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IEOM GCC Tabuk Awards – Industrial Engineering and Operations Management International Conference

Tabuk, Saudi Arabia, February 2-4, 2026

Venue: University of Tabuk

Distinguished Leadership Award in Higher Education

Prof. Dr. Abdulaziz bin Salem Al-Ghamdi
President, University of Tabuk

Distinguished Academic Leadership Award

Dr. Fares Almehmadi
Dean of the College of Engineering, University of Tabuk

Distinguished Industry Leadership Award

Dr. Ahmed Aljizani
Supply Chain & Logistics Transformation Leader
Chief Operating Officer, Ministry of Health Saudi Arabia

Ibrahim Aldakhil
Executive Director, Safety & Loss Prevention
Saudi Electricity Company

Hani Wadatullah Alahdal
HR Center of Excellence VP
STC, Riyadh, Saudi Arabia

Hassan AlHazmi
Group CEO
LADUN Investment Company

Distinguished Industry Practitioner Award

Eng. Nasser Mohammad Al Osaimi
Operations Executive Director
Rua Al Madinah Holding, Saudi Arabia

Lifetime Achievement Award

Dr. Umar Mustafa Al-Turki
Department of Industrial Engineering
King Abdulaziz University (KAU), Jeddah, Saudi Arabia

Distinguished Researcher Award

Dr. Salih Duffuaa
Distinguished Professor of Industrial and Systems Engineering
King Fahd University of Petroleum and Minerals (KFUPM)
Dhahran, Saudi Arabia

Distinguished Professor Award

Dr. Mohammad Addas
Chairman of Industrial Engineering
Islamic University of Madinah

Khaled N. Alqahtani, Ph.D.
Chairman of Industrial Engineering Department
Taibah University
Madinah, Saudi Arabia

Outstanding Professor Award

Dr. Semail ÜLGEN
Chair of Industrial Engineering Department
Antalya Bilim University
Antalya, Turkey

Prof. Abdelkabar Maqsoud
Professor
The Research Institute on Mines and Environment (RIME)
UQAT-Polytechnique
Quebec, Canada

Dr. Shokri Selim
Full Professor, Department of Industrial and Systems Engineering
King Fahd University of Petroleum & Minerals
Dhahran, Saudi Arabia

Outstanding Woman in Academia Award

Dr. Ayshah Sawelem Alatawi
Vice Dean, College of Engineering - Female Section
University of Tabuk, Saudi Arabia

Outstanding Professor Award in Supply Chain

Dr. Jasim Alnahas, SSBB
Chairman – Industrial Engineering Department
University of Tabuk

Outstanding Professor in AI and Machine Learning

Dr. Abdulaziz Saud Alkabaa
Department Head, Industrial Engineering Department
King Abdulaziz University (KAU)
Jeddah, Saudi Arabia

Outstanding Professor in Operations Research Award

Dr. Yasser Almoghathawi
Chairman, Industrial & Systems Engineering
KFUPM

IEOM Outstanding Teaching and Learning Award

Dr Serhan Shaman
Associate Professor, Industrial and Systems Engineering
University of Hail

IEOM Outstanding Teaching Award in Operations Research

Dr. Jihen Landolsi
Assistant Professor of Industrial Engineering
Northern Border University, Saudi Arabia

Outstanding Professor in Teaching, Learning, and Accreditation

Dr. Hamed Almalki
Associate Professor
Industrial Engineering Department
Taif University, Taif, Saudi Arabia

Outstanding IEOM Student Chapter Faculty Advisor Award

Dr. Hasan Balfaqih
Assistant Professor of Operations and Supply Chain Management
College of Business
Effat University
Jeddah, Saudi Arabia

Dr. Haitham Saleh
Associate Professor
Industrial and Systems Engineering Department
King Fahd Univ. of Petroleum & Minerals (KFUPM)
Dhahran, Saudi Arabia

Entrepreneurship and Innovation Award

Moath Abuaysha
Head of 3D Printing R&D
NEOM

Dr. Muidh Algahtani
University of Tabuk

IEOM Outstanding Data Analytics Best Practices Award

Dr. Abdullah Alomair, PhD, CDMP
Data & Statistics Expert
Institute of Public Administration - IPA - Saudi Arabia
Riyadh, Saudi Arabia

Supply Chain Best Practice Award

Mike George
Senior Procurement & Supply Chain Director
NEOM

Materials Management and Warehousing Best Practice Award

Tony Croxon
Manager Materials Management
NEOM Green Hydrogen Company

Operations Excellence Award in Energy Section

Dr. Ricardo Prata
Manager of Electrical Energy Network Planning
ENOWA, NEOM

Industry Best Practice Award in Operations Management

Eng. Khubaib Alsharif
Operation Engineer
NEOM OXAGON

Project Management Best Practices Award

Abrar Affouni
Project Control Engineer
Bechtel Corporation

Sustainability and Operational Excellence Award

Nour Alhejji
Wellbeing Champion
PIF Red Sea Global
Saudi Arabia

Distinguished Conference Leadership Award

Dr. Hassan Mohamed Hijry
Industrial Engineering Department
University of Tabuk, Saudi Arabia

Competition Winners

Undergraduate Student Paper Competition sponsored by Siemens

First Place

ID 169 Circular Supply Chain Optimization for Sustainable Packaging: Insights, Methods, and Emerging Research Directions
Amirjon Atoev, Student, BS in Industrial Engineering, Mechanical and Industrial Engineering Department, RIT Dubai, UAE
Dua Weraikat, Assistant Professor & MEIE Department Coordinator, Mechanical & Industrial Engineering Department, RIT Dubai, UAE

