

# 2020 IEOM Awards – 10<sup>th</sup> Annual Conference



## IEOM Society International

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### IEOM Fellows

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- Dr. Abdelaziz Berrado, Professor and Chair, Industrial Engineering Department, EMI, Rabat, Morocco
- Dr. Ahad Ali, Associate Professor and Director of Industrial Engineering, Lawrence Technological University, MI, USA
- Dr. Hesham Al Fares, Prof. and Chair, Systems Engineering, KFUPM, Saudi Arabia
- Dr. Jiri Tupa, Vice Dean for Faculty Development, Faculty of Electrical Engineering, University of West Bohemia, Pilsen, Czech Republic
- Dr. Leslie Monplaisir, Professor and Chair, Department of Industrial and Systems Engineering, Wayne State University, Detroit, Michigan
- Dr. Mohammed Khadem, Associate Professor, Mechanical and Industrial Engineering Department, Sultan Qaboos University, Muscat, Oman
- Dr. Vikas Kumar, Professor and Director of Research and Professor of Operations and Supply Chain Management, Faculty of Business and Law (FBL), University of the West of England, UK
- Made Dana Tangkas, Plant Manager, Toyota plant, Indonesia
- Steve Sibrel, Senior Quality Manager at Harman International, Novi, MI, USA

### IEOM Distinguished Leadership Award

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- Prof. Maamar Bettayeb, Vice Chancellor for Research and Graduate Studies, University of Sharjah, UAE
- Mr. Osman Sultan, CEO of Emirates Integrated Telecommunications Company (du), UAE
- Professor Ammar Kaka, Provost, Heriot-Watt University Dubai and Vice-Principal (Dubai), Heriot-Watt University, UAE
- Dr. Yousef Al-Assaf, President, Rochester Institute of Technology (RIT) – Dubai, Dubai Silicon Oasis, Dubai, UAE

### IEOM Distinguished Educator Award

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- Professor Ahmed Al-Shammaa, Dean-College of Engineering, University of Sharjah, UAE
- Professor Alaa Ashmawy, Professor and Dean, School of Engineering, American University in Dubai, UAE
- Dr. Hany El Kadi, Dean of the College of Technological Innovation, Zayed University, United Arab Emirates
- Dr. Sabah Alkass, Dean, College of Engineering, UAEU, UAE
- Dr. Taha Beyrouthy, Dean of College of Engineering and Technology, American University of the Middle East, Kuwait

### IEOM Outstanding Professor Award

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- Dr. Mohammed Omar, Professor & Chair, Dept. of Industrial and Systems Engineering, Khalifa University, Abu Dhabi, UAE
- Dr. Hamdi Bashir, Associate Professor, Department of Industrial Engineering and Engineering Management, University of Sharjah, UAE
- Dr. Moncer Hariga, Head, Department of Industrial Engineering, American University of Sharjah, UAE
- Dr. Bibhas Chandra Giri, Professor, Department of Mathematics, Jadavpur University, Kolkata, India
- Dr. Raed Ibrahim Bourisli, Associate Prof. of Mechanical Engineering and Vice Dean for Academic Affairs and Acting Dean, College of Engineering & Petroleum, Kuwait University, Kuwait
- Dr. Khaled El-Kilany, Professor of Industrial Engineering and Chairman, Department of Industrial and Management Engineering, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

### IEOM Distinguished Industry Award

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- Dr. Oliver Elbracht, Vice President Siemens / Managing Partner Siemens Consulting Middle East, Dubai, UAE
- Dr. Nicklas Dahlstrom, Human Factors Manager, Emirates Airlines, Dubai, UAE
- Harry Kasuma (Kiwi) Aliwarga, CEO and Co-Owner, UMG Myanmar, Karet Kuningan Jakarta, Indonesia
- Dr. Rubén Elvira Herranz, Services Program Manager, Airbus Defence and Space, Military Aircraft, Madrid, Spain

## Academic Excellence Award

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- Dr. Ali Diabat, Global Network Professor of Civil and Urban Engineering, New York University Abu Dhabi, UAE
- Dr. Ibrahim Alharkan, Associate Professor at Industrial Engineering Department, College of Engineering and General Director for King Salman Institute for Entrepreneurship (KSIE), Director of Applied Engineering Management Program (AEMP), King Saud University, Riyadh, Saudi Arabia
- Dr. Mohammad T. Khasawneh, Professor & Chair, Systems Science and Industrial Engineering, State University of New York at Binghamton, Binghamton, New York 13902, U.S.A.
- Dr. Sayyad Zahid Qamar, Associate Professor, Mechanical and Industrial Engineering Department, College of Engineering, Sultan Qaboos University, Al-Khoudh, Sultanate of Oman
- Professor Charles Mbohwa, Pro-Vice Chancellor Strategic Partnerships and Industrialisation, University of Zimbabwe, Mt Pleasant, Harare, Zimbabwe

