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# **Organizer**



**Industrial Engineering and Operations Management Society International** 

# Welcome to the First IEOM Society Indian Industrial Engineering and Operations Management Conference, Bangalore, India

### To All Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to Sao Paulo, Brazil and the **First Indian Conference on Industrial Engineering and Operations Management**, August 16-18, 2021, hosted by AMRITA Vishwa Vidyapeetham University, Bangalore, India. This unique international conference provides a forum for academics, researchers and practitioners from many industries to exchange ideas and share recent developments in the fields of industrial engineering and operations management. This diverse international event provides an opportunity to collaborate and advance the theory and practice of major trends in industrial engineering and operations management. There were more than 250 papers/abstracts submitted from more than 30 countries, and after a thorough peer review process, approximately 170 have been accepted.

Our keynote speakers will address many of the issues concerning continuous improvement for quality and service.:

- Dr. Nagahanumaiah, Director, Central Manufacturing Technology Institute, An Autonomous R&D Institute under the Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, Govt. of India, Tumkur Road, Bengaluru
- Dr. Devdas Shetty, Dean, School of Engineering and Applied Sciences, University of the District of Columbia, Washington, DC
- Dr. Bala Bharadvaj, Globally recognized Aerospace Expert, Former MD of Boeing India Engineering & Technology Center, Advisor and Former President of SAEINDIA, Bangalore, India
- Prof. Prem Vrat, Pro-Chancellor, NorthCap University, Gurugram, Haryana, India
- Dr. Kapil Gupta, Associate Professor, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg- Republic of South Africa
- Dr. Neil G Murray Jr., DEMS, Engineering Manager at ZF and Adjunct Professor, Lawrence Technological University, MI, USA
- Jatinder (Jeet) N. D. Gupta, PhD, CFPIM, Director, Integrated Enterprise Lab, Eminent Scholar and Professor, College of Business, The University of Alabama in Huntsville, Huntsville, Alabama, USA
- · Ramanathan Narayanan, Managing Director and CEO, San Engineering, Bangalore, India
- Dumidu Ranaweera, CEMBB, Global Director APAC, Middle East, Oceania, Africa & Canada, Dr. Mikel J. Harry Six Sigma Management Institute Asia, Colombo, Sri Lanka
- Prof. Vikas Kumar, Director of Research and Scholarship and Professor of Operations and Supply Chain Management, Bristol Business School, University of the West of England, Bristol, UK - Zoom Room 1
- Wilkistar Otieno, Ph.D., Associate Professor and Chair, Industrial and Manufacturing Engineering, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, USA
- Venugopal G, General Manager and Head, Digital Advisory and Industry 4.0, Robert Bosch Engineering and Business Solutions, Bangalore, Karnataka, India
- Prof. Abid Haleem, Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi -110025, India
- Dr. S. Viswanathan, Professor of Operations Management and Associate Dean (Research), Nanyang Business School, Nanyang Technological University, Singapore

The 25th¹ IEOM Society Global Engineering Education session will feature distinguished speakers who will discuss the workforce readiness and engineering education challenges and opportunities. The 24th Industry Solutions and Industry 4.0 will showcase major topics including IoT, AI, data analytics, iCloud, cybersecurity, automation, digital manufacturing, MSV and best industry practices. Six panel sessions have been planned: Global Engineering Education, Supply Chain and Logistics, Lean Six Sigma, Women in Industry and Academia, Project Management and Diversity and Inclusion sponsored by Ford Motor Company.

The IEOM Society would like to express our deep appreciation to our sponsors, university partners, organization partners, exhibitors, authors, reviewers, keynote speakers, panelists, track chairs, advisors, the local committee and the many volunteers who have given so much of their time and talent to make this unique international conference an overwhelming successful event.

AMRITA Vishwa Vidyapeetham University Bangalore welcome all participants. The IEOM Society Conference Planning Committee hopes you will enjoy the virtual conference though we will miss Indian local hospitality.

Lastly, our sincere best wishes to you all for a successful conference.

### Enjoy the conference!



Dr. Shekar Babu Conference Chair Founding Head, AMRITA School of Business, AMRITA Vishwa Vidyapeetham University, Bangalore, India



Dr. Devdas Shetty Conference Co-Chair Dean of Engineering, University of the District of Columbia (UDC), Washington, DC, USA



Dr. V Vasu
Conference Co-Chair
Associate Professor, Dept. of
Mechanical Engineering, National
Institute of Technology (NIT),
Warangal, India



Prof. RRK Sharma Conference Co-Chair Professor in Industrial and Management Engineering, Indian Institute of Technology, Kanpur (IITK), India



Dr. Ahad Ali Conference Co-Chair Associate Professor and Director of Industrial Engineering Programs Lawrence Tech, MI, USA

# **Conference Program**

### Day 1 - August 16 (Monday)

- 7:45 am Welcome Keynote **Dr. Nagahanumaiah**, Director, Central Manufacturing Technology Institute, An Autonomous R&D Institute under the Departmentof Heavy Industry, Ministry of Heavy Industries & Public Enterprises, Govt. of India, Tumkur Road, Bengaluru
- 8:15 am Keynote Speaker I: **Dr. Devdas Shetty**, Dean, School of Engineering and Applied Sciences, University of the District of Columbia, Washington, DC, USA Zoom Meeting Room 1
- 9:00 am Keynote Speaker II: **Dr. Bala Bharadvaj**, Globally recognized Aerospace Expert, Former MD of Boeing India Engineering & Technology Center, Advisor and Former President of SAEINDIA, Bangalore, India - Zoom Meeting Room 1
- 9:40 am Keynote Speaker III: **Prof. Prem Vrat,** Pro-Chancellor, NorthCap University, Gurugram, Haryana, India and Professor of Eminence & Chief Mentor Zoom Meeting Room 1
- 10:20 am Keynote Speaker IV: **Dr. Kapil Gupta**, Associate Professor, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg-Republic of South Africa Zoom Meeting Room 1
- 11:00 am Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 12:45 pm 2:00 pm Lunch Break
- 2:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 4:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 6:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 8:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 930 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3

### Day 2 - August 17 (Tuesday)

- 7:45 am Welcome Keynote Dr. Shekar Babu
- 8:00 am Keynote Speaker V: **Dr. Neil G Murray Jr.**, DEMS, Engineering Manager at ZF and Adjunct Professor, Lawrence Technological University, Michigan, USA Zoom Meeting Room 1
- 8:40 am Keynote Speaker VI: **Jatinder (Jeet) N. D. Gupta, PhD**, CFPIM, Director, Integrated Enterprise Lab, Eminent Scholar and Professor, College of Business, The University of Alabama in Huntsville, Huntsville, Alabama, USA
- 9:20 am Keynote Speaker VII: **Ramanathan Narayanan**, Managing Director and CEO, San Engineering, Bangalore, India Zoom Meeting Room 1
- 10:00 am Keynote Speaker VIII: **Dumidu Ranaweera**, CEMBB, Global Director APAC, Middle East, Oceania, Africa & Canada, Dr. Mikel J. Harry Six Sigma Management Institute Asia, Colombo, Sri Lanka Zoom Meeting Room 1
- 10:40 am Keynote Speaker IX: Prof. Vikas Kumar, Director of Research and Scholarship and Professor of Operations and Supply Chain Management, Bristol Business School, University of the West of England, Bristol, UK - Zoom Room 1
- 11:30 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 1:00 pm Lunch Break
- 2:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 4:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 6:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 8:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 930 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3

### Day 3 - August 18 (Wednesday)

- 7:45 am Welcome Address AMRITA Dean
- 8:00 am Keynote Speaker X: **Wilkistar Otieno, Ph.D.**, Associate Professor and Chair, Industrial and Manufacturing Engineering, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, USA Zoom Meeting Room 1
- 8:40 am Keynote Speaker XI: **Venugopal G**, General Manager and Head, Digital Advisory and Industry 4.0, Robert Bosch Engineering and Business Solutions, Bangalore, Karnataka, India Zoom Meeting Room 1
- 9:20 am Keynote Speaker XII: **Prof. Abid Haleem**, Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi -110025, India Zoom Meeting Room 1
- 10:00 am Keynote Speaker XIII: **Dr. S. Viswanathan**, Professor of Operations Management and Associate Dean (Research), Nanyang Business School, Nanyang Technological University, Singapore Zoom Meeting Room 1
- 11:00 am Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 12:45 pm Lunch Break
- 2:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 3:30 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 5:00 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 6:30 pm Technical Presentations Zoom Meeting Rooms 1, 2 and 3
- 8:00 pm Conference Awards Ceremony

# **Keynote Speakers**

# Monday, August 16, 2021

Welcome Keynote: Monday, August 16, 2021, 7:45 - 8:00 am



Dr. Nagahanumaiah
Director
Central Manufacturing Technology Institute
An Autonomous R&D Institute under the Department of Heavy Industry, Ministry of Heavy Industries
& Public Enterprises, Govt. of India)
Tumkur Road, Bengaluru

Dr Nagahanumaiah has taken over charge as DIRECTOR of CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE (CMTI), Bengaluru, effective from 5thJuly 2018.

Dr. Nagahanumaiah, distinguished scientist has served CSIR-Central Mechanical Engineering Research Institute, Durgapur as "Chief Scientist & Head, Micro-Nano Systems Technology Group" for more than two decades.

He received PhD, from Indian Institute of Technology Bombay, Masters in Tool Engineering from Indo-Danish Tool Room, Bangalore and Bachelors in Mechanical Engineering from Bangalore University. He has 25 years of professional experience that includes 20 years in R&D, 3 years teaching and 2 years as a tool designer in industrial tool rooms.

He was the Nodal Officer, successfully implemented three major multi institutional network projects in Micro Machines & Smart Manufacturing areas.

He was also Principal Investigator in multi-institutional international projects likelndo-EU-FP7 & Indo-US project in related areas of micro-nano manufacturing. He has published 88 research papers, filed 4 patents and successfully demonstrated working prototypes of 3 micro machines. He has guided 3 PhD and 18 M.Tech students, currently 6 PhD scholars are working with him. He is a recipient of 'BOYSCAST Fellowship' and 'Raman Research Fellowship'. He is one of recipients of 'We Think for India' award from Prime Minister of India for the Indian Manufacturing Policy draft prepared in 2003. In 2017, he was awarded as a Distinguished Scientist by Venue International Foundation. He is a member of International Association of Engineers, UK & Member of International Institution for Micro manufacturing (I2M2), USA.

**Opening Keynote: Monday, August 16,** 2021, 8:15 – 9:00 am



Devdas Shetty Ph.D, PE Dean, School of Engineering and Applied Sciences University of the District of Columbia Washington, DC, USA

Dean Shetty joined University of the District of Columbia in 2012, having previously served as Dean of Engineering at Lawrence Technological University and Dean of Research at the University of Hartford. While with the University of Hartford, Dr. Shetty was first Chair of the Vernon D. Roosa Endowed Professorship. In addition, he was the Director of the Engineering Applications Center, through which he established partnerships with more than 50 Connecticut industries. During 2008 and 2009, Dr. Shetty served as Dean of the College of Engineering for Lawrence Technological University in Michigan. During that time, he initiated several new academic programs, established partnerships and contributed to curricular innovation. Prior to coming to Hartford, Dr. Shetty held academic positions at the Albert Nerkin School of Engineering at the Cooper Union for the Advancement of Science and Art in New York City. Dr. Shetty is the author of three books and more than 200 scientific articles and six patents. His books on Mechatronics and Product Design are widely used as a textbooks in many universities around the world. Dr. Shetty's research work has been cited for original contribution to the understanding of engineering surface measurement, for significant intellectual achievements in mechatronics and for contributions to product design. He is especially well-known for his contributions in establishing partnerships between the University and industries. He is the recipient of academic and research grants from organizations like National Science Foundation, Society of Manufacturing Engineers, US Army, Air force etc.

Dr. Shetty had been leading research efforts in a U.S. Army research project on Unmanned Aerial Vehicles. In partnership with Albert Einstein College of Medicine in New York, he invented the patented mechatronics process for supporting patients. Dr. Shetty has chaired several international conferences and presented keynote lectures. Major honors received by Prof. Shetty include James Frances Bent award for Creativity, the Edward S. Roth National Award for Manufacturing from the Society of Manufacturing Engineers, American Society of Mechanical Engineer Faculty Award, and Society of Manufacturing Engineers Honor award. He is an elected member of the Connecticut Academy of Science and Engineering.

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Keynote II: Monday, August 16, 2021, 9:00 – 9:40 am



Dr. Bala Bharadvaj Globally recognized Aerospace Expert Former MD of Boeing India Engineering & Technology Center Advisor and Former President of SAEINDIA Bangalore, India

A globally recognized Aerospace Expert with more than four decades of experience, Dr. Bharadvaj holds solid academic credentials in Aerospace Engineering and Management – B. Tech. from IIT Madras (India); M.S. & Ph.D. from Georgia Institute of Technology, Atlanta (USA), and an MBA from University of California, Irvine (USA).

During his distinguished career of 40+ years, operating from the US and India, Dr. Bharadvaj has excelled as a Researcher, Technologist, Systems Thinker, Strategic Planner, Program Manager, and Inspirational Leader. He has held numerous leadership positions at Boeing, retiring recently as the Managing Director of Boeing's India Engineering & Technology Center, the largest such Boeing Center outside the US.

Dr. Bharadvaj was also a member of the faculty of Aerospace & Mechanical Engineering at Boston University for several years and an Adjunct Professor at other universities for many years.

Dr. Bharadvaj has been recognized with several prestigious awards for his many contributions over the

years. Notable among them are:

- Team Excellence Award and Group Achievement Award from NASA (National Aeronautics & Space Administration) in the US.
- Quality Hero, Process Management Role Model, CEO Recognition, and Chairman's Safety Award from The Boeing Company.
- Awards and recognition from a broad array of organizations such as Sigma-Xi Scientific Research Society, Beta-Gamma Sigma Business Honor Society, American Society of Engineers of Indian Origin, Industrial Engineering & Operations Management Forum, and most recently an "Honorary Doctor of Science" from Hindustan Institute of Technology & Science, Chennai, India.

He has been an active member of AIAA (American Institute of Aeronautics & Astronautics). He was the President of SAEINDIA during 2018-20 and continues to be active as an Advisor. He plays an active part in the NASSCOM Engineering and R&D community. He is also an Invited Member of the Research Council of the National Aerospace Laboratories (part of the CSIR in India).

Dr. Bharadvaj is also an active writer and speaker at various Industry, Academic and Government forums, sharing his knowledge and experiences with a wide audience.

Keynote III: Monday, August 16, 2021, 9:40 am - 10:20 am



Prof. Prem Vrat
Pro-Chancellor
NorthCap University, Gurugram
Gurgaon, Haryana, India
Professor of Eminence & Chief Mentor

Professor Prem Vrat is the Chairman Board of Governors of Indian Institute of Technology (ISM) Dhanbad with additional charge as Chairman BOG of IIT Mandi. An outstanding academic, Prof. Prem Vrat, is the Pro-Chancellor; Professor of Eminence and Chief Mentor at The NorthCap University, Gurugram (formerly ITM University, Gurugram). Just prior to joining ITMU as the Vice-Chancellor, in September 2011, he was Professor of Eminence at the Management Development Institute (MDI), Gurugram. Prof. Vrat was Founder-Director, IIT Roorkee; Vice-Chancellor, U.P. Technical University, Lucknow (now known as APJAKTU, Lucknow); Professor, Head Centre for Management Studies, Coordinator Applied Systems Research Program, Dean, Dy. Director and Director (Officiating) at IIT Delhi; Professor and Division Chairman of Asian Institute of Technology, Bangkok. He is an Honorary Professor at IIT Delhi and Distinguished Adjunct Professor at AIT, Bangkok. He is

AICTE- Distinguished Chair Professor. He was Chairman, Board of Governors of WIT, Dehradun, a constituent institute of Uttrakhand Technical University. Prof. Prem Vrat was an Honorary Research Fellow at the Department of Engineering Production, University of Birmingham (U.K.) and as an International Visiting Fellow at University of Western Sydney, Australia. He has extensive experience of more than 52 years in teaching, research, management development and consultancy.

He has guided 47 PhD theses, 118 M.Tech and 65 B.Tech major projects on Industrial Application of Systems Approach and Management Science. He has published more than 502 research papers in reputed journals and proceedings of international and national conferences. His research papers have received more than 8204 citations with g-index of 88 and maximum citation of a paper as 1603 (as per google scholar). His research papers now get about 600 citations each year. He has authored/co-authored 7 books and completed five sponsored projects and 36 consultancy assignments. His book, 'Productivity Management: A System Approach' received awards from DMA as well as ISTD. His book, 'Materials Management: An Integrated Systems Approach' published by Springer is available worldwide both in print and e-book version. He is a Fellow of the Indian National Academy of Engineering, National Academy of Sciences India, World Academy of Productivity Sciences, ISTE and the IIIE. Recipient of multiple awards and recognitions, Professor Vrat was conferred Doctor of Engineering (Honoris Causa) by Bundelkhand University; Distinguished Alumnus Award by IIT Kharagpur; Distinguished Service Award by IIT Delhi; Outstanding Contribution Award for National Development by IIT Delhi Alumni Association, Uttaranchal Ratan Award; Lillian Gilbreth Award; Dr. CM Jacob Gold Medal and 15 Best Paper medals/ prizes. Prof. Prem Vrat was honored with the National Systems Gold Medal by the Systems Society of India (SSI), and Honorary Membership of IIIE, the highest recognition by IIIE. SAE India Foundation bestowed on him the 'Guru' Award for his outstanding contributions. He was conferred the 'Lifetime Achievement Award' at the 18th Annual International Conference of the Society of Operations Management at IIT Roorkee in December 2014. He received Dr. M.C Puri Memorial Award of ORSI for his outstanding contribution for promotion of Operational Research in India and Lifetime Achievement Award-2017 by the Indian Institution of Industrial Engineering for Outstanding contributions to the Industrial Engineering Profession and the Society. Re-Think India conferred on him the "Visionary Edu-leader of India" Award in December 2017 given by the former President Shri Pranab Mukherjee. He was conferred the Lifetime Achievement Award by Systems Society of India and Dayalbagh Educational Institute at DEI, Agra in March 2018. U.P Chief Minister felicitated him on the 26 July 2019 for his valuable contributions as Vice-Chancellor of UPTU, during his

He has been on the Board of Governors of many technical institutions and universities, on the editorial boards of many Indian and foreign journals. He was Chairman (NWRC)AICTE, Chairman, PIC of National Program on Earthquake Engineering Education (NPEEE); Chairman, Working Group on HRD in IT, Department of IT, Government of India; Member, JNU Court; Member of Ad hoc Task Force (ATF), Independent Director on the Board

of Air India; Co-Chair, RAC-DRDO, Member, Advisory Group of Experts for Technology Upgradation in Indian Railways, and Member, Executive Council of YMCA University and CUH, Haryana. He was Chairman, INAE Forum on Engineering Education, Member BOG of NITIE, and Member MOE Task Force on Engineering Education in Regional languages. He is a Member, Forum on Technology Foresight and Management of INAE, Member University Court, Central University of Haryana and Chairman, National Credit Framework by MOE.

Keynote IV: Monday, August 16, 2021, 10:20 - 11:00 am



Dr. KAPIL GUPTA
Associate Professor
Department of Mechanical and Industrial Engineering Technology
University of Johannesburg
Johannesburg- Republic of South Africa

"Industry 4.0 and Sustainable Manufacturing"

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing. He has ten years of professional experience in academic and research fields. Advanced machining processes, sustainable manufacturing, green machining, precision engineering, gear technology, and industry 4.0 are the areas of his interest. He has authored several SCI & Scopus Journal and International Conference articles. He has also authored and edited twenty international books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing, spark erosion machining, and sustainable manufacturing. He is serving on the editorial boards of the international journals and technical

committees of international conferences. He has delivered many keynote and distinguished speeches at international events. He is a Y rated researcher by National Research Foundation 'NRF' (Science Agency) of South Africa. He has secured funding from international agencies such as Royal Academy of Engineering (UK) and involved in national and international research projects. He has supervised more than 10 Masters and Doctoral students, and 3 Postdoctoral Research fellows.

# Tuesday, August 17, 2021

Conference Co-Chair Remarks: Tuesday, August 17, 2021, 7:45 - 8:00 am

Keynote V: Tuesday, August 17, 2021, 8:00 - 8:40 am



Dr. Neil G Murray Jr., DEMS Engineering Manager at ZF Adjunct Professor, Lawrence Technological University Michigan, USA

Dr. Neil Murray, a certified Six Sigma Master Black Belt, is currently an engineering manager in automotive safety electronics, responsible for the global development and industrialization of airbag control system crash sensors with ZF. He is an enthusiastic proponent of Design for Six Sigma tools which are widely employed in the development of these crash sensors.

Neil has forty years of engagement in the Industrial, Mechanical and Manufacturing Engineering with experience in rubber and plastics molding, electronic product assembly and process simulation. He believes that fundamentally, engineering is about solving interesting problems.

Dr. Murray is the author of *Witness Horizon 24 Simulation Modeling: Rational Process Design* which is available both as a Kindle ebook and as a more traditional print edition. He is also the co-author of two papers on simulation, Process Failure Mode Effect Analysis and Axiomatic Process Design. Dr. Murray is also the author or coauthor of several patents related to various aspects of crash sensors and sensor manufacturing processes.

Neil is a member of Society for Plastics Engineers and the Institute for Electrical and Electronic Engineers. He holds a Doctor of Engineering, Manufacturing Systems from Lawrence Technological University where he is currently Adjunct Professor for Industrial and Mechanical Engineering.

Keynote VI: Tuesday, August 17, 2021, 8:40 - 9:20 am



Jatinder (Jeet) N. D. Gupta, PhD, CFPIM Director, Integrated Enterprise Lab Eminent Scholar and Professor College of Business The University of Alabama in Huntsville Huntsville, Alabama, USA

Jatinder (Jeet) N. D. Gupta is currently the Director of Integrated Enterprise Lab, Eminent Scholar of Management of Technology, Professor of Information Systems, Industrial and Systems Engineering and Engineering Management at The University of Alabama in Huntsville, Alabama. In his career, He held several technical and managerial positions in the US Postal Service and Energy Information Administration where he received the superior job performance award. He received his PhD in Industrial Engineering from Texas Tech University, a M. Tech in Industrial Engineering and Operations Research from Indian Institute of Technology, Kharagpur, India and a B. E in Mechanical Engineering from Delhi University.

Dr. Gupta is an international authority in research and teaching related to production scheduling, planning and control on one hand and supply chain and information technology on the other. A recent paper published in the International Journal of Production Research (2015) ranks him as top 30th researcher in Production and Operations Management in the World.

Dr. Gupta is a frequent keynote speaker at various international conferences. He has published numerous papers in journals and proceedings such as: Journal of Scheduling, Journal of Logistics International Transactions in Operational Research, Information Management, Journal of Management Information Systems, Decision Sciences, Electronic Commerce Research, International Journal of Information Management, Supply Chain Management, Production and Operations Management, International Journal of Production Research, IIE Transactions, Operations Research, Mathematics of Operations Research, INFORMS Journal of Computing, Operations Research Letters, Annals of Operations Research, OMEGA, Journal of Operational Research Society, European Journal of Operational Research, Computers and Operations Research, and Production Planning and Control. Co-author of a textbook, he served as the North American Editor of the Journal of Flexible Systems Management and an editorial board member of various reputable national and international journals. He is currently serving as an Associate Editor of Decision Sciences and International Journal of Planning and Scheduling.

Dr. Gupta is an active participant in several professional and academic societies and had served as the President of the Production and Operations Society as well as the Decision Sciences Institute. He also served as the Founding President of the Indian Subcontinent Decision Sciences Institute. Editor of special issues and books, he received the Outstanding Research and Outstanding Faculty Awards from Ball State, the UAH Distinguished Research award and the UAH Foundation Research Award. In spring 2004, 2007, 2010, and 2013, 2020, and 2021 he received College's Outstanding Graduate Teaching and/or online Teaching Awards at UAH. In 2011, he received the Outstanding Service Award from UAH and Outstanding Business Person award from Beta Alpha Psi Society. At Ball State, he received Dean's teaching awards. In 2017, he received the Outstanding Faculty Award from UAH.

Keynote VII: Tuesday, August 17, 2021, 9:20 am - 10:00 am



Mr. Ramanathan Narayanan Managing Director and CEO San Engineering Bangalore, India

After receiving his "Honours degree in Mechanical Engg from Madras University in 1980, Ramanathan spent his early years in Tata Iron and Steel Company at Jamshedpur. He then moved over to the earthmoving equipment division of Hindustan Motors/Caterpillar in Chennai and spent 6 years there. Ramanthan then spent his next 19 years in Elgi Equipments at Coimbatore in varied roles that provided depth and breadth of experience in supply chain, manufacturing and marketing. Ramanathan as Vice President and Divisional Head of the automotive equipment business of ELGI was instrumental in taking the division to new heights. Before joining SAN, Ramanathan spent three years as CEO of ICIL, a joint venture between ICC of the US and Crompton Greaves. Besides his bachelors' degree in Engineering, Ramanathan has a Post Graduate diploma in management. He has also attended advance management programmes on strategic sourcing at IIM,

Ahmedabad, general management programmes at Amrita and from the University of Michigan. Ramanathan is a six sigma Black Belt and has also been trained as a lead accessor of quality systems by DNV. He is well versed on the ERP package BAAN and has been involved in implementation of TPM and lean manufacturing. An ardent lover of sports, especially cricket has won laurels for himself and his team at various levels of the game. He spends his spare time playing other games like shuttle, reading, listening to carnatic music, travelling and last but not the least, cooking.

Keynote VIII: Tuesday, August 17, 2021, 10:00 am - 10:40 am



Dumidu Ranaweera, CEMBB Global Director APAC, Middle East, Oceania, Africa & Canada Dr. Mikel J. Harry Six Sigma Management Institute Asia Colombo, Sri Lanka

One of the well-known resources in the field of "Lean Six Sigma" (referred to as the 'Lean Six Sigma Guru of Sri Lanka' by the print media) and "Organizational Excellence" in the region and has been personally endorsed by the principal architect of Six Sigma Dr Mikel J. Harry as one of the best resources available on "Six Sigma". He is featured frequently as a Keynote Speaker/ Chief Guest/Award Judge in many international and local conferences/forums (i.e. Japan, USA, Singapore, Australia, India, Bangladesh, Vietnam, Malaysia, Maldives, Netherlands, UAE etc.) and carries extensive expertise relating to Organizational Excellence & Lean Six Sigma.