Second Place

ID 276 Determining Thermal Conductivity of Building Materials Using the Single – Plate Method
Ahmed Elzafir Ahmed, Eissa Hoderi, Bandar Abu Saq, Hassan Al Harithy and Saeed Alqaed, Department of Mechanical Engineering, Najran University, Najran, Saudi Arabia

Third Place

ID 310 Mechanical Characterisation of Nano-Hydroxyapatite Reinforced PLA Composites Prepared by Dry Blending for Biomedical Applications
Omar A. Al Rumhi, Reem S. Al Mamari, Nassr A. Al Kiyumi, Issa M. Al Sibani, Elyas H. Al Abbadi, Mohammed S. Al Owimri and Moosa S.M. Al Kharusi, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman

Fourth Place

ID 309 Vulnerability-based Optimal Selection of Quantum-secured Links for Resilient and Energy-Efficient Smart Grids
Norah Elkherayef, Jori Albaqmi, Rahaf Alharbi, Lubna Alsaeed and Yazan Allawi, Department of Electrical Engineering, College of Engineering, Princess Nourah bint Abdulrahman University, P.O. Box 84428, Riyadh 11671, Saudi Arabia
Alawi Alsaggaf, Department of Information & Computer Science, IRC-Advanced Quantum Computing, King Fahd University of Petroleum and Minerals, Dhahran, Eastern Province 31261, Saudi Arabia

Undergraduate Research Competition sponsored by Daikin Applied

First Place

ID 220 Circular Supply Chain Optimization for Sustainable Packaging: Insights, Methods, and Emerging Research Directions
Amirjon Atoev, Student, BS in Industrial Engineering, Mechanical and Industrial Engineering Department, RIT Dubai, Dubai Silicon Oasis, Dubai, United Arab Emirates
Dua Weraikat, PhD, Assistant Professor & MEIE Department Coordinator, Mechanical & Industrial Engineering Department, RIT Dubai, Dubai, Silicon Oasis, Dubai, United Arab Emirates

Second Place

ID 166 The Potential of Integrating Artificial Intelligence in Industrial Quality Control
Akio S. Alnajjar, Mechanical and Aerospace Engineering Department, United Arab Emirates University, Al Ain, UAE
Hamdan Saeed Almeqbaali, Mechanical and Aerospace Engineering Department, United Arab Emirates University, Al Ain, UAE
Waleed Ahmed, Engineering Requirement Unit, United Arab Emirates University, Al Ain, UAE

Lean Six Sigma Competition

First Place

ID 506 Evaluating 5S Implementation Across Industrial Environments with Different Automation Levels - A Comparative Case Study Emtenan Al Munassir, Danya Hadi Ali Mutared, Mona Fahad Alghasib, Rana Falah Al Shahrani, Reema Khalid Alshahrani and Shaima Alharmali, Department of Industrial Engineering, College of Engineering, King Khalid University, Abha, Saudi Arabia
Saleh Yahya Alghamdi and Boshra Taha, Associate Professor, Department of Industrial Engineering, College of Engineering, King Khalid University, Abha, Saudi Arabia

Second Place

ID 308 A Case Study of Improving the Processes at Al Jazeera Paint Company by Applying Lean Six Sigma tools in (KSA)
Ali Almuflih, Assistant Professor in the Department of Industrial Engineering at King Khalid University (KKU), M.Sc. degree in the Department of Mechanical & Industrial Engineering at Northeastern University
Abrar Alamri, Afnan Asiri, Reema Alshahrani, Ruwayda Shawkhan and Samar Alshahrani, Industrial Engineering from King Khalid University (KKU)

Third Place

ID 348 Optimized and Energy-Efficient Desalination Using Renewable Energy Integration
Hamzah Alsadoun, Seham Alqubali and Lama Alsadoun, Department of Renewable Energy Engineering, Fahad Bin Sultan University (FBSU) Tabuk, Saudi Arabia
Faraz Mir, Energy Flexibility Department, ENOWA/NEOM, NEOM, Saudi Arabia

Graduate Student Paper Competition sponsored by Eaton Corporation

First Place

ID 136 Designing a Smart System for Detecting Leaks in Desalination Water Networks for the National Water Company, Kingdom of Saudi Arabia
Reem N Alsaadi, Asrar A Alshahrani, Jawharah A AlQasebah and Manar M Alshahrani, 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 216 A Reliability-Centered Statistical Framework for Resilience Quantification and Investment Optimization of Energy Infrastructure under Uncertainty
Saheed Abiodun, Afolabi and Hasan Masrur, Industrial and Systems Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 111 Enhancing Workplace Safety through Smartwatch and Bluetooth-based PPE Tracking
Ahmed Aljohani, Ammar Albalawi, Mshari Alatawi and Hassan Hiry, Department of Industrial Engineering, University of Tabuk, Tabuk, Saudi Arabia

Human Factors and Ergonomics Competition

First Place

ID 143 Usability, User experience, and Workload of Augmented Reality vs. Paper-Based instruction in Maintenance and Assembly Application
Faisal M. Alessa, Industrial Engineering Department, King Saud University, Riyadh, Saudi Arabia