## Outstanding Young Faculty Award

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- Muhammad Ali Khan, Assistant Professor, Department of Industrial Engineering & Management, Mehran University of Engineering and Technology, Jamshoro, 76062, Sindh, Pakistan

## Outstanding Achievement Award

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- Dr. Ali Cheaitou, Chair of Industrial Engineering and Engineering Management Department, University of Sharjah
- Dr. Jawad Alhashemi, Assistant Prof. of Industrial Engineering and Acting Chairman of Industrial Engineering, College of Engineering & Petroleum, Kuwait University, Kuwait
- Dr. Nermine Harraz, Professor of Industrial Engineering at Faculty of Engineering, Alexandria University, Egypt

## IEOM Outstanding Researcher Award

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- Dr. Ali Almansoori, Professor of Chemical Engineering, Khalifa University, Abu Dhabi, UAE
- Dr. Qipeng Phil Zheng, Associate Professor and Director of Applied Operations Research Lab, Graduate Coordinator, Industrial Engineering & Management Systems, University of Central Florida, Orlando, Florida, USA

## IEOM Young Researcher Award

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- Ma. Janice J. Gumasing, Assistant Professor of School of Industrial Engineering and Engineering Management at Mapua University in Intramuros, Manila, Philippines
- Sadeque Moh'd Hamdan PhD student in a univ in France (our former research engineer)...he is doing excellent as a student sadeque.hamdan.1991@gmail.com

## IEOM Woman in Industry and Academia Award

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- Ola AlZawati, Corporate Excellence Expert in Dubai Municipality, Dubai, UAE
- Dr. Rehab Faraj Al Ameri, Director of National Accreditation Department, Emirate Authority for Standardization and Metrology-ESMA and Secretary General of International Halal Accreditation Forum-IHAF

## IE Teaching Excellence Award

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- IE – Dr. Osama T. Al Meanazel, Ph.D., Assistant Professor, Industrial Engineering Department, College of Engineering, Hashemite University, P. O. Box: 330127, Zarqa 13115, Jordan
- EM – Dr. M. Affan Badar, Professor, Applied Engineering & Technology Management Department, Indiana State University, Terre Haute, Indiana

## Operations Management Teaching Excellence Award

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- OM – Dr. Panagiotis D. Zervopoulos, Associate Professor in Operations Research and Statistics, Business School, University of Sharjah, UAE
- OM - Dr. Darwish Abdulrahman Yousef, Professor of Management Science, UAE University, Al Ain, UAE

## IEOM Distinguished Service Award

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- Dr. Mohammed Shamsuzaman, Associate Professor, Department of Industrial Engineering and Engineering Management, University of Sharjah, UAE
- Dr. Zain Tahboub, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, United Arab Emirates
- Prof. Dr. Bhaskar Bhandarkar, Director General, Institution for Innovation, Industrial Engineering & Entrepreneurship, Principal Investigator IUSSTF India, Former Chairman of IIIE

## IEOM Industry 4.0 Award

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- Mr. Sanjay Nadkarni, Director of Research & Innovation, Emirates Academy of Hospitality Management (Jumeirah Group), United Arab Emirates

### IEOM Industry Solutions Award

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- Sunil Thawani, Quality Indeed Consulting Ltd., Abu Dhabi, United Arab Emirates and Member, Board of Directors, Dubai Quality Group
- Neetu Choudhary, Executive Committee Member- Continuous Improvement Subgroup, Dubai Quality Group, Team Leader – UAE Innovation Awards and Compliance Analyst, DP World, Dubai, United Arab Emirates

### IEOM Global Engineering Education Award

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- Dr. Banu Y. EKREN, Associate Professor, Department of Industrial Engineering, Yasar University, Izmir, Turkey
- Dr. L P Singh, Associate Professor, Department of Industrial and Production Engineering, National Institute of Technology, Jalandhar, India

### IEOM Outstanding Service Award

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- Professor Rene D. Estember, Mapua University, Manila, Philippines
- Dr. Munir Majdalawieh, Head of the Information Systems and Technology Management Department, College of Technological Innovation, and / Advisor to the Provost, Zayed University, Dubai, UAE
- Dr. Mehmet Savsar, Professor, Department of Industrial & Management Systems Engineering, Kuwait University, Kuwait
- M Chairul Basrun Umanailo, Lecturer, Faculty of Agriculture, Iqra Buru University, Namlea, Maluku, Indonesia
- Dr. Muhammad Ikhsan Setiawan, Assoc. Professor, Faculty of Engineering, Narotama University, Surabaya, Indonesia
- Rony Wardhana, Lecturer, Faculty of Economics and Business, Narotama University, Surabaya, Indonesia
- Hiruni Niwunhella, Lecturer, Department of Industrial Management, Faculty of Science, University of Kelaniy, Sri Lanka

