



# 2<sup>nd</sup> International Conference on Emerging Materials, Smart Manufacturing & Computational Intelligence - ICEMSMCI 2024

Sub-theme: Recent Innovations in Sustainable Engineering-RISE

on  
18<sup>th</sup> & 19<sup>th</sup> July, 2024

Hybrid (In-Person & Virtual)

Hosted by Chitkara University, Punjab, India and California State University, Fullerton, US



### Publishing Partners



### Industry Partners



### Sponsorship Partner

DST SERB (Science and Engineering Research Board)



Organised By:  
Division of Chitkara University Publications  
Centre for Research Impact and Outcome  
Chitkara University, Punjab, India



# About Chitkara University

In the year 2002, Chitkara Educational Trust established its Punjab campus 30 kilometres from Chandigarh, on the Chandigarh–Patiala National Highway. In the year 2010 Chitkara University was established by the Punjab State Legislature under “The Chitkara University Act”. Chitkara University, the best university in Punjab, India is a government-recognized university with the right to confer degrees as per the Sections 2(f) and 22(1) of the UGC Act, 1956. The sprawling campus of the University is equidistant from Chandigarh and Patiala. The University offers multi-disciplinary programs, all of which are designed to be industry-relevant. As a result of this student-centric approach, Chitkara University is renowned as one of the best private universities in the North India region. From business management programs to programs in nursing and medical laboratory technologies; and from computer science, electronics and mechanical engineering programs, to hotel management and architecture—Chitkara University, Punjab is a veritable cornucopia of educational services.

## About Centre for Research Impact and Outcome (CRIO)

Centre for Research Impact and Outcome (CRIO) cultivating and fostering interdisciplinary high-impact research in partnerships with external organizations, industry partners, government agencies, and community groups to amplify the impact and outcome of research. Implementing strategies to enhance the visibility and dissemination of the university’s research outputs through various channels such as publications, conferences, research projects, IPR, and research labs.

## About Chitkara University Publications

Chitkara University’s periodical was founded in 2010 with the goal of covering broad scientific work with innovative approaches. Our publication history began with the ‘Management of Technology Journal’ and now it includes five journals. All peer-reviewed scientific journals are open access and indexed by well-known and reputed indexing agencies. Chitkara University Publications has always provided a limitless realm of knowledge for everyone who wants to immerse themselves in the pool of acquaintance. To pursue the University’s vision and mission of investigating new subjects and techniques of research, we are committed to the edges and frontiers of academia. Our periodicals cover a wide range of subjects, including engineering, management, material science, education, pharmacy, health science and other broad fields. Chitkara University Publications offers the budding authors a platform to come forward and explore their writing potential. It has a strong editorial and production wing which ensures a work of academic distinction.

## About ICEMSMCI–2024

The ICEMSMCI: RISE-2024’s vision is to facilitate communication among scholars and practitioners engaged in an extensive spectrum of topics in sustainability, energy and health-based technologies. The platform explores various engineering domains that include sustainable and bio-inspired materials, advancements in energy engineering, green energy technologies, sustainable computing in healthcare, quantum computing, robotics and mechatronics, bio-sensors, bio-signals and medical imaging. It places a strong emphasis on sustainable development and encourages diverse methodologies to tackle field complexities. The evolution of sustainability refers to the transformation of significant socio-technical systems such as energy, manufacturing, water, mobility and health towards more sustainable modes of production and consumption. This is an interdisciplinary forum that covers economics, science and technology studies, engineering, computer science, geography, political science, management, sociology and history. Thus, to inculcate the recent sustainable developments, the event emphasis on engineering innovation and sustainability. The conference offers ample opportunities for networking, research dissemination and publication in esteemed international journals and proceedings.

# Call for Paper

ICEMSMCI:RISE-2024 invites full length original research contributions from science, engineering professionals from industries, R&D organizations, academic institutions, government departments and research scholars from across the world. The manuscript template shall be found in the author guidelines section. The manuscript should contribute original research ideas, developmental ideas, analysis, findings, results, etc. The manuscript should not have been published in any journals/magazines or conference proceedings and not under review in any of them. Further the manuscript should contain the name of the corresponding author with e-mail id and affiliation of all authors.