Second Place

ID 112 An Intelligent Mobile Phone Stand for Posture Correction and Musculoskeletal Discomfort Reduction
Nacer Eddine Hammami, AIMD Laboratory, Computing College, Fahad Bin Sultan University, Tabuk City, KSA
Mohammed H. Alhaag and Brahim Fernini, Department of Industrial Engineering, Mustaqbal University, Buraydah, Qassim, Saudi Arabia
Renad Bandar AlMutairi, Department of Computer Engineering, Mustaqbal University, Buraydah, Qassim, Saudi Arabia
Osamah A.M. Ghaleb, AIMD Laboratory, Computing College, Fahad Bin Sultan University, Tabuk City, KSA
Moustafa Al-hajj, Lebanese University, Lebanon

ID 319 A Multi-Criteria Car Evaluation Method with User-Relevant Comfort Measures

Mojahed Mohammad Alkhateeb, Industrial Engineering Department, King Abdulaziz University – Rabigh, Rabigh, Saudi Arabia

Third Place

ID 84 Occupational Exposure to Flour Dust and Its Mitigation Through Portable Ventilation: Evidence from a Case Study
Ibrahim Almuhaideb, Industrial Engineering Department, College of Engineering, King Saud University, Riyadh-11421, Saudi Arabia

ID 313 Experimental Analysis of Human Dexterity Using the Purdue Pegboard Test

Khalid Sofyani, Abdulrahman Alghofaili and Hassan Hijry, Industrial Engineering Department, University of Tabuk, Tabuk, Saudi Arabia
Abdullah Albalwi, Mohammed Alzubaydi, Ahmed Najmi, Waleed Aljohani and Masheal Alamrani, Faculty of Nursing, University of Tabuk, Tabuk, Saudi Arabia

High School STEM Competition

First Place

ID 52 Smart Assistive Cane for the Visually Impaired Using Ultrasonic Sensor and Haptic Feedback
Thamer Saleh Al-Yami, and Yousef Khaled Alnajim, Al-Deffi Secondary School, Jubail, Saudi Arabia

Second Place

ID 440 Real-Time Sodium-Ion Battery Data Analysis through a Digital Twin Model for Predicting Thermal and Chemical Degradation
Sarah Alshahrane, Ministry of Education-School Student – Saudi Arabia Second Secondary School for Girls

Third Place

ID 60 Smart Irrigation System Using Soil Moisture Sensor for Optimized Water Management
Meshal Ismail Abugazaah and Yousef Al-Najim, Al-Dhafi Secondary School, Jubail, Saudi Arabia

Poster Competition I

First Place

ID 32 Classification of Spare Parts Criticality: A Multi-Criteria Decision-Making Framework with Application in an Oil & Gas Company
Tahra Al Rawahi, Tahra Al Rawahi, and Amar Oukil, Sultan Qaboos University, Oman

Second Place

ID 74 Smart Motorcycle Delivery System: Enhancing Food Quality, Rider Safety, and Efficiency in Saudi Arabia
Noura A. Homedi, Asrar S. Makin, Lama E. Mujairdi, Amal M. Alnami and Elaf A. Abutaleb, Abdulhadi Altherwi Department of Industrial Engineering, Jazan University, Saudi Arabia

ID 257 The Possible Protective Effects of *Herichium erinaceus* (Lion's Mane Mushroom) on Autism-Like Behavioral Alterations Induced by Valproic Acid in Mice

Sharifa Saad Alenezi and Ashwaq Hassan Batawi, Department of Biological Science, Faculty of Science, King Abdulaziz University

Third Place

ID 140 Designing and Manufacturing a Protective and Interactive Helmet for Children
Sultanah Abdulrahman Al Mutairi and Wajid Sulaiman Al Mehaileb, Computer Engineering Department, University of Mustaqbal, Buraidah, Saudi Arabia
Faisal Saud Al Harbi, Industrial Engineering Department, University of Mustaqbal, Buraidah, Saudi Arabia

Poster Competition II

First Place

ID 368 Optimized and Energy-Efficient Desalination Using Renewable Energy Integration
Hamzah Alsadoun, Energy Flexibility (Grow Specialist), NEOM, Saudi Arabia
Lama Alsadoun, (Grow Specialist), NEOM, Saudi Arabia
Seham Alqubali, (Grow Specialist), NEOM, Saudi Arabia
Faraz Rasheed Mir, ENOWA NEOM, Saudi Arabia

Second Place

ID 347 Design and fabrication of Eco-Pulse Engine Components Cleaning System: An Eco-Friendly Electrolysis Based Technology Using Non-Toxic Chemicals
Rami Sharahi, Ali Alqudaihi and Anil Kumar Deepati, Department of Electrical Engineering Technology, College of Applied Industrial Technology - Jazan University, Jizan, KSA

Third Place

ID 314 Machine Learning-Based Optimization of Officer Assignment and Inspection Time in Vehicle Entry Process
Lina Alharthi, Maram Shubber and Rokaya Aldaif, Industrial Engineering Department, College of Engineering, Al Yamamah University, Al Khobar, Saudi Arabia

Poster Competition III

First Place

ID 513 Demand Flexibility in Green Hydrogen Production with Integration to Renewable Sources
Shahad A. Alsharif, Reem S. Albalawi, Shatha S. Albalawi, Hadeel M. Algosi, Faraz Mir and Fahad Bin Sultan University, Tabuk, Saudi Arabia

