



IEOM Society

"Achieving and Sustaining Operational Excellence"

www.ieomsociety.org

2024 IEOM Dubai Awards

14th International Conference on Industrial Engineering and Operations Management, Hyatt Regency, Dubai, UAE, Feb 11-14, 2024. Host: Khalifa University

Fellows

1. Dr. Albertus Retnanto, Program Chair of Petroleum Engineering, Texas A&M University at Qatar
2. Dr. Devinder Kumar Banwet, Vice Chancellor (Founding), University of Engineering & Management, Kolkata, India and Former Professor and HOD, Department of Management Studies, IIT Delhi, India
3. Dr. Leonardo Frizziero, Associate Professor, Department of Industrial Engineering, Alma Mater Studiorum University of Bologna, Italy
4. Dr. Matthew Pepper, Associate Professor, School of Business, Faculty of Business and Law, University of Wollongong, New South Wales, Australia
5. Dr. Mohammed Ahmed, Professor and Director of Engineering, Management, College of Engineering and Technology, Eastern Michigan University, Ypsilanti, Michigan, USA
6. Dr. Mohammed Alkahtani, Professor of Department of Industrial Engineering and Vice-Dean of Advanced Manufacturing, College of Engineering, King Saud University, Riyadh, Saudi Arabia
7. Dr. Renduchintala Raghavendra Sharma, Professor, Department of Industrial and Management Engineering, Indian Institute of Technology Kanpur, India
8. Dr. Saso Krstovski, Workforce Development Manager, Oakland Community College, Former University Research Program Manager, Research and Innovation Center, Ford Motor Company and Former Lean Manufacturing Coach/Six Sigma Master Belt, Van Dyke Electric Powertrain Center – Ford Motor Company, Sterling Heights, MI, USA
9. Dr. Shekar Babu, Associate Dean & Professor, AMRITA University, Mysuru, India

Distinguished Leadership in Project Management Award

Lee R. Lambert
A Founder of the PMP
CEO, Lambert Consulting Group
Powell, Ohio, United States

Distinguished Industry Leadership Award

Amer Kakish
Chief Executive Officer
Ittihad International Investment LLC, Abu Dhabi, UAE

Ayman Al Issa
Industrial Cybersecurity Lead and Senior Expert
McKinsey & Company, Abu Dhabi, United Arab Emirates

Distinguished Academic Leadership Award

Dr. Dima Jamali
Vice President of Academic Affairs
Dean of the School of Management
Canadian University in Dubai, UAE

Prof. Mohammed Dhiaf
President of Liwa College
Full Professor of Industrial Management
Abu Dhabi, United Arab Emirate
Dr. Steve Griffiths

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

Senior Vice President, Research and Development
Professor of Practice, Chemical and Petroleum Engineering
Khalifa University, Abu Dhabi, UAE

Outstanding Researcher Award

Dr. Farouk Yalaoui
Senior Director (Vice President) for Research and Full Professor
University of Technology of Troyes (UTT), Troyes, France

Dr. Muthu Mathirajan
Chief Research Scientist, Department of Management Studies
Indian Institute of Science (IISc), Bangalore, India
National President of Operational Research Society of India, 2023-2024

Innovation Award

Prof. Dr. Hany Moustapha
Professor and CEO, SDG InnovationTM Network, University of Québec
Siemens' Chair on Industry 5.0 Technology Integration
Pratt & Whitney Canada Chair on Propulsion System
Senior Research Fellow, Pratt & Whitney Canada

Distinguished Professor Award

Prof. Fadi Aloul, PhD, CISSP
Dean of Engineering
American University of Sharjah
Sharjah Emirate, United Arab Emirates

Distinguished Industry Achievement Award – Industry 4.0

Dr. Fuad Alattar
Senior Vice President, Middle East
Siemens Digital Enterprise Services
Dubai, United Arab Emirates

Outstanding Professor in Process Systems Engineering

Dr. Ali ElKamel
Professor Chemical and Petroleum Engineering, Khalifa University, UAE
Professor of Chemical Engineering, University of Waterloo, Canada

Outstanding Professor in Digital Supply Chain Award

Prof. Mohammed Omar
Department Chair, Department of Management Science and Engineering
Director, Center for Digital Supply Chain and Operations Management
Khalifa University of Science and Technology, Abu Dhabi, UAE

Outstanding Professor in Operations Research

Dr. Abdulrahim Shamayleh
Department Head, Department of Industrial Engineering
American University of Sharjah, United Arab Emirates

Dr. Andrei Sleptchenko
Associate Professor, Department of Industrial and Systems Engineering
Khalifa University, Abu Dhabi, UAE

Outstanding Professor Award in Quality Control

Dr. Mohammad Shamsuzzaman
Professor, Department of Industrial Engineering and Engineering Management
University of Sharjah, UAE

Outstanding Professor in Quality and Reliability

Dr. Majid Mohammad Aldaihani
Professor, Industrial & Management Systems Engineering
Kuwait University, Kuwait

Outstanding Professor Award

Dr. Rifat Ozdemir
Associate Professor and Department Chair - Industrial Engineering
American University of the Middle East (AUM)
Egaila, Kuwait

Dr. Anas AlGhazi
Chairman, Industrial and Systems Engineering Department
King Fahd University of Petroleum & Minerals
Dhahran 31261 Kingdom of Saudi Arabia

Global Human Factors and Ergonomics Award

Dr. Abdul Rahman Musa Khamj
Head, Industrial Engineering Department
Jazan University, Saudi Arabia

