

PFAM 29

**FIRST ANNOUNCEMENT AND CALL FOR PAPERS
29th INTERNATIONAL CONFERENCE**

Processing and Fabrication of Advanced Materials

ORGANIZERS

भारतीय प्रौद्योगिकी संस्थान तिरुपति



**NATIONAL DESIGN
AND RESEARCH FORUM**

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 **06 - 08 September 2023**

 **Indian Institute of Technology, Tirupati, India**

ABOUT THE CONFERENCE

PFAM 29 is the 29th International Conference on Processing and Fabrication of Advanced Materials (PFAM-XXIX) and will feature a dedicated plenary session in honor of Prof. Dr. R. K Ray. It is being organized jointly by the Indian Institute of Technology, Tirupati, Andhra Pradesh, India and the National Design and Research Forum, Bangalore, India (NDRF) in the city of Tirupati, between 6-8 September 2023. This monumental scholarly technical event will focus on recent advances made in the field of carbon composite materials, metallic materials, and materials for use in aerospace and a spectrum of other space-related applications. The primary purpose of this multi-disciplinary conference is to bring together state-of-the-art developments on all aspects related to the processing and fabrication of advanced materials, spanning the entire spectrum of metals, ceramics, ceramic-matrix composites, carbon-carbon composites, metal-matrix composites, intermetallic-matrix composites, advanced polymers and polymer-matrix composites, advances and innovations in the domain of surface and high-temperature coatings. The conference will provide an attractive forum for presenting the latest advances in aspects related to materials processing and fabrication by researchers and engineers from a cross-section of industry, research laboratories (both government and industry-related), and academic institutions. KEYNOTE, INVITED, and CONTRIBUTED papers will be presented at this prestigious event. The Keynote and Invited papers from leading-edge academic and industrial research settings will provide a lucid and comprehensive overview of the status and potential future directions for research in the areas of Advanced Materials. Contributed papers that cover specific problems in the field will be considered.

Who should attend?

We warmly welcome experts, scholars, and scientific & technological workers in this area to participate in this international academic exchange activity in the field of advanced materials and intelligent manufacturing technology.

VENUE

The venue for the conference is Tirupati, a city in the Chittoor district, Andhra Pradesh, India. The Government of Andhra Pradesh is nurturing Tirupati as a knowledge hub of the State. Many established Institutions such as IISER, Tirupati, Sri Venkateshwara University, Sri Venkateshwara Medical College, Sri Venkateshwara Institute of Medical Sciences (SVIMS), Sri Padmavathi Mahila Visvavidyalayam, and Sanskrit University, are located in Tirupati. "Sri City" an industrial city nearby, and the Satish Dhawan Space Center (SHAR) in Srihari Kota, gives the city a technological edge. Airport connectivity and proximity to Chennai and Bangalore makes it an ideal location for national and international conferences. Tirupati city, referred to as the spiritual capital of Andhra Pradesh is also a mesmerizing tourist center with holy shrines, waterfalls, and exquisite shopping destinations. The Regional Science Centre, a famous planetarium showcases state-of-the-art digital technology in a marvelous sky observation deck and is enthralling.

INDIAN INSTITUTE OF TECHNOLOGY, TIRUPATI, ANDHRA PRADESH, INDIA

IIT Tirupati, established in 2015, is an Institute of National Importance under the Act of Parliament of India (Institutes of Technology Act, 1961). IIT Tirupati started functioning with the support of its mentoring institute, IIT Madras, in the academic year 2015-16. Indian Institute of Technology Tirupati is the first among the 3rd phase of IITs, announced in 2014. The academic programs include B. Tech programs in the fields of Civil, Computer Science, Electrical, Mechanical, and Chemical Engineering. The M. Tech programs in Civil, Computer Science, Electrical, and Mechanical Engineering disciplines were launched subsequently. The research programs (MS and Ph.D.) are in full swing. The curriculum for various programs has an emphasis on theoretical knowledge and practice-oriented laboratories. Courses are well-planned to nurture innovation, creativity, quality, teamwork, communication skills, ethics, and societal interaction. Presently, IIT Tirupati is operating from its permanent campus at Yerpedu. IIT Tirupati has a high potential to become an academic and research institute of great repute. The Indian Institute of Technology (IIT) system has 23 Institutions all over India that are autonomous Institutions under the Ministry of Education, Government of India. The IITs are well known both nationally and internationally for excellence in education and research in engineering and science. The institutes are globally recognized as centers of academic excellence and enjoy great repute internationally for the outstanding caliber of the students graduating from these Institutions.