During his illustrative career, Dumidu has been recognized by many industry forums and associations. These include 'Lean Six Sigma Coaching Excellence Medal' by Six Sigma Management Institute USA, Karmaveer Chakra Bronze & Silver Awards by REX in association with United Nations in 2017 & 2019, 'Business Leader

of the Year – Organizational Excellence & Lean Six Sigma' Award during Asia Business Leaders Awards, Business Leader of the Year years 2017 & 2019 at Sri Lanka Quality Leadership Awards, 'Hall of Fame Award' during Asia Training & Leadership Awards 2019 and in Sri Lanka Training & Leadership Awards in 2017, IT-BPO Young Outstanding Professional Sri Lanka Award 2007 from ICTA etc. He is also the first individual outside the USA to be awarded the 'Executive Master Black Belt (EMBB)' status by late Prof. Mikel J. Harry and was recently listed under the "101 Most Fabulous Global Training & Development Leaders" at the World Training and Development Congress in February 2020 and "101 Most Fabulous Training & Development Leaders in Sri Lanka" at the 15<sup>th</sup> Employer Branding Awards. Dumidu was also responsible in re-designing the first ever Quality Management Degree in Sri Lanka offered by SLIIT and currently works as an Advisor/ Consultant for three main Universities in Sri Lanka. In 2017, Dumidu also introduced Lean Six Sigma methodology to Maldives with HR Maldives.

Dumidu has guided over 300+ organizations, both manufacturing and services across 10 countries in their Organizational Excellence journey and known for his avid skills in Lean Six Sigma deployment and credentials in multiple business disciplines. During the past two decades, he has mentored over 500+ process excellence projects across various domains and trained over 20,000+ resources including over 500 Black Belts /Master Black Belts. He has also been responsible for award-winning Organizational Excellence & Lean Six Sigma deployment programmes and implementation of management systems in novel domains.

Apart from EMBB certification from SSMI, he also holds three Lean Six Sigma Master Black Belt certifications from BMG University, Indian Statistical Institute & Dialog Axiata, Black Belt certifications from ASQ & Motorola University and Lean Practitioner certification from BMGI. His other credentials include, MBA with Merit (USJ-PIM), BBA (Colombo), Diploma in Quality Management with Distinction (SLSI), ASQ CQE, ASQ CMQ/OE, ASQ CQA, Sri Lanka's 1st IASSC Accredited Training Associate, Lean Bronze, Lead Auditor ISO 9001 QMS, ISO 14001 EMS & ISO 27001 ISMS, Certified

**First India Conference** 

TPM Facilitator (CII, JIPM, TPM Club), PMP, PGDM (CIM-UK), ACMA (CIMA-UK), FCMA (CMA-SL), Senior member ASQ, Council member SLAAQP, HMM (Harvard) & NDHRM (IPM), etc. Dumidu is currently reading for his Doctorate in Business Administration.

Keynote IX: Tuesday, August 17, 2021, 10:40 – 11:20 am



Prof. Vikas Kumar
Director of Research and Scholarship
Professor of Operations and Supply Chain Management
Bristol Business School
University of the West of England, Bristol, UK

Prof. Vikas Kumar is Director of Research and Professor of Operations and Supply Chain Management at Bristol Business School, University of the West of England, UK. He serves on the editorial board of around six international journals including International J. of Supply Chain and Operations Resilience, Int. J. of Service, Economics, and Management and Int. J. of Manufacturing Systems. He has guest edited a number of special issues in high impact journals including J. of Information Technology (ABS 3\*), Supply Chain Management and Int. J. (ABS 3\*), Production, Planning & Control (ABS 3\*), Int. J. of Productivity and Performance Management (ABS 2\*), J. of Manufacturing Technology Management (ABS 1\*), In. J. of Engineering Management and Economics (IJSEM), Int. J. of Lean Enterprise Research (IJLER), and Int. J. of Lean Six Sigma (IJLSS). He is

also reviewer of more than 15 international journals including ABS 4/4\* and ABS 3\* journals such as Int. J Production Research (ABS3\*), Int. J of Production Economics (ABS3\*), Production Planning and Control (ABS3\*), Supply Chain Management an Int. J (ABS3\*), Expert Systems with Application (ABS3\*), Int. J of Production and Operations Management (ABS4), J of Intelligent Manufacturing Systems (ABS2\*) and Computers and Industrial Engineering (ABS2\*).

Prof. Kumar works very closely with industries and has generated research funding in the excess of £1 million from various research agencies such as Innovate UK, EPSRC, British Council, British Academy, Newton Fund, and Science Foundation of Ireland. He is currently working on two research projects funded by British Academy/Newton Fund and Royal Academy of Engineering that are focused on developing countries (Indonesia and Turkey). His research projects are in collaboration with researchers from a number of UK universities as well as researchers from Brazil, Vietnam, Thailand, Indonesia, Costa Rica and Turkey. Prof. Kumar's current research focus is on sustainable supply chain management and Supply Chain 4.0. His other research interests include supply chain improvement, short food supply chains, green supply chain, process modelling, innovation in SMEs, operations strategy, and service supply chains. He is involved in teaching a number of postgraduate and undergraduate modules on research methods, operations management and operations strategy. He is also actively involved in supervising research masters and doctoral students (PhDs).

## Wednesday, August 18, 2021

Conference Co-Chair Remarks: Wednesday, August 18, 2021, 7:45 - 8:00 am

Keynote X: Wednesday, August 18, 2021, 8:00 - 8:40 am



Wilkistar Otieno, Ph.D.
Associate Professor and Chair
Industrial and Manufacturing Engineering
Preparing Engineers and Computer Scientist NSF-STEM Scholarship Pl. & WiscAMP Faculty Mentor
University of Wisconsin-Milwaukee
Milwaukee, Wisconsin, USA

Wilkistar Otieno is an Associate Professor and Chair of Industrial and Manufacturing Engineering at the University of Wisconsin-Milwaukee. She holds a Doctoral degree in Industrial Engineering and Masters in Statistics degree both from the University of South Florida. She earned a Bachelor's degree in Mechanical and Production Engineering from, Moi University in Eldoret, Kenya. Her research interests include sustainable manufacturing (remanufacturing), sustainable energy (solar power generation systems performance analysis), sustainable water systems reliability and overall systems optimization. She is has interests in Science Technology Engineering and Math education, particularly for female and underrepresented minority students.

She is a member of IIE, IEEE, INFORMS, SWE and QSR.

**Keynote XI: Wednesday, August 18,** 2021, 8:40 – 9:20 am



Venugopal G General Manager and Head, Digital Advisory and Industry 4.0 Robert Bosch Engineering and Business Solutions Bangalore, Karnataka, India

### FRUGAL DIGITAL approach for Industry 4.0 transformation

Venugopal (Venu) is a Digital Advisory, Industry 4.0 and Management Consulting professional with over two decades of corporate experience in India, the US and Europe. He is currently working with Robert Bosch as General Manager – Digital Advisory & Industry 4.0. Prior to this, he worked with Infosys as the Global Head – Manufacturing Domain Consulting Practice. He earlier worked with Huhtamaki-PPL as Manager – Operations. Venu has presented and published papers in national and international industry forums and periodicals. He is also associated with various industry-academia initiatives. Venu is passionate about academics and institution building, and has been associated with B-Schools and Engineering Colleges for over 15+ years in capacities such as Visiting Faculty, Member – Board of Studies, external evaluator, career counselor etc. Venu is a Post

Graduate in Operations Management from S. P. Jain Institute of Management & Research, Mumbai, and a Mechanical Engineering Graduate from NIT, Jaipur. He is a Certified Fellow with American Production & Inventory Control Society, USA.

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Keynote XII: Wednesday, August 18, 2021, 9:20 am - 10:00 am



Prof. Abid Haleem
Professor, Department of Mechanical Engineering
Faculty of Engineering and Technology
Jamia Millia Islamia
New Delhi -110025, India

Dr Abid Haleem is a Professor of Mechanical Engineering, Jamia Millia Islamia (A Central University by an Act of Parliament) in New Delhi, India. He has been founding Honorary Director, Internal Quality Assurance Cell, of the University. Headed, Mechanical Engineering Department, and MBA (Evening) program at JMI. Dr Abid has also been an Honorary visiting Professor to IIT Delhi.

Presently he is Regional Editor, Global Journal of Flexible Systems Management, Springer, Associate editor with JCOT (Elsevier), and i-Scholar. Conferred with the fellowship of AGBA and has professional & life membership of IIIE, ISME, ISTE, GIFT, SCL, IICC, and ISC. Also, he served as President and Secretary to Global Institute of Flexible Systems

Management and AGBA. Attended 2019 Leadership Program (LEAP) of UGC MHRD at AMU & Ohio State University, USA.

With h index of 31 in google scholar (22 in SCOPUS) and more than 4000 citations has published more than 310 research articles of which more than 153 articles indexed in SCOPUS and three books to his credit. His latest book is "Handbook of Materials Management", published by Prentice

Hall of India, while the latest edited book is, "An update on Medical 3D Printing" from Solubris. Has more than 33 years of teaching and research experience at graduate & higher level and has produced more than 27 PhD.

Visited various academic institutions and industries in USA, UK, Singapore, Hong Kong, and Australia towards academic pursuits. Besides having consulting and arbitration experience, he also provides leadership in taking up different types of educational and allied programs in the field of Management & Technology.

He has undertaken consultancy work with DFID, Govt. of Odisha, Ed. CIL etc. Worked as a High Court-appointed arbitrator for the construction project at DIAC, Dew Delhi. He has also executed various research and support projects of DST, AICTE, and UGC, and completed FIST funding. He has been on the Board of Telecommunications Consultants India Ltd. as an Independent Director and advisor to DTDC Ltd. He has been a member of the Ad hoc Task Force (ATF) of Performance Management Group of Cabinet Secretariat of Govt. of India. It is on the advisory/research boards of various institutions and involved in multiple institutional activities related to policy planning, administration, accreditation, curriculum design, admission, evaluation & examination, and another educational process. His teaching & research areas include Technology Management, Supply Chain Management, Halal Supply Chain, Additive Manufacturing, Innovation, Sustainability, allied fields of Industrial Engg.

Keynote XIII: Wednesday, August 18, 2021, 10:00 – 10:40 am



Dr. S. Viswanathan
Professor of Operations Management and Associate Dean (Research)
Nanyang Business School
Nanyang Technological University, Singapore

Dr. S. Viswanathan (Vish) is a Professor of Operations Management at the Nanyang Business School, Nanyang Technological University, Singapore, where he has been a faculty member since 1992. He also serves as the Director of the Centre for Business Sustainability. He has assisted the school and university previously in varied service roles, including Associate Dean (Research), Head of the Academic Division of IT and Operations Management (ITOM), Director of PhD Programme, Programme Director of MBA (Technology & Operations Specialisation), Programme Director of MDP@Nanyang, Chairman of the IT Resources Group and as Cluster Director of the Energy Research Institute @ NTU (ERI@N).

Vish was a member of the team responsible for the curriculum design and redesign of the full-time MBA into a one-year MBA program. As Head of ITOM, he was involved in developing the initial curriculum for the MSc(Technology Management) segment of the Renaissance Engineering Programme. He was the founding Programme Director of the NTU-Waseda double MBA program and was involved in developing the curriculum for the NTU-Waseda double MBA and the MBA (Technology & Operations) curriculum. He was also involved in developing the curriculum for the Management Development Program @ NTU, as its Founding Programme Director. As Director/Associate Dean, he has overseen the PhD programme in the school for 9 years.

Vish obtained a Ph.D. in Operations Research with minor in Operations Management from Case Western Reserve University in 1992, MBA (Gold Medallist) from Indian Institute of Management Calcutta in 1986, and B.Tech (Mechanical Engineering) from Indian Institute of Technology Madras in 1984. Vish's teaching interests are in Corporate Sustainability, Sustainable Operations, Operations Management, Inventory Theory, Supply Chain & Logistics Management and Optimization. His research interests are in Inventory Management, Sustainable Operations & Supply Chains, Policies for regulating carbon emissions, Reverse Logistics & Remanufacturing, Transportation Scheduling & Timetabling, and Supply Chain & Service Operations.

His research has been published in Financial Times and Business Week ranked top tier Business journals such as Management Science, Operations Research, Production & Operations Management, and Journal of Operations Management and other top journals such as International Journal of Production Research, European Journal of Operational Research Logistics, IIE Transactions, Operations Research Letters, Journal of the Operational Research Society, International Journal of Production Economics, Integrated Manufacturing Systems, International Journal of Technology & Management, International Journal of Logistics, and International Journal of Physical Distribution & Logistics Management.

He is very active as a Senior Editor, Editorial Board Member, Guest Editor, or Associate Editor in several top journals such as Decision Sciences, Production & Operations Management, Journal of Operations Management, and International Journal of Production Research. He has made several appearances in Whos who in the World, Whos Who in Asia, Whos Who in Finance and Industry and Whos Who in Science and Engineering lists. He was awarded the prestigious Nanyang Award for Research Excellence in 2010.

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Dr. Abid Ali Khan, Department of Mechanical Engineering, Aligarh Muslim University, Aligarh

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# 25<sup>th</sup> IEOM Global Engineering Education DISTINGUISHED SPEAKERS

Global Engineering Education I
11:00 am – 12:40 pm, Monday, August 16 – Room 1
Session Chair:

11:00 am, Monday, August 16



Dr. Harwinder Singh Professor in Mechanical Engineering Department Guru Nanak Dev Engineering College, Ludhiana Punjab, India

Dr. Harwinder Singh is currently working as a Professor in ME Dept. at Guru Nanak Dev Engineering College, Ludhiana. He completed his Bachelors of Engg. in year 1997. He is a gold medalist in M.Tech completed in 1999 from PTU, Jalandhar. He also pursued MBA from IGNOU, Delhi in 2004. He completed his Ph.D from Punjabi University, Patiala in 2010.

He has a vast experience of 20 years in teaching and research field. He has been awarded with many awards like ISTE, New Delhi Best Teacher Award of Punjab State in year 2013, Dr. R L Aggarwal Award in Punjab Academy

of Sciences in year 2017, UGC Research Award for the Year 2014-16, Best Paper Award

He has published more than 200 research papers in various reputed national and international journals and conferences. He has coordinated 8 research projects of worth Rs. One crore and has been member of various technical societies. He has guided more than 50 students in their M.Tech thesis, 10 PhD and has published 7 books and monograms related to Mechanical Engg. Three copy rights have been awarded from Ministry of Commerce & Industry, Department of Industrial Policy and Promotion, New Delhi

He has attended more than 20 short term courses and delivered more than 50 expert lectures in various institutes. Presently he is looking after the duties of Coordinator TEQIP-III also.

11:20 am, Monday, August 16



Dr. Jayakrishna Kandasamy Associate Professor School of Mechanical Engineering Vellore Institute of Technology Vellore, Tamil Nadu, India

Dr. Jayakrishna is an Associate professor in the School of Mechanical Engineering at the Vellore Institute of Technology University, India. Dr. Jayakrishna's research is focused on the design and management of manufacturing systems and supply chains to enhance efficiency, productivity and sustainability performance. More recent research is in the area of developing tools and techniques to enable value creation through sustainable manufacturing, including methods to facilitate more sustainable product design for closed-loop material flow in industrial symbiotic setup, and developing sustainable products using hybrid bio composites. He has mentored

doctoral students, graduate and undergraduate students (1 Ph.D, 2 M.Tech Thesis and 31 B.Tech Thesis) which have so far led to 58 journal publications in leading SCI/ SCOPUS Indexed journals, 23 book chapters, and 89 refereed conference proceedings, 7 books in CRC/Springer Series. Jayakrishna's team has received numerous awards in recognition for the quality of the work that has been produced. He teaches undergraduate and graduate courses in the manufacturing and industrial systems area and his initiatives to improve teaching effectiveness have been recognized through national awards. He has also been awarded Institution of Engineers (India)-Young Engineer Award in 2019 and Distinguished Researcher Award in the field of Sustainable Systems Engineering in 2019 by International Institute of Organized Research, Best Faculty Researcher Award for the year(s) 2016-2020. Coordinator-Circular Economy Club, VIT University, Academic Editor – Mathematical Problems in Engineering, Wiley-Hindawi Publications and Editorial Board Member – Journal of Operational Research for Engineering Management Studies (JOREMS), Area Editor – Operations Management Research.

11:40 am, Monday, August 16



Dr. Manik Mahachandra
Assistant Professor
Industrial Engineering Department
Faculty of Engineering
Center for Biomechanics, Biomaterial, Biomechatronics, and Biosignal Processing
University of Diponegoro
Semarang, Central Java, Indonesia

Manik Mahachandra is an Assistant Professor in Industrial Engineering Department, Faculty of Engineering, Diponegoro University, Indonesia. She finished bachelor's degree in industrial engineering at Bandung Institute of Technology, Indonesia, master's degree in occupational health at Gadjah Mada University, Indonesia, and doctoral degree in industrial engineering and management at Bandung Institute of Technology, Indonesia. She has published journal and conference papers in industrial engineering, especially ergonomics and transportation safety. She is a member of Indonesian Ergonomics Association and secretary of Occupational Safety and Health Team of

Faculty of Engineering, Diponegoro University. Her research interests are ergonomics, occupational safety and health, transportation safety, and work organization.

12:00 pm, Monday, August 16



Dr. Aftab Alam
Prof Marketing
Centre of Management Studies
Jamia Millia Islamia
(A Central University, Govt of India)
New Delhi, India

Prof Aftab Alam is a Visiting Professor at CMS Jamia Millia Islamia for Executive MBA Program and Member Advisory Council of Harvard Business Review, USA. He has also served as Dean Faculty of Commerce and Management at Rama University Kanpur recently, its before he was also Dean FCM at Integral University, Luck now during (2013- 16), and MIMT Greater Noida (2006-2007). He has obtained his Masters, M. Com and M.Phil. from Aligarh Muslim University and has his MBA from Algappa University, Tamilnadu. In addition, he has his PG

Diploma in Travel & Tourism Management from FCI (Aligarh) Ministry of Tourism, Govt. Of India. For his higher education, he has completed his Ph.D. in Business Administration from Atlantic University Honolulu, USA.

He has been Conferred 21st Century Educational Leadership Awards 2018 and recognized as Acclaimed Educator, In addition he has also been conferred as the Distinguished Teacher in Management at MTC Management Excellence Award-2018 ceremony at Bangalore. He is also a recipient of Best Professor in Services Marketing at ICBM Conference Hyderabad on 24 Nov,2018 Further to seeing his credence in Dec 15, 2018 He was accorded 'Acclaimed Educator' and has been awarded by American Leadership Award, 2018.

He has substantial experience of Teaching in the Department of Business Management with specialization of Marketing at leading Business Schools of different Institutes and Universities India in (MDI ,Gurgaon, IAMT Ghaziabad, Mangalmay Institute of Management, Asia Pacific Institute of Management, Delhi, BIMTECH, Greater Noida, Bangalore University, Madras University, and King Abdul Aziz University Jeddah.) His overall performance has been well praised thoroughly and have been awarded continuously 5 years "Distinguished Faculty" during his stay in abroad. He is having his credits of several articles /Research papers published in national and international Journals, world-renowned International conferences proceedings etc.

12:20 pm, Monday, August 16

### Global Engineering Education II 2:00 – 3:40 pm, Monday, August 16 – Room 1 Session Chair:

2:00 pm, Monday, August 16



Dr. A.R.M. Harunur Rashid Associate Professor Department of Mechanical and Production Engineering Islamic University of Technology (IUT) Board Bazar, Gazipur 1704 Dhaka, Bangladesh

Dr. A R M Harunur Rashid is an Associate professor of Department of Mechanical and Production Engineering (MPE) at the Islamic University of Technology (IUT). He earned his Ph.D. from Dublin City University (DCU) and B.Sc. in Mechanical Engineering from Bangladesh University of Engineering and Technology (BUET). His research activities include the area of Ergonomics, Engineering Design, Management, Maintenance Engineering, Operations Research, Life Cycle Analysis and Renewable Energy. He is actively involved with the activities of IEOM Society and has been serving as the Honorary General Secretary of IEOM Society Bangladesh Chapter since 2016.

2:20 pm, Monday, August 16



Dr. Virupaxi Bagodi Principal Government Engineering College Talakal – 583238, India

Virupaxi Bagodi is currently serving as Principal, Government Engineering College, Talakal, India. He obtained bachelor degree in mechanical engineering from NITK, Surathkal and doctorate from IIT, Kharagpur. He is an alumnus of IIM Ahmedabad as well. He has guided 5 scholars successfully in obtaining PhD and has published more than 30 papers in national and international journals of repute. He is currently guiding 5 doctoral scholars. His areas of research interest include learning organisation, SMEs, service sector, and supply chain management.

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2:40 pm, Monday, August 16

Giselle Joy Esmeria
Assistant Professor
Department of Industrial Engineering
De La Salle University Manila – Laguna Campus
Philippines

Giselle Joy Esmeria is an Assistant Professor at the Department of Industrial Engineering of De La Salle University Manila – Laguna Campus. She holds a Bachelor of Science degree in Industrial Engineering from Mapua Institute of Technology and a Master of Engineering Management with specialization in systems management. She is a Certified Professional Industrial Engineer with more than 8 years experience in manufacturing industry. She has taught courses in quality management, statistics, production operations management and other related engineering and business courses. Her research interests include optimization, manufacturing and disaster management. She is a member of the Philippine Institute of Industrial Engineering and currently pursuing a degree in Doctor of Philosophy in Industrial Engineering at De La Salle University Manila, Philippines.

3:00 pm, Monday, August 16



### TENGKU SHAHRANIZA

TENGKU SHAHRANIZA graduated from University Kebangsaan Malaysia with a Bachelor of Education (Hons) in TESL and obtained her Master of Business Administration (MBA) from Multimedia University. She possesses more than 25 years of teaching, lecturing and training experience She has also been teaching English courses and camps for foundation, pre-diploma and diploma in colleges, matriculation centre and university like UiTM, UTM, UPM and MMU. Teaching local and international students are not foreign to her, for she has been educating students from Saudi Arabia, Yemen, Oman, Sudan, Nigeria, Botswana, Kazakhstan, Iran, Iraq and many other countries for the past 18 years. She is also an associate consultant for several organizations like News Straits Times and Mdea Consultants. She has been conducting corporate courses and training for many corporate clients as well as government agencies such as Telekom Malaysia, Nestle, Bursa Malaysia, Guthrie, Golden Hope Plantation, United Engineers Malaysia, Airod, Kontena National, Tenaga Nasional, Royal Malaysian Police, Risda, Royal Malaysian Navy and Perbadanan Kemajuan Kraftangan Malaysia. She loves doing research, and her special interest is in Communication, Education and Management. She edited many masters and PhD thesis and dissertation. Her

series of books entitled Traces Alpha 1 have been used in Multimedia University and other higher learning institutions.

3:20 pm, Monday, August 16



Dr. Arshad Noor Siddiquee Professor Department of Mechanical Engineering Jamia Millia Islamia New Delhi, India

Arshad Noor Siddiquee received his Master and Ph.D. degree in Production Engineering from the Department of Mechanical Engineering, Indian Institute of Technology Delhi, New Delhi, India. He is currently a Professor of mechanical engineering in the Department of Mechanical Engineering, Jamia Millia Islamia, New Delhi, India. His broad research is Production Engineering and specific areas include Friction Stir Processing & Welding, Materials Development and structure property correlation. He currently handles the Centre for Innovation and Entrepreneurship and is a key contributor to the draft Start-up Policy of Jamia Millia Islamia. He has supervised

several PhDs and has published more than 125 SCI research publications and a number of books. He was invited as a visiting Professor at Advanced Manufacturing Institute, King Saud University (KSU), KSA. Alongside KSU he has also developed internation active working cooperation with Wenzhou University and Samara National Research University.

2:45 pm - BREAK

Global Engineering Education III 4:00 – 5:40 pm, Monday, August 16 – Room 1 Session Chair:

4:00 pm, Monday, August 16

Dr. Callychurn Devkumar Sing
Head of Department
Head of Department MPED
Mechanical and Production Engineering Department (MPED)
Faculty of Engineering
University of Mauritius
Mauritus

4:20 pm, Monday, August 16

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Dr. Olufemi Adetunji Associate Professor Department of Industrial and Systems Engineering University of Pretoria Pretoria, South Africa

Dr. Olufemi Adetunji is a Senior Lecturer in the department of Industrial and Systems Engineering at the University of Pretoria, Pretoria, South Africa. He earned his Bachelors in Agricultural Engineering and his Masters in Industrial and Production Engineering from the University of Ibadan Nigeria. He also had a Post Graduate Diploma in Computer Science from the University of the Witwatersrand, Johannesburg, and his doctorate in Industrial and Systems Engineering from the University of Pretoria, Pretoria, both in South Africa. He is professionally certified in SCOR-P by the Supply Chain Council, certified in CPIM and CSCP by APICS, certified in SAP ERP systems by SAP, and has a green belt in lean six sigma. He has published several journal and conference papers. Dr. Adetunji has also conducted research and process improvement projects in diverse industries including Finance, Education, Manufacturing and Information Systems. His teaching and research interest is in the application of models to the design and operation of Manufacturing Planning Systems and Supply Chain Engineering.

4:40 pm, Monday, August 16

5:00 pm, Monday, August 16



Engr. Dr Adekunle Ibrahim MUSA Lecturer and the immediate past Head Department of Mechanical Engineering Moshood Abiola Polytechnic Abeokuta, Nigeria

Engr. Dr Adekunle Ibrahim MUSA a lecturer and the immediate past Head of the Department of Mechanical Engineering of the Moshood Abiola Polytechnic, Abeokuta, Nigeria. He obtained a B.Eng (Hons) degree in Mechanical Engineering from the Ekiti State University, Ado Ekiti, Nigeria (formally University of Ado-Ekiti and Ondo State University, Ado – Ekiti respectively) in 1997; M.Eng (Mechanical) and PhD (Industrial) degree at the Federal University of Agriculture, Abeokuta, Nigeria in 2011 and 2016 respectively. His research interests are in the areas of Ergonomics and Human Factors, Mechatronics, Safety and Environmental Engineering. He has published a number of articles in reputable national and off – shore journals and attended conferences both locally and outside the shore of Nigeria.

Engr. Dr Adekunle Musa is a member of notable professional bodies which includes Council for the Regulation of Engineering in Nigeria (COREN), International Association of Engineers (IAENG), Nigerian Society of Engineers (NSE) and Fellow of the Nigerian Institution of Mechanical Engineers (FNIMechE) respectively. He has eight years (8) of practical experience having worked as a Mechanical Engineer in the Works and Services Department of Federal University of Agriculture Abeokuta Nigeria (FUNAAB) and over eleven (11) years of teaching, research and administrative experience in Nigerian Polytechnic.

