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IEOM Bangladesh Awards – 8th IEOM Bangladesh Industrial Engineering and Operations Management Conference

Dhaka, Bangladesh, December 20-21, 2025

Host and Venue: World University of Bangladesh (WUB)

Distinguished Academic Leadership Award

Professor Dr. Abdul Mannan Choudhury
Vice Chancellor
World University of Bangladesh

Distinguished Woman in Industry and Academia Award

Morsheda Choudhury
Chairperson BOT
World University of Bangladesh

Outstanding Industry Practitioner Award

Md. Sourove Akther Momin
Senior Deputy Operative Director
Walton Hi-Tec,. Ind. PLC.
Dhaka, Bangladesh

Distinguished Educator Award

Professor Dr. M. Nurul Islam
Pro-VC
World University of Bangladesh

Distinguished Professional Award

Prof. Zaki Imam
Registrar
World University of Bangladesh

Outstanding Professor Award

Prof. Dr. Md. Abdul Jalil
Advisor, IEOM 2015 Conference

Outstanding Professor Award in Lean Six Sigma

Prof. Dr. Selim Ahmed
Advisor, IEOM 2015 Conference

Outstanding Professor Award

Prof. Dr. Mohammad Quamruzzaman
Advisor, IEOM 2015 Conference

Outstanding Researcher Award

Jahid Hasan Ashik
Department of Industrial Engineering and Management
Khulna University of Engineering & Technology, Bangladesh

Md. Mohibul Islam
Industrial & Production Engineering Department
Rajshahi University of Science and Technology, Bangladesh

Md Mahfuzur Rahman
Jashore University of Science and Technology

Outstanding Teaching Award

Tahmina Kabir
BUET, Bangladesh

SCM Award

Dr. Mamun Habib
IUB
Dhaka, Bangladesh

Areebah Ahsan
BRAC University
Dhaka, Bangladesh

Distinguished Leadership Award

Prof. Dr. Md. Mizanur Rahman
Chairman, IEOM 2015 Conference

Competition Winners

Onsite Competitions

Undergraduate Student Paper Competition Sponsored By Siemens - Onsite

First Place

ID 104 Impact of China's Sectoral Stock Returns on Global Supply Chains: A Deep Learning Correlation Analysis
Asir Mubashir Ishrak, Samiha Mumtaj and Abid Mahmood, Industrial and Production Engineering, Military Institute of Science and Technology, Dhaka, Bangladesh
Mohammad Naim Uddin, Industrial and Production Engineering Department, Military Institute of Science and Technology, Dhaka, Bangladesh

Second Place

ID 309 Mechanical Properties Analysis of Jute/E-Glass Fiber Reinforced Composite for Leaf Spring Application
Md. Hozzatul Islam, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Joy Ganguly, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Md. Radwanul Kabir, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Nurul Hasnat, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Nazmus Sakib, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Md Tanvir Ahmed, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Muhammad Jawad Zin Noor, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh

Third Place

ID 304 A Comprehensive Review of the Formula 1 Drag Reduction System (DRS): From Aerodynamic Theory to On-Track Efficacy
Shahriar Islam Sium and Mahmudul Hasan Rohan, Department of Industrial & Production Engineering, Jashore University of Science and Technology, Jashore-7408, Bangladesh

Undergraduate Research competition Sponsored by Daikin Applied - Onsite

First Place

ID 380 Moringa Oleifera (Drumstick) Fiber Reinforced Epoxy Composite – A Mechanical Characterization Study
Joy Ganguly, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Md. Radwanul Kabir, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Nurul Hasnat, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Muhammad Jawad Zin Noor, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Nazmus Sakib, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh
Md Tanvir Ahmed, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh

Second Place

ID 161 Mechanical Characterization of Sugarcane-based Natural Fiber Composites Using Machine learning and Experimental Techniques
Farhan Sadik, Md Rois Uddin, Arif Raogir and Sehrish Taazwar Khan, Industrial & Production Engineering Department, American International University–Bangladesh (AIUB), Dhaka, Bangladesh
Mohammad Tauhiduzzaman, PhD, Assistant Professor, Industrial & Production Engineering Department, American International University–Bangladesh (AIUB), Dhaka, Bangladesh