### IEOM Outstanding Student Award

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- Yazan Radwan Al Ashram, Industrial Engineering and Engineering Management Department, University of Sharjah, UAE
- Heba Husam Quteineh, Industrial Engineering and Engineering Management Department, University of Sharjah, UAE
- Sarah Abdulrahim Abueisheh, Industrial Engineering and Engineering Management Dept., University of Sharjah, UAE
- Rama Khader, Industrial Engineering and Engineering Management Department, University of Sharjah, UAE

### IEOM Student Chapter Leadership Award

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- Abdulmajeed Althunayyan, President of IEOM Student Chapter at King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia - Best Student Chapter Leadership Award 2019
- Kenneth T. Tacbad, President of IEOM Student Chapter at ISIE-BulSU, Integrated Students of Industrial Engineering, Bulacan State University, Philippines
- Ahmed Sameer Issam Abdullatif, University of Science & Technology of Fujairah
- Osama Ahmad Alnablsi, University of Science & Technology of Fujairah
- Nouf Obaid Alzaabi, University of Science & Technology of Fujairah

### IEOM Outstanding Faculty Advisor Award

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- Dr. Qutubuddin S.M., Associate Professor, Industrial & Production Engineering Department, P.D.A. College of Engineering, Gulbarga, Karnataka, India
- Dr. Amir J. Majid, University of Science & Technology of Fujairah, UAE
- Prof. Rene D. Estember, School of Industrial Engineering and Engineering Management, Mapua University, Philippines
- Dr. Abdulaziz T. Almaktoom, Operations and Information Management Dept., Effat University, Jeddah, Saudi Arabia
- Dr. Hesham K. Alfares, Chairman & Professor, Systems Engineering (SE) Department, College of Computer Sciences & Engineering (CCSE), King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia
- Dr. Noha Mostafa, Industrial Engineering Department, Zagazig University, Egypt
- Dr. Ammar Aamer, Dean of Faculty of Engineering and Technology, Sampoerna University, Jakarta, Indonesia
- Dr. Yugowati Praharsi, Department of Business Management, Shipbuilding Institute of Polytechnic Surabaya, Indonesia
- Dr. Mohammed Haider Ali Biswas, Khulna University, Bangladesh
- Dr. Raed Naebulharam, Head, Department of Industrial Engineering, Faculty of Engineering in Rabigh, King Abdulaziz University, Rabigh, Kingdom of Saudi Arabia
- Dr.-Eng. Eldon Caldwell, Director, Industrial Engineering Department, Engineering School, University of Costa Rica
- Ivy Mar J. Ramos and Hazel A. Caparas, Integrated Students of Industrial Engineering, Bulacan State University, Philippines

### Outstanding Student Chapter Award

#### Gold

- Effat University, Saudi Arabia
- KFUPM, Saudi Arabia
- Khulna University, Bangladesh
- King Abdulaziz University (KAU), Rabigh, Saudi Arabia

## IEOM Society Awards – 10<sup>th</sup> Annual Conference, Dubai, UAE, March 10-12, 2020

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- Mapua University, Philippines
- P.D.A. College of Engineering, Gulbarga, Karnataka, India
- Sampoerna University, Jakarta, Indonesia
- Shipbuilding Institute of Polytechnic Surabaya, Indonesia
- University of Costa Rica
- University of Johannesburg, South Africa
- Zagazig University, Egypt

### **Silver**

- Bina Nusantara University (Binus), Indonesia
- Bulacan State University, Philippines
- Facens University, Brazil
- Guru Nanak Dev Engineering College, Ludhiana, Punjab, India
- Jessore University of Science and Technology (JUST), Bangladesh
- Lawrence Technological University, Michigan, USA
- Pandit Dendayal Petroleum University, Ahmedabad, Gujrat, India
- Prince Sultan University, Saudi Arabia
- Universitas Sebelas Maret (UNS), Surakarta, Indonesia
- University of Indonesia

### **Bronze**

- Khulna University of Engineering and Technology (KUET), bangladesh
- Qatar University
- Sapir Academic College, Israel
- Sudan University of Science and Technology, Khartoum, Sudan
- Tarumanagara University, Indonesia
- Universitas Diponegoro, Indonesia
- University of West Bohemia, Pilsen, Czech Republic

### **Outstanding Professional Chapter Award**

- IEOM Bangladesh Professional Chapter
- IEOM Zambia Professional Chapter
- IEOM Botswana Professional Chapter

### **Mapua University Chapter Officers Recognition for Induction**

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- Allysa Mae M. Castillo
- Ma. Monica L. Joven
- Alyana Bianca G. Carreon
- Marjorie Joyce D. Ochoa
- Paz Clariz A. Barzaga
- Ma. Lourdes O. Buan
- John Allen L. Sia
- Guiller O. Binoya
- Manuel Jose V. Mercado
- Louie John L. Salonga
- Dave Cullen G. Yap
- Samantha Dominique C. Bucao
- Samantha Cyrine R. Ibe