## Conference Topics

### Track - 1: Sustainable Emerging Material

- Emerging materials for efficient sustainable energy and environmental devices
- Ferrous and Non-Ferrous Sustainable Materials
- Smart and Intelligent Materials
- Polymer and ceramic materials
- Sustainable Biomaterials & Functional Materials
- Design, synthesis, characterization, and optimization of advanced sustainable materials
- Green materials
- Energy Materials
- Solar and fuel cells
- Shape memory alloys
- Self-Healing materials
- Piezoelectric materials
- Conductive polymers
- Photocatalytic materials
- Bio-based and Recycled Materials
- Energy-efficient materials
- Nanomaterials
- Biomimetic materials

### Track - 3: Robotics & Mechatronics

- Sustainable Human-Robot Interaction
- Kinematics, Dynamics, and Control of Robotic Systems for Sustainable Applications
- Robotic tracking and processing
- Machine Learning and Artificial Intelligence for Robotics
- Bio-Mimetic and Bio-Inspired Robotic Systems
- Localization and SLAM
- Humanoid Robots
- Sustainable Robotics for Industry 4.0
- Warehouse Robotics and Automation
- Agricultural and Ocean Robotics
- Future of Robotics Technology
- Intelligent mechatronics, automation, control systems
- Robotic systems modeling, optimization, simulation and experiments
- Robotics and Biomechatronics
- AI in Robots and Automation

### Track - 2: Sustainable Manufacturing Technologies & Industrial Engineering

- Methods for assessing sustainability in manufacturing
- Eco-friendly machining processes for sustainable applications
- Surface Engineering and Sustainable Coatings
- Sustainable Material Forming and joining Processes: Casting, welding, etc.
- Sustainable Bio-manufacturing Tissue Engineering
- Optimizing the design and advanced manufacturing processes for optimizing
- Energy and Material efficiency
- Additive manufacturing and 3D Printing towards zero waste manufacturing
- Additive manufacturing Modelling, Analysis, and Optimization of Manufacturing Processes
- Intelligent Manufacturing System, Time and Motion Study
- Real-time energy efficiency assessment of components and systems
- Ergonomics & Operation Management
- Conventional to Non-conventional Machining Processes
- Advanced Finishing Processes
- Material Forming & Joining Processes: Casting, Welding,
- Bio-Manufacturing and Tissue Engineering
- Tribology and Wear analysis
- Industry 4.0 & 5.0

### Track - 4: AI, Signal Processing, Computer Vision & Data Analytics

- Biomedical Imaging & Signal Processing
- Compressive Sensing, Sparse Modelling
- Computational Imaging & AI
- AI in Computer Vision
- Deep Learning/Machine Learning for Signal Processing
- Image, Video & Multidimensional Signal Processing
- AI in Internet of Things
- Quantum Signal Processing

- Sensor Array & Multichannel SP
- Signal Processing for Robotics
- Data Analytics- Data Handling & Data Processing

### Track - 5: Sustainability in Internet of Things (IoT), Network, & Sensor Technologies

- Wireless Sensor Communications
- Network Connectivity & Longevity
- Network Coverage
- Algorithms for Sensor Localization and Tracking
- Detection
- Directional and Smart Antennas for Sensor Networks
- Ubiquitous Wireless Connectivity
- AI in Sensor Networks
- Signal Processing and Computing
- Sensors and Control systems
- Storage for IoT applications
- Measurement and Sensors
- Data centers
- Sensor Array & Multichannel SP
- Sustainable Wireless Sensor Networks

### Important Dates

Paper Submission Starts	01 March 2024
Paper Submission Closes	24 June 2024
Registration Open	01 March 2024
Registration Closes	30 June 2024
Conference Dates	18 - 19 July 2024

### Peer Review Process

Each submitted manuscript will receive a unique Paper Id. The manuscripts will be initially screened to check for the conference scope and originality. All the submitted manuscripts will be sent for the technical peer-review process and the corresponding author will be notified of the outcome of the review process. If reviewers recommend further improvements in the manuscript, the manuscript will be sent back to the corresponding author and the revised version of the manuscript shall be submitted within fifteen days of the date of notification. The final decision on the manuscript will be announced after the third round of evaluation by the technical program committee.