Global Engineering Education Award

Dr. Amir J. Majid
Associate Professor, College of Engineering
University of Science & Technology of Fujairah
Fujairah, United Arab Emirates (UAE)

Outstanding Teaching Award in Quality Control

Dr. Salah Haridy
Associate Professor, Department of Industrial Engineering and Engineering Management
University of Sharjah

Outstanding Teaching Award in Operations Research

Dr. Adriana Gabor
Associate Professor in Mathematics
Khalifa University, Abu Dhabi, UAE

Operations Management Teaching Award

Dr. Rohit Sharma
School of Management
University of Wollongong in Dubai, UAE

Outstanding Teaching Award in Occupational Safety and Health

Dr. Ibrahim Abdullah Almuheidib
Head, Industrial Engineering
King Saud University
Riyadh, Saudi Arabia

Outstanding Teaching Award in Human Factors and Ergonomics

Dr. Suat Kasap
Associate Professor, Industrial Engineering Department
College of Engineering and Technology
American University of the Middle East, Kuwait

Dr. Hassan Hijry, Ph.D.
Assistant Professor, Industrial Engineering Department
University of Tabuk
Tabuk, Saudi Arabia

Outstanding Teaching Award in Logistics

Mirna Lusiani, ST, MT.
Lecturer, Department of Logistics Engineering
Universitas Pertamina
South Jakarta, DKI Jakarta, Indonesia

Outstanding Teaching Award in Multi-Criteria Decision Making

Dr. Hafiz Muhammad Khurram Ali
Associate Professor
Department of Industrial Engineering
University of Engineering and Technology Taxila
Pakistan

Outstanding Teaching Award in Logistics and Transportation

Dr. Shima Al-Quradaghi
Assistant Professor & Director of Qatar Transportation and Traffic Study Center
Department of Mechanical and Industrial Engineering
College of Engineering
Qatar University, Doha, Qatar

Global Operations Management Teaching Award

Dr. Suzan Alaswad
Chair, College of Business
Zayed University

Young Faculty Research Award in Supply Chain & Logistics

Dr. Aalok Kumar
Assistant Professor & Chair
Production & Operations Management
Indian Institute of Management, Visakhapatnam,
Anandapuram Mandal, Visakhapatnam – 531 163, India

Global Lean Six Sigma Award

Dr. Mahmoud Awad
Associate Professor
Department of Industrial Engineering
American University of Sharjah, UAE

Operations Excellence Award

Dr. Mohamed Alblooshi
Assistant Professor, College of Business/Operations Management
Zayed University

Outstanding Engineering Education Award

Professor Sulaiman Al-Zuhair
Professor of Chemical Engineering
Assistant Dean for Research and Graduate Studies
College of Engineering
United Arab Emirates University, UAE

Women in Industry and Academia Award

Reema Akhtar, Forbes HR, Chartered MCIPD, SHRM-SCP
Official Member, Forbes Human Resources Council
Group HR Head, SeerSolutionz
Dubai, United Arab Emirates

IEOM Student Chapter of the Year Award 2023

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

IEOM Student Chapter at King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia
IEOM Student Chapter at Zagazig University, Egypt

Student Academic Excellence Award in Lean Manufacturing

Dara Affydah
Researcher, Universiti Malaysia Pahang
Petaling Jaya, Selangor, Malaysia

Outstanding Student Leadership Award

Eman Mastour Alqarni
Director of Administration, IEOM KKKU Student Chapter
Industrial Engineering Department, Collage of Engineering
King Khalid University, Abha, Kingdom of Saudi Arabia

Outstanding Student Award

Fares Almahri
Industrial Engineering Student
Liwa College
Abu Dhabi, UAE

Competition Winners

Poster Competition

First Place

ID 507 Optimal Design Parameters for a Vortex Wind Turbine
Sarah Al Saeed, Shahad Almasuda, Sabah Alshahrani, Fatima Aljameela, Reham Alashwla and Mohammed Alqahtania, Department of Industrial Engineering, King Khalid University, King Fahad St., Abha, 62529, Saudi Arabia

Second Place

ID 99 Improving the Processes by Applying Lean Six Sigma Tool (VSM): Case Study in KSA
Ali Almuflih, Assistant Professor in the department of Industrial Engineering at King Khalid University (KKU), Saudi Arabia
Abrar Alamri, Afnan Asiri, Reema Alshahrani, Ruwayda Shawkhan and Samar Alshahrani, Senior Industrial Engineering at King Khalid University (KKU), Saudi Arabia

Third Place

ID 408: Study and development of Al Jomaih factory for the production of cans and lids
Mohammed Alkhalifah, Alaa Momena, Fahad Alanazi, Omar Bawazir and Saleh Albissi, Prine Sattam bin Abdulaziz University, Saudi Arabia

Undergraduate Paper Competition sponsored by Siemens

First Place

ID 167 Enhancing Agricultural Productivity and Sustainability through Technological Innovation in Latin America
Andy R. Tineo and Almanzor E. Vila, Department of Industrial and Systems Engineering, Pontificia Universidad Católica Madre y Maestra, Santiago 51000, Dominican Republic
Dr. Richard Olawoyin, School of Engineering and Computer Science, Oakland University, Rochester, MI 48309, USA

Second Place

ID 283 Assessing Lean Manufacturing Implementation across Saudi Arabia's Factories Using Rapid Plant Assessment
Eman Mastour Alqarni, Leen Ahmad AlBinAli and Raafat Elshaer, Industrial Engineering Department, Collage of Engineering, King Khalid University Abha, Kingdom of Saudi Arabia