### **Student Chapter Members Recognition – Mapua University**

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- Maria Rebeka Isabel M. Carcellar
- John Brixter J. Aliado
- Marquin Jose R. Pacana
- SeonJae Lim
- Niño Chino B. Ledres
- Kyra Patricia V. Tadina
- Nelrose D. Vidamo
- Ellaine C. Villegas
- Joanna Lou C. Mata
- Meagan Allyson Pear S. Garcia

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### **Undergraduate Student Paper Competition Award Sponsored by SIEMENS**

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## IEOM Society Awards – 10<sup>th</sup> Annual Conference, Dubai, UAE, March 10-12, 2020

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### 1<sup>st</sup> Place

#### **ID 534 Study of Text Neck Syndrome among Smartphone Users via JACK Software**

Khadeja Abdalaziz, Amira Khalaf, Bahie Elsamad, Dana Mohammad, Fajer Al-sanad, and Lawrence Al-fandi, American University of the Middle East, Kuwait

### 2<sup>nd</sup> Place

#### **ID 678 Service Model Augmentations for Improving Company Management Systems of Corregidor Inn™**

Maria Rebeka Isabel M. Carcellar, Jenalyn Shigella Yandug, John Brixter J. Aliado, Marjorie Joyce D. Ochoa, and Marquin Jose R. Pacana, Mapua University

### 3<sup>rd</sup> Place

#### **ID 361 Correlating Brain Dominance and Hand Preference to Academic Tracks: A Case for Senior High School Students (SHS) in the Philippines**

Ma. Monica L. Joven, Josephine D. German, Ma. Lourdes O. Buan, Alyana Bianca G. Carreon, and Marjorie Joyce D. Ochoa, Mapua University, Manila, Philippines

#### **ID 440 Renewable Waste Water and Filtration System with Phytoremediation Used in Aquaculture of Freshwater Ornamental Fish**

Glyda Aricon Marquez, Charlotte Palao, Kenneth Ibasco, Lady Claudette Ferrer, Patricia Sagge, and Maria Teresa B. Mendoza, Technological Institute of the Philippines

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## Graduate Student Paper Competition Award sponsored by EATON Corporation

### 1<sup>st</sup> Place

#### **ID 280 Analyzing the Efficiency of the Top Non-Life Insurance Companies in the Philippines: Derivation of Common Weights in Data Envelopment Analysis (DEA) using Goal Programming Approach**

Rex Aurelius C. Robielos, and Joshua James A. Bravante, Mapua University, Manila, Philippines

### 2<sup>nd</sup> Place

#### **ID 853 Feasibility Study for Start-up a New Business of Plastic Recycling**

Ahmed Almaamari, Talal Al-Hinai, Omar Al-Hashmi, and Khalid Alzebedeh, Sultan Qaboos University

### 3<sup>rd</sup> Place

#### **ID 615 Effective Implementation of Lean Techniques in a Textile Composite Mills**

Karthick D, and Syath Abuthakeer S, PSG College of Technology, Tamil Nadu, India

#### **ID 525 Integrated Sequential Contractor & PMC Selection Model**

Khalid Al Khodhairi, and Hesham K. Alfares, Saudi Aramco, Riyadh, Central, Saudi Arabia

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## Senior Design Project Competition Award Sponsored by Tooling Tech Group

### 1<sup>st</sup> Place

#### **ID 723 Improving Patient Discharge Process**

Maha Al Dhaheri, Mariam Ramadan, Afra Almheiri, Khalifa University, Maryam Alshehhi, Mecit Can Emre Simsekler, and Saed Amer, Khalifa University, UAE

### 2<sup>nd</sup> Place

#### **ID 546 Construction Site Layout Planning Kuwait International Airport Expansion- Terminal 2**

Dr. Rifat Ozdemir, Marah AlRahhal, Jumannah AlQallaf, Rawan AlAbdullah, Haya AlAradah, Sarah AlMatar, Industrial Engineering Department, American University of the Middle East, Eqaila, Kuwait

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## Doctoral Dissertation Award

#### **ID 013 Leadership for Lean Six Sigma**

Alessandro Laureani, University of Strathclyde, Leopardstown, Dublin, Ireland

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## Master Thesis Award

#### **ID 720 Optimization Design and Comparative Study of np and EWMA Charts for Monitoring Fraction Nonconforming**

Mezoon AlRemeithi, University of Sharjah, United Arab Emirates

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## Undergraduate STEM Research Competition Award

### 1<sup>st</sup> Place

#### **ID 693 Managing Project Delays: Simulation-Based Methodology for Project Scheduling**

Reem Shams AlDeen, Ruqayah AlSaad, Maha Alrasheedi, Omniah Ahmad, Anfal Malak, and Hadi Jaber, American University of the Middle East, Kuwait

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## Simulation Competition Award

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## 1<sup>st</sup> Place

### **ID 798 A Simulation Study on Bed Capacity Management in a Public Hospital**

Doha Makarem, Farah Sarraj, Fatemah AlKandarie, Shouq Thuwaini, Yara Tafesh, and Ufuk Kula, Industrial Engineering Department, American University of the Middle East, 250 St, Eqaila, Kuwait