5:20 pm, Monday, August 16



Dr. M. Manzoor Hussain Registrar Jawaharlal Nehru Technological University Hyderabad, India Professor in Mechanical Engineering Department

Dr. M. Manzoor Hussain is presently Registrar of Jawaharlal Nehru Technological University, Hyderabad and Professor in Mechanical Engineering Department. Earlier he has served as Director of Admissions for three years. He also served as the founder principal and established one of constituent colleges of JNTUH at Sultanpur, Sangareddy District. He was the chairman of Board of Studies of JNTU in Mechatronics Engineering and Automobile Engineering. He has guided over 50 post graduate thesis and supervised 21 PhD scholars and currently 7 research scholars are working under his supervision. His areas of research include composite materials,

manufacturing, additive manufacturing, welding and industrial engineering. He has over 26 years of experience in teaching and administration in various capacities as officer-in-charge, special officer and member of various expert committees of University and AICTE. He has organised various workshops, short term programs and conferences in the university. He also worked in Ethopia for two years as Head of Manufacturing in Defence Engineering College. He has published over 65 papers in peer reviewed journals and National and International conferences, and has visited countries like Kuwait, Thailand, Germany and Australia for conferences. He was awarded the best teacher award by Telangana State Government in the year 2016. He was the co-convener for EAMCET for three years and Convener for one year.

5:45 pm - Break

Global Engineering Education IV 6:00 – 7:40 pm, Monday, August 16 – Room 1 Session Chair:

6:00 pm, Monday, August 16



Dr. S.S. Hebbal Principal of PDA College of Engineering Kalaburagi, Karnataka, India

Dr. S.S. Hebbal, currently working as Principal of PDA College of Engineering Kalaburagi, Karnataka state India, a 63 years old Autonomous and Government Aided college. He completed his B.E in Industrial and Production Engineering in October, 1985, from PDA college of engineering Kalaburagi, M. Tech. from ITT Mumbai in February 1990 and PhD from ITT Roorkee in July 2004.

He is having a teaching experience of 35 years of which research experience is of 16years. In July 2005 he became Professor of Industrial and Production Engineering department. Earlier, he worked as Head of the Department and then as Dean Academic.

12 Research Scholars have been awarded PhD under his supervision and currently Guiding 5 Candidates for PhD. Published 81 papers in International Journals and Conferences. As principal of the college recently he guided five departments of the college to get Accreditation by NBA New Delhi as per Washington Award.

6:20 pm, Monday, August 16



Dr. Michael Mutingi Associate Professor – Industrial Engineering Namibia University of Science & Technology Windhoek, Namibia

Michael Mutingi is a Associate Professor and Coordinator of the Master of Industrial Engineering at the Namibia University of Science and Technology, Namibia. He is also a Senior Visiting Research Associate at the University of Johannesburg, South Africa. He obtained his PhD in Engineering Management from the University of Johannesburg, South Africa. He also holds a MEng and a BEng in Industrial Engineering from the National University of Science and Technology, Zimbabwe, where he served as a Research Fellow and a Lecturer in Industrial Engineering. Michael Mutingi also served as a Research Associate at the National University of Singapore, Singapore, and a Lecturer at the University of Botswana, Botswana. His research interests include fuzzy multi-criteria decision making, simulation, optimization, scheduling, healthcare operations, logistics, and lean. He has published two books with Springer and Taylor & Francis, and more than 95 articles in international journals and conference proceedings. He is a member of the South African Institute of Industrial Engineering (SAIIE) and the

International Association of Engineers (IAENG).

6:40 pm, Monday, August 16



Robert Bordley
Professor of Engineering Practice and Program Director, Systems Engineering and Design
Department of Industrial and Operations Engineering
University of Michigan
Ann Arbor, MI, USA

Robert F. Bordley is Professor of Engineering Practice at the University of Michigan, Ann Arbor and Director of their Systems Engineering and Design Program. He has published ninety articles in management science, operations research, marketing, decision analysis, systems engineering and economics. Bob is a Fellow of the Institute for Operations Research and Management Science, a Fellow of the American Statistical Association, a Fellow of the Society for Decision Professionals and winner of the Decision Analysis Society best publication award. Bob formerly

worked at General Motors for more than 30 years as Technical Director and later Technical Fellow. At General Motors, Bob received the Chairman's Award, the President's Council Award, the Engineering Award for Outstanding Design and the GM Research Award of Excellence. Bob was also a manager at Booz-Allen-Hamilton, a defense contractor, for six years. Finally he was Program Director of Decision, Risk and Management Sciences at the National Science Foundation.

7:00 pm, Monday, August 16



José Carlos Sá
Adjunct Professor
Course Subdirector
Mechanical Engineering Department – Sub-Area of Industrial Engineering and Management
Superior Institute of Engineering of Porto
Porto, Portugal

José Carlos Sá is MSc in Industrial Engineering and Bachelor Degree in Production Engineering, both by University of Minho, Portugal. In 2015 he awarded the title of Specialist in Quality Management, by Polytechnic Institute of Viana do Castelo, Portugal. He is Auxiliar Professor and Lean Six Sigma Post-graduation Coordinator at the School of Engineering, Polytechnic of Porto (Portugal). He taught in Higher Education since 2005. He has made several presentations at various national and international congresses and he has more than 40 papers (ISI+SCOPUS) published on quality management, continuous improvement, safety and lean six sigma. He was consultant from

2004 to 2020, in several companies, in the areas of safety management, quality management, Lean Six Sigma and industrial management. In 2015, José Carlos became a "Senior Member" of the Portuguese Engineer Association.

7:20 pm, Monday, August 16



Prof. Avinash Sambrani Associate Professor and Head Department of Industrial and Production Engineering PDA College of Engineering, Kalaburagi

Prof. Avinash Sambrani, Associate Professor and Head of Department of Industrial and Production Engineering, PDA College of Engineering, Kalaburagi. An Engineering Graduate in Industrial and Production Engineering from Gulbarga University and Post Graduate in Industrial Engineering & Operations Research from IIT Bombay. He has over 34 years of teaching experience. Passionate about Teaching Operations Research and Industrial Engineering.

He had an additional responsibility as Training & Placement Officer in the institute and was instrumental in bringing many reputed companies to the campus for placements. He also served as a soft skills trainer and also as entrepreneurial skills trainer. He is a regular resource person on entrepreneurial training, quality management and productivity improvement techniques to small scale industries under District Industries Centre. He was also a visiting faculty to Gulbarga University, Visvesvaraya Technological University Campus for MBA program.

Prof.Avinash Sambrani was instrumental in getting accreditation from NBA for the department three times, and served in various NBA committees. He has rich experience in the academic and examination system reforms, having worked as Board of Studies Chairman and also in Board of Examinations. He has published several papers in National and International Conferences and research interests include Operations Management, OR, Industrial Engineering.

7:40 pm, Monday, August 16



Dr. Satish Vadlamani Sr. Mgr. Supply Chain Analytics Kenco Group Chattanooga, Tennessee, USA

Satish Vadlamani is a Sr. Mgr. Supply Chain Analytics at Kenco Group, Chattanooga, TN ,USA. He earned B.Tech. in Electronics and Communications Engineering, India. A Masters and Ph.D. in Industrial and Systems Engineering from Mississippi State University, USA. Before joining Kenco, Dr. Vadlamani worked at other global supply chain companies like APLL and XPO.

Dr. Vadlamani has passion for applying operations research, machine learning (ML) and artificial (Al) intelligence to solve complex supply chain problems. Dr. Vadlamani has seven years of experience applying ML and Al for problem solving.

Dr. Vadlamani has published at multiple journals and conferences and teaches data science and analytics to people around the globe. His research interests include networks, wireless sensor networks, wireless ad-hoc networks, supply chain networks, network interdiction, location problems, transportation, and meta-heuristics.

Dr. Vadlamani has been an invited speaker at various colleges, universities, and other professional organizations across the globe. He is a member of IEOM, INFORMS and IISE.

# Global Engineering Education - V: CATME Workshop – Managing Student Teams

9:00 - 10:30 pm, Tuesday, August 16 - Room 1



Matthew W. Ohland, Ph.D., F.ASEE, F.IEEE, F.AAAS
Dale and Suzi Gallagher Professor
School of Engineering Education
Purdue University
West Lafayette, Indiana, USA

Dr. Matthew Ohland is the Dale and Suzi Gallagher Professor of Engineering Education at Purdue University. He is a fellow of the American Society of Engineering Education, IEEE, and the American Association for the Advancement of Science. Along with his research partners, he was recognized for his work on longitudinal studies of engineering students with best paper awards in the Journal of Engineering Education in 2008, 2011, and 2019 and in the IEEE Transactions on Education in 2011 and 2015 in addition to best paper awards at multiple conferences. The CATME Team Tools software for team formation and peer evaluation developed under Dr. Ohland's leadership has also received various awards and has been used by over 1,650,000 students worldwide. He received the Charles B. Murphy Award, Purdue University's highest teaching recognition, in 2015. Dr. Ohland previously served as Associate Professor of General Engineering at Clemson University, Assistant Director of the

NSF-sponsored SUCCEED Engineering Education Coalition and an NSF Postdoctoral Fellow for Science, Mathematics, Engineering, and Technology Education. Dr. Ohland has a Ph.D. in Civil Engineering from the University of Florida. Previously, he earned an M.S. in Materials Engineering and an M.S. in Mechanical Engineering in 1991 from Rensselaer Polytechnic Institute and a B.S. in Engineering and a B.A. in Religion from Swarthmore College.

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# **Submissions and Participants from Countries and Territories**

1.	Australia	10. India	19. Oman	28. Taiwan
2.	Bangladesh	11. Indonesia	20. Pakistan	29. Thailand
3.	Brazil	12. Japan	21. Peru	30. Turkey
4.	Canada	13. Malaysia	22. Philippines	31. United Arab
5.	Chile	14. Mauritius	23. Portugal	Emirates
6.	Colombia	15. Mexico	24. Qatar	32. Ukraine
7.	Ecuador	16. Morocco	25. Saudi Arabia	<ol><li>United Kingdom</li></ol>
8.	Egypt	17. Namibia	26. South Africa	<ol><li>34. United States</li></ol>
9.	Germany	18. Nigeria	27. Sri Lanka	35. Zimbabwe

# 24th Industry Solutions and Industry 4.0

## **Distinguished Speakers**

Industry Solutions / Industry 4.0 I 13:00 am – 1:00 pm, Tuesday, August 17 – Room 1 Session Chair:

11:30 am, Tuesday, August 17

Sanjiv Narula Phd Scholar Industry 4.0(BMU) and Dy. General Manager Quality Excellence Hero Motocorp Gurgaon, Haryana, India

11:50 am, Tuesday, August 17



Mohammed Iqbal Program Manager Lam Research India Bengaluru, Karnataka, India

Mohammed Iqbal is a Certified Lean Six Sigma Green Belt with 15+ years of Global Experience in driving Operations/Supply Chain Excellence, Manufacturing, Sales & Engineering processes. Strong Portfolio of achievement that includes dollar savings, developing strong Lean Six Sigma Culture, establishing processes & significant improvement in Customer, Cash, Cost, and Care. Mohammed Iqbal obtained B. Tech in Industrial & Production Engineering from Visvesvaraya Technological University, Belgaum and PGD in SCM from Symbiosis. He has Lean Six Sigma GB from Indian Statistical Institute, Bangalore. He is Mentoring and Coaching in Six Sigma, Lean methodology & Project Management.

Mohammed Iqbal started his career as Project Manager-Robert Bosch Automotive Electronic India Pvt. Ltd and was responsible for Product, machine, knowledge transfer & Technology transfer from Bosch Australia to Bosch India over a span of 2 years. Later he joined ABB India as Senior Consultant – ICG. He handled the responsibility to drive Group/ BU /PG & value chain strategies in all divisions spanning across core Manufacturing Operations, Project Businesses, and Supply Chain processes to secure sustained performance and mitigate any risks involved w.r.t Quality, Cost & Delivery parameters. He also conducted several Trainings and workshops on 4Q, Six Sigma, Inventory Management, Lean Topics across IMEA and EU region.

Presently he is working with Lam Research India as Program Manager. His responsibilities include leading various projects for implement RPA technology in the area of order fulfillment. He is also involved in Driving Learning Management System & Knowledge Management System project for Global Spares Organisation.

12:10 pm, Tuesday, August 17



Balbir Singh Khera Chief Executive Officer BuidTrack Mumbai, India

Balbir Singh Khera is a veteran entrepreneur with 18+years of experience in IoT based hardware and software start—ups. He founded Surmount Energy Solutions in 2008 and is a pioneer of green technology and the Make-in-India concept even before it came into political vogue. Khera's introduction of the BuildTrack range of smart automation IoT products in 2010 has simplified the implementation of energy efficiency and automation in industrial segment and in built spaces across the world. He holds an MBA (Finance) from Mumbai University and M.Tech from Indian Institute of Technology.

12:30 pm, Tuesday, August 17



Dr. Akhilesh Kumar Associate Professor Department of Industrial & Systems Engineering Indian Institute of Technology, Kharagpur West Bengal, India

Dr. Akhilesh Kumar is currently working as an Associate Professor in the Department of Industrial & Systems Engineering at Indian Institute of Technology, Kharagpur. Previously, he worked as a Solution Architect in consulting team at JDA Software, Bangalore. He received his B.Tech degree in Manufacturing Engineering from NIFFT (India) and Ph.D. degree in Industrial Engineering from Wayne State University (U.S.A.) in the year 2005

NIFFT (India) and Ph.D. degree in Industrial Engineering from Wayne State University (U.S.A.) in the year 2005 and 2011, respectively. He has authored several technical papers. His publications appeared in such journals as International Journal of Production

Economics, European Journal of Operational Research, Expert System with Applications, IEEE. He is team lead for IoT in predictive maintenance project with SAMARTH Udyog Bharat 4.0, A Govt. of India Initiative on Industry 4.0.. He has carried out various research and consultancy projects with Cisco, Shell, Tata Sons, Tata Metaliks, Tata Hitachi, TM International Logistics Ltd., DHI Govt. of India, European Union, Ford Motor Company and Delphi Automotive LLP. His teaching interests include non-linear programming, multivariate statistical models, generalized linear models, machine learning and data analytics. He has authored various courses, lectures and workshops on applied machine learning and data analytics at IIT Kharagpur, other premier institutes and companies such as NXP Semiconductor, ZS Associates, CDAC, JDA, Tata Hitachi, HAL, McNally Bharat. Dr. Kumar is recipient of Faculty Excellence Award 2020 at IIT Kharagpur.

### Industry Solutions / Industry 4.0 II 2:00 – 3:40 pm, Tuesday, August 17 – Room 1 Session Chair: Farhan Mirza

2:00 pm, Tuesday, August 17

Dina Nurul Fitria Principal Amina Research & Business Consulting Jakarta, 12190, Indonesia

Dr. Dina Nurul Fitria is Principal of Amina Research & Business Consulting also lecturing Introduction to Economics and Advanced Mathematics of Economics holds CSCA®, CRP®. Dr. Dina is actively conducting research also has many of scientific and popular publications in areas of discipline agricultural price transmission, the industrial organization to maintain value propositions as well as public policy. Her data science skill established in quantitative & qualitative data.

2:20 pm, Tuesday, August 17



Dr. Eng. Carlo Bonato
Lean Manufacturing Senior Expert – Supply Chain Management Senior Expert- Six Sigma Senior Expert
Productility srl
Monza e Brianza, Lombardy, Italy

Dr. Eng. Carlo BONATO is a results-driven professional leveraging in-depth knowledge with 28+ years of continuing recognition for being an effective production and manufacturing leader. Solid organizational, communication and time management skills. Proven record of success in bridging the gap between technical and non-technical personnel.

His consultancy practice focuses on the needs of business performance improvement in emerging and/or highgrowth companies engaged in lean organization implementation, supply chain optimization, and the fast ness improvement strategies. Experienced in lean manufacturing, change management, supply chain management,

implementation of core business improvement strategies. Experienced in lean manufacturing, change management, supply chain management, business performance optimization, programme/project management, and operations management.

Dr. Carlo has an extensive background in the automotive industry, having managed production, product development and systems engineering, new plant start-up, investment plans, validation/testing, suppliers' qualifications and alliance for international joint-ventures.

His automotive knowledge covers all automotive technologies: foundry, machining, stamping, painting, assembly lines, testing, after sales. Further specialization includes quality and cost system improvement and joint-venture formations through strategic suppliers. Additionally, he has experience with business assessment, investment evaluation/consolidation, and troubleshooting manufacturing processes with extensive international work experience. His additional expertise includes the development of global engineering organizations and processes with product and manufacturing engineers, including strategic suppliers' involvement.

In Ferrari, he managed a cross-functional execution F360 team responsible for cost, quality and timely delivery of the high tech F360 car, the first car made completely of aluminum in Ferrari. Led business plan execution, project approval process, component supplier selection, manufacturing joint-venture formation with partner company based in USA and Germany and overall product development. Implemented all subsequent annual model year upgrade programs with increased performance and tightened emission requirements. Used common program management tools and developed unique processes for product and process change management with joint-venture manufacturing company. Led problem solving teams and product/process cost reduction programs. I was responsible for divestiture of past model in-house car program including engineering, component supplier selection and manufacturing.

Carlo managed Teams of 25+ and direct workforce of 730+- Automotive International Exposure – Recognized for Exemplary Performance – Startup & Turnaround Experience – Excellent Teambuilding Skills – Union & Non-Union Experience – Facilitator & Trainer – Lean Manager. His professional experiences

- Productility srl Director and Management Consultant, 2001 present
- EBRD Team Coordinator, 2019 present
- EBRD Senior Industrial Advisor, 2007 2019
- i2 Technologies S.r.l., Milan, Italy, 1999 2001
- Programme Manager EMEA Group South Europe Area
- FERRARI S.p.A. Maranello (MO) Italy, 1993 1999

### Education

- Degree in Mechanical Engineering 1990
  - Technical Automotive Association Diploma 1990 Turin, Italy
- Master ISVOR Fiat in Automotive Industry 1991 Turin, Italy
- Certified Professional Engineer of the Italian Republic 1991

2:40 pm, Tuesday, August 17

Mukul Bansal Operational Excellence Lead Lupin India Delhi, India

3:00 pm, Tuesday, August 17

3:20 pm, Tuesday, August 17



Farhan Mirza
President
BAFF Consultants Inc.
Orange County, California, United States

Farhan Mirza specializes in building corporate value, sustainability and profitability through synergy and continuous improvement. Farhan has almost 25 years of manufacturing industry experience, spanning across automotive, renewable energy, industrial and consumer goods. Farhan has lived and worked in 7 countries spanning across North America, Europe, Middle East and Asia Pacific. He is a subject matter expert on applying the synergies across regions, supplier footprint optimization, executing world class costing and sourcing strategies and building cohesive, empowered multinational, multicultural teams globally. Presently core areas of focus are entrepreneurship, operational due diligence, supply chain optimization, investment in innovative businesses and mentoring startups.

Farhan holds a Bachelor of Mechanical Engineering Degree from Osmania University, Hyderabad, India and Master of Science Degree in Industrial Engineering from Wayne State University, Detroit, Michigan, USA. He is also Six Sigma Black Belt certified and a Shainin Certified RED X Journeyman.

### Industry Solutions / Industry 4.0 III 4:00 – 8:00 pm, Tuesday, August 17 – Room 1 Session Chair: Satya Saurabh Khosla

4:00 pm, Tuesday, August 17



Satya Saurabh Khosla
Owner and Managing Director
Adimode Transnational Trading LLC
Dubai, UAE

Satya Saurabh Khosla was a joint venture partner of Suzuki Motorcycle (Pvt) Ltd was Vice Chairman of the company till he sold his stake before the recession in 2008. He predicted the 2008 global economic recession in an article that was published a few days before the USA and global stock indices started falling. This article stated that USA Housing, excessive misuse of derivatives etc. will lead the global economy to a recession. The article's mathematical calculation showed that the pain would become evident to all after December 2007. The author felt it is of more interest if a way to prevent it is pointed out. The book titled: How to Prevent Recession – using Ancient Wisdom and Management Ideas carries a Foreword by His Holiness the Dalai Lama and is reviewed by Prof Sir Cary Cooper of Manchester Business School and former Director of Indian Institute of Management, Ahmedabad – Prof Pradip Khandwalla. His Holiness the Dalai Lama concludes his review as follows: "...This is a very profound

concept put in a very simple and elegant format." In 2017 The World Economic Forum presented its report on Future of Government to every national and state government. This report lists 24 sources in its end notes. At no. 5 is the work: How to Prevent Recession – using ancient wisdom and management ideas (Author: Satya Saurabh Khosla). He has just completed a book of Essays in Mathematics, Sciences, Economics and Management and How to Prevent Recession. His Holiness the Dalai Lama concludes in the Foreword "...with a view to strengthen the economy and benefit the widest number of people, Satya Saurabh Khosla has examined how to apply ancient wisdom...". He has been a Chief Guest and keynote speaker at international conferences. He written the course material for the World's largest Open University, was on the Course Design Committee of the National Management Program and Member, Advisory Committee, National Conference on Government Policy and Corporate Strategy: Interlink ages – Organized by Indian Institute of Management, Ahmadabad. India. The WASC Senior College and University Commission in USA has asked for a copy of his work.

4:20 pm, Tuesday, August 17



Shaik Abdul Khadar Chief Executive Officer Data Labs India Solutions Pvt Ltd.

Shaik is CEO of Data Labs India for five years and helping organizations for supply chain digital transformation to achieve excellence in supply chain, logistics, and manufacturing operations. Shaik is an expert in strategy execution, supply chain management, performance management, and organizational transformation with 26 years of experience. Shaik helps business leaders in assessment and design of strategic initiatives in building global supply chain capabilities, supply chain planning & optimization, operational excellence, enterprise performance management, business analytics, and ERP. Shaik has extensive experience in agri-food construction, poultry, process and discrete manufacturing, automotive, mining, government, shipping, rail and road transportation, and retail. Shaik has worked in variety of Supply Chain Management roles which include Vice President, Planning at Arasco Feed, President at Fruition Management Consulting and others. Selected clients include Arasco (KSA), Almarai (KSA), Bisha Mining (Eritrea), Grand Cereals (Nigeria), Alkraft (India), United Feed Manufacturing Co.

(KSA), Lamtuf (India) etc. Key certifications include CPIM from APICS, PMP from PMI, Lean Six Sigma Black Belt, ERP Certified, EPM Certified,

Balanced Scorecard Certified Graduate. Shaik holds Master of Engineering from Anna University, India and Bachelor of Engineering from Osmania University, India

4:40 pm, Tuesday, August 17



Patrich Ferretti
Department of Industrial Engineering
Department of Industrial Engineering
ALMA MATER STUDIORUM – Università di Bologna
Bologna, Italy

Design for Additive Manufacturing with reference to FDM technology

Patrich Ferretti is a PhD student at the Department of Industrial Engineering (DIN) of the Alma Mater Studiorum-University of Bologna. He is studying under the supervision of Professors Leonardo Frizziero and Alfredo Liverani. His main research topic is in the field of additive manufacturing (AM) and advanced design for AM, with a focus on Fused Deposition Modelling (FDM) technology; applied to both polymers and metals.

Patrich is trying to push this technology towards more industrial use. The aim is to achieve greater reliability of components, thanks to the study of the origin of defects and their systematic reduction and the possibility to correctly simulate the printed parts. He also deals with the application of 3D printing in the medical field.

5:00 pm, Tuesday, August 17



Mary Buchzeiger President and CEO Lucerne International Auburn Hills, Michigan, USA

Mary Buchzeiger is the president and CEO of Lucerne International, a leading global automotive supplier headquartered in Auburn Hills, MI. Lucerne produces innovative cast, stamped and forged assemblies. Mary has grown the business exponentially by expanding into three continents and five countries since she took the helm in 2008.

Mary is committed to playing a key role in the continued growth of Michigan's automotive industry and believes that by creating and maintaining international relationships and emphasizing the significance of diversity in the workplace, one can inspire innovation leading to advancement. She believes in fully understanding the significance of cultural differences to grow relationships abroad.

Dedicated to philanthropy, Mary feels strongly that giving back to the community is one of the most imperative and rewarding aspects of being a business owner. Mary is an advocate for women empowerment and believes that the automotive industry can benefit from a more diverse talent base. As a WBE certified business owner, Mary is heavily involved in women-focused initiatives such as the Great Lakes Women's Business Council and Inforum. She is also a founding member of the CEO Coalition for Change under CADIA. She also supports non-profit organizations, Winning Futures and The Children's Center in Detroit, both of which support children's education with the objective to teach youth practical skills to help them transition into the workforce.

Mary participates on the MICHAuto Board of Directors at the Detroit Regional Chamber as well as the Board of Directors for the Automotive Hall of Fame. In addition, she's been honored with numerous awards for her work in the automotive industry including Automotive News 100 Leading Women (2020) Crain's Detroit Business Notable Women in Manufacturing (2019), National Association of Women Business Owners Top Ten Women in Global Business (2014), and the Business Success Story Award from the Auburn Hills Chamber of Commerce (2018).

5:30 pm, Tuesday, August 17



Dr. Diego Galar Full Professor of Condition Monitoring Division of Operation and Maintenance Engineering Luleå University of Technology Luleå, Sweden

Dr. Diego Galar is Full Professor of Condition Monitoring in the Division of Operation and Maintenance Engineering at LTU, Luleå University of Technology where he is coordinating several H2020 projects related to different aspects of cyber physical systems, Industry 4.0, IoT or Industrial Al and Big Data. He was also involved in the SKF UTC centre located in Lulea focused on SMART bearings and also actively involved in national projects with the Swedish industry or funded by Swedish national agencies like Vinnova.

He is also principal researcher in Tecnalia (Spain), heading the Maintenance and Reliability research group within the Division of Industry and Transport.

He has authored more than five hundred journal and conference papers, books and technical reports in the field of maintenance, working also as member of editorial boards, scientific committees and chairing international journals and conferences and actively participating in national and international committees for standardization and R&D in the topics of reliability and maintenance.

In the international arena, he has been visiting Professor in the Polytechnic of Braganza (Portugal), University of Valencia and NIU (USA) and the Universidad Pontificia Católica de Chile. Currently, he is visiting professor in University of Sunderland (UK), University of Maryland (USA), and Chongqing University in China.

