



2024 IEOM Awards and Competition Winners
2nd GCC Conference on Industrial Engineering and Operations Management
Muscat, Oman, December 1-3, 2024. Host: SQU

IEOM Distinguished Leadership Award

Sulaiman Al Hudhaili
Country Managing Director
ACWA Power Oman

IEOM Distinguished Industry Leadership Award

Engr. Salim Ali Al-Harhi
General Manager
Oman Airports Management Company

IEOM Distinguished Industry Leadership Award

Azhar Al Kindi
COO, EDO

IEOM Distinguished Industry Leadership Award

Engr. Mustafa Al-Balushi
Vice President of People and Culture, OQ

IEOM Distinguished Academic Leadership Award

Dr. Saeed Al Araimi
Assistant Professor, SQU

IEOM Distinguished Academic Leadership Award

Dr. Nasr Al-Hinai
Head, Department of Mechanical and Industrial Engineering
Sultan Qaboos University, Al-Khoudh, Oman

IEOM Distinguished Educator Award

Prof. Selim Akturk
Bilkent University

IEOM Distinguished Industry Achievement Award

Mohammed Salim Al Ghafri
Vice President of Solutions and Strategy, Asyad Group

IEOM Distinguished Professor Award

Prof. Tasneem Pervez
SQU

IEOM Outstanding Professor Award in SCM

Dr. Reza Farzipoor Saen
SQU

IEOM Outstanding Professor Award in OM

Prof. Niaz Wassan
SQU

IEOM Outstanding Researcher Award

Prof. Khalid Alzebedeh
SQU

IEOM Teaching Award

Dr. Hakan Gultekin
MIED, SQU

IEOM Innovation Award

Engr. Azzan Al Kindi
Chief Executive Officer
Rihal Data Migration and Services LLC

IEOM Industry Solutions Award

Dr. Mubarak Al Alawi
SQU

IEOM Global Engineering Education Award

Prof. Sunderesh Heragu
Regents Professor and Donald and Cathey Humphreys Chair
Department of Industrial Engineering & Management
College of Engineering, Architecture and Technology
Oklahoma State University
Stillwater, Oklahoma, United States

Lean Six Sigma Practice Award

Nasser Al Kindi
PDO

Lean Six Sigma Teaching Award

Dr. Hussam Ali Alothman
Assistant Professor
Department of Industrial Engineering
College of Engineering and Technology, American
University of the Middle East, Kuwait

IEOM Industry 4.0 Award

Dr. Ahmed Al Maashri
SQU

IEOM Woman in Industry and Academia Award

Amira Al Kharusi
Quality Information Management Lead, PDO

Outstanding Service Award

Saif Al Farsi
Mechanical Rotating Eng. Team Lead, PDO

Outstanding Service Award

Saif Al-Abri
Group Captain/Brigadier (ENG), RAFO

Outstanding Teaching Award in Manufacturing

Dr. Osama Al-Jamal
Assistant Professor in Manufacturing
University of Bahrain
Zallaq, Bahrain

Outstanding Professor Award

Prof. Saud Ghani
Professor & Head
Department of Mechanical and Industrial Engineering
Qatar University
Doha, Qatar

Outstanding Professor in Engineering Management Award

Prof. Erkan Bayraktar
Professor of Engineering Management
Gulf University for Science and Technology (GUST)
W. Mishref, Kuwait

Outstanding Professor Award

Prof. Atidel Aboubaker Hadj-Alouane
Department Chair, Industrial Engineering & Engineering Management
University of Sharjah
Sharjah, UAE

Outstanding Student Award

Ruqaiya Salim Sulaiyam Al Mazidi
IE student, SQU

IEOM Student Chapter Award

Al Zahraa Al Azri
IE student, SQU

Competition Winners

Undergraduate Research Competition sponsored by Daikin Applied - On-Site

First Place

ID 149 Optimizing Medical Supplies Warehouse Locations in Muscat for Enhanced Healthcare Supply Chain Efficiency
Majid Al Jahdhami, Salah Al Balushi, Abdullah Al Kindi, Abdallah Al Madhani and Hakan Gultekin, Department of Mechanical and Industrial Engineering, College of Engineering, Sultan Qaboos University, Muscat, Sultanate of Oman, Oman