### Submit Full Length Paper

Authors are requested to proceed for full length paper submission online on the following weblink :

<https://cmt3.research.microsoft.com/User/Login?ReturnUrl=%2FICEMSMCI2024>

### Online Registration

After receiving the paper acceptance mail, authors are requested to make online registration using the following weblink :

<https://paym.chitkara.edu.in/international-conference-on-emerging-materials-2024/>

### Registration Fee Details

Description	Early Registration (Till 23 June, 2024)		Late Registration (After 23 June, 2024)	
	Indian (Rs.)	Foreigners (USD)	Indian (Rs.)	Foreigners (USD)
<b>Regular Registration</b>	9000	150	12000	200
<b>Attendee</b>	4000	100	5000	150

**Note:** Registration fees includes registration kit, lunch, tea & snacks, and accommodation including meal and publication charges.

# Keynote Speakers



## **Professor Giuseppe Carbone**

*Chair of the IFToMM TC on Robotics and Mechatronics Editor in Chief of Robotica  
University of Calabria, Italy*

### **Research Interests**

Kinematic/Dynamic Analysis, Optimized Synthesis of Plane Mechanisms, Grip Mechanics and Grasping Cable Robotic Systems, Design, Implementation, Validation of Innovative Robotic and Mechatronic Systems

## **Professor Milos Djukic**

*Faculty of Mechanical Engineering, Department of Engineering Materials and Welding  
University of Belgrade, Serbia*

### **Research Interests**

Hydrogen Embrittlement Mechanisms in Metallic Materials, Corrosion, Microstructure, The Interaction between Materials and Hydrogen, Mechanical Properties and Microstructural Characterization



## **Professor Duc Truong Pham**

*Chance Professor of Engineering, Department of Mechanical Engineering, University of Birmingham,  
United Kingdom*

### **Research Interests**

Mechanical, Manufacturing, Computer and Systems Engineering

## **Dr. Sekhar Rakurty**

*Sr. Research Engineer, Research team lead, The M.K. Morse Company, Canton, Ohio Area, United States*

### **Research Interests**

Cutting tools, Metal Forming and Machining Researcher



## **Dr. Sanjeev Kumar**

*Principal Scientist, Biomedical Applications (BMA), Head -Electronic Design & Fab Facility (EDF),  
CSIR-CSIO (Research Lab under Ministry of Science & Technology - Government of India),  
Chandigarh, India*

### **Research Interests**

Bio-signal Processing, Soft Computing, Analog and Digital Circuit Design, Embedded Systems Design, Digital Signal Processing

## **Mr. Mukesh Singh**

*General Manager Business Excellence at LPS Bossard Pvt Ltd*

### **Research Interests**

Lean Six Sigma, Total Quality Management, Total Productive Maintenance, Quality Assurance



# Committees

## Organising Committee

### Chief Patron(s)

- Dr. Ashok K Chitkara  
Chancellor, Chitkara University, India
- Dr. Madhu Chitkara  
Pro Chancellor, Chitkara University, India

### Patron

- Dr. S.C. Sharma  
Officiating Vice Chancellor, Chitkara University  
Punjab, India

### Co-Patron

- Dr. Amit Mittal  
Pro-Vice Chancellor (Research Programs)  
Chitkara University, Punjab, India

### General Chair & Convener

- Dr. Ankit Sharma, Associate Director (Research)  
Centre for Research Impact and Outcome  
Chitkara University, Punjab, India

### General Co-Chair(s) & Co-Convener(s)

- Dr. Ayush Dogra, Assistant Director (Research)  
Centre for Research Impact and Outcome  
Chitkara University, Punjab, India
- Dr. Rahul Pandey, Assistant Director (Research)  
Chitkara University Research and Innovation Network  
Chitkara University, Punjab, India

### International Co-Chair & Co-Convener

- Dr. Syed Hassan Ahmed, California State University,  
Fullerton, USA

### International Chief Advisors

- Senior Prof. Gursel Alici, School of Mechanical,  
Material, Mechatronic & Biomedical Engineering,  
Wollongong, University of Wollongong, Australia
- Prof. Ismail Fidan, Department of Manufacturing and  
Engineering Technology, Tennessee Tech University, USA
- Prof. Milos Djukic, Faculty of Mechanical  
Engineering, University of Belgrade, Serbia