Third Place

ID 194 Challenges and Opportunities in Plastic Pyrolysis: A Review on Feedstock Effects, Catalysis, and Engine Fuel Viability
Khalid Mahmud Saifullah, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
Aniruddha Roy Protya, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
Md Ashfaq Hossain, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
MD. Alifur Rahman, Department of Electrical and Electronic Engineering, Khulna University of Engineering & Technology, Khulna, Bangladesh

Supply Chain and Logistics Competition sponsored by aThingz - Onsite

First Place

ID 120 Framework for Supplier Selection Using MCDM Methods: A Case Study at a Cement Manufacturing Company
Mustafizur Rahman, Computational Science, The University of Texas at El Paso, Texas, USA
Sarojit Kumar Biswas and Md. Mahafuj Anam Murad, Department of Industrial and Production Engineering, Jashore University of Science and Technology, Jashore, Bangladesh

Second Place

ID 22 Omni-Channel Lot-Sizing with Split Fulfillment and Returns: A Mixed-Integer Linear Programming Model
Nusrat Tarin Chowdhury, Associate Professor, School of Technology, Art, and Design, Bemidji State University, Bemidji, MN, USA

ID 124 Improving Supply Chain Effectiveness: An Analysis of Bangladesh's Pharmaceutical Industry
Mustafizur Rahman, Computational Science Program, The University of Texas at El Paso, Texas, USA
Md. Mahafuj Anam Murad, Sifat Ajmeer Haque and Sarojit Kumar Biswas, Department of Industrial and Production Engineering, Jashore University of Science and Technology, Jashore, Bangladesh
Tzu-Liang (Bill) Tseng, PhD, Industrial, Manufacturing, and Systems Engineering (IMSE), The University of Texas at El Paso, Texas, USA

Third Place

ID 451 From AHP to DEA: A Comparative Study of MCDM Approaches for Automotive Supplier Sustainability
Md Hasibur Rahman, Department of Mechatronics Engineering, World University of Bangladesh, Dhaka, Bangladesh
Md. Fyzul Hasan, Department of Mechanical Engineering, Military Institute of Science and Technology, Dhaka, Bangladesh
Md. Tariful Islam Satu, Department of Mechanical Engineering, Military Institute of Science and Technology, Dhaka, Bangladesh

Lean Six Sigma Competition - Onsite

First Place

ID 184 Eliminating the Defects using DMAIC approach in Garment Industry
MD. Ridwan Hossain, Department of Industrial Engineering, BGMEA University of Fashion & Technology, Dhaka 1230, Bangladesh
Minhazul Abedin, Department of Industrial Engineering, BGMEA University of Fashion & Technology, Dhaka 1230, Bangladesh
Md. Sajib Milki, Department of Industrial Engineering, BGMEA University of Fashion & Technology, Dhaka 1230, Bangladesh
Md. Ariful Ferdous, Department of Industrial Engineering, BGMEA University of Fashion & Technology, Dhaka 1230, Bangladesh

Second Place

ID 170 Implementation of Lean Six Sigma Methodology & TQM Tools: A Case Study in Safety Shoe Footwear Industry of Bangladesh
Bayzid Mahmud, Department of Industrial Engineering, BGMEA University of Fashion & Technology, Dhaka 1230, Bangladesh
A H M Abdul Moudood, Department of Industrial Engineering, BGMEA University of Fashion & Technology, Dhaka 1230, Bangladesh
Ali Alnoaimi, Directorate of Planning and Projects, Ministry of Foreign Affairs, Manama, Kingdom of Bahrain

Third Place

ID 119 Six Sigma TQM Implementation for Defects Reduction & Sigma Level Improvement: A case study in Best Shirt Limited
Sohag Khan, Department of Industrial Engineering, BGMEA University of Fashion and Technology, Dhaka 1230, Bangladesh
Ahnaf Tahmid, Department of Industrial and Production Engineering, American International University Bangladesh (AIUB), Dhaka, Bangladesh
Md.Zannatun Nayeem, Department of Industrial Engineering, BGMEA University of Fashion and Technology, Dhaka 1230, Bangladesh
Md. Ariful Ferdous, Department of Industrial Engineering, BGMEA University of Fashion and Technology, Dhaka 1230, Bangladesh
Mohammad Riyadh, Department of Industrial Engineering, BGMEA University of Fashion and Technology, Dhaka 1230, Bangladesh