Second Place

ID 34 Large Language Model (LLM) Driven Linear Programming Formulation: The Role of Linguistic and Mathematical Complexity
Raneem Qwaider, Undergraduate Student, Department of Statistics and Data Analytics, UAE University, Al Ain, UAE
Mariam Almenhali, Undergraduate Student, Department of Statistics and Data Analytics, UAE University, Al Ain, UAE

Third Place

ID 169 Designing the Layout and Operations of Medical Supplies Warehouse
Zamzam Al Aamri, Student in Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman
Dunya Al Bahri, Student in Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman
Roa'a Al Nou'mani, Student in Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman
Hakan Gultekin, Associate Professor, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman

Undergraduate Student Paper Competition Sponsored by Siemens (On-Site)

First Place

ID 19 Designing a Smart System for Predicting Energy Consumption in Bisha City, Kingdom of Saudi Arabia
Lolah S. Kadasah, Haya A. Al-Qahtani, Raghad M. Al-Dosari, Fatima I. Al-Dossary and Lina N. Al-ghamdi, Undergraduate Student in Industrial Engineering, Department, College of Engineering, University of Bisha, Bisha 61922, Saudi Arabia
Khaled Ali Abuhasel, Full Professor in Industrial Engineering, Department, College of Engineering, University of Bisha, Bisha 61922, Saudi Arabia

Second Place

ID 56 The Urban Dilemma: How Car-Centric Design Perpetuates Traffic and Costs"
Abdullah Mahmood Al Kindi, Undergraduate Student, College of Economics and Political Science, Sultan Qaboos University, Muscat, Oman

Graduate Student Paper Competition Sponsored by Eaton Corporation - Onsite

First Place

ID 81 Challenges and Opportunities in Implementing a National Hazmat Management Framework in Oman
Ali al Kalbani, Ph.D. Candidate, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman
Hakan Gultekin, Associate Professor, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman
Nasr Al Hinai, Associate Professor and Head, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman

Second Place

ID 117 Investigation of Clad Failures in Aluminum Smelters
Aadel Al Niyadi, Sayyad Zahid Qamar, Majid Al Maharbi and Faraq Al Jahwari, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman

ID 97 Enhancing Cloud Architecture's Efficiency with an Adaptive Elitism-Based Genetic Algorithm for Task Scheduling
Muhammad Osama, Department of Computer Science, National University of Computer & Emerging Sciences, Karachi, Pakistan
Syed Shah Sultan Mohiuddin Qadri and Ahmet Kabarcık, Department of Industrial Engineering, Çankaya University, Ankara, Türkiye
Muhammad Farrukh Shahid, Department of Artificial Intelligence, National University of Computer & Emerging Sciences, Karachi, Pakistan

Third Place

ID 109 An Exploratory Study on Material Handling Systems Design and Analysis

Ahmed Gabr, Teaching and Research Assistant, Faculty of Engineering, German International University, Cairo, Egypt
Amr Nounou, Associate Professor, Faculty of Engineering, German International University, Cairo, Egypt

Lean Six Sigma Competition (Virtual)

First Place

ID 26 Improved Operational Efficiency and Patient Satisfaction in Healthcare SMEs through Lean Service: A Case Study from Peru

Alfonso Franco-Cantuarias, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú
Javier Enrique Grimaldo-Quiroz, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Second Place

ID 22 Lean Storage Model for Enhancing Operational Efficiency: A Case Study of a Peruvian Pharmaceutical SME

Pedro Manuel Pupuy-Yataco, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú
Alvara Sebastian Vidal-Tanaka, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Third Place

ID 23 Developing and Implementing a Lean-Based Inventory Management Model: A Case Study in the Peruvian Construction SME Sector

Carlo Rivaldo Flores-Cruz, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú
Rene Juvenal Yañez-Jurado, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Master's Thesis Competition - Onsite

First Place

ID 61 Saudi Arabia's Industrial Innovation Performance: Moving Beyond the Global Innovation Index, GII Score

Asma Alsaad, Prince Sultan University, Saudi Arabia

Second Place

ID 38 Optimizing Engineering Management Strategies for Construction Projects in PDO: A Comprehensive Analysis of Project Constraints and Performance Factors