Second Place

ID 382 Predictive Maintenance of Industrial Machines Using the Extreme Value Model: An Applied Study (Water Pumps)
Nawaf Manahi Al-Shahrani, Mohammed AlRifai Al-Shahrani, Abdulrahman Ahmed Alfarhah, Saleh Mohammed Alqarni, and Turki Mohammed Alaklobi,
Undergraduate Student in Industrial Engineering Department, College of Engineering, University of Bisha Bisha 61922, Saudi Arabia
Mohammed Alquraish, Industrial Engineering Department, College of Engineering, University of Bisha, Bisha 61922, Saudi Arabia

Third Place

ID 464 Camera-Based Gait Analysis using a Machine Learning Approach to Improve Patient Care
Hayden Behrens, Ethan Wingfield, Iftekhhar Ibne Basith, and Syed Hasib Akhter Faruqi, Department of Engineering Technology, Sam Houston State University, Texas, USA

Undergraduate Student Paper Competition sponsored by Siemens – Virtual Part I

First Place

ID 159 Hospital Supply Chain Management: A Review of Research Gaps and Decision Support Opportunities
Sarah Al Zaided, Tala Hassouna, Rokia Elshahhat, Mohamad Chaaban, Seifeldin Faidallah, Omar Abdelmoaty and Dua Weraikat, Rochester Institute of Technology, Dubai, United Arab Emirates

Second Place

ID 290 Factors Affecting Graduates' Intent to Use TikTok as an Alternative to Corporate Employment
Sean Patrick M. Nalayog, Jose Marie Carrillo, Geewel P. Dariagan, Wimbledon L. Domingo, Kristine Bernadette T. Empaynado, Sarah Mae L. Galit, Agnes E. Gatlabayan, Kaye Angelie M. Manalang, John Rod Jarrel DM. Palencia and Maricar M. Navarro, Industrial Engineering Program College of Engineering and Architecture Technological Institute of the Philippines, Quezon City, Philippines

Third Place

ID 286 Green Ammonia and Hydrogen: Pathways to a Sustainable Energy Future-The Role of Transportation, Logistics, and Trading
Ahmed Hossam Fouad, Supply Chain Department, Arab Academy for Science, Technology & Maritime Transport, Heliopolis, Egypt

Undergraduate Student Paper Competition sponsored by Siemens – Virtual Part II

First Place

ID 388 Design and Characterisation of PLA-Based Biocomposite Filaments Reinforced with Pecan Shell for 3D Printing
Gliden Jaroslav Dubois-Makarova and Alejandro Antonio Lara-Ruiz, Bachelor's Degrees in Industrial Engineering, Carrera de Ingeniería Industrial, Universidad de Lima, Perú
Juan Carlos Quiroz-Flores and Marcos Fernando Ruiz-Ruiz, Research Professors, Carrera de Ingeniería Industrial, Universidad de Lima, Perú

Second Place

ID 299 Development of Sustainable Occupational Safety and Health Programs in the Petroleum Sector Using Quality Control Techniques
Basmah AlAwadhi, Zainab AlEnzi, Manayer AlOtaibi, Nora AlMarshoud, Manal AlDabbous and Hussam Ali Allothman, College of Engineering and Technology, American University of the Middle East, Kuwait

Third Place

ID 487 Predictive Maintenance Using Machine Learning Model and Sensor Data Analysis
Yasser Saleh Salman Al Manea and Abdullah Saeed Abdullah Al-Nasser, Industrial Engineering Department, King Khalid University, Abha, Saudi Arabia

Undergraduate Research Competition sponsored by Daikin Applied - Virtual

First Place

ID 536 RawtoReady: A Web-Based Automated Tool for Data Cleaning and Preparation
Gio Miguel R. Bihasa, Pam Cassedy T. Dumangeng, Kim Caryl H. Esperanza, Louella Josephine A. Ng, and Richard N. Monreal, School of Information Technology, Mapua University Makati, Philippines

Second Place

ID 289 Factors Affecting Job-Hopping and Its Impacts on Career Growth and Job Performance Among Millennials and Gen Z Professionals
Aaron Frederick R. Agustin, Carlos Nathaniel F. Dee, Ezekiel Richardson P. Dipasupil, Isaac Philip F. Eraga, John Aaron Nicholas A. Llovido, Ralfh Rowie S. Montaño, John Rod Jarrel DM. Palencia, Jeroncil L. Sanchez, Jayson Zamir Ivan B. Zamora, Jose Marie Carrillo, Jan Louis Cruz and Maricar M. Navarro, Industrial Engineering Program, College of Engineering and Architecture, Technological Institute of the Philippines, Quezon City, Philippines

Third Place

ID 352 Sustainable Data Centers for Smart Cities: Optimized Energy Operation through AI-based Algorithms and Renewables
Najah Elnairab, Jana Amairi, Tayma Hasan, and Hiba Ahmed, B.Sc. in Computing and Information Systems Student, College of Engineering & IT (CEIT), University of Dubai, Dubai, UAE
Maisam Wahbah, Assistant Professor, College of Engineering & IT (CEIT), University of Dubai, Dubai, United Arab Emirates

Graduate Student Paper Competition sponsored by Eaton Corporation - Virtual

First Place

ID 137 Automation Decision
Nader Santarisi, Associate Professor, Engineering Technology & Science, Higher Collage of Technology, Dubai Campus, Dubai, UAE
Asma Ali Ahmed, Ruqaiya Faisal Alkhalidi, Hind Khalid Alhajri, Hessa Khalifa Almansouri and Ghalya Ghanim Alali, Senior Student, School of Industrial Engineering, Higher Collage of Technology (HCT), Dubai, UAE