## 2<sup>nd</sup> Place

### **ID 540 Simulation-Based Cycle Time Optimization in Make-to-Order Environment with Job Shop Production Type**

Zakka Ugih Rizqi, Adinda Khairunisa, Universitas Islam Indonesia, Yogyakarta, Indonesia

## 3<sup>rd</sup> Place

### **ID 806 Increasing Oil/Petroleum Supply Chain Distribution Efficiency through using Autonomous Vehicle**

Rizky Yonathan, Sabrina Putri Kinanti and Zahra, University of Indonesia

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## Supply Chain and Logistics Competition Award

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## 1<sup>st</sup> Place

### **ID 812 Humanitarian aid for Wuhan with Crisis Logistics Management Approach**

Yonglin Ren, Shiva Hajiebrahimi, Mehdi Azad, and Anjali Awasthi, Concordia Institute for Information Systems Engineering (CIISE), Concordia University Montreal, Quebec, Canada

Souraj Salah, Hamdan Bin Muhammad Smart University Abu Dhabi, UAE

## 2<sup>nd</sup> Place

### **ID 752 Shipment Retrieval Improvement in an Air Cargo**

Abyar Mohammad, Badria Al-Ajmi, Laila Al-Mousa, Mariam Al-Haddad, Sarah Al-Jassim and Mustafa Sendil, Industrial Engineering Department, College of Engineering and Technology, American University of the Middle East, Kuwait

## 3<sup>rd</sup> Place

### **ID 355 Supply Contract Analysis for an Eco-friendly Textile Supply Chain**

Arnab Adhikari, IIM Ranchi, Ranchi, Jharkhand, India

### **ID 576 Good Practices for the Green Supply Chain Modeling**

Sana Elhidaoui, and K. Benhida, LAPSSII, Est of Safi, UCA, Morocco

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## Lean Six Sigma Competition Award Sponsored by Tooling Tech Group

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## 1<sup>st</sup> Place

### **ID 799 Six Sigma Project to Improve a PVC Pipe Production**

Anwar Al Merri, Dalal Al Attar, Kawthar Al Saegh, Loulwah Al Doukhi, Muneera Al Sabah, and Ufuk Kula, Industrial Engineering Department, American University of the Middle East, 250 St, Eqaila, Kuwait

## 2<sup>nd</sup> Place

### **ID 210 Lean in a High Mix, Low Volume Manufacturing Environment – Case study**

Anees Hussain, Jose Eduardo Munive-Hernandez, and Felician Campean, University of Bradford, West Yorkshire, UK

## 3<sup>rd</sup> Place

### **ID 832 Using DMAIC methodology for the Conversion of Ready-Mix Concrete Plant Energy to Solar PV**

Slim Saidi, Associate Professor of Industrial Engineering, Industrial Engineering Department, Rochester Institute of Technology, Dubai, United Arab Emirates

Zulfa A. Rasheed, Master of Engineering Management Student, Industrial Engineering Department, Rochester Institute of Technology, Dubai, United Arab Emirates

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## Supply Chain and Logistics Case Study Competition Coordinated by The Centre for Supply Chain Improvement, University of Derby, UK

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### Supply Chain and Logistics Case Study Phase I Competition Winners

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- 1st place - Indra Tangkas Perkasa Sinaga, PPM School of Management, Indonesia
- 2nd place - Andrian W. Supriyanto, Angginta R. Ibrahim and Kartika Nurhayati, Delft University of Technology, Netherlands
- 3rd place - Md. Mamunur Rashid, Sourav Kumar Ghosh and Md. Sadman Sakib Tushan, Bangladesh University of Textiles, Bangladesh
- 4th place - Abdul Malik Bander Al-Harbi and Saleh Khaled Al-Hawwar, King Fahd University of Petroleum & Minerals, Saudi Arabia
- 5th place - Ali Subagyo, Dewi Madasari and Meliana Frantika Sutanto, Shipbuilding Institute of Polytechnic Surabaya, Indonesia
- 6th place - Nur Fitriana A Ratri P Avelia OS, Shipbuilding Institute of Polytechnic Surabaya, Indonesia
- 7th place - Md. Ziaur Rahman, Shahjalal University of Science & Engineering, Sylhet, Bangladesh
- 8th place - Justice Nyarko, Accra Technical University, Ghana
- 9th place - Alifa Prasetyani Fadila, Shipbuilding Institute of Polytechnic Surabaya, Indonesia

### Supply Chain and Logistics Case Study Phase II Competition

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- 1st place: Andrian W. Supriyanto, Angginta R. Ibrahim and Kartika Nurhayati, Delft University of Technology, Netherlands, Title: Personalised Digital Platform “Amur” to Acquire Potential Consumer of Alam Sutera
- 2nd place: Justice Nyarko, Felix Nubuor and Francis Sallah Accra Technical University, Ghana, Title: Digital Supply Chain Transformation