Undergraduate Research Competition sponsored by Daikin Applied

First Place

ID 593 Assessment of Perceptions Versus Reality: A Comparative Study of Air Quality Levels in Kuwait
Zainab Alsabt, and Takeaki Toma, Faculty of Industrial Engineering, College of Engineering and Technology, American University of the Middle East, Egaila, Kuwait

Second Place

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

ID 455 Breaking the Glass Ceiling: Examining Strategies and Government Initiatives for Advancing Emirati Women in the UAE Industrial Sector

Jamal Al Memari, Mariam Al Remeithi, Helal Alakberi, Khaled Al Swaidi and Khaoula Khlie, Industrial Management Department, Faculty of Business, Liwa College, Abu Dhabi, United Arab Emirates

Third Place

ID 510 Application of Industrial Engineering Tools for Improving Performance of Oil and Gas Factory

Mahmoud Z. Mistarihi, Department of Mechanical and Industrial Engineering, Faculty of Engineering, Liwa College, Abu Dhabi, UAE

Department of Industrial Engineering, Hijjawi Faculty for Engineering Technology, Yarmouk University, Irbid, Jordan

Nasser Albreiki, Omar Albreiki, Ahmed AL Aleeli, Abdulla AL Menhali, Yousef Alzaabi and Mohammed Al suweedi, Department of Mechanical and Industrial Engineering, Faculty of Engineering, Liwa College, Abu Dhabi, UAE

Graduate Student Paper Competition sponsored by Eaton Corporation

First Place

ID 620 Driving Safety Excellence: Strategies for Minimizing Land Transportation Incidents in the Oil and Gas Industry

Shaikha Abdulla, Hajar Alshehhi, Abdulrahman Alhashmi, Maryam Alhammadi and Afifa Alremeithi, Department of Management Science and Engineering Faculty of Engineering, Khalifa University of Science and Technology, Abu Dhabi, UAE

Saed Talib, Senior Lecturer, Department of Management Science and Engineering, Khalifa University, Abu Dhabi, UAE

Second Place

ID 527 Model-Based Approaches to Customer Churn Perspective: Bibliometric Analysis

Dr. Abdelghani Bouras and Mr. Abdulrahman Alosaimi, Professor of Industrial Engineering, Master of Engineering and Systems Management Candidate, Alfaisal University, Riyadh, Riyadh, KSA

Third Place

ID 657 Renewable Energy Integration Strategy Development for Dubai South

Oshba AlMheiri, Dubai South, UAE

Master Thesis Competition

First Place

ID 471 Data-driven strategies for green methanol process parameter optimization using machine learning

Nabeel Sultan, Department of Chemical Engineering, Khalifa University, Abu Dhabi, UAE

Ali Almansoori and Ali Elkamel, Department of Chemical Engineering, Khalifa University, Abu Dhabi, UAE and Department of Systems Design Engineering and Department of Chemical Engineering, University of Waterloo, Waterloo, ON, Canada

Second Place

ID 399 Blockchain application for value chain management in corporate banking to enhance competitive advantage

Rowdha Makki and Dr Balan Sundarakani, University of Wollongong in Dubai, United Arab Emirates

Third Place

ID 626 The Effect of Physical Factors Towards the Performance of Workers in Automotive Machining Shop

Nawi Zharif Iman bin Kamarulzaman and Jafri Mohd Rohani, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia

Erialdi Syahrial, Faculty of Management, Universiti Teknologi Malaysia, Johor, Malaysia

Doctoral Dissertation Competition sponsored by Airbus

First Place

ID 177 A Hybrid Approach to Prescribe a Dynamic Operational Location for Stationing a Delivery Truck of LPG Cylinder for Efficient Last Mile Delivery

Prithvirajan D and Mathirajan M, Department of Management Studies, Indian Institute of Science, Bangalore 560012, India

Second Place

ID 151 Revolutionizing Last-Mile Delivery: Integrating Social Media and Deep Learning for Optimized Traffic Prediction in E-Commerce
Valeria Laynes Fiascunari and Luis Rabelo, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA

Edgar Gutiérrez-Franco, Center for Transportation and Logistics, Massachusetts Institute of Technology, Cambridge, MA, USA

Third Place

ID 463 Surface Modification through Friction Stir Processing (FSP)

Pooja Dwivedi and Sachin Maheshwari, Department of Mechanical Engineering, Netaji Subhas University of Technology, New Delhi-110078, India

Arshad Noor Siddiquee, Department of Mechanical Engineering, Jamia Millia Islamia, New Delhi-110025, India

Qutubuddin S.M., Department of Industrial & Production Engineering, P.D.A. College of Engineering, Kalaburagi, Karnataka, India

Fourth Place

ID 31 Ranking of Vital Enablers Impacting Lean Production System in SME through Integrated MCDM Approaches
S. Bharath Sankar and Muthu Mathirajan, Department of Management Studies, Indian Institute of Science (IISc), Bangalore, Karnataka, India

Lean Six Sigma Competition sponsored by Tooling Tech Group

First Place

ID 567 Application of Lean in Maintenance Processes of Air Compressors and Diesel Welding Machines
Yasser Alahmad, Abdulla Aljaberi, Khwla Alkatheeri and Maithah Alyaarbi, Students, Department of Management Science and Engineering, College of Engineering, Khalifa University, Abu Dhabi, UAE
Saed Amer, Assistant Professor, Dept. of Management Science and Engineering, Khalifa University, Abu Dhabi, UAE