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6:00 pm, Tuesday, August 17



Monish Jirge Founding Innovation Partner J Mechatronic Kolhapur, Maharashtra, India

Monish Jirge is a Global Innovator & Innovation Advocate. He is currently serving as the Founding Innovation Partner of J Mechatronic. J Mechatronic is a global industrial automation solutions company. J Mechatronic is focused on delivering innovative solutions in the field of Industry 4.0, flow detection and various upcoming areas with an aim of simplifying automation. Monish has also supported other innovation initiatives including his official visit to the White House to have discussions on Digital Manufacturing, presenting Industry 4.0 strategy to the Lt.

Governor's Office for the state of Michigan, presenting state wide innovation eco-system strategy to one of the Senators of Michigan. With his genuine passion for globalization he has shared his innovative strategies with various leaders from the European Parliament and has also received an active appreciation from the German Parliament for his innovative cultural integration strategies. Monish is on the Board of Directors of APIA Michigan, which is an advocacy organization. He has been a part of the Forbes Business Development Council, a world class invite only group for C-Level business executives. He has also been a member of the New Zealand Innovation Council, and many others. He earned his bachelor's in mechanical engineering at Kolhapur Institute of Technology and master's degree in Industrial Engineering at Lawrence Technological University.

6:40 pm, Tuesday, August 17

Parth R Patel Director ApolloTechno Industries Private Limited Mahesana, Gujarat, India

7:00 - 7:30 pm, Tuesday, August 17

7:30 - 8:00 pm, Tuesday, August 17





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# IEOM Global Supply Chain and Logistics DISTINGUISHED SPEAKERS

Wednesday (April 18, 2021)

Global Supply Chain and Logistics I
11:00 am – 12:40 am, Wednesday, August 18
Session Chair: Dr. Santanu Mandal

11:00 am, Wednesday, August 18



Dr. Faisal Hasan
Professor
Department of Mechanical Engineering
Z H College of Engineering & Technology
Aligarh Muslim University
Aligarh 202002, Uttar Pradesh

Dr. Faisal Hasan is a Professor in the Department of Mechanical Engineering, Aligarh Muslim University. He has more than 15 years experience in teaching and research. He has obtained his PhD in the area of Manufacturing System from Indian Institute of Technology Roorkee. His teaching and research areas are manufacturing systems, human factors and operations management. He has published papers about 96 papers in National, International Conferences and Journals like International Journal of Advanced Manufacturing Technology, Operations, Occupational Ergonomics, Work, International Journal of Industrial and Systems Engineering, and International

Journal of Operations Management. He has also edited book chapters in conference proceedings. Beside this, he has attended and presented papers at various national and international conferences of repute. He has supervised 02 research scholars for PhD and about 03 are pursuing PhD under him. He has TWO patents to his credit. He has delivered more than 16 invited talks/lectures in various conferences and STTPs. He is a regular reviewer for some journals of reputed publishers like Springer, Taylor & Francis and Inderscience. He has been a committee member for accreditation of institute by NBA and NAAC. He was one of the coordinator in organising HWWE-2017. He has organised several workshops/short term training programs also worked in various capacities at administrative level.

11:20 am, Wednesday, August 18

Paul Bradley FCILT CPL CEO, Caprica International Global Business Leader in Supply Chain Management, Entrepreneur, Mentor Board Member. World Economic Forum: "New Asian Leader" Singapore

11:40 am, Wednesday, August 18

Dr. Santanu Mandal Associate Professor and Area Chair Department of Operations and Systems Amrita School of Business Amrita Vishwa Vidyapeetham, Coimbatore

12:00 am, Wednesday, August 18

Rifaul Islam
Executive, SCM – Procurement & Material Management
Rahimafrooz (Bangladesh) Ltd.
Dhaka, Bangladesh

12:20 pm, Wednesday, August 18

Global Supply Chain and Logistics II 2:00 – 3:30 pm, Wednesday, August 18 Session Chair: Dr. Deepankar Sinha

2:00 pm, Wednesday, August 18



Dr. Deepankar Sinha
Professor & Head – Research Division [Management]
Indian Institute of Foreign Trade (IIFT)
Kolkata Campus
West Bengal, India

Deepankar Sinha, presently working as Professor & Head – Research Division [Management] – Indian Institute of Foreign Trade (IIFT), Kolkata Campus. He is also the Programme Director – Centre for Trade Facilitation and Logistics [CTFL], IIFT and Member – Technical Committee – IT Infrastructure, IIFT. Dr. Sinha has completed his PhD [Industrial & System Engineering] from Indian Institute of Technology (IIT), Kharagpur, MSc [ NIT – Rourkela], MBA, Diploma in Operations Research [ORSI] and Information Technology. He has 20+ years' experience in Port and Shipping industry, and 13+ years of experience in teaching, training and consultancy in the field of global

logistics, international trade operation and system engineering.

Dr. Sinha provides Advisory services to Logistics Division [Ministry of Commerce & Industry], Bureau of Indian Standards (BIS), NITI Aayog, Ministry of Road, Shipping and Commerce, Ports, ADB, EY, GAIL, HPCL, CII, FICCI, BCC&I and others. He has Consultancies in the areas of International Trade Operations & Logistics, Blue Economy of India, and Regulatory Framework for Road logistics, EDI, Port Operating & Community System. He has conducted Trainings for RIL, Tata Steel, HPCL, GAIL, NTPC, IIM Kozhikode, IIM Kolkata, FIEO, BCC&I, EEPC, DGCIS, TVS, Coromandel Fertilizers, OLAM International (Gabon & Nigeria) and similar organisations.

He has one patent [on AI based Switching System for Customer Query Response] granted, 1 patient [Electronic Cheques System] filed, received 6 international & national awards; 3 scholars awarded PhD Degree; 4 Research Scholars pursuing PhD. He has several publications in ranked International & National journals, published a book on Global Supply Chains and Multimodal Logistics, IGI Global, USA. and authored 3 other books. Also he is Guest Editor – Global Supply Chain Management [Special Issue], Foreign Trade Review, Sage Publications.

He has received awards from International Association of Ports and Harbours (IAPH), Kolkata Port Trust (KoPT), National Institute of Quality & Reliability (NIQR), Academy of International Business (AIB), IIM Lucknow, Indian Society of Training and Development (ISTD). His research interests include – Operations Research (OR), Systems Dynamics, Data Envelopment Analysis (DEA), SEM, Data Analytics and similar areas.

2:20 pm, Wednesday, August 18

Rohit Kumar Singh Lead Supply Chain Planning Sudarshan Chemical Industries Ltd. Pune, Maharashtra, India

2:40 pm, Wednesday, August 18

Dr. Abdussalam Shibani Assistant Professor in Project Management Coventry University Coventry, UK

3:00 pm, Wednesday, August 18

Dr. Arundhati Guha Thakurta Assistant Professor SVKM's Narsee Monjee Institute of Management Studies (NMIMS) Mumbai, Maharashtra, India

> Global Supply Chain and Logistics III 3:30 – 5:00 pm, Wednesday, August 18 Session Chair: Dr. Rajendra Baraiya

3:30 pm, Wednesday, August 18



Dr. Patanjal Kumar Assistant Professor, IBM, GLA University Mathura (India) PhD (Indian Institute of Management Rohtak)

Title of talk: Supply chain coordination strategies with ambidextrous sustainable innovations

Dr. Patanjal Kumar is an Associate Editor of International Journal of Mathematical, Engineering and Management Sciences (IJMEMS). Dr Kumar has completed his doctoral degree in the area of Operations Management and Quantitative Techniques from Indian Institute of Management Rohtak. Dr Kumar has a master degree in technology from the Indian Institute of Technology Delhi, India. Dr Kumar has secured all India 4th, 14th, and 19th rank in Graduate Aptitude Test in Engineering (GATE) in the year 2010, 2013, and 2015 respectively. He has completed a bachelor of technology with honours. He has also received a silver medal in Textile Technology from Uttar Pradesh

Technical University, Lucknow (U.P.). Currently, he is teaching in GLA University Mathura (India). Dr Kumar has also taught at IIM Rohtak and other leading business schools in India. Dr Kumar has published in leading journals such as Business Strategy and the Environment, Operations Management Research, Journal of Public Affairs, and so forth. He has presented his research work in various leading conferences. He has also worked on defence, policing, and public policy projects. He is currently working in the area of Sustainable Supply Chain, Supply Chain Coordination, Innovative Supply Chain, Game Theory, Optimization, Behavioral Operations Management, and Policing Research.

3:50 pm, Wednesday, August 18

Vivek Poddar Deputy General Manager – Supply Chain BASF Chennai, Tamil Nadu, India

4:10 pm, Wednesday, August 18



Dr. Rajendra Baraiya Research Scholar in Operations Management Indian Institute of Management, Indore Indore, Madhya Pradesh, India

Title: Retailer Strategies amid COVID19 pandemic with Hygiene Quality Enhancement Efforts

Rajendra Baraiya is a research scholar in the Operations Management and Quantitative Techniques department at the Indian Institute of Management (IIM) Indore, India. He has been awarded M.E. in Production Engineering from Thapar Institute of Engineering and Technology, Patiala, India, and B.E. in Production Engineering from Government Engineering College, Bhavnagar, India. His research interests are Supply Chain Management, Supply Chain Coordination, Omni-Channel Retailing, Inventory Management, and Logistics. His research papers are

published in reputed journals, and he has presented his research work at various National and International conferences. He has received the best paper awards in DC 2019 – MNIT Jaipur, ICORDS 2019 – IIM Visakhapatnam, and DOCMAD 2020 – IRMA Anand. He is professionally affiliated with many societies like IEOM, POMS, DSI, The OR Society, EuROMA, ASCM, IEEE, and WCTRS.

4:30 pm, Wednesday, August 18



Dr. Subhash C. Sarin
Paul T. Norton Endowed Professor
Grado Department of Industrial and Systems Engineering
Virginia Tech
USA

Distribution of Vaccines during a Pandemic

Subhash C. Sarin currently holds the Paul T. Norton Endowed Professorship in the Grado Department of Industrial and Systems Engineering at Virginia Tech. He has made research contributions in production scheduling, sequencing, applied mathematical programming, and analysis of and designing algorithms for the operational control of manufacturing and logistics systems. He has published over hundred papers in the Industrial Engineering and Operations Research journals and over forty peer-reviewed full-length proceedings papers, and has co-authored three books in the production scheduling area. He has been recognized with several prestigious awards

at the university, state, and national levels for his research work, teaching, service and advising. Among others, these include: Institute of Industrial and Systems Engineers (IISE) David F. Baker Distinguished Research Award for significant contributions to the advancement of the industrial engineering profession through outstanding research activity (the highest research award given by the Institute); IISE Albert Holzman Distinguished Educator Award for outstanding contributions to the industrial engineering profession through teaching, research and publication; Alumni Award for Excellence in Graduate Advising (the highest graduate advising award given by Virginia Tech.); Pletta Award, as the Virginia's Engineering Educator of the Year; Sporn Award for Excellence in Teaching of Engineering Subjects, Virginia Tech; Graduate School's Outstanding Mentor Award for the College of Engineering, Virginia Tech; Dean's Award for Excellence in Research, and Dean's Award for Excellence in Teaching. He is also a recipient of several best paper awards and has been elected as a Fellow of IISE. He has served on the editorial boards of several journals. He has graduated 82 students (29 Ph.D. and 53 M.S. (with thesis).) His students are now well-placed in academia and industry (including Deans, Department Heads, Directors of Research Laboratories, Professors, and CEOs.)

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### **Panel Sessions**

### Panel on Global Engineering Education August 16, Monday, 8:00 – 9:30 pm

Panel Chair



Dr. Bhaskar Bhandarkar Director General Institution for Innovation Industrial Engineering and Entrepreneurship India and Former Chairman Indian Institution of Industrial Engineering

Dr. Bhaskar Bhandarkar is Director General of Institution for Innovation & Industrial Engineering and Entrepreneurship. He received is BSc from Nagpur University, BTech from JNU New Delhi, MTech from Pune University, MBA (Operation & Marketing) and PhD: BIT, Mesra ,Gold Medalist from NCDC, GOI, Ministry of Home affairs. Dr. Bhandarkar has 37 years' experience in Operations/Refits/Quality Assurance/Manufacturing and Training; Consultant to NITIE Govt. of India, Ministry of Human Resource Development; Chairman, Indian Institution of Industrial Engineering for record eight years; Director General Indian Institution of industrial Engineering Mumbai, Managing Editor of Industrial Engineering Journal; Member of the Technical Committee Indian Register of Shipping. He served in many international committees including Board Member of Asia Pacific IE and Management Systems Society (APIEMS) , and Program Head: Indo US Science & Technology Forum (workshop). His research interests are servant leadership, safety management, quality management, futuristic SCM and logistic and lean six sigma.

He is a Fellow of Institution of Engineers (India)(FIE), Institution of Marine Engineers (FMarE), and Indian Institution of Industrial Engineering (FIIE). Dr. Bhandarkar received various awards including Lilian-Gilbert Award, Ramaswami Award, Coal-India Productivity Award, Shiksha-Bharati Award, Best-Educationalist Award, Distinguished Engineer Awards, Distinguished IIIE Service Award. International recognitions include Production and Operation Management Society (POMS): Recognition on 08th May 2016 at Orlando USA Conference, IEOM at Rabata, Morocco Conference, Advisor IEM, MOST Govt of Taiwan. He served as an Associate Editor of International Journal of Production Research (IJPR) Taylor and Francis. Award Constituted in the Honor of Dr Bhandarkar include Dr. Bhandarkar Award for First Merit Student, VJTI, Mumbai University and Nagpur University and Cdr Bhandarkar Visionary Leadership Award (For CEOs with outstanding leadership and Visionary Institution Building.

Panel Speaker I



Dr. Madan Dabbeeru Senior Director Rakuten Bangalore, India

Dr. Madan Dabbeeru is a Senior Director for Research in one of the Japans e commerce giants Rakuten, India Bangalore. Dr. Madan completed his M.E (Manufacturing Engg) In BITS Pilani there he developed Gait Analysis of Quadruped walking robot, Phd (AI, Robotics) in IIT Kanpur under the of guidance Prof. Kalyanmoy Deb and PostDoC (Unmanned Vehicles and this application for defence) under the guidance of Prof. SK Gupta from University of Maryland, USA. His research areas include Configuration space approach to motion planning for Robots, Cognitive science (Theories of Mind), Medical Imaging (Computer assisted Cancer detection), convex optimization and reinforcement learning algorithms with neuro-evolutionary approaches. Dr Madan as published 50

Research papers, 5 Patents and some of the popular article by Dr. Madan are AI, am i in the right direction? and Do you really need machine learning? He is the Resource person for many International conference workshop, seminars and short term courses and delivered expert lectures on AI in Robotics, Reinforcement learning etc.

Panel Speaker II

Dr. Shijith Nambiar P.M.
Assistant Professor
SolBridge International School of Business
South Korea

Panel Speaker III



Dr. Jorge Kurita Professor and Research Director Universidad Nacional de Asuncion Paraguay

Dr. Jorge Kurita attended Universidad Nacional de Asuncion in Paraguay, where he got his BS in Electromechanical Engineering. After graduation, he spent some time in academia working as faculty. During this tenure, he taught courses on heat transfer, fluid mechanics, and physics. In 2004 Dr. Kurita was granted the Fulbright scholarship to attend a graduate program on Mechanical Engineering at Michigan Technological University. He has finished his MS and then continued with a doctorate program. NASA and the NSF funded his doctorate research. Dr. Kurita's contribution to his field was well-published in several papers from high-impact journals. From 2011 Dr. Kurita worked as a development engineer II in the competitive automotive industry, Filtran LLC, located in Des Plaines, Illinois. As an experimental researcher, his experience helped Filtran develop special testing techniques never implemented before on filtration systems. In addition, Dr. Kurita worked in the CAE group, contributing to developing simulation techniques to help build state-of-the-art filtration systems. Dr. Kurita participated in developing OEM filters; some of them obtained awards from Jatco and GM. From 2016 Dr. Kurita is back to his alma mater as an assistant

professor in Universidad Nacional de Asuncion. Later the same year, he is appointed to lead the research department of the School of Engineering. In 2017 he was appointed to be the Mechanical Engineering Department head at Universidad Nacional de Asuncion. In August of the same year,

Dr. Kurita is awarded the "Distinguished Citizen by the City Council of Asunción" for his contributions to education in Paraguay's space sector. And in December of the same year, he was mentioned as "Outstanding Protagonist of 2017" by the newspaper Ultima Hora.

Panel Speaker IV



Dr. Annamalai Pandian
Associate Professor
Program Director for B.S. in Engineering Technology Management
Department of Mechanical Engineering
Saginaw Valley State University
Michigan, USA

Annamalai Pandian is an Associate Professor in the Department of Mechanical Engineering at the Saginaw Valley State University, Michigan, USA and the Program Director for B.S. in Engineering Technology Management. He worked for Chrysler corporation for more than 13 years continuously while company changed hands from Daimler to Fiat. He has wealth of Body-In-White (BIW) experience in automotive tooling design and processes. He led an Advance Manufacturing Engineering (AME) team that developed & designed tooling and processes for Small Car, Large Car, Sports Car, Luxury SUV, Jeep, Truck and Minivans. The AME team launched vehicles in the assembly plants all over the North America plants. At any given time, he managed numerous automotive vendors and suppliers budget totaling over \$50M. The AME launch team was responsible for proving the throughput and quality of the new vehicles per ISO 9001 & 14001 requirements. Seasoned Professional in Lean manufacturing, Project management, Layout optimization, Automation, PLC, Robotics, Systems Engineering, Simulation, FMEA, DMAIC and Six Sigma. Over the past 10 years, he has taught several mechanical and manufacturing engineering courses, including Engineering Mechanics, CAD, Jigs & Fixtures design, Robotics & Machine Vision, Manufacturing Process Eng., and Manufacturing Systems Design and Simulation, Lean Manufacturing, Engineering Technology Management courses and mentored numerous Senior Design Capstone Projects at SVSU and at the University of Wisconsin-Stout. His research interests include 3D printing, Simulation, Automation, DOE, Robotics, ARMA and ANN. He is a member of ASQ, ASEE, and IEOM. He is also a member of the editorial advisory board for the International Journals. He published more than 20 paper presentations and journal articles.

Panel Speaker V

## Women in Industry and Academia (WIIA) August 16, Monday, 9:30 – 11:00 pm

Panel Chair



Dr. Anjali Awasthi Professor and Concordia University Research Chair Montreal, Canada

Dr. Anjali Awasthi is Full Professor and Concordia University Research Chair (Tier-II) in Connected Sustainable Mobility Systems at Concordia Institute for Information Systems Engineering (CIISE), in Concordia University, Montreal. She received a PhD in industrial engineering and automation from INRIA Rocquencourt and University of Metz, France and a Masters in Industrial and Management Engineering from IIT Kanpur, India. Prior to Concordia, Dr. Awasthi worked at University of British Columbia and University of Laval where she was involved in several projects on industrial applications of operations research. In France, she was involved in many European projects aimed at improving urban mobility in cities, city logistics and on cybernetic transportation systems. Her areas of

research are modeling and simulation, data mining, Information Technology and decision making, sustainable logistics planning, quality assurance in supply chain management and sustainable supply chain management. She is currently serving as the Education Chair for CORS (Canadian Operations Research Society), a senior member of ASQ (American Society for Quality), associate of LSRC (Loyola Sustainability Research Center), and regular member of CIRRELT (Centre Interuniversitaire de Recherche sur les Reseaux d'Entreprise, la Logistique et le Transport). She is also the recipient of Eldon Gunn service award (CORS 2018, Halifax) and IEOM Special Recognition Award (4th North American Conference on Industrial Engineering and Operations Management, Toronto, 2019).

Panel Speaker I

Dr. Neelam Srivastava
Professor & HOD Electronics & Comm. Engg.
IET Institute of Engineering & Technology Lucknow Constituent College of A K T U lucknow
Ex-Founding Director ( REC) | Ex – CPC SPFU, U.P | Senior Member IEEE
Lucknow, Uttar Pradesh, India

Panel Speaker II

Dr. Shraddha Gawankar Assistant Professor of Decision Sciences School of Business The George Washington University Washington, D.C. 20052, USA

Panel Speaker III

Richa Grover Category Manager – Flipkart National Winner Godrej LOUD | Godrej | Hitachi | SIBM Pune Pune, Maharashtra, India



Dr. Seema Singh Professor of Economics Delhi Technological University (DTU) Delhi, India

Dr. Seema Singh is a Professor of Economics at the Delhi Technological University (DTU), Delhi India and has Headed the Department of Humanities, DTU between August 2006 and December 2017.

She is a Board Member (South Asia) – 2021-23 of the International Network of Women in Engineering and Sciences (INWES) and was the Vice-President (Education and Research) in its previous Board, 2018-20.

Largely, interested in the issues related to Higher Education, Gender, Technology, Employment and Labour Market, she has presented, published several papers and conducted successfully several research projects funded by National and International organisations. At present, working on the project, "Enhancing Employability Skills for Empowerment of Girls and Young Women", funded by Graduate Women International, Geneva and have also joined KWSE-INWES GISE Project as an expert of Women in STEM. She is member of the editorial team and paper reviewer of many journals and supervising Post-Doctoral and Doctoral Fellows.

Panel Speaker V



Rashmi Bhandarkar Manager (Special projects) Mahindra Logistics Ltd.

Rashmi is a practicing Industrial Engineer, presently contributing as Manager (Special projects) at Mahindra Logistics Ltd. She holds Electronics and Telecommunication Engineering degree and MBA (Operations and Marketing) degree from prestigious Symbiosis University. She has also completed International Business and Cross-Cultural management program from Bremen University, Germany. Rashmi is experienced in Corporate Strategy, SCM, Operations Management and Information Management. She is an active member of Indian Institution of Industrial Engineering (IIIE) and has contributed immensely as Joint secretary, IIIE Mumbai chapter in the past. She was the lead anchor of the International CEOs Conference organised by the Institution at Dubai and numerous CEOs conferences in India. Indian Institution of Industrial Engineering has honoured her with Dr JM Mahajan Award for the promotion of Industrial Engineering knowledge and practices. Besides publishing papers on international forums, in her free time Rashmi participates in adventure sports activities and other NGO outreach programs.

Panel Speaker VI

## Panel on Data Analytics / Business Analytics August 17, Tuesday, 8:00 – 9:30 pm

Panel Chair

Panel Speaker I

Sanjid Haque Production Engineer Hanwha Q CELLS America Inc. Dalton, Georgia, United States

Panel Speaker II

Panel Speaker III

Tarun Mohan Lal Vice President, Analytics and Solutions/CAO Atrium Health Navicent Atlanta, Georgia, USA

Panel Speaker IV

Anjani Punnamaraju Data Analyst DACCO Behavioral Health Tampa, Florida, USA

Panel Speaker V

Panel Speaker VI

Panel on Industry 4.0

### August 17, Tuesday, 9:30 - 11:00 pm

Panel Chair

Arun Yadav Manager- MES Lead (Smart Manufacturing|Industry4.0|Digital Transformation) Grasim Industries Limited | Pulp & Fibre Bangalore, India

Panel Speaker I

Dr. Rohit Sharma
Research Scholar at NITIE
Blockchain in Agriculture, industry 4.0 applications in agriculture
Mumbai, Maharashtra, India

Panel Speaker II

Dr. Surya Prakash Associate Professor BML Munjal University Gurgaon, Haryana, India

Panel Speaker III

Dr. Kottala Sri Yogi Assistant Professor SVKM's Narsee Monjee Institute of Management Studies (NMIMS) Hyderabad, India

Panel Speaker IV

Panel Speaker V

## Panel on Global Supply Chain and Logistics August 18, Wednesday, 5:00 – 6:30 pm



Panel Chair

Dr. Aalok Kumar Assistant Professor, Production and Operations Management area IIM Visakhapatnam Andhra Pradesh, India

Dr. Aalok Kumar is currently working as Assistant Professor, Production and Operations Management area, IIM Visakhapatnam, Andhra Pradesh, India. He has been awarded PhD in Operations Management from Department of Management Studies, Indian Institute of Technology (IIT) Roorkee, India and MTech. in Industrial Management from IIT (BHU) Varanasi with Gold Medal. His PhD work also received the "Excellence in Doctoral Research Award" from IIT Roorkee.

During his PhD, he has been also awarded with prestigious Newton-Bhabha fellowship (jointly awarded by British Council UK and DST India) at the University of Sussex, UK, and Queen Elizabeth Visiting Fellowship at the University of Regina, Canada (awarded by Government of Canada). His research interests are in multimodal logistics planning, data-driven logistics operations in Industry 4.0 era, electric vehicles-based freight mobility, and resilient logistics system. His research work has appeared in top journals of Operations and Management Science, such as Transportation Research Part A: Policy and Practice, Transport Policy, Journal of Cleaner Production, and Journal of Enterprise Information Management, among others. He has also participated in EURO Winter School at the University of Padova, Italy, and presented paper in various conferences such as POMS USA, EURO Europe, DSI USA, SOM India, GLOGIFT India, and IEOM Society USA.

Panel Speaker I



Dr. N C Hiremath
Faculty Member
Department of Industrial Engineering Technology
Higher Colleges of Technology
UAE

Dr. N C Hiremath is presently working as a faculty member in the Department of Industrial Engineering Technology of Higher Colleges of Technology, UAE. Prior to this he had worked for 28 years in Karnataka and for 3 years in Maharashtra States of India in various academic cadres from Lecturer to Principal. He obtained his Ph. D. from Indian Institute of Technology, (IIT) Kharagpur, India in 2012. He has published research/technical papers in peer reviewed international journals, national, and international conferences. He has delivered technical talks/seminars at various institutes and organizations. He has been a reviewer for international journals like International Journal of Systems Science (IJSS), European Journal of Operations Research (EJOR), International Journal of Production

Research (IJPR), and Journal of Intelligent Manufacturing (JIM). His areas of research interests include logistics and supply chain management, operations research, ergonomics, blockchain technology, and information management.

