



# IEOM Society

*"Achieving and Sustaining Operational Excellence"*

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**2024 IEOM Awards and Competition Winners**  
**3<sup>rd</sup> Australian Conference on Industrial Engineering and Operations Management**  
**Sydney, Australia, September 24-26, 2024**

**Distinguished Academic Leadership Award**

Professor Olivia Mirza  
Associate Dean, Engagement  
School of Engineering, Design & Built Environment  
Western Sydney University  
Sydney, Australia

**Distinguished Industry Leadership Award**

Romy Baker MBA, Grad Dip Admin, GAICD, RN  
Chief Executive Officer (CEO)  
Business Excellence Australia

**Outstanding Professor Award**

Professor Dr Kannan Govindan  
Director, Centre for Sustainable Operations and Resilient Supply Chain (CSORSC), Institute for Sustainability, Energy and Resources (ISER) & Adelaide Business School (ABS), Division of Research and Innovation  
The University of Adelaide, Adelaide, Australia

**Distinguished Organization-Leadership Award**

David Aaron Karr, CPEng, FIIEA  
President, Industrial Engineers Australia (IEA), Australia

**Project Management Teaching Award**

Dr Mohsin Malik  
Associate Professor & Director-Master of Project Management  
Swinburn Business School  
Swinburn University of Technology, Australia

**Distinguished Educator Award**

Dr Michael Myers OAM  
BE, MBA, DBA, Hon.FIEAust, CPEng, EngExec, FAICD  
Founder & Chairman Re-Engineering Australia Foundation

**Global Business Management Award**

Dr George Panas  
Enterprise Fellow  
Management and Marketing  
University of Melbourne  
Melbourne, Australia

**Project Management Award**

Obuks Ejohwomu, PhD, MSc, BEng, FNSE, FHEA  
Academic (Teaching & Research) Reader in Sustainable Built Environment & Project Management  
Infrastructure and Resilience  
University of Manchester, UK

**Business Management Education Award**

Dr Albert Munoz  
Senior Lecturer, UOW School of Business  
Faculty of Business and Law  
University of Wollongong NSW 2522 Australia

**Operations Excellence Award**

Dr Felix Concepcion Veroya  
Founder & CEO, Ask Lex PH Academy, Calabarzon & Mimaropa, Philippines &  
Co – Founder & Chief Strategy Officer  
TUOS (Cloud – Based Data Analytics Platform), Philippines

**Excellence in Women's Leadership (Business Management) Award**

Dr. Rebekah Schulz  
Lecturer, Faculty of Business and Law  
University of Wollongong, NSW, Australia

**Excellence in Women's Leadership (Logistics and Transport) Award**

Genevieve Malcolm, LLB, GradCertEd, CMILT  
Director of Operations  
AcademyGlobal, Australia

**Excellence in Women's Leadership (Industrial Engineering) Award**

Engr. Catherine Sale Veroya, CLSSYB, ChBA  
Co-Founder & CFO  
Ask Lex PH Academy & TUOS, Data Analytics Made Easy  
Philippines

**Excellence in Women's Leadership (Supply Chain Education) Award**

Dr Catherine Lou (FCILT)  
Associate Professor, VUBS, Discipline leader for Transformative Research in Policy, Economy and Business at Institute for Sustainable Industries & Liveable Cities (ISILC), Victoria University, Melbourne, Australia

**Excellence in Women's Leadership (Operations Management Education) Award**

Dr Alka Nand, Lecturer  
Department of Management  
Monash Business School, Monash University, Victoria, Australia

**Excellence in Women's Leadership (Operations Research) Award**

Dr Arshia Kaul  
Associate Lecturer  
Management and Marketing  
University of Melbourne  
Melbourne, Australia

**Global Sustainable Supply Chain Management Award**

Dr Sanjoy Paul, Associate Professor  
UTS Business School, University of Technology Sydney (UTS)  
Sydney, Australia

**Global Supply Chain Management Award**

Dr Dilupa Nakandala  
Associate Professor  
Associate Dean, Graduate Studies, Dean's Unit, School of Business  
Human Resources & Management  
Western Sydney University, Sydney, Australia

**Outstanding Conference Leadership Award**

Dr Matthew Pepper, Associate Professor  
School of Business  
Faculty of Business and Law, University of Wollongong NSW 2522 Australia

