

*9<sup>th</sup> International Conference on*  
**Advancements and Futuristic Trends in Mechanical and  
Materials Engineering  
AFTMME 2021**

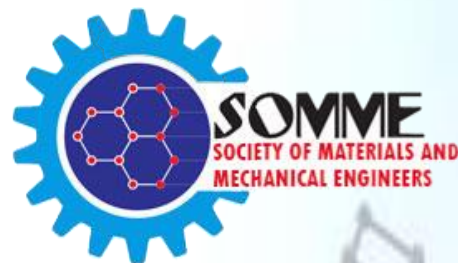
*December 9-11, 2021 at IIT Ropar, India*



Organized by



**Indian Institute of Technology  
Ropar, India**



**Society of Materials and Mechanical  
Engineers (SOMME)**

**Important Dates**

**Abstract Submission  
(15/08/2021)**

**Abstract Acceptance  
(15/09/2021)**

**Early Bird Registration  
(15/10/2021)**

**ANNOUNCEMENT & CALL FOR PAPERS**

**Organizing Team, AFTMME 2021**

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The Conference AFTMME was started by the Society of Materials and Mechanical Engineers in 2010 to bring academicians, researchers, practicing engineers, industrialists and start-up professionals together for sharing their ideas & experiences and disseminate knowledge in the field of Materials and Mechanical Engineering. The conference has gained wide acclaim over the years and it reached an international status in 2012. The 9<sup>th</sup> international conference is being organized at IIT Ropar during 9<sup>th</sup>-11<sup>th</sup> December 2021.

## TECHNICAL THEMES AND TOPICS

Extended abstracts of research papers focused on experimental, numerical and theoretical work in the following technical streams are invited. All the abstracts will be initially screened, followed by peer review headed by the technical coordinators.

### General Manufacturing

(Dr C K Nirala & Dr A D Jayal, IIT Ropar)

- Conventional & non-conventional machining and finishing
- Other macro, micro & nano manufacturing

### Advanced Materials

(Dr Khushboo Rakha & Dr Pratik Ray, IIT Ropar)

- Ferrous and non-ferrous Metallurgy
- High Temperature alloys
- Functional Materials

### Manufacturing with non-metallic Materials

(Dr Anupam Agrawal & Dr P K Agnihotri, IIT Ropar)

- Polymer 3D printing
- Injection molding
- Advanced polymer processing
- Glass molding
- Composites manuf.

### Surface Engineering

(Prof Harpreet Singh, IIT Ropar)

- Thermal spray
- Corrosion
- CVD, PVD
- Wear
- Laser cladding
- Hydrophobicity

### Sustainable Manufacturing

(Dr Ravi Kant, IIT Ropar)

- Green and advanced materials
- Sustainable design and processing etc.

### Mechanical Metallurgy

(Dr Samir Chandra Roy, IIT Ropar)

- Mechanical behavior of materials
- Creep, fatigue and fracture etc.

### Industry 4.0

(Dr Kaushal A. Desai, IIT Jodhpur)

- AI/ML Applications in Manufacturing
- Real-time Sensing and Diagnosis
- Cyber-Physical Systems for manufacturing
- VR/AR/MR Applications in Manufacturing etc.

### Thermo-fluids Engineering and Renewable Energy

(Dr Himanshu Tyagi, Dr. Ramjee Repaka, IIT Ropar)

- Thermal, Fluids, Heat transfer
- Renewable, Solar, Wind etc.

All the submitted papers will be peer reviewed.

Full version of the selected abstracts will be invited for publication in Scopus/SCI indexed journal(s)



## ABOUT IIT ROPAR

As one of the prominent research institutes established in 2008 by the ministry of human resource development (MHRD), Government of India, IIT Ropar promotes cutting-edge research and technology, supported by 175 highly qualified faculty members and 681 research scholars. The campus operates with 11 departments promoting interdisciplinary research. IIT Ropar got 25<sup>th</sup> rank in the NIRF ranking, 2021; ranked 2<sup>nd</sup> highest Indian university consequently for two years (2019, 2020) in the Times Higher Education World University Ranking, and has attained the 2<sup>nd</sup> position among new IITs with the average citation per paper (ACPP) of 22.45 (Scopus data - February 2020). The institute has also provided many technological solutions to combat Covid-19 which have served masses nationally and internationally. The institute is located over a serene campus of 525 acres and is developing infrastructure at a very fast rate. The institute is situated at a naturally attractive place near the banks of Sutlej River and is surrounded by the Shivalik Hills. This place is well connected with various parts of the country through road, rail and air. The nearest airport is at Chandigarh which is just 45 kms from the institute. The institute website [www.iitrpr.ac.in](http://www.iitrpr.ac.in) can be visited for more details about the venue.

## ABOUT SOMME

The Society of Materials and Mechanical Engineers (SOMME) was founded and constituted under the visionary leadership of several dynamic and prominent academicians, with Prof. Satya Prakash, Emeritus Professor, IIT Roorkee (India) as Patron of the society and Dr. Buta Singh Sidhu, Vice Chancellor, MRSPTU, Bathinda (India) as President. The objective of the society is to promote and execute research and development activities in various fields of materials and mechanical engineering for the growth of society. For more details, the society website <http://www.somme.in/> can be visited.

## UNIVERSITY COLLABORATION

University partnerships provide a huge amount of opportunities for students and staff alike. Along with research opportunities and cultural awareness, institutions can offer international experiences, including study abroad programs and staff exchanges. SOMME has valuable support from Maharaja Ranjit Singh-Punjab Technical University, Bathinda (India) in the organization of AFTMME 2021. IIT Ropar & MRS-PTU, Bathinda also have collaborating linkages.

## REGISTRATION FEES\*

Authors Category	International		National	
	SOMME Members	Non-SOMME Members	SOMME Members	Non-SOMME Members
Industry/R&D	USD 250	USD 300	INR 6000	INR 8000
Academia	USD 150	USD 200	INR 2500	INR 3000
Student	USD 100	USD 150	INR 1500	INR 2000
Attendees Only	USD 50	USD 100	INR 1000	INR 1500

**Note 1: Additional INR 500 or USD 50 will be applicable in respective categories after early bird dates.**

**Note 2: Participants not willing to travel may present their paper(s) through online/repository mode.**

**JOURNALS FOR SELECTED PAPERS**

Lasers in Engineering (SCIE, IF 0.34)	<a href="https://www.oldcitypublishing.com/journals/lie-home/">https://www.oldcitypublishing.com/journals/lie-home/</a>
Journal of Micromanufacturing (SAGE)	<a href="https://journals.sagepub.com/home/jmf">https://journals.sagepub.com/home/jmf</a>
To be added	
To be added	

**AWARDS**

❖ **BEST RESEARCH PAPER AWARD**

❖ **BEST POSTER AWARD**

**POST GRADUATE LEVEL**

❖ **BEST PAPER AWARD+** All papers in this category will be published in IJSEMT Journal managed by SOMME Details:

**UNDERGRADUATE LEVEL**

❖ **HEFTY CASH AWARDS IN A PARALLEL UPSC EVENT** (Undergraduate Presentation Skill Competition ) Details:

❖ **S.GURDEV SINGH MEMORIAL AWARD FOR BEST TECHNICAL CONTENT** Details:

**TO SUBMIT ABSTRACT**

For more details please visit: [www.iitrpr.ac.in/aftmme2021](http://www.iitrpr.ac.in/aftmme2021)

**CONTACT DETAILS**

For submission enquiry: [aftmme2021@iitrpr.ac.in](mailto:aftmme2021@iitrpr.ac.in)

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