Panel Speaker II

Satish Kumar Assistant Professor Motilal Nehru National Institute Of Technology Uttarakhand, India

Panel Speaker III



Dr. Vivek Soni Assistant Professor Coordinator -Internal Quality Assurance Cell Coordinator Centre of Excellence (CoE) for Innovative Energy Solutions Bharatiya Vidya Bhavan's – Usha and Lakshmi Mittal Institute of Management New Delhi, India

Dr. Soni is a distinguished faculty of Operations and Decision Sciences at one of the well reputed educational system Bharatiya Vidya Bhavan's Institute of Management New Delhi. Professor Soni has deep insights into management areas, is also certified Independent Director by Ministry of Corporate Affairs, Govt. of India and works as a consultant to wide aspects of energy (particularly wide dimensions of conventional and non-conventional forms of security and sustainability), energy—environment nexus, India's strategic development on energy, role of

sustainable technologies to reduce climate change, and technology-based climate change adaptation. More specifically, his research focuses on operations cum strategic management-based modeling approaches to assist development of India as data and knowledge driven society with an equitable and sustainable and qualitative education, energy and also with cleaner and safe environment. He is Accredited Management Teacher by AIMA, conveyor of Innovation Cell, and also Coordinator of Internal Quality Assurance Committee and Centre for Excellence in Innovative Energy Solutions; He teaches Entrepreneurship, Operations and Supply Chain Management related courses.

His innovative research intending to optimal solutions for objectives of several GDP dependent, both SME and service sectors working towards reforming India's rural economy, specifically through academic deliveries are leverages by his deep industry rich experiences, all of which he gained with his wide gamut of experience with Government, Public Sector Units and Corporate, particularly on National Educational Programme for creating awareness for enhance energy efficiency under the National Action Plan for Climate Change. Renewable energy and energy efficiency, the politics of large-scale energy infrastructure, designing public policy to improve energy security and access to electricity, and building adaptive capacity to the consequences of climate change, all are of his ever green and ongoing research agenda to advocate to management stakeholders.

As a sample of reflection, his research on precise decision on energy has been depicted in several international and national journals/ magazine interviews, few of them include Fundamental and Innovations in Solar Energy, Sustainable Production and Consumption, Indian Journal of Public Administration, International Energy Sector Management, Transforming Government: People Process and Policy, Information Security and Management, and Journal of Advances in Management etc. His research also conferred upon Emerald Literati Network Awards for Excellence (2017) by Emerald Publishing, United Kingdom, under the category of Highly Commended Paper. His research work is seen in international conferences at The Institute of Energy Economics (IEEJ) Japan (2009), International Academy of Business, and Economies (IABE), USA (2012) and Canadian University of Dubai, (2014).

Panel Speaker IV

Panel Speaker V

### Diversity & Inclusion Panel sponsored by Ford Motor Company August 18, Wednesday, 6:30 – 8:00 pm

Panel Chair



Dr. Sundaravalli Narayanaswami Indian Institute of Management Ahmedabad, India

Sundaravalli Narayanaswami is on the faculty, Public Systems group, IIM Ahmedabad. She earned her PhD in Industrial Engineering and Operations Research from IIT Bombay, India after a Masters in Computer Science. Her research and teaching interests involve applications of ICT and OR tools in real-life problems of large impact. Sundaravalli has taught at various Institutions in India and abroad. She publishes and reviews regularly for scholarly editorials and presents her research findings among peers, both in India and abroad. She is a life member of several professional associations and was a Fellow of the British Computer Society (2009-2013). She serves on the Editorial board of the Annals of Management Science.

Panel Speaker I



Professor Donald M. Reimer
Director of Membership and Chapter Development – IEOM Society
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs' Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs' Organization Faculty Advisory Council and is a member of the American Society of Engineering Education.

He has operated his own consulting company – The Small Business Strategy Group for 23 years. He published numerous articles on small business, entrepreneurship and strategic thinking. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer is a member of Advisory Board of the Milwaukee Junction Small Business Assistance Center. He is also a member of the Applied Innovation Alliance. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.

Panel Speaker II



Rama Shanker
Chief PSD
Tata Steel Limited
Productivity Services Department
Jamshedpur, India

Mr. Singh, an Industrial Engineering professional, heads the Productivity Services Division of Tata Steel Ltd as Chief of the Division. He has a wide experience in the field of applying tools & techniques of industrial engineering for overall productivity and profitability enhancement of the organization.

He has been instrumental in improving the employee productivity and operational excellence of Tata Steel through leading various interventions.

He has served Indian Institution of Industrial Engineering (IIIE) Jamshedpur Chapter as Chairman and has been awarded Fellowship by IIIE for recognising his contribution in the field of Industrial Engineering. He is a life member of INVEST, ORSI.

To spread the IE profession, he started a symbolic celebration of Productivity Week at Tata Steel every year which consists of organising Conferences & Seminars for showcasing concurrent IE practices and providing knowledge sharing opportunity amongst industry and academia.

As a part of social cause, Mr. Singh has nurtured many interns from various prestigious campuses. He has volunteered himself in various initiatives like adopting a school in Tribal area village, plantation drive, safety awareness campaign etc.

He is B.Tech in Production Engineering, M.Tech in Production Management and Post Graduate Diploma in Operations Research.

Panel Speaker III



Professor Eldon G. Caldwell Marin, Ph.D., Sc.D, Dr.Ed. Director, Industrial Engineering Department Engineering School University of Costa Rica San Jose, Costa Rica

Eldon Caldwell is full professor/Cathedraticus of the University of Costa Rica, Central America; member of the IEOM Society Academy of Fellows and member of the IEOM Society Global Council. Also, he has been recognized by the IEOM Society with the "Outstanding Service Award" for his career of over 30 years as an educator, researcher and promoter of development of industrial engineering and as "Distinguished Professor" by IEEE Computer Society, USA.

Dr. Caldwell earned his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica and he earned a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico; M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at ITESM, México. Finally, he earned three doctoral degrees: 1-Ph.D. in C.Sc. / Industrial Engineering, University of Nevada, USA / Autonomous University of Central America; 2- Ph.D. (Sc.D.) in Robotics and Automation, University of Alicante, Spain; and 3-Ph.D. (Dr. Ed.) in Education at the University of Costa Rica, developing the "Theory of Socio-educational Exergy-Anergy and Entropy".

He is author of many scientific articles and two books: "Marketing of Social Products & Services", UCR Publications; and "Lean Manufacturing: Fundamentals and techniques for cycle time reduction", Kaikaku Ins. Press, USA.

Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quirós & Cía-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has more than 30 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-

Cola, Ministry of Health, Costa Rica, Honduras, Panamá, Costa Rican Institute for Electricity, RTC- Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, Bournes Co., DOLE Co. and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.

Panel Speaker IV

Madhukar Sharma President at ASME India PL Gurgaon, Haryana, India

Panel Speaker V

# **Parallel Sessions**

### Monday, August 16, 2021

monday, ragast 16, 2021							
7:45 am	Welcome Keynote: Dr. Nagahanumaiah, Director, Central Manufacturing Technology Institute, An Autonomous R&D Institute under the Departmentof Heavy Industry, Ministry of Heavy Industries & Public Enterprises, Govt. of India, Tumkur						
	Road, Bengaluru – Room 1						
8:15 am	Keynote I (Opening Keynote): Dr. Devdas Shetty, Dean, School of Engineering and Applied Sciences, University of the						
District of Columbia, Washington, DC, USA – Room 1							
9:00 am	Keynote II: Dr. Bala Bharadvaj, Globally recognized Aerospace Expert, Former MD of Boeing India Engineering &						
	lore, India – Room 1						
9:40 am	Keynote III: Prof. Prem Vrat, Pro-Chancellor, NorthCap University, Gurugram, Haryana, India and Professor of Eminence &						
		Chief Mentor – Room 1					
10:20 am	Keynote IV: Dr. Kapil Gupta, Associate Professor, Department of Mechanical and Industrial Engineering						
	Technology, University of Johannesburg, Johannesburg- Republic of South Africa - Room 1						
	Room 1	Room 2	Room 3				
11:00 am	Global Engineering Education I	Graduate Student Paper Competition	Industry 4.0				
1:00 pm	Lunch Break						
2:00 pm	Global Engineering Education II	LSS and SC Competitions	Production Planning and Control				
4:00 pm	Global Engineering Education III	Productivity	Healthcare Systems				
6:00 pm	Global Engineering Education IV	UG Research and HF Competition	Sustainability and Green Systems				
8:00 pm	Panel - Global Engineering Education	Thesis Competition	Modeling and Simulation				
9:30 pm	Panel – Woman in Industry and Academia	Undergraduate Paper Competition	CATME Workshop				

## Tuesday, August 17, 2021

7:45 am	Welcome Address: Dr. Shekar Babu, Founding Head, AMRITA School of Business, AMRITA Vishwa Vidyapeethan					
	Univ	ersity, Bangalore, India – Room 1				
8:00 am	1:00 am Keynote V: Dr. Neil G Murray Jr., DEMS, Engineering Manager at ZF and Adjunct Professor, Lawrence Techr					
University, Michigan, USA – Room 1						
8:40 am	Keynote VI: Jatinder (Jeet) N. D. Gupta, PhD, CFPIM, Director, Integrated Enterprise Lab, Eminent Scholar and Professor,					
College of Business, The University of Alabama in Huntsville, Huntsville, Alabama, USA – Room						
9:20 am	Keynote VII: Mr. Ramanathan Narayanan, Managing Director and CEO, San Engineering, Bangalore, India – Room 1					
10:00 am	Keynote Speaker VIII: Dumidu Ranaweera, CEMBB, Global Director APAC, Middle East, Oceania, Africa & Canada, Dr.					
	Mikel J. Harry Six Sigma Management Institute Asia, Colombo, Sri Lanka - Zoom Meeting Rooms 1					
10:40 am	Keynote IX: Prof. Vikas Kumar, Director of Research and Scholarship and Professor of Operations and Supply Cha					
	Management, Bristol Business School, University of the West of England, Bristol, UK - Room 1					
	Room 1	Room 2	Room 3			
11:30 am	Industry Solutions and Industry 4.0 I	Operations Research	Supply Chain Management			
1:00 pm	Lunch Break					
2:00 pm	Industry Solutions and Industry 4.0 II	Sustainability	Business Management			
4:00 pm	Industry Solutions and Industry 4.0 III	Operations Management	Business Management			
6:00 pm	Industry Solutions and Industry 4.0 IV	Business Management	Production Planning and Control			
8:00 pm	Panel on Data / Business Analytics	Supply Chain Management	Quality and Reliability			
9:30 pm	Panel on Industry 4.0	High School STEM Competition	Operations Management			

## Wednesday, August 18, 2021

7:45 am	Welcome Address: - AMRITA Dean - Room 1					
8:00 am	Keynote X: Wilkistar Otieno, Ph.D., Associate Professor and Chair, Industrial and Manufacturing Engineering, University of					
	Wisconsin-Milwaukee, Milwaukee, Wisconsin, USA – Room 1					
8:40 am	Keynote X: Venugopal G, General Manager and Head, Digital Advisory and Industry 4.0, Robert Bosch Engineering and					
	Business Solutions, Bangalore, Karnataka, India – Room 1					
9:20 am	Keynote XI: Prof. Abid Haleem, Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology,					
	Jamia Millia Islamia, New Delhi -110025, India – Room 1					
10:00 am	Keynote XII: Dr. S. Viswanathan, Professor of Operations Management and Associate Dean (Research), Nanyang					
	Business School, Nanyang Technological University, Singapore - Room 1					
10:40 am	Break					
	Room 1	Room 2	Room 3			
11:00 am	Global Supply Chain and Logistics I	Decision Sciences	Engineering Management			
1:00 pm	Lunch Break					
2:00 pm	Global Supply Chain and Logistics II	Machine Learning	Business Management			
3:30 pm	Global Supply Chain and Logistics III	Industry Solutions	Business Management			
5:00 ppm	Panel on Global Supply Chain and Logistics	Operations Management	Occupational Safety and Health (OSH)			
6:30 pm	Panel of Diversity and Inclusion sponsored by	Quality Control	Engineering Education			
	Ford Motor Company					
8:00 pm	Conference Awards Ceremony					

## August 16, 2021 (Monday) - Session: 7:45 am - 10:40 am

7:45 am Welcome Keynote:

### Dr. Nagahanumaiah,

Director, Central Manufacturing Technology Institute,
An Autonomous R&D Institute under the Departmentof Heavy Industry, Ministry of
Heavy Industries & Public Enterprises, Govt. of India,
Tumkur Road, Bengaluru

8:15 am Keynote I (Opening Keynote):

## Dr. Devdas Shetty,

Dean, School of Engineering and Applied Sciences, University of the District of Columbia, Washington, DC, USA

9:00 am Keynote II:

## Dr. Bala Bharadvaj,

Globally recognized Aerospace Expert,
Former MD of Boeing India Engineering & Technology Center,
Advisor and Former President of SAEINDIA,
Bangalore, India

9:40 am Keynote III:

## Prof. Prem Vrat,

Pro-Chancellor, NorthCap University, Gurugram, Haryana, India and Professor of Eminence & Chief Mentor

10:20 am Keynote IV:

## Dr. Kapil Gupta,

Associate Professor,
Department of Mechanical and Industrial Engineering Technology
University of Johannesburg, Johannesburg- Republic of South Africa

# August 16, 2021 (Monday) - Session: 11:00 am - 12:45 pm

#### 11:00 am - 12:45 pm, MONDAY

Global Engineering Education I

Room 1

Session Chair: Dr. Aftab Alam

#### 11:00 am, Monday, August 16

Dr. Harwinder Singh Professor in Mechanical Engineering Department Guru Nanak Dev Engineering College, Ludhiana Punjab, India

11:20 am, Monday, August 16

Dr. Jayakrishna Kandasamy Associate Professor School of Mechanical Engineering Vellore Institute of Technology Vellore, Tamil Nadu, India

11:40 am, Monday, August 16

Dr. Manik Mahachandra
Assistant Professor
Industrial Engineering Department
Faculty of Engineering
Center for Biomechanics, Biomaterial, Biomechatronics, and Biosignal Processing
University of Diponegoro
Semarang, Central Java, Indonesia

12:00 pm, Monday, August 16

12:20 pm, Monday, August 16

Dr. Aftab Alam
Professor of Marketing
Centre of Management Studies
Jamia Millia Islamia
(A Central University, Govt of India)
New Delhi, India

#### 11:00 am - 12:45 pm, MONDAY

**Graduate Student Paper Competition** 

Room 2

Session Chair: Dr. Vasu

#### ID 212 The effect of financial inclusion on Empowerment of women through participation in Self Help Groups

Sunayana N, Lakshmi N, Department of Management & Commerce, Amrita School of Arts & Sciences, Amrita Vishwa Vidyapeetham, Mysore

#### ID 218 A Study On Specific Marketing Difficulties Faced By Women Entrepreneurs

Mandara Deekshit B K, Dr. Ravikumar, Department of Management and Commerce, Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Mysuru Campus, Karnataka, India

#### ID 219 To Study and Analyze on Women Entrepreneurs Who Do Not Wish to be a Part of Organized Sector

Apoorva Kotian S, Dr. Ravi Kumar, Department of Management and Commerce, Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Mysuru Campus, Karnataka, India

#### ID 225 Industry 4.0 Integration with Industrial Engineering

Krishan Garg, Pravin Pawar, Jagdish Gosavi, Nitin Sharan, Jyoti More, John Deere India Pvt. Ltd. Pune, India

#### 11:00 am - 12:45 pm, MONDAY

Industry 4.0

Room 3

Session Chair: Dr. Qutubuddin Syed Mohammad, P.D.A. College of Engineering, Gulbarga, Karnataka State, India

#### ID 009 Wisdom Manufacturing in the Context of Holonic (HM), Bionic (BM) and Fractal Manufacturing (FM)

RRK Sharma, Department of Industrial and Management Engineering, IIT Kanpur-208016 India, Nikhil Danwani, Production Engineering Department, IIT Delhi-110016 India

#### ID 070 Diagnosis and Detection of IC Engine Fault at End of Line Engine Vibration Measurement System with Machine Learning Model.

Himansu Shaw and SK Vijay, Advanced Manufacturing and Engineering Group, TVS Motor Company Limited, Hosur, Tamil Nadu, India

ID 075 Real-life Applications of Industry 4.0 Technologies in Defending the COVID-19 Pandemic: A Review

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Sanjana Nayar, Karthika Ratheesh, Jyothika S, Department of Computer Science Engineering, Amrita School of Engineering, Amritapuri, India, Geena Prasad, Department of Mechanical Engineering, Amrita Vishwa Vidyapeetham, Amritapuri, India, Arun K, Department of Commerce and Management, Amrita School of Arts and Sciences, Amritapuri, India

#### ID 139 Industry 4.0 and Indian Manufacturing: An AHP Approach

Hera Farooquie, Asif Akhtar, Research Scholar, Assistant Professor, Faculty of Management Studies & Research, Aligarh Muslim University, Aligarh, 202002, India

#### ID 215 Industry 4.0 Integration with Industrial Engineering

Krishan Garg, Pravin Pawar, Jagdish Gosavi, Nitin Sharan, Jyoti More, John Deere India Pvt. Ltd. Pune, India

#### ID 243 A Blockchain-Based Implementation of IoT-Based Product Tracking

Md. Abdullah Mia, Mohammad Rakibul Hasan Chowdhury and Nur Md. Alif Ul Islam Department of Industrial and Production Engineering Bangladesh University of Engineering and Technology Dhaka-1000, Bangladesh

## August 16, 2021 (Monday) - Session: 2:00 – 3:45 pm

#### 2:00 - 3:45 pm, MONDAY

**Global Engineering Education II** 

Room 1

Session Chair: Dr. Arshad Noor Siddiquee

2:00 pm, Monday, August 16

Dr. A.R.M. Harunur Rashid Associate Professor Department of Mechanical and Production Engineering Islamic University of Technology (IUT) Board Bazar, Gazipur 1704 Dhaka, Bangladesh

2:20 pm, Monday, August 16

Dr. Virupaxi Bagodi Principal Government Engineering College Talakal – 583238, India

2:40 pm, Monday, August 16

Giselle Joy Esmeria Assistant Professor Department of Industrial Engineering De La Salle University Manila – Laguna Campus Philippines

3:00 pm, Monday, August 16

3:20 pm, Monday, August 16

Dr. Arshad Noor Siddiquee Professor Department of Mechanical Engineering Jamia Millia Islamia New Delhi, India

#### 2:00 - 3:45 pm, MONDAY

LSS and SC Competitions

Room 2

Session Chair: Dr. Bhaskar Bhandarkar

#### LSS Competition

#### ID 118 A Study On Specific Marketing Difficulties Faced By Women Entrepreneurs

Mandara Deekshit B K, Dr. Ravikumar, Department of Management and Commerce, Amrita School of Arts and Sciences, Amrita Vishwa, idyapeetham, Mysuru Campus, Karnataka, India

#### ID 142 Embracing Quality Management Systems In Manufacturing Value Chains Resulting In Improved Productivity

Thakaramahlaha Lehohla, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

#### **SCM Competition**

#### ID 018 Analyzing the Challenges in Humanitarian Supply Chain Management in Emerging Economy

Tilottama Singh, Vernika Agarwal and Snigdha Malhotra, Amity International Business School, Amity University Uttar Pradesh, India

#### ID 213 Application of Analytic Hierarchy Process for Supply Chain Design Project

Gopal Choudhari, Prof. P R Attar2, 1Student, M.Tech (Project Mgt.), Dept. of Production Engineering, VJTI, Mumbai, India, 2Assistant Professor, Dept. of Production Engineering, VJTI, Mumbai, India

#### **Simulation Competition**

#### ID 206 A Simulation Study to Evaluate the Performance of FMS Using Operations Flexibility

Huzefa Mashhood and Mohammed Ali, Department of Mechanical Engineering, Aligarh Muslim University, Aligarh, UP 202002, INDIA

#### 2:00 - 3:45 pm, MONDAY

#### **Production Planning and Control**

Room 3

Session Chair: Dr. M.S. Uppin, Professor, I&PE, P.D.A. College of Engineering, Kalaburagi

#### ID 074 Application of Economic Order Quantity (EOQ) for Make-To-Order (MTO) Business

Andreas Parasian, Hafsha Rasyida Sakti, Intan Karunia Novarianti, Rahmat Nurcahyo, Department of Industrial Engineering, Universitas Indonesia, Depok, Indonesia

ID 076 Optimize Softex 1097-A Material Inventory Planning with Master Production Schedule Method (Case Study at BASF Company)
Arriq Daffandi Putra, Ivonny Aqiila Filza Adinda, Rhania Devi Amaradhanny, Rahmat, Nurcahyo, Department of Industrial Engineering, Universitas Indonesia

**ID 077** Production Planning in A Rack Industry Using Moving Average Forecasting Method and Material Requirements Planning Dwi Ardian, Julio Febrian, Thomson, Rahmat Nurcahyo, Department of Industrial Engineering, Universitas Indonesia, Depok, 16424, Indonesia

ID 079 Improving Small Apparel Company's Production Planning using Demand Forecasting and Material Requirement Planning Gabriella Regina, Naila Zaafira Wilson, Pocut Shafira Putri Aurora, and Rahmat Nurcahyo, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Jakarta, Indonesia

#### ID 080 Improving Production Planning Strategy in Micro Enterprises

Safira Ramadhani, Sabrina Salsabila, Samuel Oporto Amadeus Goeltom, Rahmat Nurcahyo, Industrial Engineering Department, Universitas Indonesia, Depok, Indonesia

ID 81 Implementation of Time Series Forecasting Using Single Moving Average Model - A Case Study in Printing Industry
Nadia Cahyani Gandesrukma, Beryl Putra Sanjaya, Alfina Damayanti, Rahmat Nurcahyo, Department of Industrial Engineering, Universitas Indonesia, Depok, West Java, Indonesia

#### ID 082 Production Planning Forecasting using Single Moving Average and Exponential Smoothing Method in PT

Semen, Indonesia Christie Joanna Nathania, Fadilla Rahmanisa Iskandar, Ahmad Fahreza Wicaksonoputra, Rahmat Nurcahyo, Department of Industrial Engineering, Universitas Indonesia, Depok, West Java 16424, Indonesia

## ID 087 Comparison of Double Exponential and Single Exponential Smoothing Accuracy in Krakatau Steel Demand Forecasting Fitted Model

Indry Maretania, Muhammad Rummy Alfadjri, Pradieqta Uli Paramesywarie, Rahmat Nurcahyo, Department of Industrial Engineering, Universitas Indonesia, Depok, West Java 16424, Indonesia

## August 16, 2021 (Monday) - Session: 4:00 - 5:45 pm

#### 4:00 – 5:45 pm, MONDAY

**Global Engineering Education III** 

Room 1

Session Chair: Dr. M. Manzoor Hussain

4:00 pm, Monday, August 16

Dr. Callychurn Devkumar Sing
Head of Department
Head of Department MPED
Mechanical and Production Engineering Department (MPED)
Faculty of Engineering
University of Mauritius
Mauritus

4:20 pm, Monday, August 16

Dr. Olufemi Adetunji Senior Lecturer Department of Industrial and Systems Engineering University of Pretoria Pretoria, South Africa

4:40 pm, Monday, August 16

5:00 pm, Monday, August 16

Engr. Dr Adekunle Ibrahim MUSA Lecturer and the immediate past Head Department of Mechanical Engineering Moshood Abiola Polytechnic Abeokuta, Nigeria

5:20 pm, Monday, August 16

Dr. M. Manzoor Hussain Registrar Jawaharlal Nehru Technological University Hyderabad, India Professor in Mechanical Engineering Department

#### 4:00 - 5:45 pm, MONDAY

#### **Productivity**

Room 2

Session Chair: Dr. Binoosh S.A., Department of Mechanical Engineering, College of Engineering Trivandrum, Thiruvanathapuram

A Comparative Study on Pandemic Response and Their Impact on Economic Growth: Evidence From COVID-19 Outbreak In Scandanavia

Nasser Al Jurf Qatar University Qatar

A Combined Bibliometric Analysis on the Data Collection and Reporting Systems for Sustainability Assessment in Higher Education Sustainability and Green Systems

ADEEB ALI KUNJU ABDULLA KUTTY

Qatar University

Qatar

256 The Influence of Work Stress Towards Turnover Intention at State-Owned Bank in Bandung Area Mahendra

Fakhri Telkom University Indonesia

257 FDM 3D Printing Parameters Optimization: The Key Role Of Line Width Industry 4.0 PATRICHFERRETTI

Universita di Bologna Italy

#### 4:00 - 5:45 pm, MONDAY

#### **Healthcare Systems**

Room 3

Session Chair: Abhishek Raj, Mechanical Engineering Department, IIT (Banaras Hindu University), Varanasi, India

#### ID 044 Health Seeking Behaviour and Challenges in Utilising Health Facilities in Urban Bengaluru, India

Maria Sabastin S. Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India, Anub R. L. Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India

#### ID 015 The barriers Of Healthcare Waste Management Sector in Indian Hospitals and Their Impact on Society: A SEM Model

Abhishek Raj, Cherian Samuel, Mechanical Engineering Department, IIT (Banaras Hindu University), Varanasi, India

#### ID 136 Humanitarian Logistics Typhoon Hagibis Disaster Issues in Chiba, Japan

Kanaka Balasubramanian, Amity International Business School, Noida, India, Iwashita Motoi, Chiba Institute of Technology, Dept of Management Information Science, Faculty of Social System Science, Chiba, Japan

The Influence Of Work From Home Policy On The Performance Of Government Agency (Case Study On State Civil Servant Agency)
Global Business Management Education MAHIR PRADANA Telkom University Indonesia

251 The Effect Of Perceived Ease, Benefit, And Security On Interest In Using Ovo Fintech Application In Indonesia Budi Rustandi

Kartawinata Telkom University Indonesia

## August 16, 2021 (Monday) - Session: 6:00 – 7:45 pm

#### 6:00 - 7:45 pm, MONDAY

#### **Global Engineering Education IV**

Room 1

Session Chair: Dr. S.S. Hebbal

6:00 pm, Monday, August 16

Dr. S.S. Hebbal Principal of PDA College of Engineering

Kalaburagi, Karnataka, India 6:20 pm, Monday, August 16

Dr. Michael Mutingi Associate Professor – Industrial Engineering Namibia University of Science & Technology Windhoek, Namibia

6:40 pm, Monday, August 16

Robert Bordley

Professor of Engineering Practice and Program Director, Systems Engineering and Design Department of Industrial and Operations Engineering

University of Michigan Ann Arbor, MI, USA

7:00 pm, Monday, August 16

José Carlos Sá Adjunct Professor Course Subdirector Mechanical Engineering Department – Sub-Area of Industrial Engineering and Management Superior Institute of Engineering of Porto Porto, Portugal

7:20 pm, Monday, August 16

Prof. Avinash Sambrani Associate Professor and Head Department of Industrial and Production Engineering PDA College of Engineering, Kalaburagi India

