

Awards + Competition Winners

8th North American Conference on Industrial Engineering and Operations Management, Houston, Texas, USA
June 12-15, 2023, Venue: Hilton University of Houston



Sponsors and Partners





Hamid R. Parsaei, Ph.D., P.E.

Fellow, IISE, ASEE, SME, IEOM

Professor, Department of Industrial and
Systems Engineering

Interim Director, College of Engineering

Accreditation and Assessment

Texas A&M University

College Station, Texas, USA

Conference Chair



Dr. Satish Bukkapatnam

Professor, Industrial & Systems Engineering

Rockwell International Professor

College of Engineering

Director, TEES Institute for Manufacturing Systems

Texas A&M University, College Station

Texas, USA

Conference Co-Chair



Dr. Gino Lim

Fellow of IISE, SVP of IISE International Operations
R. Larry and Gerlene (Gerri) R. Snider Endowed
Chair

Professor & Chair, Department of Industrial
Engineering

University of Houston – University Park, Houston,
Texas, USA

Program Chair



Professor Don Reimer

Director of Chapters and Membership Development
IEOM Society International
Southfield, Michigan, USA

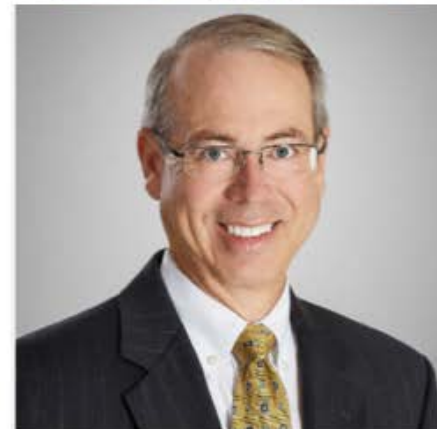


Eric Ayanegui, CPMM, CRL
Director Operations Engineering
Cintas Corporation
Houston, Texas, USA



Dr. Ahad Ali
Executive Director
IEOM Society International

Keynote Speakers



Sponsors and Partners



Chiang Mai University



EASTERN
MICHIGAN UNIVERSITY



FLORIDA POLYTECHNIC
UNIVERSITY



UNIVERSITÉ
DE LORRAINE



UNS
UNIVERSITAS
SEBELAS MARET



المدرسة المحمدية للمهندسين
Ecole Mohammadia d'Ingénieurs



جامعة محمد الخامس بالرباط
Université Mohammed V de Rabat



UDEM
UNIVERSIDAD DE MONTERREY



UNB
UNIVERSITY OF NEW BRUNSWICK



UTHM
Universiti Tun Hussein Onn Malaysia



UNIVERSITY OF THE
DISTRICT OF
COLUMBIA
1851



UNIVERSITY OF
DERBY



WAYNE STATE
College of Engineering



SCQE
Society of Cost and Quality Engineers



TOOL NGTECH GROUP



AFRICAN ENGINEERING EDUCATION
ASSOCIATION



BADAN KERJASAMA
KEMENTERIAN TEKNOLOGI INDUSTRI



IFEES
INTERNATIONAL FEDERATION OF
ENGINEERING EDUCATION SOCIETIES



INDIAN INSTITUTION OF INDUSTRIAL ENGINEERING



Pakistan Society of Industrial Engineers
PSIE
Society of Quality Engineers



جامعة الامير سلطان
PRINCE SULTAN
UNIVERSITY



THE
LEAN
MAG



OPERATIONAL
EXCELLENCE
society



Thanks

- Speakers
- Presenters
- Competition participants
- Authors
- Reviewers
- Track chairs
- Student volunteers
- and more

Submissions Received from Countries and Territories

1. Algeria	8. Egypt	16. Malaysia	24. Qatar	32. UAE
2. Australia	9. Ethiopia	17. Mexico	25. Saudi Arabia	33. UK
3. Bangladesh	10. France	18. Morocco	26. South Africa	34. USA
4. Bosnia and Herzegovina	11. India	19. Pakistan	27. South Korea	35. Vietnam
5. Brazil	12. Indonesia	20. Peru	28. Spain	
6. Canada	13. Italy	21. Philippines	29. Taiwan	
7. Colombia	14. Japan	22. Portugal	30. Thailand	
	15. Kuwait	23. Puerto Rico	31. Turkey	

The IEOM Society International strives to be the premier global organization dedicated to the advancement of industrial engineering and operations management discipline for the betterment of humanity.

IEOM Mission

IEOM Society’s mission is to foster critical thinking, innovation, and knowledge dissemination of Industrial Engineering (IE) and Operations Management (OM) among diversified people globally, especially in emerging countries.

IEOM Values

- Globalization, Diversity, and Inclusion
- Innovative and Entrepreneurial Thinking
- Student Empowerment and Mentoring
- Professional Development and Lifelong Learning
- Building Partnerships among Industry, Academia, and Government
- Sustainability and Community Development

Membership

IEOM Professional and Student Chapters

Conferences - USA, EU, Asia, Africa and South America

IEOM Journal - IJIEOM

Forums:

Global Engineering Education Forum

Global Supply Chain and Logistics Forum

Industry Solutions Forum

Women in Industry and Academia Forum

Certification – LSS, FMEA, GD&T, FTA

Awards and Fellows

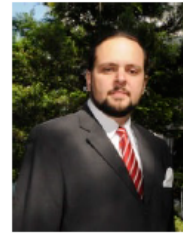
Newsletters



Professor Charles Mbohwa
Past Pro-Vice Chancellor Strategic Partnerships and Industrialisation University of Zimbabwe
Mt Pleasant, Harare, Zimbabwe



Prof. Abdul Talib Bon, Ph.D.
Professor of Technology Management, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia



Prof. Vitor Mendes Caldana
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus Sorocaba, Sao Paulo, Brazil



Eldon Caldwell, Ph.D., Sc.D., Ed.D.
President-Elect
Full Professor/Cathedraticus Industrial Engineering Department University of Costa Rica San Jose, Costa Rica