Second Place

ID 284 Internet of Things-Driven Waste Management: Paving the Way for Sustainable Smart Cities

Khadija Salim Al Yarubi, Sallam O. F. Khairy and S. M. Emdad Hossain, Department of Information Systems, College of Economics, Management and Information Systems, University of Nizwa, Birkat Al Mouz, Nizwa 616, Oman
Gasim Hayder, Department of Civil and Environmental Engineering, College of Engineering and Architecture, University of Nizwa, Nizwa 616, Oman

Third Place

ID 380 The Impact of Infrastructure on the Recovery Capability of Supply Chains from Climatic Disasters in Jazan
Maram Khardali, Postgraduate Student at Logistics and Supply Chain Master Program, Department of Industrial Engineering, Jazan University, Saudi Arabia

Doctoral Dissertation Competition sponsored by Airbus

First Place

ID 475 A Lean Six Sigma Approach in Developing a Sustainable Process Improvement Framework for the Metal Fabrication Manufacturing Process
Lourdes Lasian, Adamson University, Philippines
Jonathan Yong Chung Ee, Department of Post Graduate Studies, Faculty of Engineering, Technology and Built Environment, UCSI University, Kuala Lumpur, Malaysia

High School STEM Competition - Online

First Place

ID 116 A Conceptual Framework for CRISPR-Cas9-Mediated Precision Gene Correction of Inherited Cardiomyopathies via AAV and LNP Delivery
Yakine Ghrib, New World International School, Saudi Arabia

Second Place

ID 99 Artificial Intelligence and Diabetes
Lamar Ghazi Al-Harbi, High School Student, Al-Asr Model Schools in Tabuk, Saudi Arabia
Salma Saeed Alamri, Supervisor / Teacher, Al-Asr Model Schools in Tabuk, Saudi Arabia
Noha Aboelyazeed El Kamshishy, Doctor of Philosophy in Molecular Biology and Genetic Engineering, Supervisor/Teacher, Al-Asr Model Schools, Tabuk, Saudi Arabia

Third Place

ID 340 Nano-Hemoflow: A Smart Blood Substitute for Rapid Hemorrhage Treatment
Reef Khalaf, 24th Girls High School, Hafar Al-Batin, Saudi Arabia

ID 56 Thermal Energy Storage Using Desert Sand: A Low-Cost Alternative for Solar Power in Arid Regions
Mariam Khaled Ebrahim, Creativity Private School, Manama, Bahrain

Lean Six Sigma Competition

First Place

ID 231 Six Sigma-Driven, Digitally Enabled Reduction of Delivery Delays and Failures
Sadeem AlQahtani, Yasmeen Alawadhi, Retaj Altamimi, Danah Alajmi, Raghad Alajmi and Oumayma Hamlaoui, College of Engineering and Technology, American University of the Middle East, Kuwait

Second Place

ID 422 Total Quality Management Practice in the Printing Industry: A Case Study in Saudi Arabia
Liyan Hatim Hassanain, Tamara Ahmed Baabad and Sara Khalid Taieb, Operation and Supply Chain Department, Effat University, Jeddah, Saudi Arabia
Eman Nasser Sukkar, Marketing Department, Effat University, Jeddah, Saudi Arabia

Third Place

ID 174 Logistics performance in Saudi Arabia: A Case Study Using Six Sigma DMAIC, FMEA
Maryam A. Alawlaqi, Sarah Y. Osailan and Malak Ali, Operations and Supply Chain Department, Effat University, Jeddah, Saudi Arabia

Senior Design Competition - Onsite

First Place

ID 145 Designing a Smart System for Geo-Planting and Vegetation in Arid Mountain Terrains: A Pilot Study on Aqabat Al Sulbat region, Kingdom of Saudi Arabia
Joud Sayaf AL-shahrani, Noura Nasser Al-Shahrani, Bushra Mohamed Alharthi, Shorouq Gormallah M Alalyani and Ahood Mohammed Alhazri
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 142 Designing a Smart Wearable System with an Armband for Wireless Power Transfer to Implantable Medical Devices
Raghad S. Al-Ghamdi, Juri K. Al-Muidh, Futun S. Al-Shahrani, Nouf M. Al-Shahrani and Mzoon F. Al-Ghamdi, Undergraduate Students 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

Senior Design Competition Online I

First Place

ID 123 Internal Structure Design Optimization for the Truck Tanks to Minimize Slashing Effect
Mohamed Abouelela, Saad Al-Azmi, Abdullah Jawii, Abdullateef Al-Khudhur, Yousef Dashti and Ebraheem Al-Sawan, American University of the Middle East, Egaila, Kuwait

Second Place

ID 107 Design of a Smart Solar Energy Management System for Protected Areas in the Kingdom of Saudi Arabia
Lena M. Al-Shahrani, Laila M. Al-Muawi, Renad M. Al-Qahtani and Alhanouf S. Al-Qarni, Undergraduate Student in Industrial Engineering Department, College of Engineering, University of Bisha, Saudi Arabia
Khaled Ali Abuhasel, Full Professor in Industrial Engineering Department, College of Engineering, University of Bisha, Bisha 61922, Saudi Arabia

Third Place

ID 133 Strategy to Accelerate QRIS Payment Adoption in Papua Province with System Dynamics Approach
Daniel Lukita Hertanta and Armand Omar Moeis, Department of Industrial Engineering, Universitas Indonesia, Depok, Indonesia