7:40 - 8:00 pm, Monday, August 16

Dr. Satish Vadlamani Sr. Mgr. Supply Chain Analytics Kenco Group Chattanooga, Tennessee, USA

#### 6:00 - 7:45 pm, MONDAY

#### **Undergraduate Research and HF Competition**

Room 2

Session Chair: Dr. Abid Ali Khan, Department of Mechanical Engineering, Aligarh Muslim University, Aligarh

#### UNDERGRADUATE RESEARCH COMPETITION

ID 242 Ergonomic Risk Assessment of Manual Material Handling (MMH) Tasks at Select Unorganized Small Scale Units in North Karnataka Qutubuddin Syed Mohammed P.D.A.COLLEGE OF ENGINEERING India

#### **HUMAN FACTORS AND ERGONOMICS COMPETITION**

ID 252 An Indirect Approach to Analyse the Impact of Working Environment Restrictions Due To COVID 19 on Muscle Fatigue and Strength Anand Umrani Vishwakarma Institute of Technology India

ID 250 Determining the Effects of Back Support on the Comfortability and Productivity of BPO Employees Daniel Raven Gollayan Mapua University Philippines

#### 6:00 – 7:45 pm, MONDAY

#### Sustainability and Green Systems

Room 3

Session Chair: Ben Ruben R, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India

ID 012 UI GreenMetric Ranking of Universities using Entropy Weight and COPRAS Methods: Focusing on Gaziantep University Yagmur Gorgulu and Eren Ozceylan, Industrial Engineering Department, Gaziantep University, Gaziantep, Turkey, Baris Ozkan, Industrial Engineering Department, Ondokuz Mayıs University, Samsun, Turkey

#### ID 017 A Linear Optimization Model for Reducing CO2 Emission from Power Plants

Sasadhar Bera, Department of Operations Management, Indian Institute of Management Ranchi, Ranchi, India - 834008

#### ID 42 Integrate Sustainability into the Public Procurement Process in Construction Industry

Gunawardana K.A.P and Sandanayake Y. G, Department of Building Economics, University of Moratuwa, Sri Lanka Karunasena G, Department of School of Built Environment and Architecture, University of Deakin, Australia Jayawickrama T, Department of UniSA Online, University of University of South Australia, Australia

#### ID 051 UI GreenMetric Ranking of Turkish Universities using Entropy Weight and COPRAS Methods

Yagmur Gorgulu and Eren Ozceylan, Industrial Engineering Department, Gaziantep University, Gaziantep, Turkey, Baris Ozkan, Industrial Engineering Department, Ondokuz Mayıs University, Samsun, Turkey

ID 169 Exploring millennial's buying motives through needs hierarchy and situational barriers influencing green purchase behaviour Sustainability and Green Systems Amanpreet Kaur Mishra SRCC, Delhi University India

#### ID 126 Optimization of Drilling Parameter to Minimize Burr Formation Using Genetic Algorithm: A Case Study

Akash Shit, Madhab Chandra Mandal, Nripen Mondal, Sudipta Ghosh, and Amitava Ray, Department of Mechanical Engineering, Jalpaiguri Government Engineering College, Jalpaiguri, India

ID 163 Development of a dedicated framework for deployment of Circular Economy strategies in manufacturing organizations

S.P. Nithin Balaji, K Pranav, and J.Jayasuryaa, Under Graduate Students, Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India

Ben Ruben R, Assistant Professor, Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu. India

## August 16, 2021 (Monday) - Session: 8:00 - 9:30 pm

8:00 - 9:30 pm, MONDAY

Global Engineering Education V

Room 1

#### Panel - Global Engineering Education

Panel Chair

Dr. Bhaskar Bhandarkar Director General Institution for Innovation Industrial Engineering and Entrepreneurship India and Former Chairman Indian Institution of Industrial Engineering

Panel Speaker I

Dr. Madan Dabbeeru Senior Director Rakuten Bangalore, India

Panel Speaker II

Dr. Shijith Nambiar P.M. Assistant Professor SolBridge International School of Business South Korea

Panel Speaker III

Dr. Shijith Nambiar P.M. Assistant Professor SolBridge International School of Business South Korea

Panel Speaker III

Dr. Jorge Kurita Professor and Research Director Universidad Nacional de Asuncion Paraguay

Panel Speaker IV

Dr. Annamalai Pandian
Associate Professor
Director, Bachelor of Science in Engineering Technology Management
Department of Mechanical Engineering
Saginaw Valley State University
University Center, Michigan, USA

Panel Speaker V

#### 8:00 - 9:30 pm, MONDAY

**Thesis Competition** 

Room 2

Session Chair: Dr. Binoosh S.A., Department of Mechanical Engineering, College of Engineering Trivandrum, Thiruvanathapuram

#### ID 011 Application of Artificial Intelligence (AI) in the Construction Industry

Anil Mahato, Dr. Debasis Sarkar, Post Graduate Student of Infrastructure Engineering Management, Pandit Deendayal Petroleum University, Raisan-Gandhinagar, Gujarat, India, Associate professor& Former Head of civil Department, Pandit Deendayal Petroleum University, Gujarat, India.

#### ID 115 Sustainable Manufacturing Practices in Tea Industry of North Bengal: A Case Study

Nripen Roy, Sudipta Ghosh, Madhab Chandra Mandal, Amitava Ray, Department of Mechanical Engineering, Jalpaiguri Government Engineering College, Jalpaiguri, India

#### ID 164 Are Indian Companies aligned towards Women Empowerment?

Arpita Chakraborty, Lecturer, Dept. of Economics, St Francis College, Bangalore University, Dr. Shekar Babu PhD, Professor & Founding Head, Department of Management, Amrita Vishwa Vidyapeetham University Bengaluru, India

#### 8:00 - 9:30 pm, MONDAY

#### Modeling and Simulation

Room 3

Session Chair: Dr. Virupaxi Bagodi, Government Engineering College, Koppal, Karnataka

#### ID 092 Selective Maintenance Decision Modelling for Multi Component System

Dr. Pravin P. Tambe, Operations Management and Decision Sciences, Indian Institute of Management, Tiruchirappalli, Pudukottai Main Road, Chinna Sooriyur Village, Tiruchirappalli – 620024

#### ID 214 Discrete Event Simulation based Al for Material Flow Decisions

Suraj Jamodkar and Shashank Siddapur, John Deere India Pvt.

#### ID 222 Developing a Mathematical Model for the Effect of Charcoal on Odor Intensity using Differential Equations

Jeremy Laurence M. Bañez†, Industrial Engineering Department, Bulacan State University, City of Malolos, Bulacan, Philippines, 3000, Eldrin B. Gulapa, Industrial Engineering Department, Bulacan State University, City of Malolos, Bulacan, Philippines, 3000

#### ID 226 Development of an Optimization Model for Multiple Production Systems with Split and Merge

Hisham Alkhalefah, Mustufa Haider Abidi and Usama Umer, Advanced Manufacturing Institute, King Saud University, Riyadh 11421, Saudi Arabia, Ahmed Elkaseer, Department of Production Engineering and Mechanical Design, Faculty of Engineering, Port Said University, Port Fuad 42526, Egypt, Institute for Automation and Applied Informatics, Karlsruhe Institute of Technology,76344 Karlsruhe, Germany

## August 16, 2021 (Monday) - Session: 9:30 pm - 11:00 pm

9:30 - 11:00 pm, MONDAY

Global Engineering Education VI

Room 1

# Women in Industry and Academia (WIIA) Panel

Panel Chair

Dr. Anjali Awasthi Professor and Concordia University Research Chair Montreal, Canada

Panel Speaker I

Dr. Neelam Srivastava
Professor & HOD Electronics & Comm. Engg.
IET Institute of Engineering & Technology Lucknow Constituent College of A K T U lucknow
Ex- Founding Director (REC) | Ex – CPC SPFU, U.P | Senior Member IEEE
Lucknow, Uttar Pradesh, India

Panel Speaker II

Dr. Shraddha Gawankar Assistant Professor of Decision Sciences School of Business The George Washington University Washington, D.C. 20052, USA

Panel Speaker III

Richa Grover
Category Manager – Flipkart
National Winner Godrej LOUD | Godrej | Hitachi | SIBM Pune
Pune, Maharashtra, India

Panel Speaker IV

Dr. Seema Singh Professor of Economics Delhi Technological University (DTU) Delhi. India

Panel Speaker V

Rashmi Bhandarkar Manager (Special projects) Mahindra Logistics Ltd.

Panel Speaker VI

#### 9:30 - 11:00 pm, MONDAY

#### **Undergraduate Student Paper Competition**

Room 2

Session Chair:

ID 023 Integration of Lean to Minimise Implementation Costs of Building Information Modelling (BIM): A Conceptual Framework Lichini Nikesha Kumari Weerasinghe, Department of Building Economics, University of Moratuwa, Sri Lanka, Himal Suranga Jayasena, Department of Building Economics, University of Moratuwa, Sri Lanka, Akila Pramodh Rathnasinghe, Faculty of Engineering and Environment, Northumbria University, United Kingdom

#### ID 056 Customer Segmentation

Lakshmi B, Swathi M, Mahathi Bhargavi M, Srikanth D, Mohan K, Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

## ID 069 Servuction Procedures for Waste Collection Management through the use of Information Technologies and the Design Thinking methodology

Claudia Contreras Silva, Esteban Crespo-Martinez, Production and Operations Engineering, Universidad del Azuay, Cuenca Ecuador

#### ID 071 The Impact of the COVID-19 Pandemic on the Energy Sector

Giorgio Agostini, Christian Berger, Delaney Hall, Salaar Khan, Michael Pennington and Mohamed Awwad, Department of Industrial and Manufacturing Engineering, California Polytechnic State University, San Luis Obispo, CA 93407, USA

#### ID 072 The Impact of the Computer Chip Supply Shortage

Hannah Casper, Autumn Rexford, David Riegel, Amanda Robinson, Emily Martin and Mohamed Awwad, Department of Industrial and Manufacturing Engineering, California Polytechnic State University, San Luis Obispo, CA 93407, USA

#### ID 112 Design And Development of a Weather Forecasting Android Application

Dr Pandithurai O, Nandini S Hinduja, Monica A R, Keerthana N V, Dr D Jayashree, Professor, Department Of Computer Science And Engineering, Rajalakshmi Institute Of Technology, Chennai, 234ug Student, Department Of Computer Science And Engineering, Rajalakshmi Institute Of Technology, Chennai

ID 150 Prioritization of enablers supporting deployment of Lean Six Sigma with sustainability considerations: An ISM based approach Srikant J, Thirumurugan S, Venkata Krishnan R and Sai Deepesh J, Under Graduate Students, Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India

Ben Ruben R, Assistant Professor, Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India

#### ID 165 Development of Computer Assisted System for Ergonomic Risk Assessment Tools

Harshita Chawda, Student, Department of Industrial & Production Engineering, P.D.A.College of Engineering, Kalaburagi, India, Qutubuddin S.M, Associate Professor, Department of Industrial & Production Engineering, P.D.A.College of Engineering, Kalaburagi, India, Mohammed Touseef, nwar, Md.Quddus Ahmed, Vijaylaxmi C. Students, Department of Industrial & Production Engineering, P.D.A.College of Engineering, Kalaburagi, India

9:30 - 11:00 pm, MONDAY

Global Engineering Education - VI

Room 3

## **CATME Workshop – Managing Student Team**

Matthew W. Ohland, Ph.D., F.ASEE, F.IEEE, F.AAAS Dale and Suzi Gallagher Professor School of Engineering Education Purdue University West Lafayette, Indiana, USA

## August 17, 2021 (Tuesday) - Session: 7:45 am - 11:20 am

7:45 am Welcome Address:

#### Dr. Shekar Babu,

Founding Head, AMRITA School of Business, AMRITA Vishwa Vidyapeetham University, Bangalore, India

8:00 am Keynote V:

## Dr. Neil G Murray Jr., DEMS,

Engineering Manager at ZF and Adjunct Professor, Lawrence Technological University, Michigan, USA

8:40 am Keynote VI:

## Jatinder (Jeet) N. D. Gupta, PhD, CFPIM,

Director, Integrated Enterprise Lab, Eminent Scholar and Professor, College of Business,
The University of Alabama in Huntsville, Huntsville, Alabama, USA

9:20 am Keynote VII:

## Mr. Ramanathan Narayanan,

Managing Director and CEO, San Engineering, Bangalore, India

10:00 am Keynote Speaker VIII:

## **Dumidu Ranaweera, CEMBB,**

Global Director APAC, Middle East, Oceania, Africa & Canada, Dr. Mikel J. Harry Six Sigma Management Institute Asia, Colombo, Sri Lanka

10:40 am Keynote IX:

## Prof. Vikas Kumar,

Director of Research and Scholarship and Professor of Operations and Supply Chain Management, Bristol Business School, University of the West of England, Bristol, UK

## August 17, 2021 (Tuesday) - Session: 11:30 am - 1:00 pm

#### 11:30 am - 1:00 pm, TUESDAY

Industry Solutions and Industry 4.0 I

Room 1

Session Chair: Mohammed Igbal

11:30 am, Tuesday, August 17

Sanjiv Narula Phd Scholar Industry 4.0(BMU) and Dy. General Manager Quality Excellence Hero Motocorp Gurgaon, Haryana, India

11:50 am, Tuesday, August 17

Mohammed Iqbal Program Manager Lam Research India Bengaluru, Karnataka, India

12:10 am, Tuesday, August 17

Balbir Singh Khera Chief Executive Officer BuidTrack Mumbai, India

12:30 pm, Tuesday, August 17

Dr. Akhilesh Kumar Associate Professor Department of Industrial & Systems Engineering Indian Institute of Technology, Kharagpur West Bengal, India

#### 11:30 am - 1:00 pm, TUESDAY

**Operations Research** 

Room 2

Session Chair: Professor Avinash Sambrani, P.D.A. College of Engineering, Kalaburagi, Karnataka

#### ID 001 Generating Good Solutions for a Linear Program by Using Genetic Algorithm (GA)

RRK Sharma, Department of Industrial and Management Engineering, IIT Kanpur 208016 India

#### ID 002 A New Approach to Two Stage Capacitated Warehouse Location Problem (TSCWLP)

Prof. RRK Sharma, Department of Industrial and Management Engineering IIT Kanpur 208 016 INDIA, Jai Kumar Drave, Department of Production Engineering, National Institute of Technology, Tiruchirappalli, India, Dr. Vinayak A Drave, Assistant Professor, Department of Operations & Supply chain, Jindal Global Business School, O.P. Jindal Global University, Sonipat, Haryana, India, Ateequr Rahman, PhD Research fellow, Department and Graduate Institute of Business Administration, Chaoyang University of Technology, Taichung, Taiwan (ROC)

ID 004 Single Vehicle Routing Problem with Quadratic, Cubic Objective Function and Negative Cost Coefficients and Its Linearization RRK Sharma, Dept of IME IIT Kanpur 208016 India

#### ID 111 Simple and Capacitated Plant Location Problem: Forward and Reverse Logistics

Prof. RRK Sharma, Department of IME IIT Kanpur 208016 India, Dr. Vinay Singh, ABV-IIITM Gwalior-474015, India

#### ID 141 Obtaining Good Feasible Solutions to General Min-Cost-Flow Network Problem

R.R.K. Sharma, Dept. of IME, IIT, Kanpur-208016, India, Priyank Sinha, IIM Rohtak, India

#### ID 093 Driver Burnout and the Fuzzy Vehicle Routing Problem

Anisha Khaitan, Department of Operational Research, Faculty of Mathematical Sciences, University of Delhi, New Delhi - 110007, India

11:30 am - 1:00 pm, TUESDAY

**Supply Chain Management** 

Room 3

Session Chair:

## August 17, 2021 (Tuesday) - Session: 2:00 - 3:45 pm

#### 2:00 - 3:45 pm, TUESDAY

**Industry Solutions and Industry 4.0 II** 

Room 1

Session Chair:

2:00 pm, Tuesday, August 17

Dina Nurul Fitria Principal Amina Research & Business Consulting Jakarta, 12190, Indonesia

2:20 pm, Tuesday, August 17

Dr. Eng. Carlo Bonato
Lean Manufacturing Senior Expert – Supply Chain Management Senior Expert- Six Sigma Senior Expert
Productility srl
Monza e Brianza, Lombardy, Italy

2:40 pm, Tuesday, August 17

Mukul Bansal Operational Excellence Lead Lupin India Delhi, India

3:00 pm, Tuesday, August 17

Farhan Mirza President BAFF Consultants Inc. Orange County, California, United States

#### 2:00 - 3:45 pm, TUESDAY

#### Sustainability

Room 2

Session Chair: Mahesh Reddy, K G Reddy College of Engineering & Technology India

#### ID 230 Food Wastage in Households and Theories Underlying the Behaviour

Mithun Raj, PhD Student, Amrita Vishwa Vidyapeetham University

Shekar Babu, Professor & Founding Head, Department of Management, Amrita Vishwa Vidyapeetham University, Bengaluru, India

ID 230 Food Wastage in Households and Theories Underlying the Behaviour

Mithun Raj Ph D Student, Amrita Vishwa Vidyapeetham University Cochin, India India

ID 229 Prevention of Soil Erosion by Sustainable Phytoremediation Process Using Solar Irrigation & Fertilization System

Mahesh Reddy K G Reddy College of Engineering & Technology India

#### 2:00 - 3:45 pm, TUESDAY

#### **Business Management**

Room 3

Session Chair: Rajesh S. Prabhu Gaonkar, Indian Institute of Technology Goa (IIT Goa), Farmagudi, Ponda, Goa, INDIA

#### ID 068 Clustering of Maintenance Work Data for Failure Mode Discrimination

Abdul Rani Achmed Abdullah, Siti Zura A Jalil and Nik Nadzirah Nik Mohamed, Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia

#### ID 073 Rank Assessment of Robots Using m-Polar Fuzzy ELECTRE-I Algorithm

Madan Jagtap, Mechanical Engineering Departmen, Saraswati College of Engineering, Kharghar, Navi Mumbai 410210, India, Dr. Prasad Karande, Mechanical Engineering Department, Veermata Jijabai Technological Institute, Matunga, Mumbai 400019, India, Dr. Vijay Manikrao Athawale, Mechanical Engineering Department, Government College of Engineering, New Khapri, Nagpur 441108, India

#### ID 078 Contextual Analysis on Antenatal and Postnatal Effects of 2018 Flood in Ernakulam, Kerala

Athira. B. Menon, Devipriya, Krishna Rajeev, Department of Computer Science Engineering, Amrita School of Engineering, Amritapuri, India, Geena Prasad, Gevargis Muramthookil Thomas, Department of Mechanical Engineering, Amrita Vishwa Vidyapeetham, Amritapuri, India

#### ID 010 Relating OD (Organizational Development) Interventions to Strategy

RRK Sharma and Shivangi Rai, Department of Industrial and management Engineering, Indian Institute of Technology, Kanpur 208016 India, Vinayak A Drave, OP Jindal University, Sonipat, India, KK Lai, President, CYUT Taiwan

ID 090 Integrated Wastewater Management, Performance Evaluation, Sustainability & Renewable Energy Solutions for Water & Sewage Treatment plant. -A case Study at Navi Mumbai, Maharashtra, India Dr.N.Shinde3. S. Desai1, 2, 3

1Mech. Engineer, Navi Mumbai Municipal Corporation, Navi Mumbai, Maharashtra, India.

2Managing Committee Member, Institution of Engineers India, Navi Mumbai, Maharashtra, India.

3 Department of Technology, Shivaji University, Kolhapur, Maharashtra, India.

ID 058 Stress Strength Reliability of time dependent strength using Jaya algorithm: An application to automotive circuits

Saurabh L. Raikar, Mechanical Engineering Department, Goa College of Engineering (affiliated to Goa University), Farmagudi, Ponda, Goa, India, 403401

Rajesh S. Prabhu Gaonkar, Indian Institute of Technology Goa (IIT Goa), Farmagudi, Ponda, Goa, (INDIA), 403401

## August 17, 2021 (Tuesday) - Session: 4:00 - 5:45 pm

#### 4:00 - 7:00 pm, TUESDAY

Industry Solutions and Industry 4.0 III

Room 1

Session Chair: Satya Saurabh Khosla, Adimode Transnational Trading LLC, Dubai, UAE

4:00 pm, Tuesday, August 17

Satya Saurabh Khosla Owner and Managing Director Adimode Transnational Trading LLC Dubai, UAE

4:20 pm, Tuesday, August 17

Shaik Abdul Khadar Chief Executive Officer Data Labs India Solutions Pvt Ltd. INDIA

4:40 pm, Tuesday, August 17

Patrich Ferretti
Department of Industrial Engineering
Department of Industrial Engineering
ALMA MATER STUDIORUM - Università di Bologna
Bologna, Italy

5:00 pm - Tuesday, August 17

Mary Buchzeiger President and CEO Lucerne International Auburn Hills, Michigan, USA

5:30 pm, Tuesday, August 17

Dr. Diego Galar Full Professor of Condition Monitoring Division of Operation and Maintenance Engineering Luleå University of Technology Luleå, Sweden

6:00 pm, Tuesday, August 17

Monish Jirge Founding Innovation Partner J Mechatronic Kolhapur, Maharashtra, India

6:30 pm, Tuesday, August 17

Parth R Patel Director ApolloTechno Industries Private Limited Mahesana, Gujarat, India

7:00 - 7:30 pm, Tuesday, August 17

7:30 - 8:00 pm, Tuesday, August 17

#### 4:00 - 5:45 pm, TUESDAY

#### **Operations Management**

Room 2

Session Chair: Dr. Deepankar Sinha, Indian Institute of Foreign Trade, Kolkata

#### ID 021 Turbulent Business Environment in The Chemicals Industry Sector and Navigation Strategies

M. M. Manyuchi, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa, N. Sukdeo, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

#### ID 025 Predictive Technology in remote competitive product service markets

Amit Joshi, Indian Institute of Management Indore, Prabandh Shikhar, Rau-Pithampur Road, Indore - 453556, Madhya Pradesh, India

#### ID 027 Plan-Do-Check-Act (PDCA) Based Approach to Business Process Mapping

Arun Kumaar Kathirvel, GlobalFoundries Inc, Malta, NY 12020, US, Carolyn Paddock-Moore, GlobalFoundries Inc, Burlington, VT 05452, US, Shiladitya Chakravorty, GlobalFoundries Inc, Malta, NY 12020, US

#### ID 041 The Role of Quality Family Planning Services in Contraceptive Switching to Long-Acting and Permanent Methods (LAPM)

Anisa R Rahmawati and Omas B Samosir, Faculty of Economics and Business, Universitas Indonesia, Depok, 16424, Indonesia

#### ID 043 Inventory and Supply Chain Management for E-Commerce based Supermarkets enabled by Cloud Services with Actor-Dependency Models

Rishabh Tripathi, Abhishek Shukla and Subhas Chandra Misra, Indian Institute of Technology Kanpur, Kanpur-208016, Uttar Pradesh, India

ID 054 Facilities Planning in the Post COVID-19 World

Yash Gandhi University of Houston

**United States** 

#### 4:00 – 5:45 pm, TUESDAY

#### **Business Management**

Room 3

Session Chair: P Manoj Kumar, K G Reddy college of Engineering & Technology, Moinabad, Rangareddy Dist; Telangana state, India

#### ID 005 Values And Personality Types Of Market Mavens And Opinion Leaders In The E-World

RRK Sharma, Department of IME, IIT Kanpur 208016 India, Anjali Sharma, Department of IME, IIT Kanpur 208016 India

#### ID 053 Value Engineering in HVAC Systems

Jehorom Px A. Perez, Maria Victorina D. Rada & Ma. Janice J. Gumasing, School of Industrial and Engineering Management, Mapua University, 658, Muralla St, Intramuros, Manila, 1002 Metro Manila

## ID 026 The Influence of Services cape, Discount, Brand Image and Service Quality on Purchase Decisions in Starbucks Tangerang, Indonesia

Enrico and John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, Wilson Rajagukguk, Department of Management Faculty of Economics and Business, Universitas Kristen Indonesia, Jakarta, Indonesia

#### ID 144 Customer Convenience: A Cause for Technological Changes in Banking Sector

Prabhavathi K. and Dinesh G. P. Ballari Institute of Technology and Management, Affiliated to VTU, Bellary, Karnataka, India, Ravi Kanth B. K. and C. S. P. Rao, National Institute of Technology - Andhra Pradesh, India

## ID 149 Moving towards a cleaner world with the Circular Economy practices concerning the SMEs in Visakhapatnam's Ice-cream Industry

Mukesh Kondala, Department of Operations Management, GITAM (Deemed to be University), Visakhapatnam, India, Subhodeep Mukherjee, Department of Operations Management, GITAM (Deemed to be University), Visakhapatnam, India

# **ID 229** Prevention of Soil Erosion by Sustainable Phytoremediation Process Using Solar Irrigation & Fertilization System P Manoj Kumar and Mahesh Reddy, Department of Mechanical Engineering, K G Reddy college of Engineering & Technology, Moinabad, Rangareddy Dist; Telangana state, India

August 17, 2021 (Tuesday) - Session: 6:00 - 7:45 pm

#### 6:00 - 7:45 pm, TUESDAY

**Industry Solutions and Industry 4.0 IV** 

Room 1

Session Chair: Satya Saurabh Khosla, Adimode Transnational Trading LLC, Dubai, UAE

Continue from previous session

#### 6:00 - 7:45 pm, TUESDAY

**Business Management** 

Room 2

Session Chair: Abhishek Raj, Mechanical Engineering Department, IIT (Banaras Hindu University), Varanasi, India

#### ID 022 Regional Economic Development and Stunting: A Panel Data Analysis 2005 and 2010–2019

Wilson Rajagukguk, Faculty of Economics and Business, Universitas Kristen Indonesia, Jl. Mayjen Sutojo No.2, Cawang, Jakarta 13630, Indonesia, John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, Gidion P. Adirinekso, Department of Management Faculty of Economics and Business, Universitas Kristen Krida Wacana, Jakarta, Indonesia

#### ID 194 Colombia Sub National Murder .Cyclicity 2010- 2020

José Martín Díaz Pulido, Fernando Augusto Poveda Aguja Facultad de Ciencias Empresariales, Administración de Empresas, Maestría en Educación, Corporación Universitaria Minuto de Dios, Bogotá, Colombia, Rodrigo Quintero Reyes, Wilson Alexander Pinzón Rueda, Facultad Tecnológica, Universidad Distrital "Francisco José de Caldas" Bogotá, Colombia, Ricardo Mancera Pardo, Rony Edson Sánchez Calderón, RealData S.A.S. Bogotá D.C. Colombia