Second Place

ID 531 Lean operations optimization model under the TQM and SLP in the carwash sector: Case of a SME in Peru
Alberto Muñoz Pachas, Andrea Briceño Carrion and Alberto Flores-Perez, Facultad de Ingeniería, Universidad de Lima, Lima, Perú

Third Place

ID 526 A Six Sigma Approach to Improve Healthcare Operations in a Hospital in Kuwait
Hajar Alqahtani, Hala Alotaibi, Maryam Alajmi, Rinad Alrasheedi, Teef Albarjas, Hussam Ali Alothman and Mutaz Tayseer Ayed, College of Engineering and Technology, American University of the Middle East, Kuwait

Fourth Place

ID 99 Improving the Processes by Applying Lean Six Sigma Tool (VSM): Case Study in KSA
Ali Almuflih, Assistant Professor in the department of Industrial Engineering at King Khalid University (KKU), Saudi Arabia
Abrar Alamri, Afnan Asiri, Reema Alshahrani, Ruwayda Shawkhan and Samar Alshahrani, Senior Industrial Engineering at King Khalid University (KKU), Saudi Arabia

Human Factors and Ergonomics Competition sponsored by CINTAS

First Place

ID 497 Digital Human Modeling (DHM) to Overcome Ergonomic Challenges at Warehouses in Kuwait
Areej Almarri, Hessah Almutairi, Modhawi Albaqmi, Khadija Alyousef, Ruqayah Alqadheeb, Karim Abbady and Suat Kasap, College of Engineering and Technology, American University of the Middle East, Kuwait

Second Place

ID 124 Reconnoitering Perceived Knowledgeability of Environmental Conservation Initiatives, Participation and their Adaptive Strategies at KwaZulu-Natal, South Africa
Nwachukwu, T.P.T, Faculty of Education, Department of Educational Management and Policy Studies, University of Pretoria, South Africa
College of Science, Graduate Institute of Sustainability Management and Environmental Education, National Taiwan Normal University, Taipei, ROC, Taiwan
Akpogu, F. C., Department of Geography and Environmental Studies, University of Zululand, KwaDlangezwa, 3886, South Africa
Moyo, I, Department of Geography and Environmental Studies, University of Zululand, KwaDlangezwa, 3886, South Africa

Third Place

ID 19 Exploration of green ergonomics utilising the system dynamics approach with the lenses of 5.0
Carol Dineo Diale, Rhodes University, South Africa

Simulation Competition

First Place

ID 651 An Integration of Lean and Digital Twin Simulation Modelling for Warehouse Material Handling and Optimization
Ahmed Zainul Abideen, Lecturer, Faculty of Transport and Logistics, Muscat, Sultanate of Oman

Second Place

ID 472 Sustainable Hydrogen Production via HSMR: Integrating Machine Learning for Process Optimization and Forecasting
Sheeraz Ahmad, Department of Chemical Engineering, Khalifa University, Abu Dhabi, UAE
Ali Almansoori and Ali Elkamel, Department of Chemical Engineering, Khalifa University, Abu Dhabi, UAE and Department of Systems Design Engineering and Department of Chemical Engineering, University of Waterloo, Waterloo, ON, Canada

Third Place

ID 1 Feasibility analysis of utilizing renewable energy supply options for a large hotel in Salalah, Oman
Paul C. Okonkwo, El Manaa Barhoumi and Fadhil Khadoum Alhousni, College of Engineering, Dhofar University, Salalah 211, Oman

Senior Design Project sponsored by Tooling Tech Group

First Place

ID 405 Enhancing Saudi Arabia Railways Signalling System Efficiency
Elana Bahmaid, Layan AlEsa, Maha AlThenyan, Nourah AlHudaithi and Shouq AlHawiti, Department of Industrial Engineering and Systems, College of Engineering, Princess Nourah bint Abdulrahman University, Riyadh, Saudi Arabia
Kaouther Ghacham, Laboratory of Metrology and Energy Systems (LR18ES21), University of Monastir, Monastir, Tunisia

Second Place

ID 544 Cost-Effective Air-to-Ground System and Network Design for 5G Inflight Connectivity in the Kingdom of Saudi Arabia
Danah Al Ateeq, Rawan Alomari, Aram Albulayhid, Manar Alkahtani, Eman Alhuthayl and Yazan M. Allawi, Department of Electrical Engineering, College of Engineering, Princess Nourah bint Abdulrahman University, Riyadh 84428, Saudi Arabia

Third Place

ID 499 Data-Driven Analysis of Ticket Options in the Airline Industry
Zainab Alshammari, Fatemah Maarafi, Khuloud AlMutairi, Danah AlYousef, Farah Bohamad and Ethem Canakoglu, College of Engineering and Technology, American University of the Middle East, Kuwait

Supply Chain and Logistic Competition

First Place

ID 163 Single Objective Functions in Location Routing Problems: A Comparative Case Study
Osama Alotaik, Industrial Engineering Department, King Saud University, Riyadh, Saudi Arabia

Second Place

ID 377 Building RMA Process for an Electronic Manufacturing Company: A Case Study
Basel Sultan and Daryl Santos, Thomas J. Watson College of Engineering and Applied Science, Systems Science and Industrial Engineering Department, Watson Institute for Systems Excellence (WISE), The State University of New York at Binghamton, Binghamton, NY 13902, USA
Thomas Byrnes, Foxconn Industrial Internet, Mount Pleasant, WI 53177, USA

Third Place

ID 568 On board vehicle technological innovations for sustainable transportation of chicks in poultry value chain
Issac Hute, Pr Eng Tsatsi, Muririka Walter, Machiri Tatenda M and Vumu Adonijah N, HUTE, Harare polytechnic, Zimbabwe