Prof. Jose Arturo Garza-Reyes
Prof. of Operations Management Head of the Centre for Supply Chain Improvement College of Business, Law and Social Sciences Derby Management School University of Derby, UK



Dr. Umar Al-Turki
Professor Systems Engineering Department King Fahd University of Petroleum and Minerals Dhahran, Saudi Arabia



Adejeji B. Badiru, Ph.D., PE, FIIE
Dean, Graduate School of Engineering and Management Professor of Systems Engineering Air Force Institute of Technology Wright-Patterson Air Force Base Dayton, Ohio, USA



Dr. Abdelaziz Berrado
Chair and Professor Dept. of Industrial Engineering The Ecole Mohammadia d'Ingénieurs (EMI), Mohammed V University, Rabat, Morocco



Prof. Abu Masud, Ph.D., P.E.
Past President, 2018-2021
Emeritus Professor, Industrial and Manufacturing Engineering Wichita State University Kansas, USA



Dr. Ir. Wahyudi Sutopo, ST.
Professor, Department of Industrial Engineering Vice Dean, Faculty of Engineering, Universitas Sebelas Maret (UNS), Surakarta, Indonesia



Prof. Hamid Parsaei, Ph.D., PE
President, 2021-2023
Professor, Industrial and Systems Engineering and Director, College of Engineering Accreditation and Assessment, Texas A&M University, College Station, USA



Luz Maria Valdez de la Rosa, Ph. D.
Professor School of Engineering and Technology Universidad de Monterrey Nuevo León, Mexico

IEOM Conferences

Annual Conference

- 2010 – Dhaka
- 2011 – Kuala Lumpur
- 2012 – Istanbul
- 2014 – Bali
- 2015 – Dubai
- 2016 – Kuala Lumpur
- 2017 – Rabat
- 2018 – Bandung
- 2019 – Bangkok
- 2020 – Dubai
- 2021 – Singapore
- 2022 – Istanbul
- 2023 – Manila
- 2024 – Dubai

North American

- 2015 – Orlando
- 2016 – Detroit
- 2018 – Washington, DC
- 2019 – Toronto
- 2020 - Detroit
- 2021 – Monterrey
- 2022 – Orlando
- 2023 – Houston
- 2024 – Washington, DC

European

- 2017 – UK
- 2018 – Paris
- 2019 – Czech Republic
- 2021 – Rome, Italy
- 2022 – Rome, Italy
- 2023 – Lisbon, Portugal



Asia Pacific Conference

- 2021 – Harbin, China
- 2021 – Surakarta, Indonesia
- 2022 – Jahor Baru, Malaysia
- 2023 - Vietnam

South American

- 2017 – Bogota
- 2019 – Costa Rica
- 2021 – Sao Paulo, Brazil
- 2022 – Paraguay
- 2023 – Peru
- 2024 - Bogota

African Conference

- 2019 - Pretoria
- 2020 – Harare, Zimbabwe
- 2022 – Nigeria
- 2023 - Zambia
- 2024 – South Africa

Australian Conferences

- 2022 – Sydney
- 2023 – Melbourne

India Conferences

- 2021 – Bangalore
- 2022 – NIT Warangal + JNTUH
- 2023 – New Delhi



8th North American Conference on Industrial Engineering and Operations Management
 Houston, Texas, USA, June 13-15, 2023
 Host: Texas A&M Engineering Experiment Station
 Institute of Manufacturing Systems (TEES-IMS)
 Venue: Hilton University of Houston