### National Chair(s)

- Prof. Praveen Kumar Khosla, Pro-Vice Chancellor  
Chitkara University Research and Innovation  
Network, Chitkara University, Punjab, India
- Prof. S. N. Panda, Pro-Vice Chancellor, Centre for  
Research Impact and Outcome, Chitkara University  
Punjab, India

- Prof. Pankaj Kumar, Pro-Vice Chancellor  
Chitkara University Research and Innovation  
Network, Chitkara University, Punjab, India

### Publication Chair

- Dr. Ankit Sharma, Centre for Research Impact and  
Outcome, Chitkara University
- Dr. Ayush Dogra, Centre for Research Impact and  
Outcome, Chitkara University
- Dr. Rahul Pandey, Chitkara University Research  
and Innovation Network, Chitkara University
- Dr. Jitendra Kumar Katiyar, Assistant Professor, Centre  
for Research Impact and Outcome, Chitkara University

### Registration and Finance Chair

- Abhimanyu Katyal, Centre for Research Impact  
and Outcome, Chitkara University

### Sponsorship Chair

- Dr. Jaya Madan, Centre for Research Impact and  
Outcome, Chitkara University
- Dr. Ankit Sharma, Centre for Research Impact and  
Outcome, Chitkara University
- Dr. Bhanu Sharma, Chitkara University Research  
and Innovation Network, Chitkara University

### Media and Publicity Chair

- Krimika, Assistant Manager, Chitkara School of  
Planning and Architecture, Chitkara University
- Dr. Ayush Dogra, Centre for Research Impact and  
Outcome, Chitkara University
- Heena Wadhwa, Centre for Research Impact and  
Outcome, Chitkara University

### Stage Management

- Alpna Shukla, Chitkara University Language  
Centre, Chitkara University
- Heena Wadhwa, Centre for Research Impact and  
Outcome, Chitkara University

### Technical Chair

- Dr. Bhanu Sharma, Chitkara University Research  
and Innovation Network, Chitkara University
- Dr. Bisham Sharma, Centre for Research Impact  
and Outcome, Chitkara University
- Dr. Chingakham Chinglenthoba, Assistant  
Professor, Centre of Research Impact and Outcome,  
Chitkara University

## Local Arrangement Chair

- Dr. Bhanu Sharma, Chitkara University Research and Innovation Network, Chitkara University
- Sahil Mehta, Chitkara University Research and Innovation Network, Chitkara University

## Management Chair

- Dr. Rakesh Goyal, Chitkara University Research and Innovation Network, Chitkara University

## Website Management Chair

- Dr. Ayush Dogra, Centre for Research Impact and Outcome, Chitkara University
- Gaurav Mittal, Chitkara University
- Ajay Goyal, Chitkara University
- Digamber Negi, Chitkara University
- Parveen Sharma, Chitkara University

## Branding Chair

- Kunwardeep Sarna, Chitkara University

## Hospitality Chair

- Sahil Mehta, Chitkara University Research and Innovation Network, Chitkara University
- Dr. Bhanu Sharma, Chitkara University Research and Innovation Network, Chitkara University

## Transport Facility Chair

- Sahil Mehta, Chitkara University Research and Innovation Network, Chitkara University

## Organizing Members

- Prof. (Dr.) Shivani Malhotra, Dean, Electronics & Communications, Chitkara University
- Prof. (Dr.) Abhineet Saini, Dean, Mechanical Engineering Chitkara University
- Prof. Vinay Kukreja, Director (Research), Centre for Research Impact and Outcome, Chitkara University