#### ID 207 A Retrospective of the Business Communication using Bibliometric Review

Agung Purnomo, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Mega Firdaus, English Language Education Department, Universitas Nahdatul Ulama Sidoarjo, Sidoarjo 61218, Indonesia, Yanuarita Kusuma Permata Sari, Communication Science Department, Faculty of Economics and Communication, Bina Nusantara University, Jakarta 11480, Indonesia, Zaha Azzahira, Communication Science Department, Universitas Airlangga, Surabaya 60115, Indonesia

#### ID 208 A Bibliometric Publication Mapping Overview of Business Model Canvas

Agung Purnomo, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Nur Asitah, Institute for Research and Community Services, Universitas Nahdatul Ulama Sidoarjo, Sidoarjo 61218, Indonesia, Riesta Devi Kumalasari, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Raden Dafi Dinansyah Wiradimadja, Environmental Science Department, Mie University, Mie 5148507, Japan, Hifzhan Frima Thousani, Business Administration Department, Politeknik Negeri Madiun, Madiun 63133, Indonesia

#### ID 209 Six Decades of the e-Services Research: A Bibliometric Overview

Agung Purnomo, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Andre Septianto, Chemical Engineering Department, Universitas Nahdatul Ulama Sidoarjo, Sidoarjo 61218, Indonesia, Riefky Prabowo, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Fairuz Iqbal Maulana, Computer Science Department, Bina Nusantara University, Jakarta 11480, Indonesia, Elsa Rosyidah, Environmental Engineering Department, Universitas Nahdlatul Ulama Sidoarjo, Sidoarjo 61218, Indonesia,

#### ID 210 Home-Based Business: A Bibliometric Analysis Over the Past Six Decades

Agung Purnomo, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Nuzula Firdausi, English Language Education Department, Universitas Nahdatul Ulama Sidoarjo, Sidoarjo 61218, Indonesia, Didin Hadi Saputra, Business Administration Department, Universitas Nahdlatul Wathan Mataram, Mataram 83126, Indonesia, Fatkul Anam, Mathematic Education Department, Universitas Wijaya Kusuma Surabaya, Surabaya 60225, Indonesia, Gamal Kusuma Zamahsari, Communication Science Department, Bina Nusantara University, Jakarta 11480, Indonesia

#### 6:00 - 7:45 pm, TUESDAY

#### **Production Planning and Control**

Room 3

Session Chair: Vishwas Dohale, Research Fellow, National Institute of Industrial Engineering (NITIE), Mumbai, India

ID 091 Short-term Forecasting of Spring Production Volume with Small Data Using Double Exponential Smoothing and Winters' Method Fariz Muhammad Putra Fajar, Maulana Ibrahim, Rizki Akbar Sofyan, Rahmat Nurcahyo, Department of Industrial Engineering, Universitas Indonesia, Depok, Jawa Barat 16424, Indonesia

ID 113 Improving Material Management in Micro, Small, and Medium Enterprise (MSME) Using Material Requirement Planning (MRP) Wahyu Adiraga Digjaya, Gemilang Ananda Nizola, and Muhammad Ilham Bintang, Department of Industrial Engineering, Universitas Indonesia, Depok, Indonesia

## ID 116 Demand Forecasting Comparison of Softex 1400-M using Single Moving Average Method and Single Exponential Smoothing Method

Alifa Taqya Shafa Nadhira, Cherish Amarissa Gadisku, Sarah Malemta Peranginangin, Industrial Engineering Department, Universitas Indonesia, Depok, Indonesia

## ID 117 Comparing the Accuracy of Holt's and Brown's Double Exponential Smoothing Method in Forecasting the Coal Demand of Company X

Ajeng Rahmawati, Charisma Nur Ramadhanti, Firda Hanna Ismia, Rahmat Nurcahyo, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Kampus UI Depok, 16424, Indonesia

#### ID 122 Analysis of Inventory Control Using Economic Order Quantity Model - A Case Study in PT

Wijaya Agung, Hutama, Faiz Kevin Naufal, Farel Hylmi Hakim, and Yasmin Aziza Putri, Industrial Engineering Department, Universitas Indonesia Depok, West Java, Indonesia

#### ID 123 The Effect of COVID-19 on Production Plan (Case Study: Automotive Parts Industry)

Alifarel Virya, Farrell Dzaudan Muhammad Cahyana, and Prima Haikal Hakim, Department of Industrial Engineering, Universitas Indonesia, Depok, West Java 16424, Indonesia

#### ID 124 The Effect of COVID-19 on Production Plan (Case Study: Automotive Parts Industry)

Alifarel Virya, Farrell Dzaudan Muhammad Cahyana, and Prima Haikal Hakim, Department of Industrial Engineering, Universitas Indonesia, Depok, West Java 16424, Indonesia

ID 125 The Effect of COVID-19 on Production Plan (Case Study: Automotive Parts Industry)
Farrell Dzaudan Muhammad Cahyana Universitas Indonesia Indonesia

Production Planning and Control

#### ID 138 Application of TOC Strategy Using Simulation: Case of the Indian Automobile Component Manufacturing Firm

Vishwas Dohale, Research Fellow, National Institute of Industrial Engineering (NITIE), Mumbai, India Priya Ambilkar, Research Fellow, National Institute of Industrial Engineering (NITIE), Mumbai, India Vijay Bilolikar, Professor, Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE), Bandra (W), Mumbai

## August 17, 2021 (Tuesday) - Session: 8:00 – 9:30 pm

8:00 - 9:30 pm, TUESDAY

Industry Solutions and Industry 4.0 V

Room 1

#### Panel on Data Analytics / Business Analytics

Panel Chair: Anjani Punnamaraju

Panel Speaker I

Sanjid Haque Production Engineer Hanwha Q CELLS America Inc. Dalton, Georgia, United States

Panel Speaker II

Panel Speaker III

Tarun Mohan Lal Vice President, Analytics and Solutions/CAO Atrium Health Navicent Atlanta, Georgia, USA

Panel Speaker IV

Anjani Punnamaraju Data Analyst DACCO Behavioral Health Tampa, Florida, USA

Panel Speaker V

#### 8:00 - 9:30 pm, TUESDAY

#### **Supply Chain Management**

Room 2

Session Chair: Dr. N.C. Hiremath, Industrial Engineering & Technology, Abu Dhabi Womens College, UAE

#### ID 086 Supply Chain Mapping of Ventilators Amidst the COVID-19 Pandemic

Rohit Radhakrishnan and Vaisakh. V, Department of Mechanical Engineering, Mar Baselios College of Engineering & Technology, Thiruvananthapuram, Kerala, India

Nidhi M.B. Associate Professor, Department of Mechanical Engineering, Mar Baselios College of Engineering & Technology, Thiruvananthapuram, Kerala, India

# ID 121 Development of Nickel Production Management Using Trend and Seasonal Components Method on Demand Forecasting Gavin Rianto Putra, Muhammad Yazid Yogawinata, and Yuanita Artika Utami, Industrial Engineering Department, Universitas Indonesia, Depok, Indonesia

## ID 148 Development of a business model in industry 4.0 to achieve sustainable supply chain innovation: Study of Large and Medium Moroccan companies

Ahmed El Maalmi, Engineering Sciences Laboratory, National School of Applied Sciences, Ibn Tofail University, Kenitra, Morocco, Kaoutar Jenoui, Laboratory Smartilab, Moroccan School of Engineering Sciences, EMSI, Rabat, Morocco, Laila El Abbadi, Engineering Sciences Laboratory, National School of Applied Sciences, Ibn Tofail University, Kenitra, MoroccoUniversity Morocco

#### ID 147 E-commerce, Industry 4.0, & Transportation – Identifying the Potentiality & Problems

Amit Kumar and Vishrut Landge, Civil Engineering Department, Visvesvaraya National Institute of Technology, Nagpur, India, Sumeet Jaiswal, Civil Engineering Department, Maharashtra Institute of Technology, Aurangabad, India

#### ID 104 Impact of Covid-19 on the Tourism Industry in Kerala, India

John K Mathews, Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India Soumya Somanath, Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India Maria Sabastin S, Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India

ID 244 A Study of the Relationship between Logistics Performance and Human Development

Soumya Varma Indian Institute of Management, Sirmaur India

#### ID 186 Social Cost and Urban Entry Tolls: EOQ Model for a Single Echelon Supply Chain Using 3PL

Chitresh Kumar and Anirban Ganguly, Jindal Global Business School, O. P. Jindal Global University, Sonipat, Haryana 131001, India Andrii Galkin, Transport Systems and Logistics Department, O. M. Beketov National University of Urban Economy, Kharkiv, Ukraine

#### ID 193 Personal Injury by Automotors. Colombia 2010 to 2020

Diego Karachas Rodriguez, Edgar Olmedo Cruz Micán, Facultad de Ciencias Empresariales, Administración de Empresas AEMD, Corporacion Universitaria Minuto de Dios, Bogotá, Colombia

Rodrigo Quintero Reyes, Wilson Alexander Pinzón Rueda, Facultad Tecnológica, Universidad Distrital "Francisco José de Caldas", Bogotá, Colombia

Carlos Andrés Arango Londoño, Departamento de Ingenieria Industrial, Universidad de La Salle, Bogotá, Colombia, Fidel Andrés Olarte Bustos, RealData S.A.S., Bogotá D.C. Colombia

#### 8:00 - 9:30 pm, TUESDAY

#### **Quality and Reliability**

Room 3

Session Chair: Monica Shukla, Department of Management Studies, Indian Institute of Technology Delhi, IIT Campus, Hauz Khas, New Delhi, India

ID 247 The Influence of Service Quality and Consumer Trust on Consumer Loyalty of Carousel Apps Telkom University Indonesia MAHIR PRADANA

D 143 Status of Smart Manufacturing System Implementation in Indian SMEs: A Multi-Case Approach

Monica Shukla, Department of Management Studies, Indian Institute of Technology Delhi, IIT Campus, Hauz Khas, New Delhi 110016, India

ID 248 The Influence Of Work From Home Policy On The Performance Of Government Agency (Case Study On State Civil Servant Agency)
Global Business Management Education MAHIR PRADANA Telkom University Indonesia

ID 247 The Influence of Service Quality and Consumer Trust on Consumer Loyalty of Carousel Apps Telkom University Indonesia

MAHIR PRADANA

## August 17, 2021 (Tuesday) - Session: 9:30 - 11:00 pm

9:30 - 11:00 pm, TUESDAY

**Industry Solutions and Industry 4.0 VI** 

Room 1

## Panel on Industry 4.0

Panel Chair

Arun Yadav Manager- MES Lead (Smart Manufacturing|Industry4.0|Digital Transformation) Grasim Industries Limited | Pulp & Fibre Bangalore, India

Panel Speaker I

Dr. Rohit Sharma
Research Scholar at NITIE
Blockchain in Agriculture, industry 4.0 applications in agriculture
Mumbai. Maharashtra. India

Panel Speaker II

Dr. Surya Prakash Associate Professor BML Munjal University Gurgaon, Haryana, India

Panel Speaker III

Dr. Kottala Sri Yogi Assistant Professor SVKM's Narsee Monjee Institute of Management Studies (NMIMS) Hyderabad, India

Panel Speaker IV

Panel Speaker V

9:30 - 11:00 pm, TUESDAY

**High School STEM Competition** 

Room 2

Session Chair: Prof. Don Reimer, LTU

ID 019 COVID-19 and Air Pollution in New York City

William Ning Hunter College High School United States

ID 024 Electronic Device For Early Detection of Infection at Crowded Places

Kuhu Sharma Oakridege International School Mohali India

ID 045 Triyambakam AR glasses

Sudhanshu Kumar India

ID 046 Ripeness Meter

Sunav Nambiar Aditya Birla World Academy India

## ID 146 Probability-based Algorithmic Framework Incorporating Human-centric Design and Implicit Bias to Counter Discriminatory Predictions by Al/ML Systems

Tanish Kelkar, A.D Joshi Junior College, Maharashtra, India, Ashug Gurijala, Oakridge International School, Newton Campus, Telangana, India Shizhe He, Otto-von-Taube-Gymnasium, Gauting, Germany, Kian Andrew Busico, Philippine Science High School - Southern Mindanao Campus, Davao City, Philippines, Avni Gupta, Wilton High School, Connecticut, USA

ID 241 Probability-based Algorithmic Framework Incorporating Human-centric Design and Implicit Bias to Counter Discriminatory Predictions by AI/ML Systems

Ashug Gurijala Oakridge International School (Newton) India

#### 9:30 - 11:00 pm, TUESDAY

#### Operations Management

Room 3

Session Chair: Vidya D Avadhani, Department of Management and Commerce, Amrita School of Arts and Sciences, Mysuru, Amrita Vishwa Vidyapeetham, India

#### ID 048 Stereotypes about older people and social networking sites in Chilean media: An analysis of topics on Twitter

Patricio Ramírez-Correa, School of Engineering, Universidad Catolica del Norte, Coquimbo, 1781421, Chile Esteban Brito-Quinlan, School of Engineering, Universidad Catolica del Norte, Coquimbo, 1781421, Chile

#### ID 224 Parenting Style and Its Influence on Student Discipline Problem in Malaysia

Syamimi Afiqah Shahlal, Khairunesa Isa, Nurul Nazihah Awang Kechek, Department of Social Science, Center for General Studies and Co-Curricular, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia

#### ID 211 A Study of Hyperlocal Business Using Bibliometric Approach

Agung Purnomo, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Nur Afia, English Language Education Department, Universitas Nahdatul Ulama Sidoarjo, Sidoarjo 61218, Indonesia, Febby Candra Pratama, Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta 11480, Indonesia, Elsa Rosyidah, Environmental Engineering Department, Universitas Nahdatul Ulama Sidoarjo, Sidoarjo 61218, Indonesia, Fairuz Iqbal Maulana, Computer Science Department, Bina Nusantara University, Jakarta 11480, Indonesia

ID 192 Socio Economic Factors and Justice. Colombia 2010-2015

Wilson A. Pinzón R. Universidad Distrital. Francisco José de Caldas Colombia

#### ID 220 A Study on Socio-economic condition of Goldsmiths in Mysore region

Laxmi S and Dr. Sri Ranjini S, Department of Management and Commerce, Amrita School of Arts and Sciences, Mysuru Campus, Amrita Vishwa Vidyapeetham India.

#### ID 140 VLSI Implementation of Turbo Product Code

Navitha Varghese, Dept. of Electronics and Communication Engineering, Amrita Vishwa Vidyapeetham, Amritapuri, India Senthil Murugan, Dept. of Electronics and Communication Engineering, Amrita Vishwa Vidyapeetham, Amritapuri, India

#### ID 217 Does Glass Ceiling Effect have an impact On Women Employees of IT Sector?- An Empirical study in Karnataka

Vidya D Avadhani, Department of Management and Commerce, Amrita School of Arts and Sciences, Mysuru, Amrita Vishwa Vidyapeetham, India SUSHMA V, Department of Management and Commerce, Amrita School of Arts and Sciences, Mysuru, Amrita Vishwa Vidyapeetham, India

## August 18, 2021 (Wednesday) - Session: 7:45 am - 10:40 am

7:45 am Welcome Address:

**AMRITA Dean** 

8:00 am Keynote X:

#### Wilkistar Otieno, Ph.D.,

Associate Professor and Chair, Industrial and Manufacturing Engineering University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, USA

8:40 am Keynote XI:

## Venugopal G,

General Manager and Head, Digital Advisory and Industry 4.0, Robert Bosch Engineering and Business Solutions, Bangalore, Karnataka, India

9:20 am Keynote XII:

#### Prof. Abid Haleem,

Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi -110025, India

10:00 am Keynote XIII:

#### Dr. S. Viswanathan,

Professor of Operations Management and Associate Dean (Research), Nanyang Business School, Nanyang Technological University, Singapore

# August 18, 2021 (Wednesday) - Session: 11:00 am - 12:45 pm

11:00 am - 12:45 pm, WEDNESDAY

Global Supply Chain and Logistics I

Room 1

Session Chair: Dr. Santanu Mandal

11:00 am, Wednesday, August 18

Dr. Faisal Hasan Professor Department of Mechanical Engineering Z H College of Engineering & Technology Aligarh Muslim University Aligarh 202002, Uttar Pradesh India

11:20 am, Wednesday, August 18

Paul Bradley FCILT CPL CEO, Caprica International Global Business Leader in Supply Chain Management, Entrepreneur, Mentor Board Member. World Economic Forum: "New Asian Leader" Singapore

11:40 am, Wednesday, August 18

Dr. Santanu Mandal Associate Professor and Area Chair Department of Operations and Systems Amrita School of Business Amrita Vishwa Vidyapeetham, Coimbatore 12:20 pm, Wednesday, August 18

Rifaul Islam
Executive, SCM - Procurement & Material Management
Rahimafrooz (Bangladesh) Ltd.
Dhaka, Bangladesh

#### 11:00 am - 12:45 pm, WEDNESDAY

#### **Decision Sciences**

Room 2

Session Chair: Sanjay Mittal Chair Professor (HAG Scale), Department of Industrial Management and Engineering, Indian Institute of Technology Kanpur, Kanpur, U.P., India

#### ID 006 HRM Analytics: With and Without (Enterprise) Social Media: Few Theoretical Propositions

Sonal Gupta, Department of Industrial and Management Engineering, IIT Kanpur 208016 India RRK Sharma, Department of Industrial and Management Engineering, IIT Kanpur 208016 India

ID 013 An Evaluation Model of Quantitative and Qualitative Fuzzy Multi-Criteria Decision-Making Approach for dry port Selection Dereje Dejene Mengistu Andhra University India

#### ID 014 Advertisements using Symbols in International Marketing

Harshmit Kaur Saluja, School of Humanities and Social Sciences, Harcourt Butler Technical University, Kanpur, U.P., India R.R.K. Sharma, Sanjay Mittal Chair Professor (HAG Scale), Department of Industrial Management and Engineering, Indian Institute of Technology Kanpur, Kanpur, U.P., India

#### ID 020 Disruptive Innovation in Digital Mining-The Future of Mining

M. M. Manyuchi, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

N. Sukdeo, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

#### ID 007 Architectural and Modular Innovation: An Extended Research Framework

Prof. RRK Sharma, Dept of IME IIT KANPUR 208016 INDIA, Prof. KK Lai, Chaoyang University of Science and Technology, Taichung, 41349 Taiwan ROC

ID 040 Sustainability of Consumer's Brand Loyalty through Brand Experience and Brand Trust of Adidas Shoes in Indonesia
Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia
John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia
Wilson Rajagukguk, Faculty of Economics and Business, Universitas Kristen Indonesia, Jl. Mayjen Sutojo No.2, Cawang, Jakarta 13630, Indonesia

#### 11:00 am - 12:45 pm, WEDNESDAY

#### **Engineering Management**

Room 3

Session Chair: Dr. G SHANTHI, Assistant Professor of Commerce, Thiruvalluvar Govt. Arts College, Rasipuram-Tamil Nadu

## ID 190 The Influence of Work Life Balance and Physical Work Environment on Employee Performance at Telkom Bandung Pension Fund Office

Latisha Arraneta, Ade Irma Susanty, and Mahir Pradana, Department of Business Administration, Telkom University, Bandung, 40257, Indonesia

## ID 191 The Influence of Prices, Product Quality And Promotion On Customer Satisfaction Through Purchase Decision Solaria Sumedang

Yomi Purnama, Dr. Putu Nina Madiawati, S.T., M.T., MM, Bachelor Of Business Administration, Faculty Of Communication and Business, Telkom University

#### ID 202 Organization Factor Contribute Lecturers' Happiness

Nurul Nazihah Awang Kechek, Khairunesa Isa, Syamimi Syafiqah Shahlal, Science Social Department, Centre for General Studies and Cocurricular, University Tun Hussein Onn, Batu Pahat, Malaysia

## ID 203 Survey Data Responses of Employee Happiness: Focusing on Individual Factor Among Staff in Malaysian Higher Education Institution

Khairunesa ISA, Center for General Studies and Curricular, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat Johor Sarala Thulasi PALPANADAN, Center for Language Studies, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat Johor Nurul Nazihah binti AWANG Kechek, Center for General Studies and Curricular, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat Johor

#### ID 204 Female Shoppers Attitude And Satisfaction towards Online Purchasing

Jithesh Mon Mullool, Research Scholar, Thiruvalluvar Govt. Arts College, Rasipuram-Tamil Nadu Dr. G SHANTHI, Assistant Professor of Commerce, Thiruvalluvar Govt. Arts College, Rasipuram-Tamil Nadu

#### ID 205 Consumer Attitude Towards Marketing Of House Hold Products Of LG with Special Reference to Kannur Town (Kerala)

AJEESH C. A. Research Scholar in Commerce Thiruvalluvar Government Arts College, Rasipuram, Namakkal (District), Tamilnadu DR.B. RAJENDRAN, Assistant Professor in Commerce, Thiruvalluvar Government Arts College, Rasipuram, Namakkal (District), Tamilnadu.

## August 18, 2021 (Wednesday) - Session: 2:00 - 3:30 pm

#### 2:00 - 3:30 pm, WEDNESDAY

**Global Supply Chain and Logistics II** 

Room 1

Session Chair: Dr. Deepankar Sinha

1:00 pm, Wednesday, August 18

Dr. Deepankar Sinha Professor & Head – Research Division [Management] Indian Institute of Foreign Trade (IIFT) Kolkata Campus West Bengal, India

2:20 pm, Wednesday, August 18

Rohit Kumar Singh Lead Supply Chain Planning Sudarshan Chemical Industries Ltd. Pune, Maharashtra, India

2:40 pm, Wednesday, August 18

Dr. Abdussalam Shibani Assistant Professor in Project Management Coventry University Coventry, UK

3:00 pm, Wednesday, August 18

Dr. Arundhati Guha Thakurta Assistant Professor SVKM's Narsee Monjee Institute of Management Studies (NMIMS) Mumbai, Maharashtra, India

3:20 pm, Wednesday, August 18

#### 2:00 - 3:30 pm, WEDNESDAY

**Machine Learning** 

Room 2

Session Chair: R. Meenal, Department of Electrical and Electronics Engineering, Karunya Institute of Technology and Sciences, Coimbatore, India

## ID 067 A Study on Perception of Internal Auditors on Impact of Artificial Intelligence and Machine Learning on Auditors' Professional Skepticism and Judgement in Selected Organizations in Oman

Mr. Gopalan Puthukulam, Dr. Anitha Ravikumar, Mr. Ravi VinodKumar Sharma & Dr. Krishna Murthy Meesaala, Department of Business Studies, University of Technology and Applied Sciences (HCT) Muscat, Sultanate of Oman

#### ID 083 ERP System inventories module implementation Procedure

Carolina Maldonado and Paola Pinos, LIDI, Engineering of Production School, Universidad del Azuay, Cuenca, Ecuador, Esteban Crespo-Martinez, LIDI, Engineering of Production School, Computer Science Engineering School, Universidad del Azuay, Cuenca, Ecuador Catalina Astudillo-Rodriguez, LIDI, Computer Science Engineering School, Universidad del Azuay, Cuenca, Ecuador, Ana Vasquez-Aguilera, LIDI, Engineering of Production School, Universidad del Azuay, Cuenca, Ecuador Gabriela Chica-Contreras, LIDI, Accountant and Auditory School, Universidad del Azuay, Cuenca, Ecuador

#### ID 095 Exploring the use of e-learning in Chilean universities: A study using structural equations modelling

Mario Andrés Bruno, Faculty of Engineering, University of Playa Ancha, Valparaíso, CP 2360002, Chile, Patricio Ramírez-Correa, School of Engineering, Universidad Catolica del Norte, Coquimbo, CP 1781421, Chile

#### ID 110 Relating Information Technology / Systems (IT/S) to Strategy: An Extended Framework

Prof. RRK Sharma, Department of Industrial and Management Engineering, IIT Kanpur 208 016, India, Dr. Vinayak A Drave, Assistant Professor, Department of Operations & Supply chain, Jindal Global Business School, O.P. Jindal Global University, Sonipat, Haryana, India, Prof. KK Lai, Chaoyang University of Science and Technology, Taiwan

ID 016 Using hybrid ANN-GA to refine parameters of the underwater friction stir welding process parameters for tensile strength enhancement Machine Learning ibrahim sabry Modern Academy for Engineering and Technology Egypt

#### ID 047 Prediction of learning styles in university students

Patricio Ramírez-Correa, School of Engineering, Universidad Catolica del Norte, Coquimbo, 1781421, Chile Ari Mariano-Melo, Department of Production Engineering, University of Brasilia, Brasilia, CEP 70910-900, Brazil

#### ID 050 Machine Learning based Crop Water Management

R.Meenal, Arun T, Arul Leo Jones, Noel Sudharshan, Department of Electrical and Electronics Engineering, Karunya Institute of Technology and Sciences, Coimbatore, India

#### 2:00 - 3:30 pm, WEDNESDAY

#### **Business Management**

Room 3

Session Chair: Nitu Bharti, MBA in Human Resource and Finance, Bengaluru, India

#### ID 176 Design and Development of a Novel Technique for the Maintenance of a Gas Turbine-A Case Study

M. B. Kiran, 1 Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

#### ID 180 Employee Engagement: What Organizations are Doing During the Pandemic

Nandikkara DineshWarrier, Research Associate, Bengaluru, India, 560083, Dr. Shekar Babu PhD, Professor & Founding Head, Department of Management, Amrita Vishwa Vidyapeetham University, Bengaluru, India

#### ID 188 Implementation of AI in Business Models: A Conceptual Study

Vinayak A. Drave, Department of Operations Management and Supply Chain, Jindal Global Business School, O.P. Jindal Global University, Sonipat, India, & Department of Business Administration, Chaoyang University of Technology, Taichung City, Taiwan, Ateequr Rahman, Office of the Dean, Academic Affairs, Indian Institute of Technology, Kanpur, India, R.R.K Sharm, Department of Industrial and Management Engineering, IIT Kanpur, Kanpur, India, Alok Kumar Sharma, Department of Information Management, Chaoyang University of Technology, Taichung City, Taiwan, Sanjeev Kumar, Department of Accounting and Finance Jindal Global Business School, O.P. Jindal Global University, Sonipat, India, Gunjan Mohan Sharma, Department of Human Resource, Jindal Global Business School, O.P. Jindal Global University, Sonipat, India

## ID 088 TThe Influence of Brand Image, Perception of Trust, Perceived Convenience and Security Transactions on JD.ID Customer Purchase Decision during the Pandemic Covid 19