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- 3rd place: Md. Mamunur Rashid, Sourav Kumar Ghosh and Md. Sadman Sakib Tushan, Department of Industrial and Production Engineering, Bangladesh University of Textiles, Dhaka, Bangladesh, Title: Case Study on Digital Supply Chain Transformation (Current Scenario Analysis and Future Aspects of the Apparel Industry in Bangladesh)
- 4th place: Indra Tangkas Perkasa Sinaga, PPM School of Management, Jakarta, Indonesia, Title: Digital Supply Chain for Dairy Industry in Indonesia<sup>4<sup>th</sup></sup> :

### Lean Six Sigma Case Study Competition

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- 1st Place – Mamun Rashid, Department of Industrial and Production Engineering, Bangladesh University of Textiles, Dhaka, Bangladesh
- 2nd Place - Ricardo Rabang, Racquel Tadina, and Maria Teresa Mendoza, Technological Institute of the Philippines

### Simulation Case Study Competition

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- 1st Place – Newspaper Industry SCOR Performance Simulation, Iqbal Wahyu Saputra – Universitas Sebelas Maret, Indonesia

## Best Track Papers Awards

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### Artificial Intelligence

#### **ID 114 Prediction of Residential Building Energy Consumption Using Bayesian Regularized Artificial Neural Network Bangladesh**

Ferdous Sarwar, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

S. M. Ahmed, T.K. Biswas, Department of Industrial & Production Engineering, Jashore University of Science and Technology, Jashore, Bangladesh

#### **ID 603 Artificial Neural Networks for Fault Diagnosis of Milk Pasteurization Process - A Comparative Study**

Chebira Samia, Bourmada Nouredine, and Boughaba Abdelali, Industrial Safety Department, Hygiene and Industrial Safety Institute, Mustafa Ben Boulaid BATNA 2 University, Batna, Algeria

### Automation and Agility

#### **ID 56 Exploring the Adoption of Digital Technology at the Different Phases of Construction Projects in South Africa**

Matthew Ikuabe, Douglas Aghimien, Clinton Aigbavboa and Ayodeji Oke, University of Johannesburg, Guateng, South Africa

### Automotive Manufacturing Systems

#### **ID 453 Analysis of Redesign of the Connecting Rod and Influence on Engine Power**

Jose Adrian Rodríguez Rodríguez, Lastre Aleaga Arlys Michel, and Pinargote Heredia Franklin Rodrigo, Orbea Hinojosa Luis Xavier Universidad UTE, Esmeraldas, Ecuador

### Business Management

#### **ID 205 Business Process Reengineering For Reducing Time of Procurement and Inventory Process in Telecommunication Tower Company**

Rahmat Nurcahyo, Indramawan, Yadrifil, Muhammad Habiburrahman and Nurhadi Wibowo, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Depok, Indonesia

#### **ID 541 Feasibility Study on Designing Innovative Raincoat Production Company – Market and Marketing Aspect (1)**

Zakka Ugih Rizqi, and Adinda Khairunisa, Universitas Islam Indonesia, Yogyakarta, Indonesia

### Case Studies

#### **ID 482 Strategy Model to Build Employee Discipline**

Arasy Alimudin, Agus Sukoco, Angga Adi Prebawa, Iswachyu Dhaniarti, Narotama University, Surabaya, Indonesia

Hartono, PGRI Adi Buana University, Surabaya, Indonesia

#### **ID 558 The Role of Women in the Vegetable Market Traders Alok against Decision-Making Families with Income as a Moderating Variable**

Muhammad Ikhsan Setiawan, Narotama University, Surabaya, East Java, Indonesia

### E-Business/E-Service

#### **ID 363 Assessment and Improvement of Facebook Business Platforms for SMEs in the Philippines**

Jenilyn Shigella G. Yandug, Diana Marie B. De Francia, and Joymicah O. Paulo, Mapua University, Manila, Philippines

### Energy

#### **ID 340 Long Term Energy Development Pathways for Nigeria: A Scenario Based Analysis**

Najib Aminu Ismail, Md. Mizanur Rahman, Muhammad Ali Abuelnour, Ihab Jabbar, and Aminuddin Saat, UTM, Johor Bahru, Malaysia

Muhammad Usman Kaisan, Department of Mechanical Engineering, Ahmadu Bello University, Zaria, Kaduna, Nigeria

### Engineering Economy

#### **ID 251 Centralized Versus Decentralized Sewage Treatment Plant in a Metropolitan City**

M. Affan Badar, Indiana State University, Terre Haute, IN, United States

Senthilkumar Venkatachalam, Department of Civil Engineering, Indian Institute of Technology - Palakkad, Kerala, India

Zahraa A. Yousif Sani, Department of Industrial Engineering and Engineering Management, University of Sharjah, UAE

