



# International Conference on Advanced Materials for Sustainable Future

(ICAMSF-2025)

28th-29th March, 2025

Venue: Chitkara University, Rajpura, Punjab, India

**Organised By**

Centre for Research Impact and Outcome  
Chitkara University, Rajpura, Punjab, India

**In Association With**



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UNIVERSITÀ DEGLI STUDI DI NAPOLI  
FEDERICO II



## About Chitkara University

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Chitkara University, established in 2010 by the Punjab State Legislature under “The Chitkara University Act,” is a government-recognized institution with the authority to confer degrees as per the UGC Act, 1956. Situated 30 kilometres from Chandigarh on the Chandigarh–Patiala National Highway, the university offers a wide range of multidisciplinary programs designed to be industry-relevant. Renowned as one of the best private universities in North India, Chitkara University provides educational services in business management, nursing, medical laboratory technologies, computer science, electronics, mechanical engineering, hotel management, and architecture. The university's strong national and international collaborations, robust on-campus recruitment, and cultural diversity attract students from across the globe, enriching the academic experience.



## About the Centre for Research Impact and Outcome

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The Center for Research Impact and Outcome (CRIO) is dedicated to advancing and nurturing interdisciplinary, high-impact research through strategic collaborations with external organizations, industry leaders, government bodies, and community groups. Its mission is to amplify the reach and influence of research by implementing innovative strategies to enhance visibility and dissemination. This includes leveraging diverse platforms such as publications, conferences, research initiatives, intellectual property rights, and state-of-the-art research laboratories.



## About the ICAMSF-2025

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The International Conference on Advanced Materials for Sustainable Future, themed "Energy, Efficiency, Economy for Sustainability," promises to be a pivotal event for researchers, industry experts, and policymakers alike. Hosted by the Centre for Research Impact and Outcome at Chitkara University from March 28th to 29th, 2025, this conference will delve into the crucial role advanced materials play in shaping a sustainable future. Attendees will engage in discussions on current practices and challenges in utilizing sustainable materials for extreme environments while exploring advanced practices that improve efficiency and enhance the lifespan of materials and machining components. ICAMSF-2025 will showcase cutting-edge advancements in materials, processes, and manufacturing geared towards sustainability, providing a platform for manufacturers to display their state-of-the-art products and services. Furthermore, the conference will delve into the profound influence of sustainability in material science, examining the impact of materials on our daily lives and the economic growth of nations.

### **The main objective of ICAMSF-2025 focuses on various scopes:**

- Discusses the current practices and challenges in sustainable materials for extreme environments.
- Explores advanced practices as a tool for improved efficiency and enhanced life of the materials and machining components.
- Showcases the advancements in materials, processes, and manufacturing towards sustainable goals.
- Provides an opportunity for manufacturers to display their state-of-the-art & products and services.
- Discusses the influence of sustainability on materials.
- Explores the impact of materials in our daily lives and the economic growth of the county.



## Broad Area of Conference

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### **Track 1: Material Synthesis for Environmental Remediation, Energy Storage and Conversion**

Synthesis and characterization of materials, innovation and mechanistic features for sustainable chemical production, nanomaterials for environmental remediation, Advanced Oxidation processes (Electrochemical oxidation, catalytic oxidation, photocatalysis, solar treatment, etc.), Conversion of CO<sub>2</sub> into valuable chemicals, Microplastics: Challenges and Remediation, Energy Harvesting, Battery Technology, Supercapacitors, Electrochemical Storage, Solar Energy Conversion, Thermoelectric Materials, Hydrogen Storage, Catalysis for Energy Applications, Solid-State Batteries, Sustainable Energy Solutions, Waste to resource recovery.

### **Track 2: Advanced Manufacturing in Industry 4.0/5.0**

Nanofabrication, Additive Manufacturing, 3D Printing, Smart Manufacturing, Process Optimization, Materials Processing, Quality Control, In-situ Characterization, Data-Driven Manufacturing, Sustainable Manufacturing, Scale-Up Processes, Novel principles/approaches for manufacturing, Composites (Polymer/metal/ceramics), Advanced Welding Technologies, Application of AI/ML in Manufacturing.