Senior Design and Project/FYP Competition - Onsite

First Place

ID 465 Conceptual System Design of a Mother–Daughter Lunar Rover for South-Polar Exploration: Dust-Resilient Mobility, Uneven Terrain Navigation, and Multi-Stage Sample Collection
Md. Ibrahim Hossain Khan, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Istiaq Rahman Shourov, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Rahin Intesar Nafim, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Probak Hasan Arnob, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Safwan Siddiquee, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Samiul Alam Munna, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Tahmid Kawser Washee, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Md. Hasnat Jinnurain Mayaz, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Tasfia Akter Ridita, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh
Ahmed Intekhab Rohan, Department of Mechanical & Production Engineering, Islamic University of Technology, Gazipur, Bangladesh

Human Factors and Ergonomics Competition- Onsite

First Place

ID 206 Gender, Climate Vulnerability, and Technology Adoption: An Assessment of Agricultural Microenterprises in Rural Bangladesh
Aniruddha Roy Protya, Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, Bangladesh
Sujan Banik, Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, Bangladesh
Provat Kumar Saha, Department of Civil and Environmental Engineering, University of Washington, Seattle, Washington, United States
Sabiha Yeasmin Rosy, Department of Women and Gender Studies, University of Dhaka, Dhaka-1000, Bangladesh
Mohammad Golam Kibria, Department of Soil Science, Bangladesh Agricultural University, Mymensingh, Bangladesh
Yushiou Tsai, The ByWater Institute, Tulane University, 6823 St. Charles Avenue, New Orleans, LA, USA
Md Aman Uddin, Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, Bangladesh

Graduate Student Paper Competition sponsored by Eaton Corporation - Onsite

First Place

ID 331 A Review on Yaw Angle Aerodynamics of NACA0015 Aerofoil Under Transient RANS Modeling for Formula Student Vehicles
Jowad Md Madha, Institute for Flow in Additively Manufactured Porous Media, Heilbronn University, Germany
Institute of Education and Research (IER), University of Dhaka, Bangladesh
Anika Nawar, Institute of Education and Research (IER), University of Dhaka, Dhaka, Bangladesh
Wenbo Yang, Institute of Engineering Thermophysics, CAS, VS, Department of Energy and Power, Tsinghua University, Beijing, China

Second Place

ID 340 VigiTrak: Vision-Based Terrain-Adaptive Surveillance Robot with GPS Tracking
Enamul Hoq, Department of Mechatronics Engineering, World University of Bangladesh, Dhaka, Bangladesh
Mohammad Quamruzzaman, Department of Electrical and Electronics Engineering, World University of Bangladesh, Dhaka, Bangladesh
Md. Mizanur Rahman, Department of Mechatronics Engineering, World University of Bangladesh, Dhaka, Bangladesh
Rezwana – Us – Saleheen, Department of Mechatronics Engineering, World University of Bangladesh, Dhaka, Bangladesh
Md Shariful Islam, Department of Mechatronics Engineering, World University of Bangladesh, Dhaka, Bangladesh

Third Place

ID 192 Deploying Rooftop Solar PV System in an Educational Institution of Rural Bangladesh: A Software Based Case Study
Aniruddha Roy Protya, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
Md Ashfaq Hossain, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
Khalid Mahmud Saifullah, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
MD. Alifur Rahman, Department of Electrical and Electronic Engineering, Khulna University of Engineering & Technology, Khulna, Bangladesh
Md Samraj Rahman, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh

High School STEM Competition

First Place

ID 215 A Study on Predictive Modeling of Product Design Improvement Factors Through Review Data Analysis
Jaeyoon Song and Dongho Shin, Student and Professor, My Paul School, 12-11, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

Second Place

ID 217 Beta-Penalized PPO for Portfolio Optimization: KOSPI Top 30 Case Study
Joonseong Park and Dongho Shin, Graduated and Professor, My Paul School, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