**Global Engineering Education Award**

Dr Felix Kin Peng Hui, Associate Professor, Program Director and Academic Coordinator, Master of Engineering Management Program, Leader of the Sustainable Production Systems and Systems Engineering Group, Department of Infrastructure Engineering, University of Melbourne, Melbourne, Australia

**Sustainability Engagement Award**

Dr Chalaka Fernando  
Manager – Environmental Management Plan  
Australian National University in Canberra, ACT, Australia

**Outstanding Student Award**

Pranto Chakrabarty  
University of Technology Sydney (UTS)  
Australia

**Outstanding Student Award**

G.G. Udaya Priyasantha Rathnayake  
PhD Candidate, School of Business, Faculty of Business and Law  
University of Wollongong (UOW), NSW, Australia

## **Competition winners**

### **Onsite**

#### **Doctoral Dissertation Competition sponsored by Airbus**

**First place winner**

ID 67 A Process Mining Approach for Production Flow Analysis  
Laura Tomidei, PhD Candidate, Centre for Advanced Manufacturing, University of Technology Sydney (UTS), Ultimo, New South Wales, Australia

**Second Place Winner**

ID 92 Conceptualizing Stakeholder Influence on Modern Slavery Legislation: Towards Greater Transparency in Australian Supply Chains  
Talita Meira, Hult International Business School, Australia

#### **Master Thesis Competition**

**First Place Winner**

ID 17 Study Of Reliability Centered Maintenance And Failure Mode Effect Analysis (FMEA) In Textile Manufacturing Industries (Case At Spinning Section Of Bahir Dar Textile Share Company)  
Befekadu Asfaw, Amhara Bureau of Industry and Investment, Ethiopia

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

### **First Place Winner**

ID 119 Commercialization Analysis of POME (Palm Oil Mill Effluent) With AOP (Advance Oxidation Process) Nanobubble Using Business Model Canvas

Yasmin Nur Izzati, Nararya Rizqi Alike, Ershyanda Khatayusha Yunarзад Prasetya, Department of ICT Business, Faculty of Economics and Business, Telkom University, Jl. Telekomunikasi. 1, Terusan Buahbatu - Bojongsong, Telkom University, Sukapura, Kec. Dayeuhkolot, Kabupaten Bandung, Jawa Barat, 40257 Indonesia

## **Human Factors and Ergonomics Competition**

### **First Place Winner**

ID 35 Evaluating Advertising Strategies in Disruptive Environments

Arshia Kaul, Carpediem EdPsych Consultancy LLP, India

Vasundhara Kaul, Carpediem Edpsych Consultancy, India

## **Simulation Competition**

### **First Place Winner**

ID 104 Introducing an Express Train Service to Mass Rail Transit Systems: A Simulation-Based Approach for Demand-Driven Station Selection

Gabriel John L. de Leon, Department of Industrial Engineering, University of the Philippines Los Baños (UPLB), Laguna, Philippines

## **Best track-paper: Case Studies and Best Practices**

ID 76 Addressing Hospital Surge Capacity Issues amidst a Dual Crisis in a Developing Country: Human Resource Management Perspectives

Samadi Madiwala, PhD Candidate, Victoria University, Melbourne, Australia

## **Best track paper: Human Factors, Ergonomics and Healthcare Systems**

ID 2 Industry 5.0: The Impact of Artificial Intelligence and Blockchain in Financial Sector

Nirali Rathod, Research Scholar, V. M. Patel Institute of Management, Ganpat University, Gujarat, India

Abhishek Parikh, Professor, School of Liberal Arts and Management, P. P. Savani University, Gujarat, India

## **Best track paper: Supply Chain and Logistics**

ID 122 Investigating and Proposing a Framework for Sustainable Supply Chains of Critical Minerals in Electric Vehicle Batteries

Ricky Gao and Shiva Abdoli, School of Mechanical and Manufacturing Engineering, University of New South Wales (UNSW), Sydney, New South Wales, Australia

## **Best track paper: Machine learning**

ID 123 Leveraging 21st Century Machine Learning Computational Power: Innovative Solutions by Industrial Engineers for Addressing Complex Australian Challenges and Enhancing Value Creation in Supply Chain Management