Industrial Engineering and Operations Management Society International



IEOM Student Chapters



IEOM Society International

Sponsors and Partners





IEOM Student Chapters around World

Algeria	72. Nawab Shah Alam Khan College of Engineering and Technology (NSAKGET), Hyderabad, India	142. Universidad del Cono Sur de las Américas
1. Adrar University	73. Global Institute Of Eng and Technology, Hyderabad	Peru
Australia	74. VNR Vignana Jyothi Institute of Eng and Technology	143. National Univ of San Antonio Abad, Cusco
2. Queensland University of Tech., Brisbane	75. Siddhartha Institute of Engineering & Technology	144. Universidad de Lima (UULima)
3. UNSW-Canberra	76. Osmania University – The University College of Eng	145. Universidad Peruana de Ciencias Aplicadas (UPC)
Bahrain	77. VJTI Mumbai – Veermata Jijab Technologic. Institute	146. Universidad Ricardo Palma (URP)
4. University of Bahrain	78. BML Munjal University, Gurgaon, India	147. Pontificia Universidad Católica del Perú (PUCP)
Bangladesh	79. AKTU University, Kanpur, India	148. Universidad Privada del Norte (UPN)
5. Anzamilah University of Sci & Tech (AUST)	80. Mufakkhahaj College of Eng. and Tech, Hyderabad	149. Universidad Continental (UContinental)
6. Bangladesh Institute of Management (BIM)	Indonesia	150. Universidad de Ingeniería y Tecnología (UTEC)
7. Bangladesh University of Textiles (BUTEK)	81. Atma Jaya Catholic University	151. Universidad Nacional de Ingeniería (UNI)
8. BUT	82. Bina Nusantara University (Binus), Indonesia	152. University of San Martín de Porres (USMP)
9. CUET	83. Institut Teknologi Bandung	Philippines
10. Daffodil International University (DIU)	84. Institut Teknologi Sepuluh Nopember (ITS)	153. Bulacan State University, Malolos City, Bulacan
11. DUET, Gazipur	85. Sampoerna University, Jakarta	154. LPU Laguna
12. European University of Bangladesh	86. Shipbuilding Institute of Polytechnic Surabaya	155. Mapua University
13. International Islamic University of Chittagong	87. Tarumanagara University	156. De La Salle University (DLSU) Manila
14. Islamic University of Technology (IUT)	88. UIN Sultan Syarif Kasim, Riau	157. Adamson University
15. IUBAT	89. Universitas Diponegoro (Undip)	158. CEBU Technological University
16. Jessore University of Science and Technology	90. Universitas Gadjah Mada (UGM)	159. University of San Jose-Recoletos
17. Khulna University (KU)	91. Universitas Iora Baru	Portugal
18. Khulna University of Eng and Tech (KUJET)	92. Universitas Islam Negeri (UIN) Sunan Kalijaga, Yogyakarta	160. ISEL – Instituto Superior De Engenharia de Lisboa
19. Military Institute of Science and Technology	93. Universitas Islam Negeri Alauddin Makassar	Qatar
20. National Institute of Textile Eng & Res (NITER)	94. Universitas Sebelas Maret (UNS), Surakarta	161. Qatar University
21. Rajshahi University (RU)	95. University of Indonesia	Saudi Arabia
22. SUST	96. Universitas Sumatera, Utara Medan	162. Afafal University
23. University of Chittagong	97. Nabolama University, Surabaya	163. Efat University
24. World University Bangladesh (WUB)	Iran	164. King Abdulaziz University (KAU)
25. BAUST	98. MehrAzan University, Guilan	165. King Abdulaziz University, Rabigh
Botswana	99. University of Eyvanekey	166. King Fahd University of Petroleum and Minerals (KFUPM)
26. University of Botswana	100. Technical and Vocational University (TVU)	167. King Khalid University, Abha
Brazil	Iraq	168. King Saud University (KSU)
27. Federal University of Sao Carlos (UFSCar)	101. Babylon University	169. Umm Al-Qura University (UQU)
28. Federal University of Santa Catarina (UFSC)	102. Sapir Academic College	170. Princes Nourah University (PNU)
29. University of Sao Paulo (USP) – Sao Carlos	103. Shamoon College of Engineering (SCE), Ashdod	171. Prince Sultan Bin Abdulaziz University
30. Federal Institute of Sao Paulo, Sorocaba	Italy	172. Prince Sultan University (PSU)
31. FACENS University, Sorocaba	104. University of Bologna	173. Talbah University
Canada	105. University of Salerno	174. University of Tabuk
32. Concordia University	Japan	175. Talbah University
33. Humber Institute of Tech and Adv Learning	106. Ashikaga University	176. University of Business and Technology
34. Polytechnic Montreal	Jordan	177. King Khalid University, Abha
35. University of New Brunswick at Fredericton	107. Hashemite University	178. University of Bisha
36. University of Waterloo	Kenya	179. Taf University
37. University of Windsor	108. Kenyatta University, Nairobi	South Africa
Colombia	Libya	180. Durban University of Technology (DUT)
38. Fundación Univ. Tecn. Comfenalco, Cartagena, Bolivar	109. Libyan Academy	181. Tshwane University of Technology (TUT)
39. University of Rosario, Bogota	Malaysia	182. University of Johannesburg (UJ)
40. University of Quindío	110. Universiti Malaysia Sabah (UMS)	183. University of South Africa (UNISA)
41. Universidad de San Buenaventura, Cali, Valle	111. Universiti Putra Malaysia (UPM)	184. Vaal University of Technology (VUT)
Costa Rica	112. Universiti Teknologi Malaysia (UTM)	Sri Lanka
42. University of Costa Rica	113. Universiti Tun Hussein Onn Malaysia (UTHM)	185. University of Kelaniya
Czech Republic	114. Universiti Utara Malaysia (UUM)	186. University of Peradeniya
43. University of West Bohemia, Pilsen	Mexico	Sudan
Ecuador	115. Instituto Politécnico Nacional (IPN), Mexico	187. Sudan University of Science and Technology, Khartoum
44. Technical University of Ambato	116. Universidad del Caribe, Cancun	Thailand
Egypt	Morocco	188. Chulalongkorn University, Bangkok
45. Zagazig University	117. Akhawayn University	189. Chiang Mai University
Ethiopia	118. Ecole Mohammadia d'Ingenieurs (EMI)	Turkey
46. Bahir Dar Institute of Technology	119. Sidi Mohamed Ben Abdellah University of Fez	190. Turkish-German University
Finland	120. N. School of Appl Sci, Kenitra, Ibn Tofail Univ	UAE
47. University of Vaasa	121. Ecole Supérieure De Technologie, Fez	191. University of Science & Technology of Fujairah
France	Mozambique	UK
48. IESEI School of Management	122. Eduardo Mondlane University	192. University of Derby
49. Lorraine University, Metz	Namibia	193. University of the West of England, Bristol
Ghana	123. National Univ. of Sci. and Tech. in Windhoek	USA
50. Technological Education Institute (TEI), Thessaly, Larissa	Nepal	194. Central Connecticut State University
Greece	124. Kathmandu University	195. Eastern Michigan University
51. Acora Technical University	125. Tribhuvan University	196. Lawrence Technological University, Michigan
Haiti	Nigeria	197. University of the District of Columbia
52. Universiti Gueloqeya	126. Covenant University	198. Indiana State University
India	127. University of Ibadan	199. Florida Polytechnic University
53. College of Engineering and Technology, Bhubaneswar, Odisha, India	128. University of Nigeria, Nsukka	200. Buffalo State College
54. College of Engineering Guindy, Chennai	129. University of Benin	201. Southern Arkansas University
55. Guru Nanak Dev Engineering College	130. Olabisi Onabanjo University	202. Western Michigan University
56. Pandit Dendiyal Petroleum Univ., Gujrat	131. Sultan Qaboos University	203. Loyola University Chicago
57. P.D.A. College of Engineering, Gulbarga	132. Middle East College	Venezuela
58. Vellore Institute of Technology	Pakistan	204. Catholic University Andrés Bello, Caracas
59. Vidya Jyothi Institute of Technology, Hyderabad	133. Dawood University of Engineering and Technology, Karachi	Vietnam
60. Universal College of Engineering & Technology (UCET), Dokaiparu, Guntur, Andhra Pradesh	134. Government College University Faisalabad	205. CFVG, Ho Chi Minh City, Vietnam
Indonesia	135. Mehran University of Engineering and Technology, Jamshoro, Sindh	Zambia
61. National Institute of Technology (NIT), Warangal	136. Riphah International University, Lahore Campus	206. University of Zambia
62. Jawaharlal Nehru Technological University Hyderabad	137. University of Engineering and Technology, Lahore	207. Copperbelt University
63. IITS, India	138. UOT – Nowshera	208. Eveyin Hone College
64. Bina Institute of Tech & Sciences (BITS Pilani)	139. Information Technology University of the Punjab, Lahore	Zimbabwe
65. Amrita School of Business – Bangalore	140. Pabna New Guinea University of Technology	209. University of Zimbabwe, Harare
66. Amrita School of Arts and Sciences, Mysuru	141. National University of Asuncion	210. National University of Science and Technology
67. Amrita School of Business, Coimbatore		211. Harare Institute of Technology (HIT)
68. Aligarh Muslim University, Aligarh		212. Women's University in Africa (WUA)
69. Mahant Bachittar Singh College of Engineering and Technology, Jammu		213. Chinhoyi University of Technology (CUT)
70. Baba Banda Singh Bahadur Eng College		214. Bay Area of San Francisco & San Jose, CA
71. Ramiah University of Applied Sciences		215. Aronghata, Khulna, Bangladesh