Third Place

ID 125 Social Media Sentiment Analysis of Carbon Neutrality and Single-Use Plastics Using Python
Youju Rim and Dongho Shin, Student and Professor, My Paul School, 12-11, Goesan-gun, Chungcheongbuk-do, Republic of Korea

Online Competitions

Undergraduate Student Paper Competition sponsored by Siemens (Part 1, ID: 1-200) - Online

First Place

ID 175 Improving Productive Efficiency Based on TPM and SMED in a Metalworking Company
Joe William Tirado-Chávez, Joice Corzo-Castro, Gino Viacava-Campos and Jorge Corzo-Chavez, Carrera de Ingeniería Industrial Universidad de Lima, Lima, Peru

Second Place

ID 176 Numerical Performance Investigation of Modified NPR Bumper System
Akib Javed Shovon, Md Arifuzzaman and Md Shariful Islam, Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna, Bangladesh

Third Place

ID 185 Productivity Improvement in the Bread-Making process in a food retail through lean tools
Luis Delgado and Jose García, Industrial Engineering Department, Universidad de Lima, Lima, Perú
Rafael Villanueva, Professor of Industrial Engineering, Universidad de Lima, Lima, Perú

Undergraduate Student Paper Competition sponsored by Siemens (Part 2, ID: 201-494) - Online

First Place

ID 378 Effect of Wood Dust Particles on Physical and Mechanical Properties of Gypsum Particulate Composite
Nurul Hasnat, Joy Ganguly, Md. Shahin Alam, Md. Radwanul Kabir, and Dibakar Das, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

Second Place

ID 381 Enhancement of Mechanical Properties in Epoxy Composites via Bamboo and Glass Fiber Hybridization
Md. Radwanul Kabir, Joy Ganguly, Muhammad Jawad Zin Noor, Nurul Hasnat, Md. Shahin Alam, and Teertha Toran Chakraborty, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh

Third Place

ID 418 A Case Study on Ag/Co Co-Doped TiO₂ Nanoparticles: Green Synthesis, Doping Mechanisms, Photocatalysis, and Antibacterial Activity for Industrial Wastewater Remediation
Md. Farhan Jakib, Ishtiaq Mahmud, Abdullah-Al-Mazed Khan, S. Mahmud Nabil, Jahidul Islam Anir, Jannat Hossain Arpa, Md. Ahsan Tamjid Talha, and Taufique Sami, Department of Materials Science & Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, Bangladesh

Undergraduate Research Competition sponsored by Daikin Applied - Online

First Place

ID 76 A Multi-Agent Reinforcement Learning Approach for Evolutionary Games Using Proximal Policy Optimization
Mahamudul Hassan Siddique and Fahimul Haque, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh

Second Place

ID 57 Adaptive Sample-Level Framework Motivated by Distributionally Robust Optimization with Variance-Based Radius Assignment for Enhanced Neural Network Generalization Under Distribution Shift
Aheer Sravon, Devdyuti Mazumder, and Md. Ibrahim, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

Third Place

ID 466 Utilization of Agricultural Waste into Green Bio-Composite Materials: A Review
Jahidul Islam Anir, Department of Materials Science & Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, Bangladesh
Jannat Hossain Arpa, Department of Materials Science & Engineering, Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh
Md. Farhan Jakib, Department of Materials Science & Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, Bangladesh
Mohammad Tasbi Khan, Department of Materials Science & Engineering, Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh
Abdullah-Al-Mazed Khan, Lecturer, Department of Materials Science & Engineering, Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh

AI-ML Competition - Online

First Place

ID 106 The Limited Predictive Power of Simple Demographic and Temporal Factors on WMSD Prevalence in Female Garment Workers: Implications for Ergonomic Design
Zannatul Mukarroma, Shahjalal University of Science and Technology, Bangladesh

Graduate Student Paper Competition sponsored by Eaton Corporation - Online

First Place

ID 335 Recent Advances in Multi-Domain Machine Learning: A Comparative and Integrated Study of Financial, Environmental, Physiological, and Behavioral Prediction Models
Samsunnahar Chowdhury, Department of Computer Science, University of Chittagong, Chittagong, Bangladesh
Shahria Zaman, Associate Professor, Department of Computer Science, Noakhali Science and Technology University, Dhaka, Bangladesh