Undergraduate Student Paper Competition sponsored by Siemens - Virtual

First Place

ID 339 A Time-Discretized Linear Integer Programming Model for Vacation Route Planning
Luca Romagnoli, University of Waterloo Department of Chemical Engineering, University of Waterloo, Waterloo, ON, Canada
Ali Elkamel, Department of Chemical Engineering, Khalifa University, Abu Dhabi, UAE and Department of Systems Design Engineering and Department of Chemical Engineering, University of Waterloo, Waterloo, ON, Canada

Second Place

ID 171 Optimization and Standardization of the Sales Process in a Service Sector Company through Lean Tools
Alonso Parodi and Sergio Montañez, University of Lima, Industrial Engineering Career, Lima, Peru
Rafael Chavez Ugaz, University of Lima, Faculty of Engineering, Lima, Perú

Third Place

ID 624 Korean Trends as A Factor Affecting Academic Performance Among Students in Higher Education Institutions
Carigma, Daphne Francine M., Cruzado, Elizabeth S., Hagos, Michael Josh B., Perater, Kenneth S., Ramos, Denise M., Navarro, Maricar, Galinganm and Romalyn, Department of Industrial Engineering, College of Engineering and Architecture, Technological Institute of the Philippines – Quezon City, Cubao, Quezon City, Philippines

Honorable Mention

ID 272 Integrated Time Series Analysis for Long Term Demand Planning and Capacity Expansion
Ibrahim M.G. Khayat, Mohammed F. Hariri, Mohammed H. Baggazi, Yousef J. Bassyoni and Ammar Y. Alqahtani
Department of Industrial Engineering, Faculty of Engineering, King Abdulaziz University, P.O. Box 80204, Jeddah 21589, Saudi Arabia

Honorable Mention

ID 360 Perceived Impact of Mandatory SIM Card Registration to Cybersecurity and Data Privacy Among Engineering Students in Technological Institute of the Philippines

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

John Michael V. Dela Cruz, Bryant Anthony G. Islao, Guiller E. Lalan, Stephen Shadrach P. Marcos and Michael John B. Valerio, Department of Industrial Engineering, College of Engineering and Architecture, Technological Institute of the Philippines – Quezon City, Cubao, Philippines
Maricar M. Navarro, Department of Industrial Engineering, College of Engineering and Architecture, Technological Institute of the Philippines – Quezon City, Cubao, Quezon City, Philippines

Undergraduate Research Competition sponsored by Daikin Applied - Virtual

First Place

ID 496 Enhancing Automotive After-Sales Service Shop Layout: Shop & Drive Systematic Layout Planning for Facility Design and Workflow Optimization
Juni Fransisca Onggani Winata, Lulu Afifa, Meutiara Nisyafietdhia Setiawan and Sarah Dwi Aliya, Undergraduate Students, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, West Java 16424, Indonesia
Rahmat Nurcahyo, Professor, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, West Java, Indonesia
Ardhy Lazuardy, Doctoral Student, Dept. of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, West Java, Indonesia

ID 617 Zeolite as an Alternative Exhaust Filter
Rachel D. Avila, Noel Franz F. Caluba, Jacob T. Evangelista, Raymel Jorenz F. Hamor, Iraz Miguel F. Liwag, Maricar M. Navarro and Evelyn M. Eviota, Department of Industrial Engineering, College of Engineering and Architecture, Technological Institute of the Philippines – Quezon City, Cubao, Quezon City, Philippines

Second Place

ID 495 Optimizing the Facility Layout and Material Handling System Using the Systematic Layout Planning Method: A Case Study at PT EDS Manufacturing Indonesia
Ahmad Nauval Ariq Ms, Baidilla Anamta Bimasakti, Felix Ferdinand Laureng and Setya Ady Wicaksono, Undergraduate Students, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, West Java 16424, Indonesia
Rahmat Nurcahyo, Professor, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, West Java, Indonesia
Arief Nurdini, Doctoral Student, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, West Java, Indonesia

ID 559 Determining Factors Affecting Perceived Safe-Driving Behavior of Filipino Private Car Drivers
John David Bicara, Nestor Paul Casipit, Abigale De Jesus and Yoshiki B. Kurata, Department of Industrial Engineering, Faculty of Engineering, University of Santo Tomas, España Blvd., 1015, Manila, Philippines

Third Place

ID 402 Post Pandemic Factors Influencing Continued Usage of E-payment in Higher Education Institution: Integrating Extended Technology Acceptance Model
Jan Marielle I. Bidayan, Abigail G. Cambay, Arjen Guila C. Cruz, Neil Leandro G. Fajardo, Erika Mae P. Ople and Maricar M. Navarro, Industrial Engineering Program, College of Engineering and Architecture, Technological Institute of the Philippines, Quezon City, Philippines

Graduate Student Paper Competition sponsored by Eaton Corporation - Virtual

First Place

ID 589 Marketing Strategy Analysis of PT XYZ Product Using Important Performance Analysis Method
Yusuf Saputro, Graduate Student, Industrial Engineering, State Islamic University of Sunan Kalijaga, Yogyakarta, Indonesia
Yandra Rahadian Perdana, Lecturer, Industrial Engineering, State Islamic University of Sunan Kalijaga, Yogyakarta, Indonesia