IEOM Student Chapters





Chinhoyi University of Technology (CUT), Zimbabwe







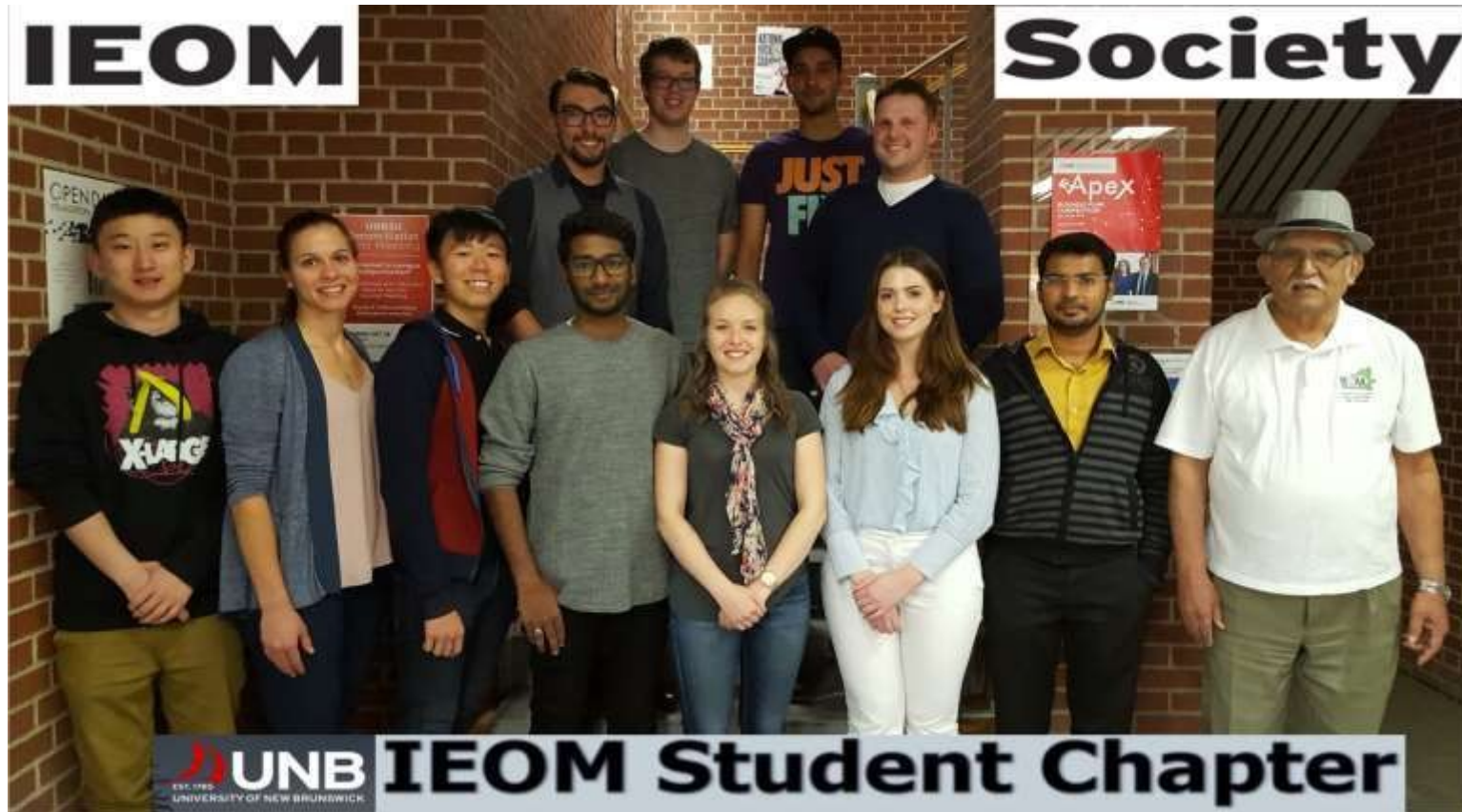




IEOM Student Chapter at De La Salle University, Manila City, Philippines

























IEOM Chapter

Student Portfolio Development

- ✓ **Project Presentation / Presentation Skill**
- ✓ **Communications – written, oral and graphical**
- ✓ **Student Organization involvement, student chapter officers, initiatives, etc.**
- ✓ **Attend seminar, workshop, symposiums, etc.**
- ✓ **Poster competition / innovation competition**
- ✓ **Leading a team, organizing an event, team participation**
- ✓ **Networking**
- ✓ **Publications: Conference paper, journal paper, magazine article, etc.**