Lean Six Sigma Competition - Online

First Place

ID 264 Productivity improvement through the application of Lean Six Sigma tools in a non-alcoholic beverage company
Stefania Carolina Huerta Sánchez, Industrial Engineering Department, Universidad de Lima, Lima, Perú
Cesar David Mesia Perez, Industrial Engineering Department, Universidad de Lima, Lima, Perú
Mr. Rafael Mauricio Villanueva Flores, Associate Professor, Industrial Engineering Department, Universidad de Lima, Lima, Perú

Human Factors and Ergonomics Competition - Online

First Place

ID 61 Determining and Prioritizing UX Factors in Corporate Sales Websites via Fuzzy FUCOM
Huseyin Selcuk Kilic, Zeynep Tugce Kalender and Nur Beser, Department of Industrial Engineering, Marmara University, Istanbul, Türkiye
Sevan Katrancioğlu, Turkcell Technology, Istanbul, Türkiye

Second Place

ID 476 Design of Workstation by Applying Ergonomic Principles
Md Fardin Islam, Emonur Rahman Fahim, Md Hasin Abrar Soumik, Praddut Kuri Pretom and Dr. Md. Sanowar Hossain, Department of Industrial and Production Engineering, Rajshahi University of Engineering and Technology, Rajshahi-6204, Bangladesh

Master's Thesis Competition - Online

First Place

ID 301 Wi-Fi-based Smart Motor Control: A Low-Cost IoT Solution for Real-Time Induction Motor Operation
Md. Naimuzzaman, Electrical and Electronic Engineering Department, Khulna University of Engineering and Technology, Khulna, Bangladesh
Md. Nur Kutubul Alam, Associate Professor, Department of Electrical and Electronic Engineering, Khulna University of Engineering and Technology

Supply Chain and Logistics Competition sponsored by aThingz – Online

First Place

ID 388 Hybrid AI-IoT Integrated Framework for Sustainable Reverse Supply Chain Optimization: Advancing Pre-Consumer Circularity and Traceability in Manufacturing
 Md. Sadman Sakib, Md. Tanvirul Islam, Md Ishrak Hossain, Saifullah Al-Mahmud Hossain, and Al Musavvir Sium, Department of Industrial and Production Engineering, Bangladesh University of Textiles, Dhaka, Bangladesh

Best Track Papers

| Track ID | Track name | Best Track Paper ID | Paper Title |
|----------|--|---------------------|---|
| 1 | Artificial Intelligence and Data Science | 66 | A Hybrid Intelligent System for Medical Waste Classification and Automated Sorting using CNN and OpenGL Simulation |
| 2 | Automation, Robotics and Autonomous Systems | 97 | A Low-Cost Computer Vision Approach to Robotic Weight Sorting in Pharmaceutical Manufacturing |
| 3 | Business Management and Operations Management | 417 | A Review Paper on E-Business Adaptability and Probabilistic Risk Assessment |
| 4 | Digital Manufacturing, Industry 4.0 and IoT | 53 | Real-time environment monitoring embedded system in RMG factories to emphasize awareness about workers health safety |
| 5 | Engineering Education and Curriculum Improvement | 371 | Benefits of NLP Tools for Speaking Development of Second Language Learners |
| 6 | Engineering Management and Project Management | 439 | Maintenance model based on 5s and TPM to increase productivity in an SME in the food and beverage sector |
| 7 | Entrepreneurship and Innovation | 214 | A Comprehensive Analysis of the Determinants of Entrepreneurial Abilities Among Undergraduate Students in Bangladesh |
| 8 | Facility Planning and Layout | 169 | Reducing Lead Time in Small-Scale Iron Assembly Operations: A Case Study on Value Stream Mapping with Statistical Validation |
| 9 | Human Factors, Ergonomics and Healthcare System Management | 59 | A Sensor-Based Posture Detection System Towards Ergonomic Health Improvement |
| 10 | Lean Six Sigma and Operations Excellence | 198 | Improving Sigma Level in Wet Blue Leather Processing: Context of Bangladesh Tannery Industry |
| 11 | Manufacturing, Assembly and Design | 50 | Hybrid Modeling of Surface Roughness in Friction Drilling of Preheated A356 Aluminum Alloy Using RSM and Machine Learning |
| 12 | Quality, Reliability and Maintenance | 256 | Reducing Sewing Defects in RMG Manufacturing for Continuous Improvement: A PDCA Framework Approach |
| 13 | Simulation, Optimization and Productivity Improvement | 363 | A Bi-Objective Optimization Model for Real-World Task Allocation in RMG Sewing Lines: Capacity Maximization and Minimization of Capacity Loss |
| 14 | Supply Chain and Logistics | 221 | Integrating Digital Product Passport for Optimal Supplier and Reverse-Logistics Hub Co-Selection in Bangladesh's Circular Textiles Supply Chain |
| 15 | Sustainability, Green Systems and Energy | 23 | Exploring Sugarcane Husk Ash and Recycled Aggregates as Eco-Friendly Alternatives in Sustainable Concrete Production |
| 16 | Case Studies and Best Practices | 391 | Arch Bridge Construction Methodology: Lesson Learned from Failure Study |