Mohammed Al Rumhi, MSc Engineering Management, Department of Mechanical Engineering, Global College of Engineering and Technology, Muscat, Sultanate of Oman, Oman
Milad Heidari, Associate Professor, Program leader, Quality Assurance Officer, Department of Mechanical Engineering, Global College of Engineering and Technology, Muscat, Sultanate of Oman, Oman
Eman Al Namaani, Associate Professor, Deputy Dean (Quality Assurance), Global College of Engineering and Technology, Muscat, Sultanate of Oman, Oman

Third Place

ID 68 Optimization of Energy Consumption in a Maritime Transit Network

Mubarak Abdullah Bahaihm and Abdul Zubar Hameed, Department of Industrial Engineering, Faculty of Engineering, King Abdulaziz University, Jeddah, Saudi Arabia

Lean Six Sigma Competition sponsored by Tooling Tech Group - Onsite

First Place

ID 162 A Lean Six Sigma Approach for the Sustainable Quality Improvement of Healthcare Operations and Patient Admissions at Emergency Rooms

Dana Albatni, Dalal Buqammaz, Rahaf Alelaiwi, Hussam Ali Alothman and Mutaz Tayseer Ayed, College of Engineering and Technology, American University of the Middle East, Kuwait

Second Place

ID 132 A Lean Six Sigma Approach to Continuous Improvement Methodology for Pharmaceutical Quality and Efficiency: Enhancing Tablet Production in Jordan

Mohammad D. AL-Tahat, The University of Jordan, School of Engineering, Industrial Engineering Department, Amman 11942, Jordan
Malsa A. Nsour, Luminus Technical University College (LTUC), Engineering Department, Amman 11118, Jordan

Third Place

ID 82 Investigating Employee Onboarding Processes through Lean Six Sigma in the Oil and Gas Industry in Oman

Montaha Saud Al Habsi, Logistics, Tourism, and Service Management Department, German University of Technology in Oman, Muscat, Sultanate of Oman, Oman

Senior Design Competition / FYP Competition Sponsored by Tooling Tech Group - Onsite

First Place

ID 44 Design and Optimization of Hydrogen Supply Chain Network: A Case Study of Oman

Hawraa Al Balushi, Abdulrahman Al Mansoori and Ali Al Rawahi, Sultan Qaboos University, Oman

Second Place

ID 176 Optimization of Additive Manufacturing (3D Printing) Process for Bio-based nanocomposites

Khalid Al Kindi, Sultan Qaboos University, Oman

Third Place

ID 73 Performance Assessment of Date Palm Fibers: Effects of Treatments and Geographic Variability

Sulaiman AL-Siyabi, Khalid Alzebeid, Nasr Al Hinai and Mahmoud Alsafy, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Sultanate of Oman

Simulation Competition - Onsite

First Place

ID 172 Integrating Value Stream Mapping, Simulation Modeling, and Digital Twin to Enhance Manufacturing System Performance: A Comprehensive Demonstration Approach Through Lab Experiments

Saif Al-Rawahi, Abdalla Al-Shaaili, Omer Al-Kharusi and Nasr Al-Hinai, Department of Mechanical and Industrial Engineering, College of Engineering, Sultan Qaboos University, Al-Khoud, Muscat 123, Oman
Ahmed Shaban, Department of Mechanical and Industrial Engineering, College of Engineering, Sultan Qaboos University, Al-Khoud, Muscat 123, Oman and Mechanical Engineering Department, Faculty of Engineering, Fayoum University, Fayoum 63514, Egypt

Second Place

ID 158 A Simulation Model for Outpatient Appointment System Design for a Health Care Facility in Kuwait

Ufuk Kula, Dana Alsaeed, Ghezlan Almutawa, Moudhi Alrubah, Najd Alhajraf and Nourah Alhaddad, American University of Middle East, Kuwait

Supply Chain and Logistics Competition - Onsite

First Place

ID 184 Nexus of Modern Relief Distribution Logistics System during Disaster Response in Oman – A Hybrid Content Review

