

ICEMSMCI-2023
International Conference
on Emerging Materials,
Smart Manufacturing
& Computational
Intelligence

DECEMBER 07-08, 2023

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**Division of Chitkara University Publications
Chitkara University Research and Innovation Network
Chitkara University, Punjab, India**

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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. The Curriculum is delivered in spacious, amphitheatre-style classrooms—fitted with modern information and communication technology (ICT) equipment. A healthy number of foreign students regularly study at the campus and number of them also visits on exchange programs, adding to the cultural diversity found on campus. The University in Punjab provides several opportunities for local students, too, to visit foreign universities and institutions on such exchange programs, thereby helping them receive invaluable international exposure.

About Chitkara University Research and Innovation Network (CURIN)

This network of research and innovation is open to all the students and faculties of Chitkara University. Through Chitkara University Research and Innovation Network (CURIN), our researchers work across disciplines to extend the boundaries of knowledge. CURIN has the glory of filing the number of patents and publishes research papers to serve the scientific community. The patents are serving a number of industries both at local and global level to solve the difficult problems with simple solutions. CURIN is the locus of research for collaborative groups of investigators pushing the frontiers of knowledge forward. They are involved in cutting edge research, exploring new technologies to improve the country’s infrastructure and safety — and contributing to society through many other discoveries and innovations. We believe every student benefits from being taught by experts active in research and practice. We discuss the latest ideas, research discoveries and new technologies in seminars.

About ICEMSMCI–2023

ICESMCI–2023 aims to establish an international accumulation of researchers, scientists, and industrial experts. Globalization spread knowledge and technology, which intensifies development. Hence, this forum provides a platform where people can convey cutting-edge knowledge about diverse technological evolutions, innovations, and developments in the domain of emerging materials, smart manufacturing, Image Processing, data science, signal processing, wireless sensor network, biomedical imaging and robotics intelligence. This conference focused on the recent developments and challenges in the field of advanced manufacturing, material science research, surface engineering, medical Imaging, data processing, tissue engineering, wireless networks, signal processing, robotics, industry 4.0, machine learning, and automation.

Call for Paper

ICEMSMCI-2023 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 Emerging Materials

- Fundamental Material Science
- Ferrous and Non-Ferrous Materials
- Smart/Intelligent Materials
- Polymer & Ceramic materials
- Biomaterials Functional Materials
- Micro & Nanomaterials
- Structural & Composite Materials
- Design, Synthesis, Characterization, and Optimization of Advanced Materials
- Green and Sustainable Materials
- Energy Materials

Track -3 Advancement in Robotics & Mechatronics

- Kinematics, Dynamics and Control of Robotic Systems
- Human Robot Interaction
- Machine Learning and Artificial Intelligence for Robotics
- Bio-Mimetic and Bio-Inspired Robotic Systems
- Localization and SLAM
- Humanoid Robots
- Robotics for Industry 4.0
- Warehouse Robotics and Automation
- Agricultural and Ocean Robotics
- Cloud Robotics
- Future of Robotics Technology
- Intelligent Mechatronics, Automation, Control Systems
- Robotic Systems Modeling, Optimization, Simulation and Experiments
- Robotics and Biomechanics
- Robotics and Mechanical Engineering
- Robots and Automation

Track -2 Smart Manufacturing Technologies & Industrial Engineering

- Conventional and Non-conventional Machining Processes
- Advanced Finishing Processes
- Surface Engineering and Coatings
- Material Forming & Joining Processes: Casting, Welding, etc.
- Bio-Manufacturing and Tissue Engineering
- Additive Manufacturing
- Modelling, Analysis, and Optimization of Manufacturing Processes
- Tribology and Wear
- JIT, MRP, Supply Chain Management, and Logistics
- Intelligent Manufacturing System, Time and Motion Study
- Quality Control and Reliability
- Ergonomics & Operation Management

Track -4 Signal Processing, Computer Vision & Data Analytics

- Biomedical Imaging & Signal Processing
- Compressive Sensing, Sparse Modelling
- Computational Imaging
- Computer Vision
- Deep Learning/Machine Learning for Signal Processing
- Image, Video & Multidimensional Signal Processing
- Information Forensics & Security
- Internet of Things
- Quantum Signal Processing
- Remote Sensing & Signal Processing
- Sensor Array & Multichannel SP
- Signal Processing for Robotics
- Speech and Language Processing
- Data Analytics - Data Handling & Data Processing

Track -5 Sensor Technologies

- Wireless Sensor Communications
- Network Connectivity & Longevity
- Tracking Objects
- Geo-Location Problems
- Network Coverage
- Algorithms for Sensor Localization and Tracking
- Detection
- Directional and Smart Antennas for Sensor Networks
- Ubiquitous Wireless Connectivity
- AI in Sensor Networks

Important Dates

Paper Submission Starts	10 June 2023
Paper Submission Closes	20 September 2023
Registration Open	01 September 2023
Registration Closes	30 September 2023
Conference Dates	07 - 08 December 2023

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 using the following weblink:

<https://cmt3.research.microsoft.com/User/Login?ReturnUrl=%2FICEMSMCI2023>

Registration Fee Details

Category	Description	Early Registration Before 20 September, 2023		Late Registration After 20 September, 2023	
		Indian (Rs.)	Foreigners (USD)	Indian (Rs.)	Foreigners (USD)
Category A & C	For AIP Conference Proceedings / Scientific.Net Proceedings / Journals	10000	150	11000	200
Category B	For book/series proceedings (book series and book proceedings in Springer, T&F, Elsevier)	2500	50	3000	60

Keynote Speakers



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



Professor Yudong Zhang

*Chair Professor of Knowledge Discovery and Machine Learning, School of
Computing and Mathematical Sciences, University of Leicester, United Kingdom*

Research Interests

Deep learning, Medical image analysis, Bio-signal Processing, Machine Learning



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



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. Bhupendra Singh

*Senior Scientist, Centre for Artificial Intelligence & Robotics (CAIR), Defence
Research and Development Organization (DRDO), Bangalore, India*

Research Interests

Post Quantum Cryptography, Cyber Security, and Cryptography

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- Dr. Umesh Vaidya, Professor of Mechanical Engineering, 233 Fluor Daniel Building, Clemson University, USA
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Contact Details

General Chair & Convener

- Dr. Ankit Sharma
Head, Division of Chitkara University Publications
Assistant Professor (Research: SG), Chitkara University Research & Innovation Network (CURIN), Chitkara University, Punjab, India
Email: icemsmci@chitkara.edu.in
ankit.sharma@chitkara.edu.in

General Co-Chair & Co-Convener

- Dr. Ayush Dogra
Coordinator cum member of Division of Chitkara University Publications, Assistant Professor (Research: SG), Chitkara University Research & Innovation Network (CURIN), Chitkara University, Punjab, India
Email: ayush.dogra@chitkara.edu.in
Mob.: +91-8894897646

Registration and Finance Chair

- Dr. Sonam Mittal
Coordinator cum member of Division of Chitkara University Publications, Assistant Professor, Chitkara University Research & Innovation Network (CURIN) Chitkara University, Punjab, India
Email: sonam.mittal@chitkara.edu.in
Mob.: +91-9896534451

Media and Publicity Chair

- Ms. Krimika
Assistant Manager, Chitkara School of Planning and Architecture, Chitkara University, Punjab, India
Email: krimika@chitkara.edu.in

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Division of Chitkara University Publications
Chitkara University Research and Innovation Network
Chitkara University, Punjab, India, 140401