- Prof. Shalli Rani, Director (Research), Centre for Research Impact and Outcome, Chitkara University
- Prof. Kalpana Guleria, Chitkara University Research and Innovation Network, Chitkara University
- Prof. K. R. Ramkumar, Chitkara University Research and Innovation Network, Chitkara University
- Dr. Amanpreet Kaur, Chitkara University Research and Innovation Network, Chitkara University
- Prof. Rakesh Goyal, Chitkara University Research and Innovation Network, Chitkara University
- Prof. Bhasham Sharma, Centre for Research Impact and Outcome, Chitkara University
- Dr. Jaya Madan, Centre for Research Impact and Outcome, Chitkara University
- Dr. Deepam Goyal, Chitkara University Research and Innovation Network, Chitkara University
- Dr. Bhanu Sharma, Chitkara University Research and Innovation Network, Chitkara University
- Sahil Mehta, Chitkara University Research and Innovation Network, Chitkara University
- Dr. Neeraj Kumar, Chitkara University Research and Innovation Network, Chitkara University
- Dr. Vatsala Anand, Chitkara University Research and Innovation Network, Chitkara University
- Dr. Lipika Gupta, Electronics & Communications Chitkara University
- Alpana Shukla, Chitkara University Language Centre Chitkara University
- Dr. Chingakham Chinglenthoba, Assistant Professor Centre of Research Impact and Outcome, Chitkara University
- Dr. Aashish Kumar, Assistant Professor (Research) The Nanomaterials Research Laboratory, CURIN
- Prof. (Dr.) Sudesh Kumar Mittal, Chitkara University Research and Innovation Network, Chitkara University

## National Advisory Committee

- Dr. Meenu Khurana, Pro-Vice Chancellor, School of Engineering and Technology, Chitkara University, Baddi
- Prof. Pardeep Kumar, Professor, Department of Mechanical and Industrial Engineering, IIT Roorkee
- Prof. Harpreet Singh, Professor, Department of Mechanical Engineering, IIT Ropar
- Prof. I D Singh, Professor, Department of Mechanical and Industrial Engineering, IIT Roorkee
- Prof. Apurbba Kumar Sharma, Professor, Bioscience and Bioengineering, IIT Roorkee
- Prof. R S Walia, Head of Department Production & Industrial Engineering, PEC, Chandigarh
- Prof. Sarabjeet Singh, Associate Professor, Department of Mechanical Engineering, PEC, Chandigarh
- Prof. B. S. Pabla, NITTTR, Chandigarh
- Prof. S. S. Dhami, NITTTR, Chandigarh
- Dr. Kapil Kumar, Assistant Professor, Industrial & Production Engineering, NIT Jalandhar
- Prof. P C Tiwari, Head of Department, Department of Mechanical Engineering, NIT Kurukshetra
- Dr. Pankaj Sahlot, Assistant Professor, Department of Mechanical Engineering, NIT Kurukshetra
- Prof. Dheeraj Gupta, Head of Workshop, Department of Mechanical Engineering, Thapar Institute of

## Engineering & Technology, Punjab

- Prof. Vivek Jain, Department of Mechanical Engineering, Thapar Institute of Engineering & Technology, Punjab
- Prof. S. S. Mallick, Department of Mechanical Engineering, Thapar Institute of Engineering & Technology, Punjab
- Prof. Kamal Sharma, Dean, GLA University, Mathura, UP, India
- Prof. Jayant Giri, HOD, ICEE Pune, Maharashtra
- Prof. Sunil Agrawal, Professor, Department of Electronics & Communications, UIET, Panjab University, Chandigarh
- Prof. Bhawna Goyal, Department of UCRD & ECE, Chandigarh University, Punjab
- Mr. Mukesh Kumar, General Manager QMS and Lean at LPS Bossard Pvt Ltd, Haryana
- Dr. Roop Singh, Centre for Biomedical Engineering, Indian Institute of Technology, Delhi
- Dr. Jagdish Kumar, Professor & Head, Electrical Engineering, Punjab Engineering College, Chandigarh
- Dr. Kushal Kanwar, Computer Science & Engineering and Information Technology, Jaypee University of Information Technology, Solan
- Dr. Suyog Jhavar, Vellore Institute of Technology, Andhra Pradesh
- Mr. Vishal Dhiman, Vice President-Operations, Kartar Groups, Punjab
- Mr. Himmat Singh, Quality Assurance Manager, LPS Bossard Pvt Ltd, Haryana
- Ms. Purnima A, Department of Computer Science, SGGS College, Panjab University, Chandigarh
- Dr. Atul Babbar (Ph.D.), Deputy Dean, Faculty of Engineering & Technology, Shree Guru Gobind Singh Tricentenary (SGT) University, Gurugram, Haryana
- Dr. Naveen Mani Tripathi, Assistant Professor, Mechanical Engineering Department, Assam Energy Institute (Centre of Rajiv Gandhi Institute of Petroleum Technology, Jais, Amethi), Sivasagar, Assam
- Dr. Neha Tuli, Assistant Professor, Computer Science and Engineering, Sri Sai College of Engineering and Technology, Badhani, Pathankot, Co-Founder|6DOF Solutions Pvt. Ltd.