Anwaar Al Amairi, Muscat University Student, Logistics and Supply Chain Management UG Student, Muscat University, Oman
Ahmed Zainul Abideen, Faculty of Transport & Logistics, Muscat University, Oman

Second Place

ID 53 Dynamic Delivery Scheduling Model Using Historical Data Analysis for Optimal Truck Selection

Wejdan Mohammed Alamri, Senior Industrial Engineering Student at King Khalid University, Saudi Arabia
Hajar Daghsh Alharthi, Senior Industrial Engineering Student at King Khalid University, Saudi Arabia
Rahaf Khaled alhies, Junior Artificial Intelligence Student at the University of Hail, Saudi Arabia
Abdulsalam Ahmed Alqarn, Assistant Professor in the Industrial Engineering Department at King Khalid University, Saudi Arabia

Human Factors and Ergonomics Competition - Onsite

First Place

ID 80 Proposed Design for Adjustability: Body Powered Prosthetic Hand

Tamer M. Khalaf, Department of Industrial Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia

Second Place

ID 79 Designing a Smart System for Helping Blind and Visually Impaired People

Mohammed H. Alhaag, Assistant Professor, Department of Industrial Engineering, Mustaqbal University, Buraidah, Al-Qassim, Saudi Arabia

Nacer Eddine Hammami, Assistant Professor, Department of Computer Engineering, Mustaqbal University, Buraidah, Al-Qassim, Saudi Arabia

Anas Alenazi, Omar AL-Akkad, Asim Altirbaq and Faisal S. Alharbi, Department of Industrial Engineering, Mustaqbal University, Buraidah, Al-Qassim, Saudi Arabia

Ruba Abdulrahman Alkhuzayim, Student, Department of Computer Engineering, Al- Mustaqbal University, Buraidah, Al-Qassim, Saudi Arabia

Third Place

ID 161 Measuring Musculoskeletal Disorders with a Modified Version of the Nordic Musculoskeletal Questionnaire and Improving the Work Environment in an Office in Kuwait

Coskun Joe Dizmen, Assistant Professor, College of Engineering and Technology, American University of the Middle East, Kuwait

Sara Alhajri, Retaj Alshatti, Raghad Alsaheed, Arwa Alazmi and Nour Altulaihi, Graduates of the Bachelor of Science in Industrial Engineering, American University of the Middle East, Kuwait

Undergraduate Student Paper Competition Sponsored by Siemens (Virtual)

First Place

ID 76 Integrating Lean Manufacturing and Ergonomics for Enhancing Operational Efficiency in Peruvian Textile SMEs: A Case Study

Airthon Jhair Julcarima-Perez, Bachelors in Industrial Engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Alvaro Miguel Portal-Huayanca, Bachelors in Industrial Engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Second Place

ID 133 Designing and Prototyping a Filament Extruder

Nour Ibrahim, Faculty of Engineering, German International University, Cairo, Egypt

Hana Gohar, Faculty of Engineering, German International University, Cairo, Egypt

Rahaf Borham, Faculty of Engineering, German International University, Cairo, Egypt

Habiba ElSayed, Faculty of Engineering, German International University, Cairo, Egypt

Seif Salah, Teaching and Research Assistant, Faculty of Engineering, German International University, Cairo, Egypt

Amr Nounou, Associate Professor, Faculty of Engineering, German International University, Cairo, Egypt

Third Place

ID 30 Significant Efficiency Gains in Construction SMEs through Lean Procurement Practices: A Case Study on Integrating Kanban, Systematic Layout Planning, and 5S

Brayaham Angel Pineda-Pomachagua, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Renzo Joaquín Núñez-Romero, Bachelor's in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Perú

Poster Competition

First Place

ID 54 System for Optimizing Space Utilization in Factories Considering Safety and Sustainability Standards

Mohammed Alqahtani, Professor of Industrial Engineering, College of Industrial Engineering, King Khalid University, Abha, Saudi Arabia

Raneem Bayram AlQahtani, Ghala Saeed AlShehri, Amal Ali Albshabshe, Maram Mohammed Khardali and Reham Saeed Alshahrani,

Senior Industrial Engineering Students, College of Industrial Engineering, King Khalid University, Abha, Kingdom of Saudi Arabia