

# 2023 IEOM Awards – 3rd Indian International Conference on Industrial Engineering and Operations Management

New Delhi, India, November 2-4, 2023, Venue: The Royal Plaza Hotel

## **Distinguished Academic Leadership Award**

Professor Mohammad Gulrez Vice Chancellor Aligarh Muslim University Aligarh, India

Prof. S. Indu Vice Chancellor Delhi Technological University Delhi, India

Prof. Santishree D. Pandit Vice Chancellor, Jawaharlal Nehru University (JNU) New Delhi, India

Prof. Timira Shukla Director, I.T.S. School of Management Ghaziabad, India

## **Distinguished Industry Leadership Award**

Er. Harjinder Singh Cheema Chairman Cheema Boilers Limited Formal Chairman CII Mohali Zone Sennate Member and Professor of Practice at Indian Institute of Technology, Ropar, Punjab Professor of practice at Beant University, Rayat Bahra University, Shoolini University Advisor at FIED IIM Kashipur, Lovely Professional University and Chandigarh Group of College

Dr. Kamal Kishore Singh, IPS ADG of Civil Defence in the Disaster Management Department Government of Bihar, India

Mr. Tarun Aggarwal Vice President Maruti Suzuki India Limited Gurugram, Haryana, India

Mr. Sunil Kant Munjal Chairman Hero Corporate Service Private Limited 264, Okhla Industrial Estate Phase III, New Delhi 110020, India

## **Distinguished Industry Achievement Award**

Vijay Sharma Vice President Pavna Industries Limited Aligarh, UP, India

Mr. Rakesh Vasisht Vice Precedent Hero Motocorp Delhi, India

Mr. Sanjay Ranawade Senior Vice President (CMO) Jewellery Division Titan Company Limited, India

## Lifetime Achievement Award

Dr. Devinder Kumar Banwet FIE Vice Chancellor Founding Retd University of Engineering & Management Kolkata India Professor Emeritus, DMS, IIT Delhi, India

## **Distinguished Professor Award**

Dr. M. Muzammil, M.Sc. Engineering, Ph.D. Professor Ergonomics Research Division Mechanical Engineering Department A.M.U., Aligarh, India

#### **Outstanding Professor Award**

Dr. Christopher Harris Associate Professor of Computer Science University of Northern Colorado Greeley, Colorado, United States

Prof. Angelika Peer Full Professor Faculty of Engineering Free University of Bozen-Bolzano Italy

Professor Arshad Noor Siddiquee, PhD Professor Department of mechanical Engineering Jamia Millia Islamia (a Central University), New Delhi South Delhi, Delhi, India

## **Outstanding Professor Award in Quality Control**

Faisal Talib Professor Mechanical Engineering Department A.M.U., Aligarh, India

## **Outstanding Professor Award in Operations Research**

Dr. Sundaravalli Narayanaswami Associate Professor and Ex-Chairperson, Public Systems Group (PSG) Indian Institute of Management, Ahmedabad, India President, ORSI-Ahmedabad Chapter

## **Outstanding Professor Award in Operations Management**

Dr. Sushil Kumar Professor in Operations Management Indian Institute of Management, Lucknow Prabandh Nagar, IIM Road Lucknow, Uttar Pradesh, India

Dr. Abhijit Majumdar R. Jaikrmar Chair Professor for Operations Management Indian Institute of Technology Delhi, India

## **Outstanding Young Faculty Award in Business Management**

Dr. Vivek Soni F.I.E. Assistant Professor Faculty of Management Studies University of Delhi logo New Delhi, Delhi, India

## **Outstanding Young Faculty Award**

Vernika Agarwal, PhD Associate Professor Apeejay School of Management Dwarka, New Delhi, India

Mst Sumi Akter Department of Electrical and Electronics Engineering Faculty of Science and Engineering, World University of Bangladesh Dhaka, Bangladesh

#### Woman in Industry and Academia Award

Prof. Dr. LEONG Wai Yie INTI International University, Malaysia Immediate Past Chairperson of The Institution of Engineering and Technology Vice President of International Network of Women Engineers and Scientists (INWES) Deputy Vice Chair of World Federation of Engineering Organisation (Women in Engineering Committee)

Zoubida Benmamoun Faculty of Engineering Liwa College of Technology Abu Dhabi, United Arab Emirates

Vernika Agarwal, PhD Associate Professor Apeejay School of Management Dwarka, New Delhi, India

## **Global Manufacturing Education Award**

Dr. Qasim Murtaza Professor, Department of Mechanical Engineering Delhi Technological University Delhi, INDIA