IEOM Awards

Sponsors and Partners





Mark A. Bolen
VP of Quality, Engineering & Fleet
Cintas Corporation
Lebanon, Ohio, United States

Distinguished Industry Leadership Award



Arun Adat
Senior Director
Hewlett Packard Enterprise
Houston, Texas, United States

Sponsors and Partners



Distinguished Industry Achievement Award



Bruce Webb
Chief Pilot
Director of Aviation Education
and Community Outreach
Airbus Helicopters, Inc.
Prairie, Texas, USA

Distinguished Industry Achievement Award



José Rivera
 Chief Admin Quality Officer
 MD Anderson Cancer Center
 Houston, Texas, United States

Sponsors and Partners



Distinguished Industry Achievement Award



Robert Swearingen, PhD, PMP, CSSBB
 Head of Strategic Sourcing and Supply Chain Management
 Siemens GCI
 Tomball, Texas, United States

Distinguished Industry Achievement Award



Suresh Vaidyanathan
 Chief Engineer & General Manager
 Refining Business Improvement
 Phillips 66
 Westchase, Houston, Texas



Dr. Satish Bukkapatnam

Professor, Industrial & Systems Engineering
Rockwell International Professor, College of Engineering

Director, TEES Institute for Manufacturing Systems
Affiliated Faculty, Multidisciplinary Engineering and Biomedical Engineering

Texas A&M University, College Station, Texas, USA

Distinguished Educator Award



Dr. Gino Lim

R. Larry and Gerlene (Gerri) R. Snider Endowed Chair

Professor & Chair

Department of Industrial Engineering

University of Houston

University Park, Houston, Texas, USA

Sponsors and Partners



Ergonomics and Reliability Award



Eric Ayanegui, CPMM, CRL
 Director Operations Engineering
 Cintas Corporation
 Houston, Texas, USA

Sponsors and Partners



Amatrol Innovation and Curriculum Development Award



Dr. Amarnath Banerjee
 Professor and Associate Department Head for Undergraduate Studies
 Wm. Michael Barnes '64 Department of Industrial and Systems Engineering
 Texas A&M University
 College Station, Texas 77843

Distinguished Professor Award



Dr. Christopher Cox, P.E.
Professor Construction Management
College of Engineering and
Technology
Western Carolina University
Cullowhee, North Carolina, USA

Outstanding Professor Award



Magdy Akladios, Ph.D., PE, CSP, CPE, CSHM
Chair, Department of Physical and Applied Sciences
Professor of Occupational Safety and Health with
specializations in industrial hygiene or safety
College of Science and Engineering
University of Houston-Clear Lake
Texas, USA

Outstanding Professor in Operations Management Award



Manohar S. Madan, PhD
Professor
ITSCM Department
University of Wisconsin-Whitewater
Whitewater, WI – 53190

Sponsors and Partners



Industry-University Collaboration Award



Paul Perkins
President
Amatrol, Inc.
Jeffersonville, Indiana USA

Outstanding Undergraduate Advisor Award



Dr. Luis Rabelo

Professor

Department of Industrial Engineering &
Management Systems

University of Central Florida
Orlando, FL, USA



Dr. Albertus Retnanto
Professor and Chair
Petroleum Engineering
Texas A&M University at Qatar
HBKU, Doha, Qatar

Diversity, Equity, and Inclusion Award



Tanya Hill
Chief Executive Officer & Founder
ForeverFresh
Detroit, Michigan, USA

Sponsors and Partners



Young Researcher Award



Dr. Hrayr Aprahamian
 Assistant Professor, Industrial &
 Systems Engineering
 Wm Michael Barnes '64 Department of
 Industrial & Systems Engineering
 Texas A&M University
 College Station, Texas, USA

Sponsors and Partners



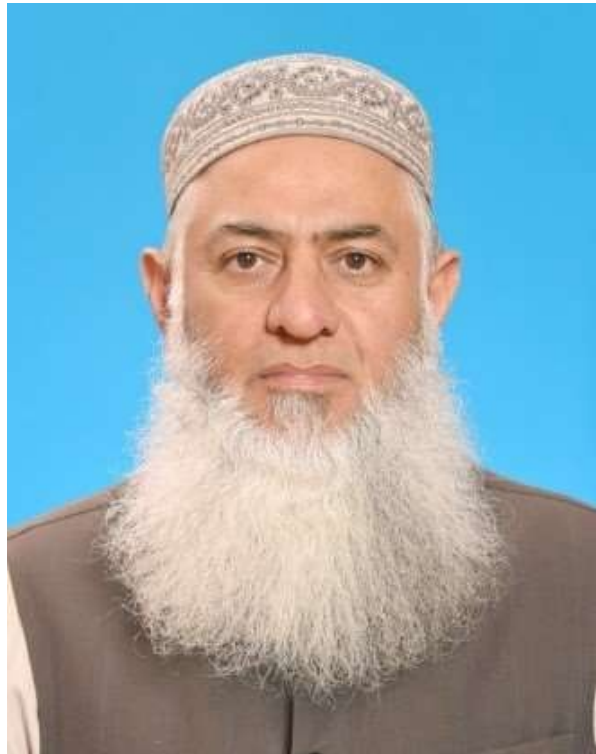


Michael Ehsani (MBA, DBA)
Global Quality Director
Arcadis
Houston, Texas, USA



Dr. Bimal Nepal

Rader 1 Professor and Associate Director
Industrial Distribution
Department of Engineering Technology
and Industrial Distribution
Texas A&M University
College Station, Texas 77843



Anjum Ali, Ph.D.

