiao, Associate Professor of School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA 30332, USA

Second Place

ID 125 Analysis of Infrastructure feasibility investigation for Autonomous Vehicles

Soujanya Pillala, PHD Candidate – College of Technology, Game Above College of Engineering and Technology, Eastern Michigan University, Ypsilanti, Michigan, USA

Third Place

ID 33 Analysis and measurement of clogging potential in wines for operational decision-making in the 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

ID 12 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, Pakistan

Masters Thesis Competition

First Place

ID 22 Leveraging Generative AI and In Context Learning to Reshape Human-Text Interaction: A Novel Paradigm for Information Retrieval, Named Entities Extraction, and Database Querying

Mohammed-Khalil Ghali, State University of New York at Binghamton, United States

Second Place

ID 17 Parametric study on the L-DED process parameters for the production of Fe to Cu Functionally Graded Additive Materials

Houda Houban, VUB, Belgium

Vehicle Electrification Competition

First Place

ID 144 On the Design of Electric Charging Infrastructure for Drones

Fateme Hafizi, PhD Student, The Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, Chicago, IL, USA

Mohammad Miralinaghi, Assistant Professor, The Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, Chicago, IL, USA

Second Place

ID 103 Model Based Parameters Estimation and Design Optimization for Electric Race Vehicles

Sujan Thapa and Kenton Kyger, College of Engineering, Kettering University, Flint, Michigan 48504, USA

Guoqiang Li, SAIC-Volkswagen Automotive CO., LTD., Shanghai, China and College of Engineering, Kettering University, Flint, Michigan, USA

Craig J. Hoff, Department of Mechanical Engineering, Kettering University, Flint, Michigan 48504, USA

Chen Duan, Department of Electrical and Computer Engineering, Kettering University, Flint, Michigan 48504, USA

Third Place

ID 5 The 5th Industrial Revolution and Its Influence on Prototyping for Research Commercialization Utilizing Locally-Made 3D Printing Machine

Oluwafemi Tijani, Federal Polytechnic Ayede, Ayede, Oyo State, Nigeria, Nigeria

Undergraduate Student Paper Competition sponsored by Siemens

First Place

ID 41 Comprehensive Lean Production Model Implementation for Quality and Efficiency Enhancement in Textile SMEs: A Case Study

Geidy Fiorella Huayra-Mendoza, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru
Karla Camila Ticlavilca-Arias, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru

Second Place

ID 115 Evaluation of INIA Real Sicaina and Shulay Potato Varieties for Industrial Processing as Frozen Pre-Fried Potatoes: A Case Study for the Peruvian Agro-Industry

Eva Danae Castañeda-Ortiz and Jesselin Marianne Herrera-Gómez, Bachelors in Industrial Engineering, Facultad de Ingeniería, Universidad de Lima, Perú
Juan Carlos Quiroz-Flores, Research Professor, Facultad de Ingeniería, Universidad de Lima, Peru

Third Place

ID 28 Developing a Lean Warehousing Storage Model: A Case Study in Peruvian Retail SMEs

Franco Bedoya-Vargas, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru
Diego Alonso Del-Carpio-Lagones, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru

Undergraduate Research Competition sponsored by Daikin Applied

First Place

ID 43 Lean Service Model Implementation in Convenience Stores: A Case Study in Inventory and Product Quality Management

Aldo John Llanos-Huerta, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru
Roddy Gerardo Mendoza-Huerta, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru
Martin Fidel Collao-Diaz, Research Professor, Facultad de Ingeniería, Universidad de Lima, Perú

Second Place

ID 42 Implementing Lean Manufacturing and AHP for Efficiency in Mining Equipment Motor Repairs: A Case Study

Miguel André Rubina-Gonzales, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú
Brandon Arturo Sanabria-Gamboa, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Third Place

ID 8 Optimizing the Fishing Supply Chain: An Operations Management Approach to Mitigating Ghost Net Pollution

Raghav Dhaka, Indian Maritime University, India

Graduate Student Paper Competition sponsored by Eaton Corporation

First Place

ID 161 Optimal Manufacturing Load Balancing in High-Mix Production Lines by Leader-Follower Hierarchical Game Decision Making

Mulang Song and Jianxin (Roger) Jiao, Georgia Institute of Technology, Atlanta, USA

Second Place

ID 40 A Lean Manufacturing Case Study: Enhancing Efficiency and Reducing Waste in Latin American Food Production

Alexandra Katherine Rojas-Valverde, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru
Claudia Alexandra Muñoz-Briceño, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru

Third Place

ID 35 Optimizing the Global Automotive Industry's Supply Chain Resilience

Tasfia Tarannum, Department of Data Analysis and Supply Chain Management, Southern Arkansas University, Magnolia, Arkansas, USA
Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, Magnolia, Arkansas, 71753, USA

Senior Design Project Competition sponsored by Tooling Tech Group

First Place

ID 24 Optimization of the Processes in the PAI 1.75lts Palletizer of the Coca Cola Bottling Plant

Amarilis Silva and Thais Sánchez, Polytechnic University of Puerto Rico, San Juan, PR
Prof. Luis Olivares Lugo, Senior Capstone Project Mentor, Department of Industrial Engineering, Polytechnic University of Puerto Rico, San Juan, PR

Second Place

ID 110 PanicGuard+: Safeguarding Vulnerable Populations with a Redesigned Panic Button System

Riley Birdwell, Gabriel Craig, Nolan Ezernack, Shahriar Hossain and Mofthah Ali, Department of Engineering Technology, Northwestern State University, Natchitoches, LA 71457, USA

Third Place

ID 237 Enhancing Performance in Metal Manufacturing and Fabrication Systems through Lean Tools

Rana Almardaie, BS in Industrial Engineering, COE, Lawrence Technological University, Southfield, Michigan, USA
Ahad Ali, PhD, Associate Professor, Department of Mechanical, Robotics, and Industrial Engineering, College of Engineering, Lawrence Technological University, Southfield, Michigan, USA

Supply Chain Management Competition

First Place

ID 65 Improvement proposal for supply chain management using Lean Logistics and Kraljic Matrix with structural equations in the sausage industry

Sebastian Curay and Jean Pierre Erquinio, Carrera de Ingeniería Industrial, Universidad de Lima, Perú
Edilberto Miguel Avalos-Ortecho, Carrera de Ingeniería Industrial, Universidad de Lima, Perú

Second Place

ID 83 Managing Supply Chain Resilience and Sustainable concerns with Industry 4.0: A SSM-based Approach

Neera Singh Parihar, Bharati School of Telecom Technology and Management, Indian Institute of Technology, Delhi, Hauz Khas, New Delhi, India

Ravi Shankar, Department of Management Studies, Indian Institute of Technology Delhi, Hauz Khas, New Delhi 110016, India

Third Place

ID 66 Deep Learning Model-based Reinforcement Learning for Joint Distribution and Route Planning in the Supply Chain

Ali Arishi, Assistant Professor, Department of Industrial Engineering, King Khalid University, Saudi Arabia

ID 234 Using Lean Methodology to Enhance the Effectiveness of the Supply Chain Network

Nasser Aldoseri and M. Zohdi, School of Engineering and Computer Science, Industrial and Systems Engineering Department, Oakland University, Rochester, MI, USA

Daw Alwerfalli, Director of Master of Engineering Management, Leon Linton Department of Mechanical, Robotics and Industrial Engineering, College of Engineering Lawrence Technological University, Southfield, Michigan, USA

High School STEM Competition

First Place

ID 168 Implementation and Comparison of CNN Models on CIFAR-10 Dataset

Seonyul Shin and Shin Dong Ho, Student and Professor, My Paul School, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea

Jeongwon Kim, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

Second Place

ID 171 Correlation of MNIST Classification Accuracy and Training Time According to Neural Network Depth

Youju Rim and Shin Dong Ho, Student and Professor, My Paul School, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea

Jeongwon Kim, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

Third Place

ID 167 Enhancing Privacy and Security Using Large Language Models and Addressing the Privacy Paradox in Data Utilization

Moon Chul Kim and Shin Dong Ho, Student and Professor, My Paul School, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea

Jeongwon Kim, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

Poster Competition

First Place

ID 142 Transforming Industrial Teleoperation through Immersive Digital Twins: A Collaborative Extended Reality (XR) Environment for Seamless Remote Operations

Israa Azzam and Farid Breidi, School of Mechanical Engineering Technology (SOET), Purdue University, West Lafayette, IN 47906, USA

Second Place

ID 111 Machine Learning-Based Quality Control for 3D-Printed Parts

Wuyang Qian, Data Science and Engineering, South Dakota School of Mines and Technology, Rapid City, SD, 57701, USA

Lucas Eastlund, Mechanical Engineering, South Dakota School of Mines and Technology, Rapid City, SD, 57701, USA

Matthew Percival, Business Management in Technology, South Dakota School of Mines and Technology, Rapid City, SD, 57701, USA

Suhao Chen and Lin Guo, Industrial Engineering, South Dakota School of Mines and Technology, Rapid City, SD, 57701, USA