Second Place

ID 89 Quality Assurance Machine for Software Using Machine Learning
Shane Downing and M. Affan Badar, Bailey College of Engineering and Technology, Indiana State University, Terre Haute, IN 47809, USA
Christopher J. Kluse, Faculty of College of Technology, Architecture and Applied Engineering, Bowling Green State University, Bowling Green, OH 43403 USA

ID 609 Design Development of Catfish Chips using the Kano Model and Quality Function Deployment (QFD) at the Pelemadu Rempyek Industrial Center
Muhammad Arif Prasetyo, Chadziqatun Najilatil Mazda, Taufiq Aji and Khusna Dwijayanti, Department of Industrial Engineering, Faculty of Science and Technology, Universitas Islam Negeri Sunan Kalijaga, Indonesia

Third Place

ID 13 Improving Picking Efficiency of On-demand Grocers When Customers and Order Pickers Co-exist
Reeju Guha, PhD Candidate, Operations Management, IE Business School, IE University, Madrid, Spain

Master Thesis Competition - Virtual

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

First Place

ID 354 Centrifugal Pump Reliability Improvement in the Pulp and Paper Industry
Nontuthuko Shabane, Bheki B.S Makhanya and Jan-Harm Pretorius, Postgraduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg, PO Box 524, Auckland Park 2006, South Africa

Second Place

ID 353 Analysis of Organizational Change in Private Universities with a Focus on Employee Behavior Moderated by Management Support
Muji Gunarto, Master of Management Program, Universitas Bina Darma, Palembang, Indonesia
Sri Yusriani, Student of Master of Management Program, Universitas Terbuka, Grindsted, Denmark
Nunung Nurbaeti, Student of Master of Management Program, Universitas Terbuka, Jakarta, Indonesia

Third Place

ID 102 Reducing Risks in Maintenance of High-Voltage Transmission Lines
Nuttanicha Panich and Jitra Rukijkanpanich, Department of Industrial Engineering, Faculty of Engineering, Chulalongkorn University, Bangkok, Thailand

Human Factors and Ergonomics Competition sponsored by CINTAS - Virtual

First Place

ID 622 Sole Solutions: Redefining Comfort and Safety for Elderly Women with Cutting-Edge Ergonomic Footwear
Qabas Al-Jumaili, Mariam Elghobashi and Fatma Alshamsi, Department of Industrial Engineering & Engineering Management, University of Sharjah, Sharjah, UAE, Ergonomics & Work & Process Improvement, United Arab Emirates

Second Place

ID 27 Development of an Ergonomic Framework for a Sustainable Cost-Effective Process in a Clothing Industry
Gracious Amarachukwu Nwafor, Department of Mechanical Engineering, Faculty of Engineering, University of Nigeria, Nsukka, Enugu, Nigeria
Paul Amaechi Ako (formerly Ozor), Department of Quality and Operations Management, Faculty of Engineering and Built Environment, University of Johannesburg, Auckland Park, South Africa
Department of Mechanical Engineering, Faculty of Engineering, University of Nigeria, Nsukka, Nigeria
Charles Mbohwa, Department of Quality and Operations Management, Faculty of Engineering and Built Environment, University of Johannesburg, Auckland Park, South Africa

Third Place

ID 214 Meditation for human integration
Som R. Soni and Gita D. Soni, AdTech Systems Research Inc., 1342 North Fairfield Road, Beavercreek, Ohio 45432, USA

Honorable Mention

ID 287 Modeling the Impact of Sitting Posture and Duration on the Health and Safety of Remote Learning
Louai Maghrabi, Mariam Mohammed and Alia AlAydaros, MSc. Students Mechanical Engineering Department, Khalifa University of Science and Technology, Abu Dhabi, United Arab Emirates
Maryam Almarzooqi, MSc. Student Biomedical Engineering Department, Khalifa University of Science and Technology, Abu Dhabi, UAE
Yasmina Alseksek, MSc. Students Chemical Engineering Department, Khalifa University of Science and Technology, Abu Dhabi, UAE
Dr. Saed Amer, Faculty Member Industrial and Systems Engineering Department, Khalifa University, Abu Dhabi, UAE

ID 599 Ergonomic Issues in Indian Small-Scale Industries: A Comprehensive Review on Challenges and Solutions
Anas Ali, Department of Mechanical Engineering, All Saints' College of Technology, Bhopal, Madhya Pradesh, India
Qutubuddin S.M., Department of Industrial & Production Engineering, P.D.A. College of Engineering, Kalaburagi, Karnataka, India
Syed Adnan Ali, United Arab Emirates University, UAE

Senior Design Project / FYP Competition sponsored by Tooling Tech Group - Virtual

First Place

ID 338 An Optimized Ball and Plate System Based on a PID Controller
Abdullah Tahir, Student, University of Dubai, Dubai 14143, United Arab Emirates
Maisam Wahbah and Husameldin Mukhtar, College of Engineering and Information Technology (CEIT), University of Dubai, Dubai, UAE

Second Place

ID 551 Development of Solar-Powered Reverse Osmosis Installation Based on The Internet of Things for Drinking Water Treatment at Pptq Al-Madinah, Ngemplak, Boyolali
Rahmad Rizki Nur Arifin, Sebelas Maret University, Indonesia

Third Place

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

ID 178 Performance Upgrade: Optimizing Weighing and Dispensing Processes at EMC
Yarieli Davila Flores, BSIE, LSSYB, LSSGB, Luis A. Lopez Iglesias, BSIE, LSSYB, LSSGB and Jannette Perez Barbosa, MSIE, PE, PhD.C, Department of Industrial Engineering and Management, Universidad Ana G. Méndez-Gurabo Campus, Gurabo, Puerto Rico, United States
Honorable mention