## International Advisory Committee

- Distinguish Prof. Pradeep K Rohatgi, Director, Centre for Advanced Manufacture of Materials Engineering and Mathematical Sciences 574, University of Wisconsin Milwaukee, USA
- Prof. (Dr.) Peter Wypych, School of Mechanical, Materials, Mechatronic and Biomedical Engineering Advanced Manufacturing Technologies Director - International Solids Handling Research Institute (ISHRI), Founder and General Manager of Licenced Consultancy, Bulk Materials Engineering, University of Wollongong, Australia
- Prof. Madindwa Mashinini, Head of Department: Mechanical & Industrial Engineering Technology, Faculty of Engineering and the Built Environment University of Johannesburg, South Africa.
- Prof. Raju Dandu, Department of Mechanical Engineering, Kansas State University, Manhattan, USA
- Dr. Ashwin Vaidya, Chairperson and Associate Professor Department of Mathematics, Joint Appointment - Department of Physics and Astronomy, Montclair, NJ07043
- Dr. Selvin P. Thomas, Assistant Professor, Department of Chemical Engineering Technology Yanbu Industrial College, Saudi Arabia
- Dr. Raj Das, Program Director and Associate Professor, Aerospace and Aviation Building 251, Level3, Room60, School of Engineering, RMIT University Bundoora East campus, Melbourne, Victoria 3083, Australia
- Dr. Ketul C. Papat, Professor, Associate Department Head for Undergraduate Studies, Department of Mechanical Engineering, Director for Undergraduate Programs School of Biomedical Engineering, Colorado State University 1374 Campus Delivery Fort Collins
- Dr. Nagarani Ponakala, University of West Indies, Senior Lecturer and Head Department of Mathematics
- Dr. Daya Pandey, Senior Lecturer in Thermo fluids and Energy Systems School of Computing and Engineering, University of Huddersfield Queensgate, Huddersfield, HD1 3DH, UKT
- Prof. Yu (Roger) Dong, Mechanical Engineering, Room 533A, School of Civil and Mechanical Engineering, Curtin University, Perth, Australia
- Dr. Nadras Othman, Associate Professor, Polymer Engineering Programme, School of Materials & Mineral Resources Engineering Universiti Sains Malaysia, 14300 Nibong Tebal, Penang
- Dr. Vinyas Mahesh, Department of Mechanical Engineering, University of London, UK
- Dr. Sekhar Rakurty, Senior Scientist, Cutting Tools & Machining, M. K. Morse Company Canton, Ohio, United States of America
- Dr. Grzegorz Krolczyk, School of Mechanical Engineering, Opole University of Technology, Poland
- Dr. Sundar Rajan Krishnan, Professor of Mechanical Engineering, The University of Alabama, USA
- Prof. Saidur Rahman, Distinguished Research Professor, Research Centre for Nano-Materials and Energy Technology, School of Engineering and Technology, Sunway University, Malaysia
- Dr. Rohit Arora, Department of Biomedical Sciences & Bioinformatics, The University of British Columbia, Canada
- Dr. Farhad Aslani, Department of Civil, Environmental and Mining Engineering and the Director of the Materials