ID 134 Feasibility Analysis of Investing in Single Vessel Ownership Using the Value at Risk Method
Anastasia Arkania Satyawan and Armand Omar Moeis, Department of Industrial Engineering, Universitas Indonesia, Depok, Indonesia
Nur Baiti Inggawulandhari, Faculty of Business, Law, and Politics, University of Hull, Cottingham Rd, Hull HU6 7RX, United Kingdom

Senior Design Competition Online II

First Place

ID 277 Job Shop Scheduling Optimization Through Dispatching Rules and Genetic Algorithms
Norah Saeed Abdullah Aseri, Hawazin Ali Dhafer Alqhtani, Dareen Ali Salem Al-Ahmari, Ghadi Abdullah Mohamed Al-Asmari and Waad Ali Talhan Al-Ahmari, Undergraduate Students, Industrial Engineering Department, King Khalid University, Abha, Saudi Arabia
Abir Mouldi, Supervisor, Industrial Engineering Department, King Khalid University, Abha, Saudi Arabia

Second Place

ID 232 Design and fabrication of a safety helmet
Aisha Alqumlas, Elaf Alqattan and Jamaluddin Jamali, College of engineering and technology, American University of Middle East, Kuwait

Third Place

ID 301 Enhancing Inventory Efficiency in Specialized Warehouses through AI-Powered Computer Vision
Imen Rasheed Bouazzi, Assistant Professor, Industrial Engineering Department, College of Engineering, King Khalid University, Saudi Arabia
Reema Abdulwahab Abumilhah, Senior Student, Industrial Engineering Department, College of Engineering, King Khalid University, Saudi Arabia
Alya Mohammed Qasim, Senior Student, Industrial Engineering Department, College of Engineering, King Khalid University, Saudi Arabia
Maha Farouq Alqahtani, Senior Student, Industrial Engineering Department, College of Engineering, King Khalid University, Saudi Arabia
Enas Khalid Awad, Senior Student, Industrial Engineering Department, College of Engineering, King Khalid University, Saudi Arabia

Poster Competition Online I

First Place

ID 460 An Optimization Model and Multi-Stage Solution Approach for the Scheduling of Ready-Mix Concrete Production and Distribution
Rawan Elshakry and Kadir Ertogral, College of Engineering, Qatar University, Doha, Qatar

Second Place

ID 431 Evaluating the Use of Rice Husk Ash & Iron Dust as Replacements of Concrete
Md Nazrul Islam, Biosystem Engineering, College of Engineering and Computer Science, Michigan State University, East Lansing, Michigan, USA
Zahid Hossain, Professor of Civil Engineering, Director of Graduate Programs in Engineering, College of Engineering and Computer Science, Jonesboro, AR, USA

Third Place

ID 447 Rapid Two-Sigma Screening for Supply Chain Misinformation Resilience
Mohammad Anwar Rahman, Department of Manufacturing & Construction Management, Central Connecticut State University, Connecticut, USA
Md. Rafiul Hassan, Department of Computer Science, Central Connecticut State University, Connecticut, USA

Fourth Place

ID 426 Real-Time Face Detection Using YOLOv5 for Low-Resource CCTV Surveillance Systems
Mustafa Ibrahim, Department of Computer science, school of computer science and information technology, Karary University, Omdurman, Sudan
Abdolaheem Khader, School of Computer Science and Engineering, Nanjing University of Science and Technology, Xuanwu, Nanjing, China
Ali Ahmed, Department of Computer Science, King Abdulaziz University in Rabigh, Jeddah, Saudi Arabia
Ibraheem Abdelazeem, School of Electronic and Optical Engineering, Nanjing University of Science and Technology, Xuanwu, Nanjing, China
Almuhannad S. Alorfi, Department of Information System, King Abdulaziz University, Jeddah, Saudi Arabia

Poster Competition Online II

First Place

ID 98 Enhancing Resilient Operations via Predictive Maintenance: A Simulink-based Machine Learning Approach for Induction Motor Bearings
Mohammed Esmail M A Al-Boinin, Department of Mechanical and Industrial Engineering, College of Engineering, Qatar University, Qatar
Mehdi Dhaoui, Department of Electrical Engineering, National Engineering School of Gabes, University of Gabes, Tunisia
Mariem Mhiri and Mohamed Haouari, Department of Mechanical and Industrial Engineering, College of Engineering, Qatar University, Qatar

Second Place

ID 283 Smart Waste Segregation Using Scalable AI Models: Advancing the Vision of Sustainable Cities
Khadija Salim Al Yarubi, Sallam O. F. Khairy and S.M.E Hossain, College of Economics, Management and Information Systems, Oman

Third Place

ID 343 Global Trade and Logistics in a Shifting World
Dana Sabbagh, Ghalia Samkari, Tamara Essa and Jumana Almutawaa, Department of Operations and Supply Chain Management, Effat University, Jeddah, Saudi Arabia

Master's Thesis Competition - Online

First Place

ID 106 Benchmarking Smart Waste Systems: A Strategic Pathway for Egypt's Circular Economy Transition
Ghada M. A. Younes, Reem Al-Kadeem, Nermine Harraz and Ahmad E. Elhabashy, Production Engineering Department, Faculty of Engineering, Alexandria University, Egypt
Ghada M. A. Younes, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt

Second Place

ID 31 Redesigning the Material Handling System for a Medical Warehouse
Wafa Murad Al Balushi, Department of Operations Management and Business Statistics, College of Economics and Political Science, Sultan Qaboos University, Sultanate of Oman, Oman