ID 369 Design and fabrication of overspeed governor with triple protection system (Project Based Learning in Mechanical Design)
Bader Ghazi Sabyah, Department of Mechanical Engineering Technology, Yanbu Industrial College, Yanbu Al-Sinaiyah, Saudi Arabia
Khalid Ababtain and Muhammad Ajmal, Dept. of Mechanical Engineering Technology, Yanbu Industrial College, Yanbu Al-Sinaiyah, Saudi Arabia

Supply Chain and Logistics Competition - Virtual

First Place

ID 164 Assessing Centralized and Decentralized 3D Printing Manufacturing: A Comparative Study of Customer Demand Allocation and Delivery Distance Optimization in Egypt
Mohamed Osman, Transport systems and logistics, Faculty of Engineering, University of Duisburg-Essen, 47058 Duisburg, Germany
Fengkai Xu, Faculty of Engineering, University of Duisburg-Essen, 47058 Duisburg, Germany

Second Place

ID 374 Improving Medicine Supply and Availability Using Simulation. A Case Study of Uganda
Hellen Nabayiga, Professor Robert Van Der Meer and Dr. Mouhamad Shaker Ali Agha, Department of Management Science, Strathclyde Business School, University of Strathclyde, Glasgow, G1 1XQ, United Kingdom

Third Place

ID 103 A cost-effective approach for inventory- transportation to address carbon tax policy
Zheng Wang, Ayham Jaaron and Reza Eslamipoor, Faculty of Business and Law, De Montfort University, Leicester, UK

Honorable mention

ID 557 Hotel Supplier Selection for Fresh Vegetables and Fruit
Seçil Gülbudak Dil, Fatoumata Soumare and Semail Ülgen, Antalya Bilim University, Turkey

High School STEM Competition - Virtual

First Place

ID 378 A Little Bit of Sun Fight Dementia in Arab Women: A Systematic Review
Qamar Bader Helal Obaid Bin Helal Alalili and Lindall Elaine Adams, Institute of Applied Technology, United Arab Emirates

Second Place

ID 381 Revealing the Enigmatic Influence of AI on Student Writing: Exploring its Implications for ESL Learners
Manal Mohammad Adam Rahm and Lindall Adams, Institute of Applied Technology, United Arab Emirates

Third Place

ID 383 Safe your house with Tetra Pak
Khadija Khalifa Humaid Bin Aran Al Ali, Hessa Ebrahim Darwish Alshahin Alharmi and Lindall Adams, Institute of Applied Technology, UAE

Best Track Papers

Artificial Intelligence

ID 53 Artificial Intelligence (AI) in Engineering Research: An Ethics Perspective
Dr. Lorraine Doherty, Complementary studies in the School of Mechanical, Industrial and Aeronautical Engineering, University of the Witwatersrand, Johannesburg, South Africa

Business Management

ID 217 The Relationship Between TOE Factors, Quality Factors and SMEs Performance in the UAE: Mediating and Moderating Effect of Perceived Satisfaction and Perceived Intention to Use and Organizational Culture
Saeed Ali Saeed Bin AL DADA AL SHEHHI, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia
Khadijah MD ARIFFIN, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

Construction Management

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

ID 57 Net Zero Carbon Retrofitting of Existing Buildings – A Bibliometric Study
Lichini Nikesha Kumari Weerasinghe, Amos Darko and Albert P.C. Chan, Department of Building and Real Estate, The Hong Kong Polytechnic University, Hong Kong

Data Analytics and Big Data

ID 118 Automated Machine Learning Algorithms for Long-Term Time Series Forecasting
Ying Su and Morgan C. Wang, Department of Statistics and Data Science, University of Central Florida, Orlando, Florida 32816, USA

Energy

ID 55 Renewable Resources & Green Hydrogen
Sharaf Fahed Al Wakeel, Department of Industrial & Mechanical Engineering, Qatar University, Doha, Qatar
Syeda Manahil Akhter, Department of Industrial & Mechanical Engineering, Qatar University, Doha, Qatar

Engineering Education

ID 340 ChatGPT and artificial intelligence (AI) massive transformation of trainers' education sector revolutionizing how students learn
Mohamed Edali, Asma Milad and Hanadi Saad, Department of Chemical Engineering, Elmergib University, Elkhoms, Libya
Zaed Sahem, Engineering & Creativity Group for technical services, Ottawa, Ontario, Canada
Tareq Alajaili, Department of Management, Faculty of Commerce, Elmergib University, Libya
Ali Elkamel, Department of Chemical Engineering, Khalifa University, Abu Dhabi, UAE and Department of Systems Design engineering and Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario, Canada

Engineering Management

ID 168 Behind the Curtain of Corporate Restructuring Spin-offs: A Literature Review and Case Study Analysis of Technical Project Based Organizations
Stephen Davis and Dr. Timothy Kotnour, University of Central Florida, Department of Industrial Engineering & Engineering Management, Orlando, FL, USA

Innovation

ID 139 Organizational culture and innovation in aerospace industry's SMEs in Mexico
Christian Muñoz-Sánchez, Dulce María Monroy-Becerril, Jorge Alejandro Silva Rodríguez de San Miguel and Eugene Hakizimana, Business School (ESCA-STO), National Polytechnic Institute of Mexico (IPN), Mexico City, Mexico

Healthcare Systems

ID 150 Incremental feature selection and interpretable learning: An application for Glioma grading and detection
Jinil Persis, Indian Institute of Management Kozhikode, Kerala, India