### Engineering Education

#### **ID 35 To Investigate the Relationship between TQM Enablers Applicable In Indian Engineering Education Institutes**

Ankesh Mittal, Pardeep Gupta, and Manjot Singh, Department of Mechanical Engineering, SLIET sunam Punjab India

### Entrepreneurship

## **ID 566 The Relationship between Technological Variables and Absorptive Capacity and its effect on Organizational Performance through Corporate Entrepreneurship Mediation (Case Study: Iranian Banking Industry)**

Mahdi Joneidi Jafari, Graduate in Industrial Engineering Tarbiat Modares University (T.M.U.) and Ph.D. Candidates of IT Management - Allameh Tabataba'i University (ATU) -Tehran-Iran

Mohammad Aghdasi, Professor at the School of Industrial and Systems Engineering - Tarbiat Modares University (T.M.U.), Tehran, Iran

Ali Reza Jalali Farahani, Assistant Professor at Tarbiat Modares University (T.M.U.), Tehran, Iran

### **Environmental Engineering**

#### **ID 150 Impact of Environmental Law and Physical Planning Law to the Construction Projects in Sri Lanka**

Akila Pramodh Rathnasinghe, Isuru Pramodh Rathnasinghe, and Mahesh Devinda Abeynayake, Department of Building Economics, University of Moratuwa, Moratuwa, Western Province, Sri Lanka

### **Facilities Planning and Layout**

#### **ID 705 Analysis and Improvement of Facility Layout in a Furniture Factory: A Case Application**

Mehmet Savsar and Aminah Aldehaim, Industrial & Management Systems Engineering Department, Kuwait University, Kuwait

### **Human Factors and Ergonomics**

#### **ID 175 Aggressive Driving Behavior: Case Study of MUET, Jamshoro, Pakistan**

Muhammad Ahmed Kalwar, Muhammad Ali Khan, Shakil Ahmed Shaikh, Abdul Salam Soomro, Muhammad Saad Memon and Sarmad Ali Khaskheli, Industrial Engineering & Management, Mehran UET, Jamshoro, Sindh, Pakistan

#### **ID 240 The Effects of Energy Expenditure on the Mental Fatigue of Construction Workers Philippines**

Janice Gumasing, Claire Marie A. Llamas, and Czarina Anne A. Martin, Mapua University, Manila, Philippines

### **Healthcare Operations and Services**

#### **ID 141 Survey Design to Evaluate Healthcare System Resilience at Barangay Level in the Philippines**

Giselle Joy Esmeria, Mary Jean Azuela, Dennis Paul Orge, and Mary Grace Valdez, De La Salle University - Laguna Campus (Philippines), Sta. Rosa, Philippines

### **Information Systems and Management**

#### **ID 349 Trust in Smart Energy Meters: The Role of Perceived values**

Ahmed Shuhaiber, Zayed University, Abu Dhabi city, United Arab Emirates

### **Innovation**

#### **ID 219 Productive Social Innovation in the Provinces of Imbabura and Carchi**

Mayra Maya, Winston Oviedo, Jeanette Ureña and Javier Chiza, Facultad de Ingeniería en Ciencias Aplicadas, Universidad Técnica del Norte, Ibarra, Ecuador

### **Inventory Management**

#### **ID 366 E-Kanban Hybrid Model for Malaysian Automotive Component Suppliers with IoT Solution**

M. R. Idris and P. Shiva Prakash, Department of Engineering Business Management, Universiti Kuala Lumpur Malaysia Italy Design Institute, Kuala Lumpur, Malaysia

A. Abdullah, Faculty of Accountancy, Universiti Teknologi MARA, Shah Alam, Malaysia

A. Talib Bon, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

### **Lean**

#### **ID 605 Lean Readiness Level of the Azerbaijan Construction Industry**

Simon Peter Nadeem, Jose Arturo Garza-Reyes, and Anil Kumar, University of Derby, Derby, Derbyshire, United Kingdom

Hajibaba Aghayev, Warwick Manufacturing Group, The University of Warwick, UK

Vikas Kumar, Bristol Business School, University of the West of England, UK

Luis Rocha-Lona, and ESCA Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico

Fernando González-Aleu, Departamento de Ingeniería, Universidad de Monterrey, San Pedro Garza García, N.L. México

### **Logistics**

#### **ID 98 Vehicle Routing Problem for Multi-Product Cross-Docking**

Aldy Gunawan, Audrey T. Widjaja, and Benjamin Gan Kok Siew, Singapore Management University, Singapore

Vincent F. Yu, and Panca Jodiawan, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

### **Maintenance Services**

#### **ID 194 Selecting a Condition Monitoring Technology to Monitor Automotive Lubrication System Using Fuzzy-TOPSIS**

Ahmed Bingamil, Imad Alysouf, Ali Cheaitou, Iyad Alawaysheh, University of Sharjah, Dubai, United Arab Emirates