Third Place

ID 259 Predictive Modelling of Vehicle Downtime Risk Using Machine Learning
B. B. S. Makhanya and JHC Pretorius, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa

AI-ML Competition

First Place

ID 307 A Hybrid LSTM–XGBoost Approach with SHAP Explainability Using the NASA C-MAPSS Dataset
 Asma Sardar, Computer Engineering Department, College of Engineering, Al Yamamah University, Al Khobar, Saudi Arabia
 Sara M. Al Ghalayini, Industrial Engineering Department, College of Engineering, Al Yamamah University, Al Khobar, Saudi Arabia
 Saba Alkhalifah, Industrial Engineering Department, College of Engineering, Al Yamamah University, Al Khobar, Saudi Arabia
 Rana Alwabel, Industrial Engineering Department, College of Engineering, Al Yamamah University, Al Khobar, Saudi Arabia
 Conrado Vizcarra, Computer Engineering Department, College of Engineering, Al Yamamah University, Al Khobar, Saudi Arabia
 Osama T. Al Meanazel, Industrial Engineering Department, College of Engineering, Al Yamamah University, Al Khobar, Saudi Arabia

Second Place

ID 218 3D Modeling LSTM and Design of a Tilt-Rotor UAV for Trajectory Optimization and Energy-Efficient Flight
 Taliyah Alsharif, Jumana Sameer Sharbaji and Fatma Abdelhedi, King Abdulaziz University, Jeddah, Saudi Arabia

Third Place

ID 292 AI-Driven EMS Optimization: Smart Routing and IoT-Based Patient Monitoring
 Omar H Albalawi, Department of Industrial Engineering, Faculty of Engineering, University of Tabuk, Innovation and Entrepreneurship Center, University of Tabuk, Tabuk 47512, Saudi Arabia

Best Track Papers

| Track ID | Track name | Best Track Paper ID | Paper Title |
|----------|--|---------------------|--|
| 1 | Artificial Intelligence and Data Science | 114 | Driver Fatigue Detection Using On-board Systems in Connectivity-Dead Regions |
| 2 | Automation, Robotics and Autonomous Systems | 328 | Designing Trust: A Human-Centered Communication Model for Autonomous Vehicle Adoption in Saudi Arabia |
| 3 | Business Management and Operations Management | 77 | Sustainable Development through ISO standards: A Systematic Practical Approach for Saudi Organizations |
| 4 | Digital Manufacturing, Industry 4.0 and IoT | 379 | Real-time Livestock Tracking and Alerting Method for Proactive Warning System |
| 5 | Engineering Education and Curriculum Improvement | 270 | Advancing Engineering Drawing Education for Design and Manufacturing Through The Flipped Classroom Approach: Evidence From Saudi Female Engineering Students |
| 6 | Engineering Management and Project Management | 430 | Influence of Management Commitment and Safety Supervisor Role on Workers' Safety Performance in Multinational Construction Sites |
| 7 | Entrepreneurship and Innovation | 401 | Entrepreneurship and Innovation in the Energy Sector |
| 8 | Facility Planning and Layout | 437 | Educational Infrastructure Prioritization using An Intuitionistic Fuzzy AHP Approach |
| 9 | Human Factors, Ergonomics and Healthcare System Management | 84 | Occupational Exposure to Flour Dust and Its Mitigation Through Portable Ventilation: Evidence from a Case Study |
| 10 | Lean Six Sigma and Operations Excellence | 88 | Integrating a Green Lean Six Sigma Framework for Sock Manufacturing Operations in SMEs |
| 11 | Manufacturing, Assembly and Design | 305 | Integrated System toward Sustainable Recycling of Pharmaceutical Waste Blister Packages |
| 12 | Quality, Reliability and Maintenance | 75 | Smart Quality Control for Materials and Spare Parts: Integrating RFID with Etras in EV Manufacturing |
| 13 | Simulation, Optimization and Productivity Improvement | 85 | Digital Triage Training, Spatial Optimization and Color-Coded Prioritization: A Simulation Study to Improve Emergency Department Efficiency |
| 14 | Supply Chain and Logistics | 155 | Optimization of Coffee Roasting Operations: A Case Study of Saudi Roastery |
| 15 | Sustainability, Green Systems and Energy | 211 | Decoupling Solar Intermittency: A Performance Evaluation of a Battery-Buffered Green Hydrogen Production Unit for Sustainable Energy Systems |
| 16 | Case Studies and Best Practices | 427 | Occupational Risk Prevention Model in the Production Area of a Peruvian Metalworking SME to Reduce Workplace Accidents |

Best Track Papers with Affiliations

Artificial Intelligence and Data Science Track

ID 114 Driver Fatigue Detection Using On-board Systems in Connectivity-Dead Regions
Jose Ignacio Soria Miranda, Joaquin Miguel Triveño Pazos and Fabricio Humberto Paredes Larroca, Faculty of Engineering and Architecture, University of Lima, Lima, Perú

Automation, Robotics and Autonomous Systems Track

ID 328 Designing Trust: A Human-Centered Communication Model for Autonomous Vehicle Adoption in Saudi Arabia
Ali Alhawiti, Civil Engineering Department, Faculty of Engineering, University of Tabuk, Tabuk 71491, Saudi Arabia