## **Global Engineering Education Award**

Nitin Seth Director, Indo-French Centre for the Promotion of Advanced Research (IFCPAR/CEFIPRA) Department of Science & Technology, Govt. of India and Ministry for Europe & Foreign Affairs Govt. of France, New Delhi

## **Industry Solutions Award**

Dr. Prabir Kanti Basu Senior Vice President, Reliance New Solar Energy Ltd (RNSEL) Reliance Industries Limited Faridabad, Haryana, India

Ajay Sambrani Managing Director Asia Pacific Member of Group Executive Management TUBACEX Mumbai, Maharashtra, India

Susheel Baloji Deputy General Manager Purchase Ferrous Castings Tata Motors Limited Pune, Maharashtra, India

Mr. Partha Pratim Dutta Chief General Manager Oil India Limited (OIL) NOIDA, UP, India

## **Global Business Management and Operations Excellence Award**

Saurabh Parmar CMO, Fractional Delhi, India

#### **Global Artificial Intelligence and Machine Learning Award**

Dr Suraj Kumar Mukti Associate Professor, Department of Mechanical Engineering NIT Raipur Raipur, Chhattisgarh, India

## **Healthcare Solutions Award**

Dr. Vinaytosh Mishra, PhD Director, Thumbay Institute for AI in Healthcare Associate Professor, College of Healthcare Management and Economics Gulf Medical University, Ajman, UAE Adjunct Faculty – Datta Meghe Institute of Higher Education & Research, Maharashtra, India

## **Global Engineering Education Award**

Dr. Faisal Hasan Professor, Mechanical Engineering Department A.M.U., Aligarh, India

## **Industry 4.0 Teaching Award**

Dr. V. Vasu Professor, Department of Mechanical Engineering National Institute of Technology (NIT), Warangal, India

## **Global Supply Chain and Logistics Award**

Dr. Gaurav Kabra Associate Professor, Operations and Supply Chain Management O.P. Jindal Global University (JGU) Delhi, India

Dr. Saurabh Agrawal Associate Professor, Delhi School of Management Delhi Technological University Delhi, India

## **IEOM Distinguished Leadership Award**

Dr. Seema Singh Professor of Economics, Department of Humanities Delhi Technological University Delhi, India

M. Affan Badar, PhD, CPEM, IEOM Fellow Professor & PhD Technology Management Director Former Chair, Applied Engineering and Technology Management Department Bailey College of Engineering and Technology Indiana State University, Indiana, USA

Dr. Abid Ali Khan Professor, Department of Mechanical Engineering ZH College of Engineering & Technology AMU, Aligarh, India

Cdr Dr. Bhaskar Bhandarkar DG Institution for Innovation Industrial Engineering and Entrepreneurship, Mumbai Chairman MRDB Institute of Engineers, India

Dr. Qutubuddin SM Associate Professor of Industrial and Production Engineering PDA College of Engineering, Gulbarga, India Director IEOM Operations in India

## **Outstanding Student Award**

Hasanuddin S M, Methodist College of Engineering and Technology, Hyderabad, India Ayesha Fatima, Stanley College of Engineering and Technology Hyderabad, India Jowad Md Madha, and, Department of Mechatronics Engineering, World University of Bangladesh Anika Nawar, Department of Mechatronics Engineering, World University of Bangladesh Shahed Rahman, Department of Mechatronics Engineering, World University of Bangladesh

## **Competition Awards**

#### **Undergraduate Student Paper Competition Sponsored by Siemens**

First Place

ID 227 Characterizing Internal and External Factors Affecting the Success of Health Food Industry in Peru Valeria Midori Medina-Shimabukuro and Francesca Tricerri-Migone, Bachelor of Science in Industrial Engineering, Faculty of Engineering, Industrial Engineering Career, Universidad de Lima, Peru

Juan Carlos Quiroz Flores and Marcos Fernando Ruiz-Ruiz, Professor Researcher, Faculty of Engineering, Industrial Engineering Career, Universidad de Lima, Peru

#### Second Place

ID 20 Measurement of Software Quality Using the ISO 9126 Model on the Academic System of Jenderal Achmad Yani University Fajar Ramadhan, Informatics Department, Faculty of Science and Informatics, Universitas Jenderal Achmad Yani, Cimahi, Indonesia Puspita Nurul Sabrina, Informatics Department, Faculty of Science and Informatics, Universitas Jenderal Achmad Yani, Cimahi, Indonesia

Herdi Ashaury, Informatics Department, Faculty of Science and Informatics, Universitas Jenderal Achmad Yani, Cimahi, Indonesia

#### Third Place

ID 8 Machine Learning-Enhanced Solar Vacuum Cleaner Robot

N Bhoopal, Professor, Department of Electrical and Electrical Engineering, B V Raju Institute of Technology, Narsapur, Medak, Telangana, India