NATIONAL DESIGN AND RESEARCH FORUM, BANGALORE, INDIA)

NDRF is a national interdisciplinary forum for exploring and disseminating new and emerging design and research concepts on matters of importance to the nation. Accredited as the Scientific and Industrial Research Organization (SIRO) by the Department of Science and Industrial Research (DSIR), the forum has been recognized by the Ministry of Micro-Small and Medium Enterprises (MSME), Government of India as a host institution. NDRF envisions promoting and advancing the science and practice of engineering design in all branches. NDRF positions itself as a catalyst to deploy engineering advances and policy decisions toward societal needs, from an engineer's perspective. Capitalizing on the mandate defined by the IEI Council, NDRF strategically leads the Consortium of Partners (NDRF Consortium) in addressing the national needs and imperatives of a premier Indian research organization by leveraging the collective strength of the IEI, NDRF, and the members of the NDRF Consortium. NDRF's vision towards nation-building is directed towards five strategic goals:

- Provide leadership in identifying and developing contemporary technologies.
- Enhance and institutionalize research excellence.
- Foster innovation, entrepreneurship, and policy research to ensure that technological advances drive Indian society's march to progress and development.
- Promote networking and collaboration in engineering research and development of the community.
- Create regional NDRF clusters and strengthen organizational effectiveness.

CALL FOR PAPERS

Industry focus areas

- Aerospace and other Space-related industries
- Automobile
- Marine and Defence
- Power and Energy
- Biomedical and Healthcare
- Electronics and Communications
- Energy Storage/Harvesting
- Heavy Equipment, Machinery & Goods

Best Poster Award

This international Conference has a section allotted towards poster presentation. Special invitation is extended to students, faculty, researchers, engineers, scientists and technologists spread through the domains of (i) Educational institutions, both in public and private domain, (ii) Research laboratories, (iii) Institutes for research and technology advancement, and (iv) Industry, to come forward to showcase aspects specific to their novel and innovative findings and accomplishments made in the domains spanning both engineering-relevant and technology-relevant applications. The "Best Poster" in each of the categories specific to **Materials Engineering, Manufacturing Processes** and **Technological Applications** will be chosen and eligible for a handsome award. The concerned individuals are required to submit an abstract of their poster for inclusion in the conference program that will be distributed to all attendees and participants. The contributing authors are strongly encouraged to submit a full-length technical manuscript for inclusion in the bound volume, having archival value and significant technical impact.

Paper Submission

All the KEY-NOTE, INVITED and CONTRIBUTED technical papers presented at this scholarly technical event will be published with a confirmed ISBN number. Certificate of participation will be distributed to the conference participants at the conference registration desk.

Guidelines for paper submission:

- Instructions for manuscript preparation and submission will be provided to the authors whose abstracts have been accepted for presentation at the conference.
- Contributing authors are urged to ensure that their manuscripts will be completed by the due date.
- Oral or Poster presentation of the technical paper is a MUST for the inclusion of your 'valued' technical manuscript.
- The Paper should be written in English.
- **Page Size:** A4; **Margins:** Top 2.5 cm, Bottom 2.5 cm, left 3 cm, Right 3cm; **No of Words:** 300 (Max); **Font:** Times New Roman; **Font size:** 11 points; **Spacing:** Single Spaced; **Keywords:** Up to five keywords.

Scan the QR Code for
Poster / Paper Submission



Abstract/Paper Submission Link :
<https://forms.gle/pKSurnvhQAZW6QfK7>

TOPICS

Materials

Biomaterials
Carbon-Carbon Composites
Ceramics/Ceramic-Matrix Composites
Fuel Cell Materials
Functionally Graded Materials
Intermetallic(s)
Magnetic Materials
Metals and Metal-Matrix Composites
Nano Materials and Nano Composites
Polymer, Polymer-Matrix Composites
Porous Materials, Foams
Semi/Super Conducting Materials
Surface Coatings, Thin Films, Colloids
High Entropy Alloys
Energy Materials

Modelling and Simulations

Materials Properties Predictions
Process - Microstructure - Property Relationship
Process and Defect Formation