Business Management and Operations Management Track

ID 77 Sustainable Development through ISO standards: A Systematic Practical Approach for Saudi Organizations
Mohamed Aichouni, Industrial Engineering Department, College of Engineering, University of Hail, Hail, Saudi Arabia
Ahmed Baha Eddine Aichouni, CEMMPRE, ARISE, Department of Mechanical Engineering, University of Coimbra, Coimbra, Portugal
Saud A. Alshamari, Faculty of Finance and Administrative Sciences, Al-Madinah International University, Kuala Lumpur, Malaysia

Digital Manufacturing, Industry 4.0 and IoT Track

ID 379 Real-time Livestock Tracking and Alerting Method for Proactive Warning System
Ahamed Aljuhani, Department of Information Technology, University of Tabuk, Tabuk 71491, Saudi Arabia
Amer Aljaedi, Department of Information Technology, University of Tabuk, Tabuk 71491, Saudi Arabia
Abdullah D. Alanazi, Department of Biological Sciences, Shaqra University, Ad-Dawadimi 11911, Saudi Arabia

Engineering Education and Curriculum Improvement Track

ID 270 Advancing Engineering Drawing Education for Design and Manufacturing Through the Flipped Classroom Approach: Evidence From Saudi Female Engineering Students
Faisal J. Alzahrani, Faculty of Engineering – Rabigh, King Abdulaziz University, Jeddah, Saudi Arabia

Engineering Management and Project Management Track

ID 430 Influence of Management Commitment and Safety Supervisor Role on Workers' Safety Performance in Multinational Construction Sites
Wael M. Alruqi, Civil Engineering Department, Collage of Engineering, Jouf University, Saudi Arabia

Entrepreneurship and Innovation Track

ID Entrepreneurship and Innovation in the Energy Sector
Nyasha Grace Gatawa and Charles Mbohwa, Sustainability Engineering and Future Technologies Centre, University of South Africa, Johannesburg, South Africa

Facility Planning and Layout Track

ID 437 Educational Infrastructure Prioritization using an Intuitionistic Fuzzy AHP Approach
Md Adnan Adib, Industrial Systems Engineering, University of Regina, Regina, SK, Canada
Golam Kabir, Industrial Systems Engineering, University of Regina, Regina, SK, Canada
Industrial and Systems Engineering, King Fahd Univ. of Petroleum & Minerals, Dhahran, Saudi Arabia

Human Factors, Ergonomics and Healthcare System Track

ID 84 Occupational Exposure to Flour Dust and Its Mitigation Through Portable Ventilation: Evidence from a Case Study
Ibrahim Almuhaideb, Industrial Engineering Department, College of Engineering, King Saud University, Riyadh-11421, Saudi Arabia

Lean Six Sigma and Operations Excellence Track

ID 88 Integrating a Green Lean Six Sigma Framework for Sock Manufacturing Operations in SMEs
Shimaa M. Osman, Mohammad A. Younes and Amira A. Khatib, Production and Industrial Engineering Department, Faculty of Engineering, Alexandria University, Alexandria, Egypt

Manufacturing, Assembly and Design Track

ID 305 Integrated System toward Sustainable Recycling of Pharmaceutical Waste Blister Packages
Amr Khamis Mahmoud, R&D Department at the Industry Service Complex (ISC), Arab Academy for Science, Technology and Maritime Transport, (AASTMT), Alexandria, Egypt

Quality, Reliability and Maintenance Track

ID 75 Smart Quality Control for Materials and Spare Parts: Integrating RFID with Etras in EV Manufacturing
Budsaya Schramm, and Phongchai Jittamai, School of Industrial Engineering, Institute of Engineering, Suranaree University of Technology, Nakhon Ratchasima, Thailand

Simulation, Optimization and Productivity Improvement Track

ID 85 Digital Triage Training, Spatial Optimization and Color-Coded Prioritization: A Simulation Study to Improve Emergency Department Efficiency
Mumen Rababah, Ayman Al-Hayek, Yazan Jaradat, Tamara Alnawaiseh and Razan Aldowery, Department of Industrial Engineering, Faculty of Engineering, The Hashemite University, Zarqa, Jordan

Supply Chain and Logistics Track

ID 155 Optimization of Coffee Roasting Operations: A Case Study of Saudi Roastery
Khalid Almutairi, Department of Industrial and Systems Engineering, King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia
Omar Alsawafy, Department of Industrial and Systems Engineering and Interdisciplinary Research Center for Smart Mobility and Logistics (IRC-SML), King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia
Yasser Almoghathawi, Department of Industrial and Systems Engineering and Interdisciplinary Research Center for Smart Mobility and Logistics (IRC-SML), King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia

Sustainability, Green Systems and Energy Track

ID 211 Decoupling Solar Intermittency: A Performance Evaluation of a Battery-Buffered Green Hydrogen Production Unit for Sustainable Energy Systems
Hossam AbdelMeguid, Mechanical Engineering Department, University of Tabuk, Tabuk, Saudi Arabia
Department of Mechanical Power Engineering, Faculty of Engineering, Mansoura University, El-Mansoura, Egypt
Omar Alotaibi, Abdulrahman Alshaman, and Abdullah Almubarak, and Husam Alrehailli, Mechanical Engineering Department, University of Tabuk, Saudi Arabia

Case Studies and Best Practices Track

ID 427 Occupational Risk Prevention Model in the Production Area of a Peruvian Metalworking SME to Reduce Workplace Accidents
Daniel Max Falcón Farfán, Jose Carlos Pineda Flores and Miguel Shinno Huamaní, Carrera de Ingeniería Industrial, Universidad de Lima, Perú