BEng. Amr Eldahshan, EA, IEA, Industrial Engineer, Buildix, Sydney, NSW

## **Best track paper: Business Management and Operations Management**

ID 50 Determinants of Pineapple Output Growth Among Individual Farm Owners and Multinational Enterprises (MNEs) in Northern Mindanao: An Explanatory Study

Edgar Masa Tindoy, Doctor in Business Administration Student, Singapore University of Social Sciences (SUSS), 463 Clementi Rd, Singapore

Tay Huay Ling, Associate Professor & Deputy Director, SUSS Academy, Singapore University of Social Sciences (SUSS), 463 Clementi Rd, Singapore

### **Best tract paper: Artificial Intelligence and Data Science**

ID 101 Development of a Web-based Data Collection and Management System (DCMS) for the Task Collection Process of a Business Process Outsourcing (BPO) Provider

Shein Ann R. delos Reyes, Gabriel John L. de Leon, Maria Liezel C. Eusebio, Josefa Angelie D. Revilla  
Department of Industrial Engineering, College of Engineering and Agro-Industrial Technology, University of the Philippines Los Baños

### **Best tract paper: Sustainability, Green Systems and Energy**

ID 120 The Adaptive Reuse of Buildings as a Circular Economy Accelerator: A systematic review

Udara Ranasinghe, Lecturer, STEM (Science, Technology, Engineering and Mathematics), University of South Australia, Mawson Lakes, South Australia, Australia  
Chethana Illankoon, Lecturer, School of Built Environment, University of New South Wales, Sydney NSW 2052, Australia

### **Best track paper: Business Management**

ID 61 The Effect of Manager–Subordinate Context on Budgetary Slack

Nobuto Sasaki, Ayuko Komura, and Hirohisa Hirai, Department of Industrial Engineering and Management, Kanagawa University, Kanagawa, Japan

### **Best track paper: Operations Management**

ID 94 Enhancing Business Operations: The Role of Psychosocial Safety Climate and Organisational Citizenship Behaviour in Managing Employee Stress

G.G. Udaya Priyasantha Rathnayake, PhD Candidate, School of Business, Faculty of Business and Law  
University of Wollongong (UOW), NSW, Australia

Dr Anil Chandrakumara, Senior Lecturer, Faculty of Business and Law, University of Wollongong  
Australia

Dr Anura De Zoysa, Associate Professor, Faculty of Business and Law, University of Wollongong  
Australia

### **Best track Paper: Quality, Reliability and Maintenance**

ID 78 Maintenance Analysis and Planning for Pet Food Packing Line

Ruxin Li, Fangling Lin, Master of Industrial Engineering, Department of Mechanical Engineering Faculty of Engineering and Information Technology, University of Melbourne (UOM), Melbourne, Victoria, Australia

Guilherme Luz Tortorella, Senior Lecturer, Department of Mechanical Engineering, Faculty of Engineering and Information Technology, University of Melbourne (UOM), Melbourne, Victoria, Australia

Leon Tse, Technical Manager, Mars Petcare Australia Pty Ltd., Bathurst, New South Wales, Australia

## **Online Competitions**

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

#### **First Place Winner**

ID 71 Enhancing Operational Efficiency in Flexographic SMEs through Lean Manufacturing: A Case Study

Elizabeth Huaman-Monzon, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru  
Fernando Fabian Villegas-Rodriguez, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru

#### **Second Place Winner**

ID 57 Enhancing Operational Efficiency in Peruvian Textile SMEs: A Case Study of Lean Manufacturing Implementation

Andrés Cabieses-Chipoco, Bachelors in industrial engineering  
Facultad de Ingeniería, Universidad de Lima, Peru

Edgar Jesús Lozano-Heredia, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru

## **Undergraduate Research Competition sponsored by Daikin Applied**

### **First Place Winner**

ID 65 Implementation of Overall Equipment Effectiveness (OEE) to Minimize Six Big Losses in Machining Process: A Case Study

Arkendra Anjar Saputra, Undergraduate Student, Department of Industrial Engineering  
Universitas Sebelas Maret, Surakarta, Indonesia

Wahyudi Sutopo, University Centre of Excellence for Electrical Energy Storage Technology, Research Group Industrial Engineering and Techno-Economic, Industrial Engineering Department, Faculty of Engineering  
Universitas Sebelas Maret, Surakarta, Indonesia

### **Second Place Winner**

ID 73 Increasing Productivity in Paper Bag Manufacturing through Lean Manufacturing: A Case Study in Perú