P V Naga Sai Asritha, J Rohith Kumar, M Rohith Sagar and N Varshini, UG Student, Department of Electrical and Electrical Engineering, B V Raju Institute of Technology, Narsapur, Medak, Telangana, India

#### Undergraduate Research Competition Sponsored by Daikin Applied

#### First Place

ID 91 Analysis on the Correlation of Food Insecurity Indicators and Academic Performance Affecting the City of Manila's University-Belt Students Staying in Dormitories During the Academic Year 2022 – 2023 Miguel Joachim L. Yang, Jamiel C. Cabuang, Joshua James S. Ceñidoza, Nerick P. Fidelino and Ira Jane T. Tancio, Department of Industrial, Faculty of Engineering, University of Santo Tomas, Manila Philippines

#### Second Place

ID 107 Risk Factors Associated with Musculoskeletal Pain in Undergraduate Students: A Systematic Literature Review Jimena Saori Barrenachea-Arakaki and Yomara Aurora Eusebio-Huerta, Industrial Engineering Bachelors, Faculty of Engineering, Industrial Engineering Career, University of Lima, Peru

Juan Carlos Quiroz-Flores, Research Professor, Faculty of Engineering, Industrial Engineering Career, University of Lima, Peru

#### Third Place

ID 230 Cooling Comfort with Less Cost: A Experimental Analysis on Ceiling Fan Energy Efficiency Jai Bhortake, Veermata Jijabai Technological Institute, Mumbai, India Rupesh Bhortake, Mr, Marathwada Mitramandal's Institute of Technology, Pune, India

ID 109 Enhancing Arecanut Plant Wellness: Innovative Disease Detection using deep learning algorithms Qutubuddin Syed Mohammed, P.D.A. College of Engineering, India

Namra Mahveen, PDA College of Engineering, India

Umaira Shahneen, PDA College of Engineering, India Hasanuddin S M, Student, Methodist College of Engineering and Technology, Hyderabad, India

Ayesha Fatima, Student, Stanley College of Engineering and Technology for Women Saheba Aijaz, Student, Stanley College of Engineering and Technology Hyderabad, India

#### Human Factors and Ergonomics Competition sponsored by CINTAS

#### First Place

ID 35 Home Office Physical and Psychosocial Ergonomic Effects on the Job Satisfaction of Service Sector Employees in Peru Nicolle Guerinoni Lahoud and Lucienne Valerie Gygax Iglesias, Facultad de Ingeniería, Universidad de Lima, Peru Ezilda Maria Cabrera Gil Grados, Associate Professor, Facultad de Ingeniería, Universidad de Lima, Lima, Peru

#### Second Place

ID 48 From Traffic Control to Self-care: A Study on Mental and Physical Well- being of Traffic Police Personnel in Identified Areas of North Bengaluru

Dr. Chandra Sen Mazumdar, PHD, Associate Professor, Department of Management Studies, Faculty of Management and Commerce, M.S. Ramaiah University of Applied Sciences, India

Brijesh Yadav, Harshitha T M, Jyothi R G, Khyaati Misra, Manvith C S, Sheikh Nida Afreen A, Smitha K S, Shahnawaz Ahmad Wani, Sufiyan Ahmed Khan and Sunidhi,

M.S. Ramaiah University of Applied Sciences, Bengaluru, India

Third Place

ID 219 Ergonomics Risk Assessment of Postures and Design of Workstation in Fastener Industry Veeresh S.Patil, Student,

Industrial and Production Engineering Department, P.D.A. College of Engineering, Kalaburagi, India

Qutubuddin S.M., Associate Professor, P.D.A. College of Engineering, Kalaburagi, India Sagar, Student, Industrial and Production Engineering Department, P.D.A. College of Engineering, Kalaburagi, India

Phani R. Katuru, Director, Chainsys Corporation, USA

Musa Adekunle Ibrahim, Department of Mechanical Engineering, Olabisi Onabanjo University, Ogun State, Nigeria

S.M. Hasanuddin, Student, Methodist College of Engineering & Technology, Hyderabad, India

## Supply Chain and Logistics Competition

First Place

ID 32 Application of genetic algorithms to optimize distribution in food transport companies: A systematic literature review Ayre Rosales Dylan Anndrei and Garcia-Lopez Yvan Jesus, Facultad de Ingeniería- Carrera de Ingeniería Industrial, Universidad de Lima Lima, Perú

Second Place

ID 226 Driver Factors in Bus Accident: A Systematic Review César Corrales, Departamento de Ingeniería, Pontificia Universidad Católica del Perú, San Miguel, Lima, Perú