Gidion P. Adirinekso, Department of Management Faculty Economics and Business, Universitas Kristen Krida Wacana, Jakarta, 11470 Indonesia, John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang 15811, Indonesia, Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang 15811, Indonesia, Wilson Rajaguguk, Department of Management Faculty of Economics and Business, Universitas Kristen Indonesia, Jakarta 13630, Indonesia

## ID 089 The Effect of Internet Advertising and UTAUT2 models on The Use of Gojek Applications in The Covid-19 Pandemic Period in Jabodetabek Area

Gidion P. Adirinekso, Department of Management Faculty Economics and Business, Universitas Kristen Krida Wacana, Jakarta, 11470 Indonesia, John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang 15811, Indonesia, Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang 15811, Indonesia

#### ID 189 Impact of Covid-19 on Employees of Companies in India

Nitu Bharti, MBA in Human Resource and Finance, Bengaluru, India

Dr. Shekar Babu PhD, Professor & Founding Head, Department of Management, Amrita Vishwa Vidyapeetham University, Bengaluru, India

## August 18, 2021 (Wednesday) - Session: 3:30 - 5:00 pm

#### 3:30 - 5:00 pm, WEDNESDAY

Global Supply Chain and Logistics III

Room 1

Session Chair: Dr. Rajendra Baraiya

3:30 pm, Wednesday, August 18

Dr. Patanjal Kumar

Assistant Professor, IBM, GLA University Mathura (India)

PhD (Indian Institute of Management Rohtak)

Title of talk: Supply chain coordination strategies with ambidextrous sustainable innovations

3:50 pm, Wednesday, August 18

Vivek Poddar Deputy General Manager – Supply Chain BASF Chennai, Tamil Nadu, India

4:10 pm, Wednesday, August 18

Dr. Rajendra Baraiya Research Scholar in Operations Management Indian Institute of Management, Indore Indore, Madhya Pradesh, India

Title: Retailer Strategies amid COVID19 pandemic with Hygiene Quality Enhancement Efforts

4:30 pm, Wednesday, August 18

Dr. Subhash C. Sarin Paul T. Norton Endowed Professor Grado Department of Industrial and Systems Engineering Virginia Tech USA

#### 3:30 - 5:00 pm, WEDNESDAY

#### **Industry Solutions**

Room 2

Session Chair: Venkatavishnu Vihari, Advance Manufacturing Engineering Group, TVS Motor Company Limited

## ID 105 Single Stage Single Commodity and Multi Period Warehouse Location Problem With Location, Distribution Inventory and Shortage Costs

Prof. RRK Sharma and Piya Ghosh, Industrial and Management Engineering Department, Indian Institute of Technology, Kanpur, India, Prof. KK Lai, Business Administration Department, Chaoyang University of Technology, Taichung City, Taiwan

#### ID 161 A state-of-the-art literature review on service and task scheduling in cloud manufacturing

Aditya SV, Department of Mechanical Engineering, ASET, Amity University Uttar Pradesh, Noida, India, Pritish Shubham, Department of Mechanical Engineering, ASET, Amity University Uttar Pradesh, Noida, India, Rakesh Kumar Phanden, Department of Mechanical Engineering, ASET, Amity University Uttar Pradesh, Noida, India, Aaryan Sheokand, Department of Mechanical Engineering, ASET, Amity University Uttar Pradesh, Noida, India, Prem Narayan Vishwakarma, Department of Mechanical Engineering, ASET, Amity University Uttar Pradesh, Noida, India

## ID 106 Automation Productivity Improvement System "Alarm Edge" Through Realtime Analysis of Discrete Alarm Occurrence Venkatavishnu Vihari and Karthik Mohan, Advance Manufacturing Engineering Group, TVS Motor Company Limited

#### ID 057 Failures of Indian Toy Industries: Problem identification and proposed solutions through field visit

Ashutosh Samadhiya and Rajat Agrawal, Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee, Uttarakhand, INDIA

# ID 059 "How Cause related marketing can be a win-win-win situation? - An analysis of P&G-Shiksha campaign in Indian context." "Dr. S. RanjithKumar" "Associate Professor, Department of Management and Commerce, Amrita School of Arts and Sciences, Mysuru, Amrita Vishwa Vidyapeetham, India" Anjali k, "Research Scholar, Department of Management and Commerce, Amrita School of Arts and Sciences, Mysuru, Amrita Vishwa Vidyapeetham, India"

ID 245 Prioritize Software Vulnerabilities by Classifying based on the CVSS score and Textual Description Mastan Rao Parimi, Amrita Vishwa Vidyapeetham India

#### ID 221 Social Economic Impact of Communication Network Pattern of Rural Women Community in Malang Regency

Yanuarita Kusuma Permata Sari, Communication Science Department, Faculty of Economics and Communication, Bina Nusantara University, Jakarta, Indonesia 11480, Riesta Devi Kumalasari, Department of Entrepreneurship Business Creation, Business School Undergraduate Program, Bina Nusantara University, Malang, Indonesia

Asih Zunaidah, Language Center, Communication Science, Faculty of Humanities, Bina Nusantara University, Jakarta, Indonesia 11480

#### 3:30 - 5:00 pm, WEDNESDAY

#### **Business Management**

Room 3

Session Chair: Nadar Raviarun Arumugaraj, Department of Industrial & Systems Engineering, Indian Institute of Technology Kharagpur, India

#### ID 162 Are the Mandated Social Responsibilities of Indian Companies Aligned to SDGs?

Ms. Farah Mathew, Assistant professor, Jyoti Nivas College, Autonomous, Bengaluru, India, Dr. Shekar Babu PhD, Professor & Founding Head, Department of Management, Amrita Vishwa Vidyapeetham University Bengaluru, India

#### ID 166 Social Entrepreneurship: Study of the Definitions

Seema. B, St. Francis College, Department of Statistics, Bangalore, India, Dr. Shekar Babu PhD, Professor and Founding Head, Amrita Vishwa Vidyapeetham, Bangalore, India

#### ID 167 Customers Perception On Amalgamations In Indian Banks

Renuka SDr. G P Dinesh, Research Scholar Professor & Chairman, DMS, BITM, Ballari

Dept. Of Management Studies, Ballari

#### ID 168 Location of Ambulances Considering Temporal Demand Variation Using a Genetic Algorithm Based Approach

Nadar Raviarun Arumugaraj, and Jitendra Kumar Jha, Department of Industrial &Systems Engineering, Indian Institute of Technology Kharagpur, Kharagpur-721302, India

Jitesh J. Thakkar, National Rail and Transportation Institute (NRTI), National Academy of Indian Railways (NAIR) Campus, Lalbaug, Vadodara - 390 004, India

ID 084 Measurement of Purchase Intention through Brand Awareness, Perceived Quality, Brand Loyalty: an Experience from Indonesia Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, Gidion P. Adirinekso, Department of Management Faculty Economics and Business, Universitas Kristen Krida Wacana, Jakarta, 11470 Indonesia

## ID 085 Social Media Effect, Brand Image and Motivation on Fast Food and Beverage Purchase Intention of Mcdonald's St Mark Square Karawaci

Anthony Kenny and John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia, Gidion P. Adirinekso, Department of Management Faculty of Economics and Business, Universitas Kristen Krida Wacana, Jakarta, Indonesia

## August 18, 2021 (Wednesday) - Session: 5:00 - 6:30 pm

5:30 - 6:00 pm, WEDNESDAY

**Global Supply Chain and Logistics IV** 

Room 1

## Panel on Global Supply Chain and Logistics

Panel Chair

Dr. Aalok Kumar Assistant Professor, Production and Operations Management area IIM Visakhapatnam Andhra Pradesh, India

Panel Speaker I

Dr. N C Hiremath
Faculty Member
Department of Industrial Engineering Technology
Higher Colleges of Technology
UAE

Panel Speaker II

Satish Kumar Assistant Professor Motilal Nehru National Institute Of Technology Uttarakhand. India

Panel Speaker III

Dr. Vivek Soni
Assistant Professor
Coordinator -Internal Quality Assurance Cell
Coordinator Centre of Excellence (CoE) for Innovative Energy Solutions
Bharatiya Vidya Bhavan's – Usha and Lakshmi Mittal Institute of Management
New Delhi, India

Panel Speaker IV

Panel Speaker V

#### 5:00 - 6:30 pm, WEDNESDAY

**Manufacturing and Operations Management** 

Room 2

Session Chair: Prasun Sarote, Department of Mechanical Engineering, National Institute of Technology, Patna, India

## ID 003 A New Formulation of Multi Item Multi Period Capacitated Lot Sizing Problem With Setup Carryover, Inventory and Backorders (MIMPCLSPWSC)

RRK Sharma and Syed Moize Ali, Department of Industrial and Management Engineering, IIT Kanpur 208016 India, Mayank Verma, BARC Mumbai India, Priyanka Modi Verma, NITIE Mumbai India, KK Lai, Chao Yang University of Technology Taiwan

#### ID 108 Refinements To LP Model of Aggregate Planning

Prof. RRK Sharma, Dept of IME IIT Kanpur 208016 India

ID 109 Refinement To LDR (Linear Decision Rule) Model of Aggregate Planning: Explicit Use of Aggregate Shortage Variables Prof. RRK Sharma, Dept of IME IIT Kanpur 208016 India

#### ID 177 Classical Lean Manufacturing Philosophy-A Review

M.B.Kiran, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

#### ID 178 Enhancing Productivity of a Manufacturing Company Using Value Stream Mapping -A Case study

M.B.Kiran, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

#### ID 201 A Novel technique for the surface texture inspection of Electrical Discharge Machined surfaces using vision system

M.B.Kiran, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

#### ID 028 Evaluation of Operational Flexibility for a Manufacturing Organization

Prasun Sarote, Department of Mechanical Engineering, National Institute of Technology, Patna, India Cherian Samuel, Ajeet Kumar Yadav, Department of Mechanical Engineering, Indian Institute of Technology (BHU), Varanasi, India

#### 5:00 - 6:30 pm, WEDNESDAY

Occupational Safety and Health (OSH)

Room 3

Session Chair: Kriti Kumari, GH Raisoni College Of Engineering, India

#### ID 216 Psychological Impact of Covid -19 Pandemic among Nurses Taking Covid Duty in Kerala, India

Vidya D Avadhani , Āravind Sreenivas Narayan, Department of Management and commerce, Āmritha School of Arts and science, Amritha Vishwa Vidyapeetham, Mysore, India

#### ID 120 Development of Braking Hazard Management Procedure (BHMP) for Mine Passenger Carriers: STPA Based Approach

Dr. Falguni Sarkar, Assistant Professor, Department of Mining Engineering, National Institute of Technology- Rourkela, India, Bhawesh Prasad Tiruwa, Student (M.Tech.), Department of Mining Engineering, National Institute of Technology- Rourkela, India

## ID 179 Development of Proactive Mine Electrical Safety Management System (MESMS) for Indian Underground Hard Rock Mines: A risk assessment based approach

Dr. F. Sarkar, Assistant Professor, NIT- Rourkela, India Dr. I. Sarkar, Assistant Professor, NIT- Rourkela, India

#### ID 227 Connecting the Dots (Healthy Lifestyle - Method and Testimonials)

Som R. Soni, PhD, AdTech Systems Research Inc, 1342 North Fairfield Road, Beavercreek, Ohio 45432 USA

#### ID 228 Connecting the Dots (Meditation teaches - You take 1 Step He takes 10 Steps)

Som Soni and Gita Soni, AdTech Systems Research Inc, 1342 North Fairfield Road, Beavercreek, Ohio 45432 USA

#### ID 119 Improving Computer Workstation Design To Reduce The Musculoskeletal Discomfort

Ahamed Fouzzan I, Department of Industrial Engineering, PSG Institute of Advanced Studies, Coimbatore, TN 641004, The University of Toledo, Ohio, USA, Harismitha R, Department of Industrial Engineering, PSG Institute of Advanced Studies, Coimbatore, TN 641004, The University of Toledo, Ohio, USA

ID 049 Design of Human Activity Recognition System Using Body Sensor Networks

Kriti Kumari GH RAISONI COLLEGE OF ENGINEERING India

## August 18, 2021 (Wednesday) - Session: 6:30 - 8:00 pm

#### 6:30 - 8:00 pm, WEDNESDAY

Room 1

#### **Diversity & Inclusion Panel sponsored by Ford Motor Company**

Panel Chair

Dr. Sundaravalli Narayanaswami Indian Institute of Management Ahmedabad, India

Panel Speaker I

Professor Donald M. Reimer
Director of Membership and Chapter Development – IEOM Society
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA

Panel Speaker II

Rama Shanker Chief PSD Tata Steel Limited Productivity Services Department Jamshedpur, India

Panel Speaker III

Professor Eldon G. Caldwell Marin, Ph.D., Sc.D, Dr.Ed. Director, Industrial Engineering Department Engineering School University of Costa Rica San Jose, Costa Rica

Panel Speaker IV

Madhukar Sharma President at ASME India PL Gurgaon, Haryana, India

Panel Speaker V

#### 6:30 - 8:00 pm, WEDNESDAY

#### **Quality Control**

Room 2

Session Chair: Manan Hingorani, Industrial Engineering Department, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, India

#### ID 114 Total Quality Environmental Management: Enablers and Barriers

Khalid Hussain Ansari, Department of Mechanical Engineering Axis Institute of Technology & Management, Kanpur, Uttar Pradesh, INDIA, Faisal Talib, Department of Mechanical Engineering, Aligarh Muslim University Aligarh, Uttar Pradesh, INDIA, Ashutosh Samadhiya and Rajat Agrawal, Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee, Uttarakhand, INDIA

ID 223 Exploring the role of New Product Development for improving customer satisfaction in Deming Prize Awarded Indian Industry Sumit Kumar and Pardeep Gupta, Department of Mechanical Engineering, SLIET Longowal, Sangrur (Pb)-148106, INDIA

#### ID 107 Elimination of Wrong Engine Part Assembly using Vision Poka-yoke with Traceability System

Karthik Mohan and Venkatavishnu Vihari, Advanced Manufacturing and Engineering Group, TVS Motor Company Limited, Hosur, Tamil Nadu, India

#### ID 145 A Process FMEA Approach to Enhance Quality and Efficiency in Food Industry - A Case Study

Pranav R. Badgujar, Krishna M. Malani, Srushti K. Rithe and Pranita D. Salunke, B. Tech (Industrial Engineering), Department of Industrial and Production Engineering, Vishwakarma Institute of Technology, Pune, India, Dr. Ramkrishna Bharsakade, Assistant Professor, Department of Industrial and Production Engineering, Vishwakarma Institute of Technology, Pune, India

#### ID 094 Identification and Management of Quality Costs in Companies

Joselyn Garcia-Ortega and Gabriela Chica-Contreras, LIDI, Accountant and Auditory School, Universidad del Azuay, Cuenca, Ecuador, Juan Manuel Maldonado-Matute and Maria Jose Gonzalez Calle, UDA Business Observatory, Bussiness Adninistration School Universidad del Azuay, Cuenca, Ecuador, Catalina Astudillo-Rodriguez and Paul Crespo-Martinez, LIDI, Computer Science Engineering School, Universidad del Azuay, Cuenca, Ecuador, Ana Vasquez-Aguilera, LIDI, Engineering of Production School, Universidad del Azuay, Cuenca, Ecuador

#### ID 137 Employee Productivity Improvement & Skill Enhancement in Pharmaceutical Industry

Manan Hingorani, Industrial Engineering Department, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, India Nitesh Jaiswal, XYZ Pharmaceutical Industry, Ahmedabad, Gujarat, India

6:30 - 8:00 pm, WEDNESDAY

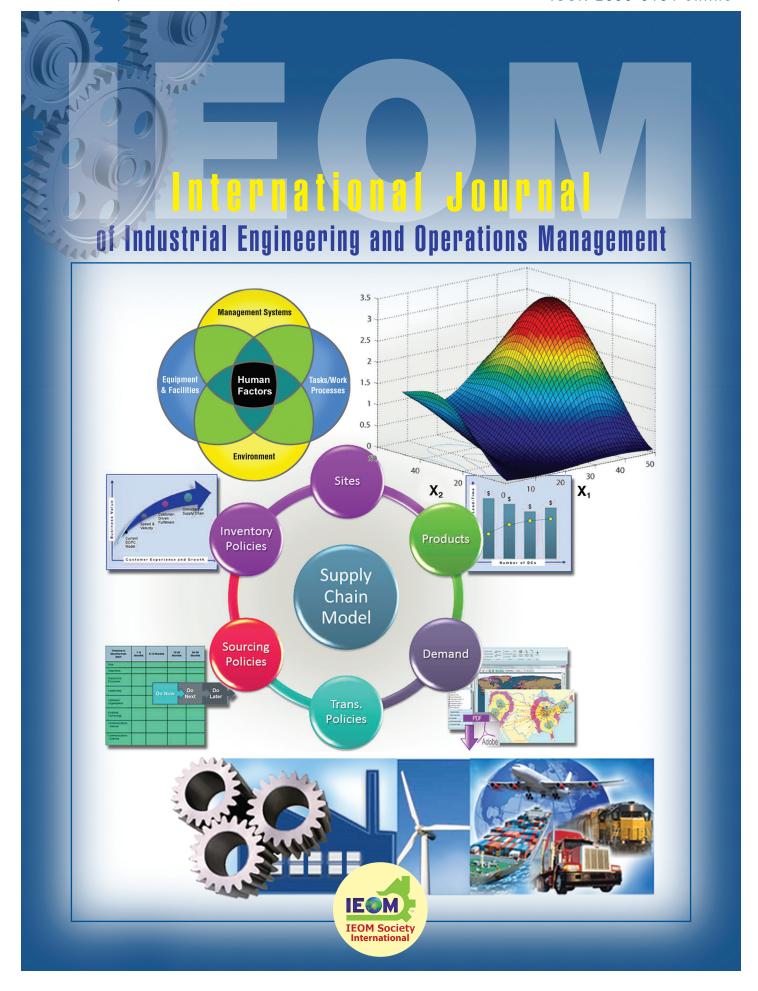
Cybersecurity

Room 3

Session Chair:

August 18, 2021 (Wednesday) - Session: 8:00 – 10:00 pm

Conference Awards Ceremony





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First GCC Conference in Riyadh, Saudi Arabia, November 26-28, 2019



4<sup>th</sup> North American IEOM Conference, October 23-25, 2019



65

First India Conference

## Third European IEOM Conference in Pilsen, Czech Republic, July 23-26, 2019









First Central American Symposium on Industry 4.0, Logistics 4.0 and Manufacturing 4.0, San Jose, Costa Rica, June 12-13, 2019



## 9th IEOM Annual International Conference, Bangkok, Thailand, March 5-7, 2019



Second IEOM Fellows Induction at the IEOM Bangkok Conference on March 6, 2019





2<sup>nd</sup> African International Conference on **Industrial Engineering & Operations Management** Nairobi, Kenya, Sept. 28 - 30th, 2021









## IEOM Student Chapters around World

#### Algeria

Adrar University

#### Australia

Queensland University of Technology (QUT), Brisbane

#### Bahrain

University of Bahrain

#### Bangladesh

- Ahsanullah University of Science & Technology (AUST)
- Bangladesh Institute of Management (BIM)
- Bangladesh Univ. of Engineering and Technology (BUET)
- Bangladesh University of Textiles (BUTEX)
- Chittagong University of Engineering and 8. Technology (CUET)
- Daffodil International University (DIU) 9
- International Islamic University of Chittagong 10. (IIUC)
- International University of Business Agriculture 11 and Technology (IUBAT)
  Islamic University of Technology (IUT)
- 12.
- Jessore University of Science and Technology 13. (JUST)
- 14 Khulna University (KU)
- Khulna University of Engineering and 15. Technology (KUÉT)
- Military Institute of Science and Technology 16. (MIST)
- National Institute of Textile Engineering and 17. Research (NITER)
- Rajshahi University (RU)
- 19. Shah Jalal University of Science and Technology (SUST)
- 20 University of Chittagong
- World University Bangladesh (WUB) 21

#### Botswana

22. University of Botswana

#### Brazil

- Federal University of Sao Carlos (UFSCar) 23.
- 24.
- Federal University of Santa Catarina (UFSC)
  University of Sao Paulo (USP) Sao Carlos 25
- Federal Institute of Sao Paulo (IFSP) -26. Sorocaba
- 27. Faculdade de Engenharia de Sorocaba (FACENS)

#### Canada

- Concordia University
- Humber Institute of Technology and Advanced
- 30 Polytechnique Montreal
- University of New Brunswick at Fredericton
- University of Waterloo
- 33. University of Windsor

#### Colombia

- Fundación Univ. Tecn. Comfenalco, 34. Cartagena, Bolívar
- 35. University of Rosario, Bogota
- 36. University of Quindio
- 37. Universidad de San Buenaventura, Cali, Valle

#### Costa Rica

38. University of Costa Rica

#### Czech Republic

University of West Bohemia, Pilsen

#### Ecuador

40 Technical University of Ambato

#### Egypt

Zagazig University

#### Ethiopia

Bahir Dar Institute of Technology

#### **Finland**

43. University of Vaasa

#### France

- 44. IESEG School of Management
- 45. Lorraine University, Metz

#### Greece

46. Accra Technical University

#### Ghana

Technological Education Institute (TEI), 47. Thessalv. Larissa

#### India

- College of Engineering and Technology, Bhubaneswar, Odisha, India 48.
- College of Engineering Guindy (Anna 49. University), Chennai
- 50. Guru Nanak Dev Engineering College, Ludhiana, Punjab

- Pandit Dendayal Petroleum Univ.,
  - Ahmedabad, Guirat
- P.D.A. College of Engineering, Gulbarga, 52. Karnataka, India
- Vellore Institute of Technology 53
- Vidya Jyothi Institute of Technology, Hyderabad

#### Indonesia

- 55. Atma Jaya Catholic University
- Bina Nusantara University (Binus), Indonesia
- Institut Teknologi Bandung
- Institut Teknologi Sepuluh Nopember (ITS)
- Sampoerna University, Jakarta
- 60. Shipbuilding Institute of Polytechnic Surabaya
- Tarumanagara University 61. Universitas Diponegoro (Undip) 62.
- Universitas Igra Buru 63.
- 64. Universitas Islam Negeri Alauddin Makassar
- Universitas Sebelas Maret (UNS), Surakarta 65.
- 66 University of Indonesia

#### Iran 67.

MehrAstan University, Guilan 68. University of Eyvanekey

#### Iraq 69.

**Babylon University** Israel Sapir Academic College

University of Salento

#### Italy

Japan Ashikaga University

Kenya Kenyatta University, Nairobi

Libya 74. Libyan Academy

#### Malaysia

- Universiti Malaysia Sabah (UMS) 75.
- Universiti Putra Malaysia (UPM)
- 77.
- Universiti Teknologi Malaysia (UTM)
  Universiti Tun Hussein Onn Malaysia (UTHM) 78.
- Universiti Utara Malaysia (UUM) 79.

#### Morocco

- 80. Akhawayn University
- Ecole Mohammadia d'Ingénieurs (EMI) 81
- Sidi Mohamed Ben Abdellah University of Fez, Morocco

#### Namibia

National Univ. of Sci. and Tech. in Windhoek, Namibia

#### Nepal

- Kathmandu University 84.
- Tribhuvan University

#### Nigeria

- 86. Covenant University
- University of Ibadan

#### Oman

- Sultan Qaboos University
- Middle East College 89.

#### Pakistan

- Dawood University of Engineering and 90. Technology, Karachi
- 91 Government College University Faisalabad
- 92. Mehran University of Engineering and Technology, Jamshoro, Sindh
- 93 Riphah International University, Lahore Campus
- University of Engineering and Technology, Lahore

#### UOT - Nowshera

Papua New Guinea Papua New Guinea University of Technology

#### Paraguay

97. National University

#### Peru

98. National University of San Antonio Abad, Cusco, Peru

#### **Philippines**

Bulacan State University, Malolos City, 99. Bulacan

- 100. LPU Laguna
- 101. Mapua Ūniversity

#### 102. Qatar University

Qatar

- Saudi Arabia 103. Alfaisal University
- 104. Effat University
- 105. King Abdulaziz University (KAU)
- 106. King Abdulaziz University, Rabigh

- 107. King Fahd University of Petroleum and

- (PSAU)

- University of Tabuk
- 115. Taibah University

#### South Africa

- University of Johannesburg (UJ)

#### 120. Vaal University of Technology (VUT)

122. University of Peradeniya

123. Sudan University of Science and Technology,

Thailand

126. University of Science & Technology of Fujairah

- University of Derby 127.
- University of the West of England (UWE), 128.

- 130. Eastern Michigan University
- Lawrence Technological University, Michigan, 131.

#### Venezuela

- Caracas
- Zambia
- 134 Copperbelt University

#### 135. Evelyn Hone College

Zimbabwe

- Minerals (KFUPM)
- King Saud University (KSU)
- 109. Umm Al-Qura University (UQU) 110. Princes Nourah University (PNÚ)
- Prince Sattam Bin Abdulaziz University
- Prince Sultan University (PSU)
- 113. Taibah University
- 116. Durban University of Technology (DUT)
- Tshwane University of Technology (TUT)
- University of South Africa (UNISA) 119.
- Sri Lanka

#### 121. University of Kelaniya

Sudan

124. Chulalongkorn University, Bangkok

Chiang Mai University

#### UAE

UK

- USA
- 129. Central Connecticut State University

## 132. Catholic University Andrés Bello (UCAB),

- 133. University of Zambia
- 136. University of Zimbabwe, Harare National University of Science and Technology

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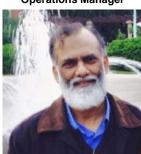
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Professor Bernardo Villarreal, Ph.D. Professor, Department of Engineering Universidad de Monterrey San Pedro Garza Garcia, NL Mexico

# **Upcoming Events**



1<sup>st</sup> Asia Pacific Conference on **Industrial Engineering and Operations Management** 

Sept. 14-16, 2021, Surakarta, Indonesia
IEOM Society
Host: Sebelas Maret University (UNS)







http://ieomsociety.org/indonesia2021/



6<sup>th</sup> North American Conference on Industrial Engineering & Operations Management

Monterrey, Mexico, November 3-5, 2021
IEOM Society
Venue: CINTERMEX-Monterrey Convention Center







www.ieomsociety.org/monterrey2020/

# 12th Annual IEOM Conference

Istanbul, Turkey, March 8-10, 2022 Venue: Kadir Has University

Conference Website: www.ieomsociety.org/istanbul2022/



3rd South American Conference on Industrial Engineering & Operations Management

**IEOM Society** Asuncion, Paraguay, May 10-12, 2022







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