Yoreli Nicole Ramirez-Palomino, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru  
Daniela de Fatima Vasquez-Morales, Bachelors in industrial engineering. Facultad de Ingeniería, Universidad de Lima, Peru

## **Doctoral Dissertation Competition sponsored by Airbus**

### **First Place Winner**

ID 69 Study on Medical Waste Collection and Routing Problem

Vanny Minanda, Yuan Ze University, Taiwan

Dr. Yun-Chia Liang, Department of Industrial Engineering and Management  
Yuan Ze University

### **Second Place Winner**

ID 52 Enhancing Operational Efficiency in Agro-Export Blueberry Production: A Case Study Integrating Lean Manufacturing and TPM

Mario Ricardo Gardella-Rivero, Bachelors in industrial engineering  
Facultad de Ingeniería, Universidad de Lima, Peru

Martin Fidel Collao-Diaz, Research Professor, Facultad de Ingeniería, Universidad de Lima, Perú

### **Second Place Winner**

ID 116 Reliability Growth Analysis on Centrifugal Slurry Pumps

Rui Zhang, Indra Gunawan and Gopi Chattopadhyay, Maintenance and Reliability Engineering Programmes  
Institute of Innovation, Science and Sustainability (IISS), Federation University Australia  
Melbourne, Victoria, Australia

Zhennian Wang, Superintendent Optimization Project, Operation Optimization Team, Karara Mining Limited (KML), Perth, Western Australia, Australia

Indra Gunawan, The University of Adelaide, Australia

Gopinath Chattopadhyay, Federation University Australia, Australia

## **Graduate Student Paper Competition sponsored by Eaton**

### **First Place Winner**

ID 87 Application of Lean Manufacturing in Developing Countries

Rakibul Hasan Sarker, Department of Automotive and Manufacturing Engineering Technology, Minnesota State University, Mankato, Mankato, MN 56001, USA

Pawan Bhandari, PhD, Department of Automotive and Manufacturing Engineering Technology, Faculty of Automotive and Manufacturing, Minnesota State University, Mankato, Mankato, MN 56001, USA

### **Second Place Winner**

ID 75 Lean Synergy Production Model Implementation in Textile SMEs: A Case Study on Efficiency and Quality Improvement

Brath Joseph Toribio-Alvarado, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru

Valeria Yali Valverde-Flores, Bachelors in industrial engineering, Facultad de Ingeniería, Universidad de Lima, Peru

### **Second Place Winner**

ID 114 Reference-based Super-resolution for Light Field Image

Wenqin ZHAO, Carman KM Lee, and Benny C.F. Cheung, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University  
Hong Kong, China, State Key Laboratory of Ultraprecision Machining Technology

### **Third Place Winner**

ID 148 Applying Lean Principles for Efficient Drive through Service  
Chaturya Gadde, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA  
Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

## **Simulation Competition**

### **First Place Winner**

ID 84 Effective Stiffness of Hemp Stem Reinforced concrete Composite Laminates  
Som R. Soni, AdTech Systems Research Inc., 1342 North Fairfield Road, Beavercreek, Ohio 45432, USA  
Craig Schluttenhofer, Agricultural Research and Development Program (ARDP), Central State University, 1400 Brush Row Road, Wilberforce, OH 45384, USA

## **Supply Chain and Logistics Competition**

### **First Place Winner**

ID 59 Attitudes Towards Supply Chain Platform Adoption in Singapore – Employees Perspective Attitudes Towards Supply Chain Platform Adoption in Singapore – Employees Perspective  
Maria Cecilia Rojas Lopez  
Senior Lecturer, Singapore University of Social Sciences  
School of Business, Logistics and Supply Chain Management Programme  
Tang Zhuo Xin Immanuel  
Graduated Student, Singapore University of Social Sciences  
Loh Hui Shan, Associate Professor, Singapore University of Social Sciences  
School of Business, Logistics and Supply Chain Management Programme

## **Human Factors and Ergonomics Competition**

### **First Place Winner**

ID 71 User-centered design approach for designing an assistive product for the elderly population.  
Reenu Singh  
Independent researcher  
Indian Institute of Management Mumbai.  
Gaur G Ray  
Former Professor & Head of Department  
Industrial Design Centre, Indian Institute of Technology, Bombay.