María del Carmen Pardo-Ferreira and Juan Carlos Rubio-Romero, School of Industrial Engineering, Universidad de Málaga, Teatinos, Málaga, España

Third Place

ID 59 Balancing Cost and Environmental Impacts in Packaging Supply Chain Network: An Indian Perspective Gulshan Kumar Gaur, Research Scholar, Department of Management Studies, Indian Institute of Technology Delhi (IIT Delhi), India

Jitender Madaan, Professor, Department of Management Studies, Indian Institute of Technology Delhi, India

#### Graduate Student Paper Competition sponsored by Eaton

First Place

ID 84 The Status Quo of Fourth Industrial Revolution (4IR) in the South African Higher Institutions Thalente Nkosi, Durban University of Technology, South Africa

Second Place

ID 167 Exploiting Raspberry Pi Clusters and Campus Lab Computers for Distributed Computing Jai Bhortake, Veermata Jijabai Technological Institute (VJTI), India

#### **Masters Thesis Competition**

First Place

ID 85 Modelling the Intention to Pledge Organs - A study of students aged above 18 years and working community in India Nidhi Bhat, Ramaiah University of Applied Sciences, India

Second Place ID 62 Automated Power Factor Correction and Energy Monitoring Using IOT Adarsha Kamble, ZCOER, India

#### Senior Design Project Competition sponsored by Tooling Tech Group

First Place ID 19 Design of machine Rudra Parmar, Parul University, India

Second Place

ID 223 Implementation of Sustainable Packaging Solutions by Using 5Rs Methodology and Green Supply Chain Mehtab Ahmad, Dawood University of Engineering and Technology Karachi, Pakistan

#### Lean Six Sigma Competition sponsored by Tooling Tech Group

First Place

ID 213 Optimization of delivery for an e-commerce industry using Six Sigma methodology Sumit Shandilya, Quality Growth Services Private Limited, New Delhi, India and School of Management, BML Munjal University, Gurugram, India Suryabhan Singh Jamwal and Garima Arora, School of Management, BML Munjal University, Gurugram, India Jaskiran Arora, CLTD & Education Quality, School of Management, BML Munjal University, Gurugram, India

Second Place

ID 7 An exploratory study on lean and green manufacturing approaches implementation in manufacturing industries Rajesh Kumar, Research Scholar, Department of Mechanical Engineering, FET, MRIIRS, India Rajender Kumar, Associate Professor, Department of Mechanical Engineering, FET, MRIIRS, India

Third Place

ID 89 A Study Understanding the Holistic Impact of Lean Six Sigma and Industry 4.0 in Building a Circular Economy Ashish Shrivastava, BITS Pilani, India

#### **Simulation Competition**

First Place

ID 95 Sharing Economy: Developing New Values in Carpooling Business Model Morena Paulišić, Associate professor, Faculty of Economics and Tourism \*Dr. Mijo Miroković\*, Pula, Croatia Maja Vizjak, Scientific associate, Institute for Migration and Nationalities, Zagreb Croatia

Second Place

ID 93 A new Model for Prioritizing Medical Equipment Maintenance in Healthcare Settings Khaoula Khlie, Liwa College, United Arab Emirates

Third Place

ID 221 Comprehensive review of sustainable studies and system dynamics modeling in automobile industries Payal Singh, Research Scholar, Dayalbagh Educational Institute, Agra, India Sanjay Bhushan, Professor, Dayalbagh Educational Institute, Agra, India D.K. Benwet, Professor, Indian Institute of Technology, Delhi, India

#### **High School STEM Competition**

First Place ID 10 Documentation of Mycorrhiza and its benefits associated with Paddy Field Meghna Mondal, Rima Gayen, Spandan Roy and Suman Sardar, Paribesh Unnayan Parishad, Sagar Block, India

Second Place ID 58 Electricity Generation through Vibrations Archit Goyal, Student, India

Third Place ID 175 Probing a galaxy group with an FRB dispersion measure Tejaswini Samanta, Army Public School Delhi Cantt Sunil Simha, University of California Santa Cruz Kabir Saatvick Bhalla, Delhi Public School Vasant Kunj Rishabh Chaudhuri, Indian Institute of Science Education and Research

Third Place ID 172: Theory of Ultimate Collision Saransh Bachchan, Sanatan Dharam Vidya Mandir HUDA

#### **Doctoral Dissertation Competition**

First Place ID 92 A Study of Infrared Signature Suppression Technologies for Shipboard Applications AVSN Murty, Indian Navy, India

Second Place ID 235 Study of Ionic Liquid and Nanoparticle Based Hybrid Nano-Additives for Enhancement of Tribological Performance of Lubricants Upendra Maurya and V. Vasu, NIT Warrangal, India