### **Track 3: Materials for Extreme Functionalities**

Nanomaterials, Metamaterials, Topological Insulators, Quantum Materials, Ultra-High-Strength Alloys, High-Temperature Superconductors, Extreme Environment Materials, Responsive Materials, Adaptive Structures, Negative Index Materials, Nonlinear Optics, Advanced Photonics, Multiferroics, Extreme Magnetoresistance, High-Pressure Materials, Ultrafast Devices, Energy-Dissipating Structures, High-Efficiency Energy Devices, High-Entropy Alloys, Biomaterials for Medical Application.

### **Track 4: Engineering Tribology**

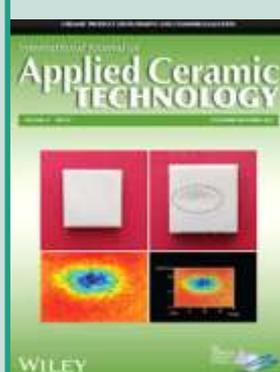
Thin Films and Coatings, Wear-Resistant Coatings, Surface Engineering, Self-lubricating Composites, High-Temperature Tribology, Tribological Performance of Additively Manufactured Components, Food Tribology, Superlubricity, Tribological Performance of Sustainable Lubricants, Advanced Materials and Biomaterials, Bio-and Tribo-corrosion, Automotive Tribology, Bearing, Application of AI/ML in Tribology.

## Publications

### Special Issue



Proceedings of IMechE Part J: Journal of Engineering Tribology (indexed in Scopus/SCIE with JCR IF=1.6)



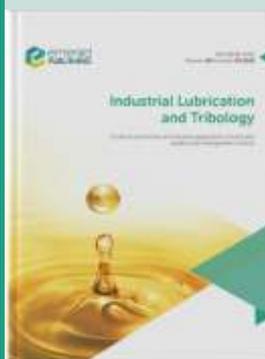
International Journal of Applied Ceramic Technology (indexed in Scopus/SCIE with JCR IF=1.8)



Materials Science and Engineering Technology (Materialwissenschaft und Werkstofftechnik) (indexed in Scopus/SCIE with JCR IF=1.2)



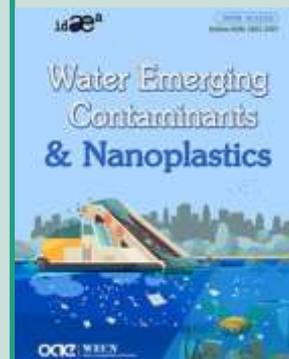
Proceedings of IMechE Part E: Journal of Process Mechanical (indexed in Scopus/SCIE with JCR IF=2.3)



Industrial Lubrication and Tribology (indexed in Scopus/CIE with JCR IF=1.5)



Nanotechnology for the removal of micro/nanoplastics from water/wastewater (indexed in Scopus/SCIE with JCR IF=2.9)



Monitoring of Microplastics in the Environment (indexed in Scopus)



## Plenary Speakers

### **Prof. J. Ramkumar**

Dean of Infrastructure & Planning  
Department of Mechanical Engineering  
Indian Institute of Technology Kanpur

### **Professor V.C. Srivastava**

Dean of International Relation  
Department of Chemical Engineering  
Indian Institute of Technology Roorkee

### **Prof. Urska Lavrencic Stangar**

Faculty of Chemistry and Chemical Technology  
University of Ljubljana, 1000 Ljubljana, Slovenia

### **Prof. Laura Clarizia**

Department of Chemical  
Materials and Industrial Production Engineering  
University of Naples, Italy

## Keynote Speakers (International)

### **Prof. Binnur Sagbas**

Vice Dean of Mechanical Engineering Faculty  
Yildiz Technical University, Istanbul, Turkey

### **Prof. Mohamad Ali Ahmad**

Universiti Teknologi MARA  
(UiTM), Malaysia

### **Dr. Ramanpreet Kaur**

Associate Scientist  
Laboratory for Open Systems  
and Networks, Jozef Stefan Institute  
1000 Ljubljana, Slovenia