(Retd.) Professor of Electrical
Engineering, FAST-NU, Lahore, Pakistan
Ex. Associate Professor of Computer
Engineering, LUMS, Lahore, Pakistan
Ex. Professor of Computer Science and
Engineering

Sponsors and Partners





Dr. Meng Li

Associate Professor, Bauer Fellow
SCM PhD Coordinator
C.T. Bauer College of Business
University of Houston
Houston, Texas, USA

Sponsors and Partners





Pawan Bhandari, Ph.D.
Assistant Professor
Department of Manufacturing
Engineering Technology
Minnesota State University
Mankato, Minnesota, USA



Dr. Yinliang (Ricky) Tan
 Associate Professor and Area
 Coordinator in Supply Chain
 Management
 C.T. Bauer College of Business
 University of Houston



Caitlin McVey, MBA, RN, CPHQ, CLSSBB
Associate Vice President
Memorial Hermann Institute for
Nursing Excellence
Houston, Texas



Caitlin McVey, MBA, RN, CPHQ, CLSSBB
Associate Vice President
Memorial Hermann Institute for
Nursing Excellence
Houston, Texas

Innovation Award



Md Anwar Hossain, PhD
Senior Director, Applied Development
Center
Daikin Applied
13600 Industrial Park Blvd, Plymouth,
Minnesota



Dr. Hayder Zghair

Assistant Professor of Industrial Engineering
 Director of Industrial Engineering Development
 College of Science and Engineering
 Southern Arkansas University
 Magnolia, Arkansas, USA

Data Analytics Award



Dr. Ying Lin
Assistant Professor
Industrial Engineering Department
Director, Smart Health & Intelligent
Engineering Systems (SHINES) Lab
University of Houston
Houston, Texas, USA

Data Analytics Award



Assaf Gottlieb, PhD
Assistant Professor
UTHealth School of Biomedical Informatics (SBMI)
Houston Texas Medical Center
Houston, TX 77030

Lean Six Sigma Award



Dr. Jamison Kovach
PMI Houston Endowed Professor in
Project Management
University of Houston
Texas, USA

Lean Six Sigma Award



Megan Moore, MBA, CMQ/OE, CSQP, CLSSGB
Director of Quality
Ryerson
Sugarland, Texas

Distinguished Service Award



Hamid R. Parsaei, Ph.D., P.E.

Fellow, IISE, ASEE, SME, IEOM

Professor, Department of Industrial and
Systems Engineering

Interim Director, College of Engineering

Accreditation and Assessment

Texas A&M University

College Station, Texas, USA

Genesis Abah Agbo IMT Atlantique Nantes, France

Sponsors and Partners



Dr. Farizal University of Indonesia Jakarta, Indonesia

Anass Bayaga

Nelson Mandela University

Port Elizabeth, South Africa

Outstanding Student Leadership Award

Hamad Alsubhi

President, IEOM Student Chapter at
Indiana State University
Terre Haute, Indiana, USA

Sponsors and Partners



Industrial Engineering and
Operations Management
Society International

Outstanding Student Leadership Award

Abhiram Surattu
Fariha Kabir Torsha
Kiran Adhikari
Nagi Reddy Maneendra
Reza Mirjalili
Sahba Baniyadi
Yanlin Xiang

Competition Winners

Sponsors and Partners



First Place Winner

**ID 375 Defect Detection in Solar Photovoltaic Systems Using
Unmanned Aerial Vehicles and Machine Learning**
Althea Miquela, Dhiraj Bagul and Ahmed Aziz Ezzat
Rutgers, The State University of New Jersey, Piscataway, NJ,
08854, United States

SIEMENS

2nd Place Winner

ID 290 Application of Balanced Scorecard Method in Measuring Halal Frozen Food Supply Chain Performance

Rifqah Sansinova, Iftitah Salsabila Lukman Siregar, Bernike Putri Sembiring, and Batrisyia Atikah, Bachelor Student at Department of Industrial Engineering, University of Sumatera Utara, Indonesia
Dini Wahyuni, Department of Industrial Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia

SIEMENS

Sponsors and Partners



3rd Place Winner

ID 284 Improvement of the Internal Audit Planning System in an IT Company through Predictive Analytics

Patricio Alejandro Zamora Navarro, Rafael Alejandro Ruiz Miller,
Roberto Serna Zuazua, José D. Morcillo, Ph.D., Escuela de
Ingeniería y Tecnologías, Universidad de Monterrey, México

SIEMENS

Undergraduate Student Paper Competition Sponsored by SIEMENS

3rd Place Winner

ID 302 Development of 2 In 1 Back Support Tool Using the Quality Function Deployment Method

Arnold Benedict Chris, Christopher Davin, Favian Lorenzo
Hendrawan, Fredy Johnson and Darril Tiovan, Undergraduate
Student at Department of Industrial Engineering, Faculty of
Engineering, University of Sumatera Utara, Indonesia

SIEMENS



Undergraduate Research Competition sponsored by Daikin Applied



First Place Winner

ID 367 Motion and Time Study for Increasing Efficiency, Productivity, and Safety for an Unloading Facility

Matthew Lovelady, Nickolas Tramel and Tanner Funderburk, Industrial Engineering Technology Graduates, Department of Engineering Technology, Northwestern State University, Natchitoches, LA 71497, USA
Md. Shahriar J. Hossain and Nabin Sapkota, Department of Engineering Technology, Northwestern State University, Natchitoches, LA, USA



8th North American Conference on
**Industrial Engineering and
Operations Management**
Houston, Texas, USA, June 13-15, 2023
Host: Texas A&M Engineering Experiment Station
Institute of Manufacturing Systems (TEES-IMS)
Venue: Hilton University of Houston



**Industrial Engineering and
Operations Management
Society International**



Undergraduate Research Competition sponsored by Daikin Applied

2nd Place Winner

ID 322 Exam Scheduling Conflict Optimization

Ali Almaslami, Industrial Engineering Department, King Fahd
University of Petroleum and Minerals, Saudi Arabia

Mohammad Alsaad, Industrial Engineering Department, King Fahd
University of Petroleum and Minerals, Saudi Arabia

Abdullah Alqarne, Industrial Engineering Department, King Fahd
University of Petroleum and Minerals, Saudi Arabia