### **Modeling and Simulation**

#### **ID 489 Simulation Driven Appointment System Model for a License Processing Office in the Philippines**

Jenilyn Shigella G. Yandug, and Christine Anne S. Santos, School of Industrial Engineering and Engineering Management, Mapua University, Manila, Philippines

#### **ID 680 Modeling and Simulation of Transmission Dynamics of Chronic Liver Cirrhosis**

Mst. Shanta Khatun, and Md. Haider Ali Biswas, Khulna University, Bangladesh

### **Occupational Safety and Health (OSH)**

#### **ID 244 Risk and Safety Assessment on the Production of Firecrackers in Bulacan, Philippines**

Marvin I. Noroña, and Cherry Jean D. Bondal, Mapua University, Manila, Philippines

### **Operations Management**

#### **ID 336 Study of Key Enablers of Industry 4.0 Practices Implementation Using ISM-Fuzzy MICMAC Approach**

Sunil Luthra Government Polytechnic Jhajjar, Jhajjar, India, Gunjan Yadav, Production Engineering Dept., Veermata Jijabai Technological Institute, Mumbai, India

Anil Kumar, Anthony Anosike, Centre for Supply Chain Improvement, The University of Derby, Derby, United Kingdom

Sachin Kumar Mangla, Knowledge Management and Decisions, Plymouth Business School, University of Plymouth, United Kingdom

Dixit Garg, Department of Mechanical Engineering, National Institute of Technology, Kurukshetra, India

### **Operations Research**

#### **ID 279 Optimization of Digital Advertising Portfolio using Analytical Hierarchy Process (AHP)- Based Goal Programming (GP) Model**

Rex Aurelius C. Robielos, and Neil T. Awit, Mapua University, Manila, Philippines

#### **ID 538 Crop Planning Problem using Rectangular Management Zones and Different Irrigation Systems**



Omar Salama, Hala A. Farouk, and Noha M. Galal, Arab Academy for Science and Technology and Maritime Transport, Alexandria, Egypt

## Optimization

### **ID 391 Solving Hard NP- combinatorial Problems Using A Hyper-Cube Framework ACO Meta-heuristic**

Ali Ahmad, and Thien-My Dao, Van Le, École de Technologie Supérieure, Montreal, Canada

## Production Planning and Management

### **ID 283 A Single-Level Forecasting Inventory Simulation Model Integrating Downstream Forecast Information**

Rene D. Estember, Antonio Luis B. Juarez, Jonathan N. Concepcion, and Raymond Junrong S. Zhuang, School of Industrial Engineering and Engineering Management, Mapua University, Manila Metro, Manila, Philippines  
Tsai-Chi Kuo, Department of Industry Management, National Taiwan University of Science and Technology, Taipei 10607, Taiwan and Department of Industrial and Systems Engineering, Chung Yuan Christian University, Taoyuan City, Taiwan 32023, R. O. C.

### **ID 300 Integrated Production and Maintenance Planning: A Comparison between Block Policies**

Ahmed Al Shehni, Ali Cheaitou and Imad Alsyouf, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, United Arab Emirates

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## Project Management

### **ID 125 Modeling a Bi-Objective Multi-Skill Resource-Constrained Project Scheduling Problem to Minimize Project Makespan and Skill Divergence Span**

Dheeraj Joshi, Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur, India

M.L. Mittal, Manish Kumar, Professor, Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur, India

## Product Design and Development

### **ID 327 A Decision-based Design Framework for a Commercial Product**

Tanvir Ibna Kaisar, and AKM Kais Bin Zaman, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

## Reliability

### **ID 136 Integrated optimization problem of Maintenance and Lot-Sizing with Risk assessment**

Kammoun Mohamed Ali, Zied Hajej, and Nidhal Rezg, Laboratoire de Génie Informatique, de Production et de Maintenance, Metz, France

## Supply chain

### **ID 815 System Dynamics Simulation based on SCOR Performance at Table Tennis Table Manufacturer in Indonesia**

Yuniaristanto, Iqbal Wahyu Saputra, Muhammad Hisjam, and Roni Zakaria, Department of Industrial Engineering, Universitas Sebelas Maret, Surakarta, Indonesia

### **ID 464 A Multi-Objective Linear Optimization Model for Designing Sustainable Closed-Loop Agricultural Supply Chain**

Hossein Reyhani, Faculty of Economics and Management, University of Tabriz, Tabriz, Iran

Younis Jabarzadeh, Faculty of Economics and Management, University of Tabriz, Tabriz, Iran

Nader Ghaffarinasab, Department of Industrial Engineering, University of Tabriz, Tabriz, Iran

Vikas Kumar, Bristol Business School, University of the West of England Bristol, Bristol, UK

Jose Arturo Garza-Reyes, Derby Management School, University of Derby, Derby, England

## Waste Management

### **ID 320 Synthesis and Interaction with Waste in Trico Factory Layout and Cycle time analysis**

Ahmad Yame, Lawrence Technological University, Dearborn, MI, United States



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