### **Dr. Ritu Raman**

Eugene Bell Assistant Professor  
Department of Mechanical Engineering  
Massachusetts Institute of Technology, USA

### **Prof. Sabiqah Tuan Anuar**

Deputy Director International Centre  
Universiti Malaysia Terengganu, Malaysia

### **Prof. Zahrul Fuadi**

Syiah Kuala University, Indonesia

### **Prof. Zulfiqar A Khan**

Bournemouth University, United Kingdom

## Keynote Speakers (National)

### **Dr. Asheesh Kumar**

Ramanujan Fellow Scientist  
CSIR-Indian Institute of Petroleum  
AcSIR (Academy of Scientific and  
Innovative Research)

### **Prof. Dineshsingh Thakur**

Director, Planning & Policy  
& NEP, DIAT (DU), DRDO  
Girinagar, Pune, Maharashtra

### **Dr. Harish Kumar**

Associate Professor and  
HOD Mechanical Engineering  
National Institute of Technology Delhi  
New Delhi

### **Prof. Manas Das**

Department of Mechanical Engineering  
Indian Institute of Technology Guwahati  
Guwahati, Assam

### **Dr. R. Santhanam**

Senior Scientist "F", Defence Research  
and Development Laboratory (DRDL)  
Defence Research & Development  
Organisation (DRDO), Ministry of Defence  
Government of India, Hyderabad

### **Prof. Sajith V**

Department of Materials Science  
and Engineering, National Institute  
of Technology Calicut, Kerala

### **Dr. T C S M Gupta**

Sr. Vice President, QA, QC  
R&D and Technical, APAR Industries Limited  
Navi Mumbai, Maharashtra

### **Dr. T V K Gupta**

Associate Professor  
Department of Mechanical Engineering  
Visvesvaraya National Institute of  
Technology Nagpur, Maharashtra

### **Prof. Vikas Kumar Sangal**

Department of Chemical Engineering  
MNIT, Jaipur



## Invited Speakers (International)

**Dr. Catalin I Pruncu**  
Politecnico di Bari  
Italy

**Dr. Navneet Kumar**  
Assistant Professor  
Department of Electronics  
Engineering Hanyang University  
Seoul South Korea

**Dr. Rohit Chauhan**  
Research Scientist  
Department of Chemical Engineering  
University of Illinois Chicago  
Illinois United States

## Invited Speakers (National)

**Prof. Amrish Kumar Panwar**  
Department of Physics  
Delhi Technical University, Delhi

**Dr. Anuj Kumar Sharma**  
Centre for Advanced Studies  
Dr. APJ Abdul Kalam Technical University  
Lucknow, Uttar Pradesh

**Dr. Arun Singh**  
Associate Professor  
Visvesvaraya National Institute  
of Technology Nagpur, Maharashtra

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Senior Scientist  
CSIR-Indian Institute of Petroleum

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Assistant Professor  
Indian Institute of  
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Chennai, Tamil Nadu

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Science and Technology  
Mohali, Punjab

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**Prof. Zulfikar A Khan**  
Bournemouth University  
Bournemouth, United Kingdom



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Visvesvaraya National Institute of  
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United Kingdom

## National Advisory Member

### Prof. Amrish Kumar Panwar

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Centre for Advanced Studies  
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### Dr. Avinash Kumar

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National Institute of Technology  
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Institute of Nano Science  
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Punjab

### Prof. Rajesh Nigam

Senior faculty, BHU  
Mirzapur

### Dr. Asheesh Kumar

Scientist, CSIR-Indian Institute  
of Petroleum

### Registration Fee:

Categories	Registration Fee (Before 31st Jan 2025) without accommodation	Registration Fee (Before 31st Jan 2025) with accommodation	Registration Fee (After 1st Feb 2025)
Student/Research Scholar	INR 3000	INR 5000	INR 6000
Faculty/Research Scientist/Industry	INR 5000	INR 7000	INR 8000
International Participant	\$150	\$200	\$250
Attendees (National)	INR 1000	INR 3000	INR 3000
Attendee (International)	\$50	\$100	\$100

\*Registration fees include the conference kit, all sessions, certificate, lunch, breakfast, tea, and accommodation.