3rd Place Winner

ID 83 Injector Hat Redesign and Manufacturing, Optimizing the Design of a Supercharger Injector Hat

Nicholas T. White, Nicholas DuPont, Michael Walter, Johannis Brown, Edwin Diaz, Soesoe Aye, Mohammed Huda and Daris Monroy Castillo, Department of Mechanical Engineering Technology, Buffalo State University, Buffalo, NY, USA
Joshua Van Lew, Department of Electrical Engineering Technology, Smart Grid, Buffalo State University, Buffalo, NY, USA

Sterling J. Jones and Steven Phengsomphane, Department of Industrial Engineering Technology, Buffalo State University, Buffalo, NY, USA



1st Place Winner

ID 134 Application of lean manufacturing to increase productivity in the finishing area in an industrial rubber company

Daniela Milagros La Rosa – Castañeda and Edwar Marcelo Castillo – Carbajal, Bachelor of Industrial Engineering, Faculty of Engineering and Architecture, Universidad de Lima, Lima, Lima, Perú
 Ávalos Ortecho Edilberto Miguel, Professor, Faculty of Engineering and Architecture, Universidad de Lima, Lima, Lima, Perú



TOOLINGTECHGROUP

2nd Place Winner

ID 234 Application of Lean Manufacturing and TOC to increase productivity in a company in the hermetic windows sector
Erik Andrade Rozas, Giancarlo Robello Ponce and Edilberto Miguel Avalos-Ortecho, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Lima, Perú



TOOLINGTECHGROUP

3rd Place Winner

ID 292 Applying Lean Thinking to Improve Processes in the Trucking Industry

Abhiram Reddy Ramasahayam, Kuldeep Agarwal and Naim Islam, Department of Automotive and Manufacturing Engineering Technology

Minnesota State University, Mankato, MN 56001, United States

First Place Winner

ID 159 Convolutional Neural Network Architectures Analysis for Image Captioning

Jun Seung Woo and Shin Dong Ho, Student and Professor, MY PAUL SCHOOL, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea

Second Place Winner

ID 232 The Gendered World of Advertising: A Microeconomic Review

Alina Zhong

Stanford Online High School
Redwood City, CA 94063, USA

Third Place Winner

ID 207 Just be tobacco free

Rishi Kalikant Jha

High School student

Dadra Nagar Haveli & Daman Diu, India

First Place Winner

ID 200 Development of an Innovative Family Car Prototype through the use of IDeS method

Giacomo Mascitelli, Curzio Pagliari, Giulio Galiè, and Edoardo Pignatelli, Ph.D.

Students, Department of Industrial Engineering, Alma Mater Studiorum

University of Bologna, Bologna, BO 40136, Italy

Leonardo Frizziero, Senior Assistant Professor, Department of Industrial Engineering, Alma Mater Studiorum University of Bologna, Bologna, Italy



Powering Business Worldwide



2nd Place Winner

ID 84 A Feasibility Study of Carbon Capture and Storage in the United States

Louis Noel, Master of Engineering Management and Leadership, Rice Center for Engineering Leadership, Rice University, Houston, Texas, USA

Erick Danyi, P.E., Professional Master of Chemical Engineering, Department of Chemical Engineering, Rice University, Houston, Texas, USA

Edgar Avalos-Gauna, Ph. D., Faculty Lecturer, Researcher, Rice Center for Engineering Leadership, Department of Statistics, Rice University Houston, Texas, USA

3rd Place Winner

ID 202 Enhancing Operational Efficiency: A Study on Lean Manufacturing Implementation in Small and Medium-sized Enterprises

Hossein Soltani and Pawan Bhandari, Department of Manufacturing Engineering Technology, Minnesota State University, Mankato, MN 56001, United States



Powering Business Worldwide

4th Place Winner

ID 213 E-Delphi Prioritization of Capital Structure Determinants in Small and Medium Size Business in Puerto Rico

Karen Albor Medina, Graduate Student of Industrial Engineering,
University of Puerto Rico, Mayagüez, Puerto Rico

Mayra I. Méndez Piñero PhD., Professor of Industrial Engineering,
University of Puerto Rico, Mayagüez, Puerto Rico



Powering Business Worldwide

First Place Winner

ID 286 Enhancing Sustainable Competitiveness through Application of Kaizen Philosophy Practices in Ethiopian Manufacturing Industries

Haftu Hailu, Hailekiros Sibhato and Kinfe Tsegay, Industrial Engineering Department, Ethiopian Institute of Technology-Mekelle (EiT-M), Mekelle University, Mekelle, Tigray, Ethiopia

2nd Place Winner

ID 98 A Study on The Application Feasibility in The Steel Industry of Existing Maturity Models of Assessing Industry 4.0 Readiness

Alexandre Pimentel Sampaio, PhD Program of Dept. of Economics,

Management, Industrial Engineering & Tourism, University of Aveiro, Portugal

Ana Maria Pinto de Moura, GOVCOPP, University of Aveiro, Aveiro, Portugal

Ricardo Henriques Leal, Director of Innovation Agency (AGIR), University of

Federal Fluminense (UFF), Niterói, Brazil

First Place Winner

ID 5 Impact of Workload Balancing on the Sustainability of Processes in a Manufacturing Company

Arturo Realyvásquez-Vargas, Perla María Larrañaga, Karina Cecilia Arredondo-Soto, Guadalupe Hernández-Escobedo and Amalia Carmina Salinas-Hernández, Department of Industrial Engineering, Tecnológico Nacional de México/Instituto Tecnológico de Tijuana, Tijuana, Baja California, Mexico

2nd Place Winner

ID 190 A Spatial Analyze Approach for Determining the Best Possible Locations of Police Stations in Azaz

M. Radwan Mouket, Department of Industrial Engineering,
Gaziantep University, Gazianep, Turkey
Alptekin Durmuşoğlu, Department of Industrial Engineering,
Gaziantep University, Gazianep, Turkey