Industry 4.0

ID 170 Expanding MAM Readiness: Towards A Holistic Model for Metal Additive Manufacturing in the Fourth Industrial Revolution
Andrew Couch, Engineering Research Fellow, Stanford University, Stanford, California, USA
Engineering Research Fellow, National Institute of Standards and Technology, Gaithersburg, Maryland, USA
Yan Lu, Deputy Chief of Systems Integration Division, National Institute of Standards and Technology, Gaithersburg, Maryland, USA

Lean

ID 136 Management model applying Lean Six Sigma to improve the performance of an SME in the professional services sector
Axel Díaz Guevara, Mariel Perez Reyes, and Rafael Chavez-Ugaz, Facultad de Ingeniería, Universidad de Lima, Peru

Logistics

ID 134 Logistics of EV Batteries in Germany - State of the Art
Max Plotnikov, Department of Software & Information Engineering, Research Associates, Fraunhofer Institute for Material Flow and Logistics, Dortmund 44263, Germany

Machine Learning

ID 155 Selection of an Artificial Intelligence Forecasting Approach for PV Panel Prices
Aisha Alhosani, Department of Industrial and Systems Engineering, Khalifa University of Science and Technology, Abu Dhabi, UAE
Saed Amer, Faculty Member, Department of Management Science and Engineering, Khalifa University of Science and Technology, Abu Dhabi, 127788, UAE
Andrei Sleptchenko, Associate Professor, Department of Management Science and Engineering, Khalifa University of Science and Technology, Abu Dhabi, 127788, UAE

Manufacturing

ID 36 Taguchi-GRA Application in Multi-objective Optimization of FSP Variables for AA8011/TiC Composite
Pankaj Chandna, Professor, Mechanical Engineering Department, National Institute of Technology Kurukshetra, Haryana 136119, India
Raman and Pawan Bishnoi, Research Scholar, Mechanical Engineering Dept., National Institute of Technology Kurukshetra, Haryana, India

IEOM Society Awards – 14th Annual IEOM Conference, Dubai, February 11-14, 2024

Modelling and Simulation

ID 286 Balancing Chaos and Order: A Comprehensive Literature Review on the Tradeoffs of Chaotic Storage in Warehouse Management

Alyaziya Al Jaber, Department of Engineering Systems and Management, Khalifa University, Abu Dhabi, UAE

Saed Amer, Department of Engineering Systems and Management, Khalifa University, Abu Dhabi, UAE

Ahmad Mayyas, Department of Engineering Systems and Management, Khalifa University, Abu Dhabi, UAE

Occupational Safety and Health

ID 293 Enhancing Process Industry Safety: Optimizing Safety Barrier Allocation to Prevent Domino Effects in Chemical Plants

Abdelaziz Saeed Alzaabi, Team Leader Mechanical Maintenance, ADNOC Offshore, Abu Dhabi, 303, UAE

Andrei Sleptchenko, Associate Professor at the Department of Industrial and Systems Engineering Khalifa University, Abu Dhabi, 127788, UAE

Operation Management

ID 101 ISM Modeling of Strategic Human Resource Management Practices for Successful Implementation of TQM in an Organization

Sumit Kumar, Assistant Professor, Dept. of Mechanical Engineering, Sant Longowal Institute of Engineering and Technology, Sangrur, Punjab, India

Pardeep Gupta, Professor, Dept. of Mechanical Engineering, Sant Longowal Institute of Engineering and Technology, Sangrur, Punjab, India

Operation Research

ID 63 A Branch and Bound Algorithm to Optimize Multi-Objective Competitive Multi-Agent Scheduling with Simultaneous Log-linear Position-based Learning and Time-based Deterioration Effects

Tugba Danaci, Fatma Senses VS Business Administration Department, Member, Public University-Industry Collaboration Committee Kirikkale University, Kirikkale, TURKIYE and DEDA Technology Investment Ltd, Ankara, TURKIYE

Optimization

ID 56 Nature-Inspired Optimization: Exploring the Capabilities of Physarum Polycephalum in Addressing Complex Transportation problems

Lena M. Alzhrani and Malak H. Elghali, Department of Operations and Supply Chain Management, Effat University, Jeddah, Saudi Arabia

Project Management

ID 202 The Influence of the Planning and Execution Mode on Effective Infrastructure Delivery

Edoghogho Ogbefun, Civil Engineering Department, Faculty of Engineering, University of Jos

Jan-Harm C. Pretorius, Postgraduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

Reliability and Maintenance

ID 141 Reliability and Maintenance Optimization at a Saudi Glass Production Plant

Meshary F. Alsaif, Fahad B. Al-Askar and Basem A. Alkhaleel, Department of Industrial Engineering, King Saud University, Riyadh, Saudi Arabia

Supply Chain and Logistics

ID 215 Enhancing Risk Management and Mitigation Strategies for the Infant Formula Milk Supply Chain through Hybrid AHP-TOPSIS Analysis

Mona Haji, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

Waste

ID 70 A GIS-Based Smart Waste Management for Assessing Spatial Distribution of Waste Bins in the City of Bisha, Kingdom of Saudi Arabia

Ghadah M Khushail, Ghaida Fahad Alqarni, Refan M Alshahrani and Reema M Almotawa, Undergraduate Student in Mechanical Engineering

Department-Industrial Engineering Program, College of Engineering, University of Bisha, Bisha 61922, Saudi Arabia

Khaled Ali Abuhasel, Full Professor in Mechanical Engineering, Department-Industrial Engineering Program, College of Engineering, University of Bisha, Bisha 61922, Saudi Arabia