### Important Dates

**Abstract Acceptance:**  
30th December 2024

**Registration Start:**  
31st December 2024

**Submission to the Special/  
Regular Issues Start**  
01st January 2025\*

**Registration End:**  
15th March 2025

\*Submissions in Special Issues/Regular Issues are accepted after the Registration only.



## Abstract Format

<b>Headings</b>	▶ Bold, 12 pt.
<b>Font</b>	▶ Times New Roman
<b>Title</b>	▶ Bold, Centre, 14pt.
<b>Name of Authors</b>	▶ Centre, 12pt.
<b>Affiliation of Authors</b>	▶ Centre, 11 pt.
<b>Abstract Word</b>	▶ 200-400 words
<b>Body of Abstract</b>	▶ Justify, 1.5 line spacing
<b>Keywords</b>	▶ 4-6

**Abstract Submission Link**

<https://forms.gle/jQr8eWB9ma8BnGzH8>



## Sponsorship Categories

You are invited to join this 1st International Conference on Advance Materials for Sustainable Future as sponsors. Details regarding various categories of sponsorship are given below.

Category	Indian	Overseas
<b>Silver</b>	Rs. 50000	US \$500
<b>Gold</b>	Rs. 100000	US \$1000
<b>Platinum</b>	Rs. 150000	US \$1500

Category	Indian	Overseas
<b>Diamond</b>	Rs. 200000	US \$2000
<b>Powered</b>	Rs. 300000	US \$2500

## Sponsorship Opportunity and Benefits

Category	Slot in Industrial Meet Session (15 Min)	No. of Free Registration	Writeup about the product and company in Proceeding	Logo and name in Proceeding	Logo and name in Brochure	Logo in Certificates	Exhibition Stall
Silver	–	–	–	Yes	Yes	Yes	Yes
Gold	–	2	–	Yes	Yes	Yes	Yes
Platinum	–	3	Yes (1/2 Page)	Yes	Yes	Yes	Yes
Diamond	Yes	4	Yes (1 Page)	Yes	Yes	Yes	Yes
Powered*	Yes	5	Yes (2 Page)	Yes	Yes	Yes	Yes

\*They will get the time to deliver a speech of 10 minutes in the inauguration





### Further, Schemes for Sponsorship

- 1.Sponsorship for Plenary/Keynote Speakers International (Rs. 50000)
- 2.Sponsorship for Keynote Speakers Indian. (Rs. 50000)
- 3.Company promotion on back of the front or back side of proceeding (Rs. 30000)
- 4.Company promotion on the proceeding (Rs. 20000)
- 5.Gala Dinner Sponsor (Rs 300000)
- 6.Only Business Meet with two persons (Rs. 50000)
- 7.Exhibition of the company Only (Rs 50000)
- 8.Sponsorship for Award in oral and Poster Presentation for the best 10 participants (Rs. 50000)

### Travel to Chitkara University

- Chitkara University is located in Rajpura, Punjab, India. Rajpura is about 29 Km from Chandigarh 40 Km from Ambala and 29 Km from Rajpura.
- The Venue nearest cities to Chitkara University are Rajpura, Ambala, Patiala, Mohali, Zirakpur Panchkula, and Chandigarh.
- The nearest railway stations are Chandigarh and Ambala well connected by the Indian rail network
- Rajpura is well connected with the road network.
- The nearest airport is Mohali International Airport, Chandigarh. Chitkara University is about 25Kms from Mohali International Airport

### Contact Details

**Dr. Jitendra Kumar Katiyar**  
**Chairperson and Convenor**  
**ICAMSF-2025**  
**Email: [icamsf@chitkara.edu.in](mailto:icamsf@chitkara.edu.in)**  
**Mobile: +91 80901-13301**  
**For more details**  
**<https://chitkara.edu.in/icamsf/>**



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