Third Place Winner

ID 63 Deep Reinforcement Learning in Optimal Policy Design for Maintenance and Outsourcing of Manufacturing Systems

Hao Wang and Dr. Changqing Cheng, Department of Systems Science and Industrial Engineering, Binghamton University, United States

Third Place Winner

ID 137 Spare Parts Sales Demand Forecasting Model using Seasonal Autoregressive Integrated Moving Average

Wahyu Wibowo Putro and Arian Dhini, Industrial Engineering Department, University of Indonesia, Depok, West Java, Indonesia

First Place Winner

ID 127 Improving Outbound Logistics in A Food Factory

Lara Alzain, Bashayer Alkhamisi and Aldana Basuni,

Department of Industrial Engineering, Faculty of Engineering,

King Abdulaziz University, Jeddah – Saudi Arabia

Dr. Ammar Y. Alqahtani, Associate Professor at Department of

Industrial Engineering, Faculty of Engineering, King Abdulaziz

University, Jeddah – Saudi Arabia



TOOLINGTECHGROUP

2nd Place Winner

ID 304 Design and Manufacturing of Front/Rear jack for Formula Student Competition

Zainb Alshammari, Dalal Alrashidi, Lamyaa Alharbi, Shahad Malek and Muneerah Shehab, College of Engineering and Technology, American University of the Middle East, Kuwait



TOOLINGTECHGROUP

3rd Place Winner

ID 324 "LRMTW: A Goal Programming-Based Reactive Model for Sustainable and Resilient Supply Chains in the Aftermath of Disasters"

Abdullah, King Fahd University of Petroleum and Minerals, Saudi Arabia



TOOLINGTECHGROUP

2nd Place Winner

ID 243 Time-delayed correlation of two time series through class-based forecasting: the Covid 19 case in Puerto Rico

Nanette R Xu-Cuevas, (UPRM, Industrial Engineering), Puerto Rico

Cristian D Rosario-Marcán,² (UPRM, Biology/Microbiology), Puerto Rico

Lemuel R Ríos Santiago, (UPRM, Industrial Engineering), Puerto Rico

Mauricio Cabrera Ríos, PhD., (UPRM, Industrial Engineering), Puerto Rico

Clara Eugenia Isaza, PhD⁵ (UPRM, Biology), Puerto Rico

Human Factors and Ergonomics Competition Sponsored by CINTAS

First Place Winner

ID 124 Flight Attendant Injury Prevention Via the Use of VR and Motion Tracking Techniques While Pushing and Pulling the Service Trolley

Ethan Swierski, Maria Arenas and Xiaoxu Ji, Biomedical
Engineering Department, Gannon University, Erie, PA,
16541, United States



Human Factors and Ergonomics Competition Sponsored by CINTAS

2nd Place Winner

ID 197 Correlational Analysis of Physical and Cognitive Workload Factors to Musculoskeletal Discomfort Experienced by Machine Operators in Semi-automated Hollowblock Manufacturing Sites

Roland Emerson Mabuting, Dominic F. Dastas, Sean Joseph
Z. Rabe, Dr. James Louie R. Meneses and Engr. Luzviminda
D. Sinapilo, College of Engineering, Manuel S. Enverga
University Foundation, Lucena City, Quezon, Philippines



CINTAS®

Human Factors and Ergonomics Competition Sponsored by CINTAS

3rd Place Winner

ID 268 Impact of Work Demand and Job Autonomy on Employee Sustainable Performance with Digital Leadership as Moderating Variable: A Proposed Framework

Eko Yulianto, Triaji Prio Pratomo, Zulkifli Zein and Lalu Supardin,
Doctoral Students, Faculty of Business and Economics, Islamic
University of Indonesia (UII), Yogyakarta, Indonesia



First Place Winner

ID 342 A Framework for Reverse Engineering Process for an Electronic Manufacturing Company: A Case Study

Basel Sultan and Daryl Santos, Thomas J. Watson College of Engineering and Applied Science, The State University of New York at Binghamton, Binghamton, NY 13902, USA

Michael Hsieh, Foxconn Industrial Internet, Houston, TX 77064, United States

2nd Place Winner

ID 76 Developing and Validating Mathematical Model for Electricity System Transition Planning

Varun Jyothiprakash, P Balachandra and Abhishek Das,
Department of Management Studies, Indian Institute of Science,
Bengaluru -560012, India
Samridh Sharma, Inter-Disciplinary Centre for Energy Research,
Indian Institute of Science, Bengaluru– 560012, India

3rd Place Winner

ID 65 Proposal to Improve the Reusable Urban Waste Management System in Santiago De Surco, Lima, Peru to Increase the Utilization of the District's Treatment Plant
Sebastián Alejandro Fernández Villafán, Lorena Alejandra Torres Bravo and Maria Ezilda Cabrera Grados, Industrial Engineering, Faculty of Engineering and Architecture, University of Lima, Lima, Peru

First Place Winner

ID 156 Evaluating the Efficiency and Learning Outcomes of a Technical Kardex Format in Industrial Training

Azucena Minerva García-León, Iván Guillermo González-Palomo and Carolina Solís-Peña, Professor, School of Chemical Science, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

2nd Place Winner

ID 80 Analysis of the Technological Maturity Level of Industrial Engineering Students

Daniela del Carmen Bacre-Guzmán, María de los Ángeles Martínez-Mercado, Azucena Minerva García-León and Nury Margarita Leal-Rendón

Professor, School of Chemical Science, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

3rd Place Winner

ID 78 Study of the Overall Equipment Effectiveness of a Cutting Process through a Digital Format

María de los Ángeles Martínez-Mercado, Azucena Minerva García-León, Daniela del Carmen Bacre-Guzmán and Elva Patricia Puente-Aguilar

Professor, School of Chemical Science, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

See you at

9th North American IEOM Conference Washington, DC, USA, June 4-6, 2023

Host and Venue: University of District of Columbia,
Washington, DC

www.leomsociety.org/washingtondc2024/