- and Structure, University of Western, Australia
- Prof. Dr. Amelia Almeida, Department of Chemical Engineering and ICEMS-Institute for Science and Engineering of Materials and Surfaces, Instituto Superior Tecnico, Technical University of Lisbon, Av. Rovisco Pais, 1049-001 Lisboa, Portugal
  - Dr. Amirhossein Arzani, Professor-Computational Biomechanics, Mechanical Engineering, WEB 3616, The University of Utah, USA
  - Dr. Umesh Vaidya, Professor of Mechanical Engineering, 233 Fluor Daniel Building, Clemson University, USA
  - Dr. Mohammad Mahtabi, Assistant Professor, Mechanical Engineering, The University of Tennessee at Chattanooga, USA
  - Dr. Sridhar Krishnaswamy, Professor, Mechanical Engineering, Director of Center for Smart Structure and Mterials, Northwestern University, USA
  - Dr. Jonathan Weaver, Professor, Mechanical Engineering, University of Detroit Mercy, Plymouth, Michigan, US
  - Dr. Yebing Tian, Professor, Mechanical Engineering Department, Shandong University of Technology, China
  - Prof. J. Paulo Davim, Department of Mechanical Engineering, University of Aveiro, Portugal
  - Dr. Ali Zolfagharian, Department of Mechanical Engineering, School of Engineering, Deakin University, Victoria, Australia
  - Prof. Olfa Boubaker, Engineering Sciences, University of Carthage, National Institute of Applied Sciences and Technology, Tunisia
  - Prof. Giuseppe Pintaude, Ph.D, Professor of Tribology and Mechanical Behavior of Materials, Federal University of Technology - Paraná, Brazil
  - Prof. Lucas Freitas Berti, PHD, Adjunct Professor of Manufacturing, Federal University of Technology-Paraná, Brazil
  - Prof. Milos B. Djukic, Ph.D., Professor of Engineering Materials and Weldings Hydrogen-Materials Interactions Lab Head, University of Belgrade, Faculty of Mechanical Engineering, Department for Engineering Materials and Welding, Tribology, Fuels and Combustion, Kraljice Marije 16, Belgrade 11120, Serbia
  - Abdurazzag Aburas, Professor, Department of Computer Engineering University of KwaZulu-Natal, Durban, South Africa
  - Dr. Manob Saikia, Assistant Professor, Electrical Engineering, School of Engineering, University of North Florida, USA
  - Prof. (Dr.) Duc Troung Pham, Chance Professor of Engineering, Department of Mechanical Engineering, University of Birmingham, UK
  - Prof. Ismail Fidan, Department of Manufacturing and Engineering Technology, Tennessee Tech University, USA
  - Senior Prof. Gursel Alici, Dean Executive, School of Mechanical, Material, Mechatronic and Biomedical Engineering, University of Wollongong, Australia
  - Prof. (Dr.) Esther T Akinlabi, Professor, Deputy Faculty Pro Vice Chancellor Research and Knowledge Exchange, Faculty of Engineering and Environment, Northumbria University, City Campus, Corner of Northumberland and College Street, Newcastle Upon Tyne, NE1 8ST, UK
  - Prof. (Dr) Tien-Chien Jen, Professor, University of Johannesburg, Johannesburg, South Africa, Academy of Science of South Africa Fellow, American Society of Mechanical Engineer Fellow, South Africa Research Chair (SARChI)

## Contact Details

### General Chair & Convener

- Dr. Ankit Sharma  
Associate Director (Research)  
Head, Division of Chitkara University Publications  
Centre for Research Impact and Outcome (CRIO)  
Chitkara University, Punjab, India  
Email: icemsmci@chitkara.edu.in  
ankit.sharma@chitkara.edu.in

### Registration and Finance Chair

- Abhimanyu Katyal  
Assistant Manager, Centre for Research Impact and Outcome  
Chitkara University, Punjab, India  
Email: abhimanyu.katyal@chitkara.edu.in  
Mob.: +91- 8814972017

### General Co-Chair & Co-Convener

- Dr. Ayush Dogra  
Assistant Director (Research)  
Coordinator, Division of Chitkara University Publications  
Centre for Research Impact and Outcome (CRIO)  
Chitkara University, Punjab, India  
Email: ayush.dogra@chitkara.edu.in  
Mob.: +91-8894897646

### For Hospitality, Transport, and Travel

- Sahil Mehta  
Assistant Professor  
Chitkara University  
Mob.: +91- 7009065831  
Email: icemsmci@chitkara.edu.in