Non-Destructive Evaluation

Conventional methods: Visual, Die-penetrant, Radiography, Magnetic Particle, Eddy Current, Ultrasonic Detection, Infrared Imaging, Surface Roughness, Scratch Hardness

Advanced Techniques: X-Ray Diffraction, X-Ray Tomography, Magnetic Barkhausen, Positron Annihilation, Acoustic Emission, Fibroscopy and Boroscopy

Smart Materials

Shape Memory Alloys
Phase Change Materials
Self Healing Materials
High Energy Materials

Manufacturing Technologies

Additive Manufacturing
Advanced Machining
Advanced Casting
Digital Manufacturing
Advanced Forming
Friction Stir Welding/Processing
Grinding & Finishing
Machining
Micro Machining
Microwave Processing
Powder Metallurgy
Sustainable Manufacturing
Welding (Metal Joining)
Smart Manufacturing
Advanced Finishing Processes
MEMS/NEMS
Advanced Tribology

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— REGISTRATION FEE —

INDIAN DELEGATES INR (₹)	Category	Registration fees* (Early bird) 31st July 2023	Registration fees* (Regular) 31st Aug 2023
	Research Scholars / Students	3500 (₹)	4000 (₹)
	Delegates (Academic) (Faculty, post doctoral fellows and public sector R&Ds)	8000 (₹)	8500 (₹)
	Delegates (Non Academic), Industry	12500 (₹)	13000 (₹)

OVERSEAS DELEGATES USD (\$)	Category	Registration fees* (Early bird) 31st July 2023	Registration fees* (Regular) 31st Aug 2023
	Research Scholars / Students	180 (\$)	230 (\$)
	Delegates (Academic) (Faculty, post doctoral fellows and public sector R&Ds)	350 (\$)	400 (\$)
	Delegates (Non Academic), Industry	450 (\$)	500 (\$)

* Registration fees inclusive of 18 % GST

— IMPORTANT DATES —

Abstract submission deadline:	30th November 2022
Notification of acceptance of abstract:	15th December 2022
Full paper submission:	31st March 2023
Notification of acceptance of full paper:	31st May 2023
Registration (Early bird):	31st July 2023
Registration (Regular):	31st August 2023
Release of hard bound book:	September 2023

— PAYMENT MODE —

Name of Account: INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI-PROJECTS
Name of Bank: AXIS BANK LTD
Bank Address: NO.83, K.T ROAD, TIRUPATI 517501.
Account Number: 921010000757268
Account Type: Savings Account
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MICR No: 517211002
GST: 37AAAAI9917R3ZS
PAN: AAAAI9917R
Swift Code - AXISINBBA17

Scan the QR Code



Please mention "PFAM29" in the remittance document for registration

Confirmation Letter

A registration confirmation letter will be sent to you via e-mail on receipt of the payment.

Registration fee includes:

Technical Sessions and Cultural Evening
 Conference Proceedings in soft form
 Printed Materials
 Conference Kit
 Three Lunches, Tea/ Coffee
 Conference Banquet Dinner

Cancellation Policy

Cancellation should be made in writing (stating your name & registration no.) and sent to pfam29@iittp.ac.in

In case of cancellation:

For cancellations made on or before July 31, 2023 you will receive a refund of 50% of your registration fee less bank charges and administrative fee. No refund will be made for cancellation received after July 31st, 2023.

Term & Conditions

- Organizers will not be responsible for any mailers or information delivery failure in case the registration form is not dully filled.
- Registration Fees (excluding GST) is refundable only if a written request is made to the organizers (pfam29@iittp.ac.in) on or before 31st July, 2023.
- Registration fee is not transferrable to any other participant.
- Participants must verify and choose the correct "Category of Participant", before making the payment.
- "Student category" participants should attach a copy of their Student ID card mandatorily.
- Technical issue: In case of any technical issue due to which the payment gets deducted from the payer's account and does not get reflected immediately in our account, the payment confirmation/registration will be done only after proper verification at payment gateway end and our bank account. This may take 7-10 working days.
- Multiple/Excess Payments Case: If double/excess payment happens and the payment gateway service clearly mentions it, a refund of the excess amount will be made once the payment is credited to our account, within a maximum duration of 7-10 working days.
- Similar mode of transfer, as funds received will be adopted for refund and there is no cash refund policy.

CONTACT COORDINATES

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