Best Track Papers

Artificial Intelligence and Data Science Track

ID 66 Revolutionizing Medical Waste Processing with Convolutional Neural Networks and Automated Sorting Systems
Bijoy Saha and Anik Biswas, Mechatronics Engineering, Khulna University of Engineering & Technology, Khulna-9203, Bangladesh

Automation, Robotics and Autonomous Systems Track

ID 97 A Low-Cost Computer Vision Approach to Robotic Weight Sorting in Pharmaceutical Manufacturing
Jobait Alam, Farzana Khandoker and Kawsari Aktar Protha, Dept. of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka
Md. Rizwan Ullah, Department of Mechanical Engineering, University of Wyoming, Laramie, Wyoming, USA

Business Management and Operations Management Track

ID 417 A Review Paper on E-Business Adaptability and Probabilistic Risk Assessment
Mehayrun Nesa Shupti, Md. Saiful Islam, and Jahid Hasan Ashik, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna, Bangladesh

Digital Manufacturing, Industry 4.0 and IoT Track

ID 53 Real-time environment monitoring embedded system in RMG factories to emphasize awareness about workers' health safety
Mim Khatun, Shihab Molla and Mohammad Noor Nabi, Atish Dipankar University of Science and Technology, Dhaka, Bangladesh
Saiful Islam, Esmail Hossain Emon, and Shaikh Md. Mominul Alam, Bangladesh University of Textiles, Dhaka, Bangladesh
Md. Fyzul Hasan, Military Institute of Science and Technology, Dhaka, Bangladesh

Engineering Education and Curriculum Improvement Track

ID 371 Benefits of NLP Tools for Speaking Development of Second Language Learners
S. M Mehedi Hasan, Anika Tahmina Chowdhury and Md. Shohaib Islam, Department of Computer Science, American International University-Bangladesh, Dhaka
Iftexhar Mahmud, Department of English, American International University-Bangladesh, Dhaka, Bangladesh

Engineering Management and Project Management Track

ID 439 Maintenance model based on 5s and TPM to increase productivity in an SME in the food and beverage sector
Marco Antonio Mostacero-Vilca, Facultad de Ingeniería, Universidad de Lima, Perú
Joel Jefferson Vilca-Celi, Facultad de Ingeniería, Universidad de Lima, Perú
Roman Manuel Balta-Mansilla, Research Professor, Facultad de Ingeniería, Universidad de Lima, Perú

Entrepreneurship and Innovation Track

ID 214 Determinants of Entrepreneurial Intention among University Graduates in Bangladesh
Sadman Sakib, University of Saskatchewan, Canada
Yeasir Arafat, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology (KUET), Khulna, Bangladesh

Facility Planning and Layout Track

ID 169 Reducing Lead Time in Small-Scale Iron Assembly Operations: A Case Study on Value Stream Mapping with Statistical Validation
Sanjoy Sutradhar, Bayzid Mahmud, and A H M Abdul Moudood, Dept. of Industrial Engineering, BGMEA University of Fashion & Technology, Dhaka, Bangladesh

Human Factors, Ergonomics and Healthcare System Management

ID 59 A Sensor-Based Posture Detection System Towards Ergonomic Health Improvement
Md. Atiur Rahman, Shah Md Tasrifur Rahim, Idrak Al Rakin, Shrabon Mitro, Taufique Ahammed, Rahnuma Islam, Sonia Akhter and Md. Limonur Rahman
Lingkon, Department of Industrial & Production Engineering, Rajshahi University of Engineering & Technology, Rajshahi, Bangladesh

Lean Six Sigma and Operations Excellence Track

ID 198 Improving Sigma Level in Wet Blue Leather Processing: Context of Bangladesh Tannery Industry
Tanvirul Islam, M.Sc. in Occupational and Process Safety (Ongoing), Chemical Engineering Department, Bangladesh University of Science and Technology, B.Sc. in Industrial and Production Engineering, Mechanical and Production Engineering Dept., Ahsanullah University of Science & Technology, Dhaka, Bangladesh
Alfi Shahriar, Senior Executive, Supply Chain Planning (P&G and AstraZeneca Bangladesh), MGH Group, B.Sc. in Industrial and Production Engineering, Mechanical and Production Engineering Department, Ahsanullah University of Science & Technology, Dhaka, Bangladesh
Md. Shadman Hossain, Executive, Environment, Health and Safety, American and Efrid Bd Ltd., B.Sc. in Industrial and Production Engineering
Mechanical and Production Engineering Department, Ahsanullah University of Science & Technology, Dhaka, Bangladesh

Manufacturing, Assembly and Design Track

ID 50 Hybrid Modeling of Surface Roughness in Friction Drilling of Preheated A356 Aluminum Alloy Using RSM and Machine Learning
Fahimul Haque, Miftaur Rahman Zisan and Mahamudul Hassan Siddique, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh

Quality, Reliability and Maintenance Track

ID 256 Reducing Sewing Defects in RMG Manufacturing for Continuous Improvement: A PDCA Framework Approach
Auritra Mondal, Md Ariful Ferdous, Md Samsul Islam and Afnur Adib, Department of Industrial Engineering, BGMEA University of Fashion & Technology, Nishatnagar, Turag, Dhaka-1230, Bangladesh

Simulation, Optimization and Productivity Improvement Track

ID 363 A Bi-Objective Optimization Model for Real-World Task Allocation in RMG Sewing Lines: Capacity Maximization and Minimization of Capacity Loss
Md. Khairul Basar, Rejuan Siddiki Rejvi, Sheik Md Al Arifin, Md. Afzal Hossain and Rezwanul Islam, Department of Industrial and Production Engineering, Shahjalal University of Science and Technology, Sylhet, Bangladesh

Supply Chain and Logistics Track

ID 221 Integrating Digital Product Passport for Optimal Supplier and Reverse-Logistics Hub Co-Selection in Bangladesh's Circular Textiles Supply Chain
Nasif Morshed, Department of Industrial Engineering and Management, Khulna University of Engineering and Technology, Khulna, Bangladesh
Md. Foyzal Uddin, Department of Industrial and Production Engineering, Rajshahi University of Engineering and Technology, Rajshahi, Bangladesh
Shezan Ahmed and Md. Saiful Islam Seam, Dept. of Industrial Engineering and Management, Khulna University of Engineering and Technology, Khulna, Bangladesh

Sustainability, Green Systems and Energy Track

ID 23 Exploring Sugarcane Husk Ash and Recycled Aggregates as Eco-Friendly Alternatives in Sustainable Concrete Production
Muzaddit Ul Mubin, Rasel Mahmud Mirda and Leevesh Kumar, Department of Civil Engineering, World University of Bangladesh, Dhaka, Bangladesh

Case Studies and Best Practices Track

ID 391 Arch Bridge Construction Methodology: Lesson Learned from Failure Study
Md Yeasin Mostafiz and Manshib Tazowar, Graduate Student, Department of Civil Engineering, University of Texas at Arlington, Arlington, Texas, United States
Ishtiaque Ahmed, Professor, Department of Civil Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh