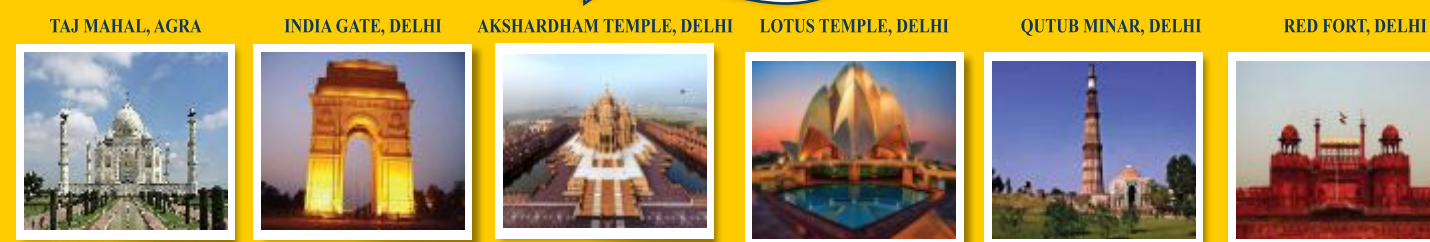


DISTINGUISHED SPEAKERS



Nearby Places to visit

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GLIMPSE OF FLAME –2022

- FLAME 2022 successfully conducted all technical sessions in physical and virtual mode.
- 370 articles published in Scopus indexed LNME Springer and Materials Today Proceedings.
- 5 proceedings related to Advances in Design Engineering, Fluid and Thermal Engineering, Industrial and Production Engineering, Material Engineering and Mechanical Engineering were published under LNME series of Springer Nature.
- 08 Plenary Talks, 25 Keynote Talks, and 25 Technical Sessions were conducted during the FLAME 2022.
- Distinguished Professors and Scientists from Top ranked IITs, IISc Bangalore, NITs, International Universities, and Defence Organizations delivered Plenary and Keynote talks during the Conference.



GLIMPSE OF FLAME –2020

- FLAME 2020 successfully conducted all technical sessions in virtual mode.
- 470 articles published in Scopus indexed LNME Springer and Materials Today Proceedings.
- 5 proceedings were published on Design, Thermal, Production, Material, and Inter-disciplinary Engineering.
- 40 Keynote speakers have joined across the world.
- More than 500 participants.
- Round table discussion on the implementation of industry 4.0 in academics.
- 40 technical sessions conducted.
- 3 Special Issues are published in Scopus indexed journals
 - International Journal of Vehicle Structures and Systems
 - International Journal of Advanced Operations Management
 - International Journal of Six Sigma and Competitive Advantage



Glimpse of FLAME – 2018

- 321 articles published in LNME Springer (Scopus Indexed).
- 4 proceedings were published on Design, Thermal, Production, and Inter-disciplinary Engineering.
- 20 Keynote speakers have joined across the world.
- More than 500 participants.
- Round table discussion on emerging mechanical engineering topics
- 15 technical sessions conducted.
- 15 best paper presentation awards.



CONTACT DETAILS:

Organizing Team FLAME-2024
 Email: flame@amity.edu
 Tel.: +911204392640
 Mob: +91-8546030333, 9971439721

For more details: amity.edu/flame2024



AMITY UNIVERSITY

UTTAR PRADESH

4th Biennial International Conference

on

Future Learning Aspects of Mechanical Engineering
FLAME 2024



FLAME
2024

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Organised By:
 DEPARTMENT OF MECHANICAL ENGINEERING,
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 Amity University Uttar Pradesh, Noida, India

31st JULY – 2nd AUGUST 2024

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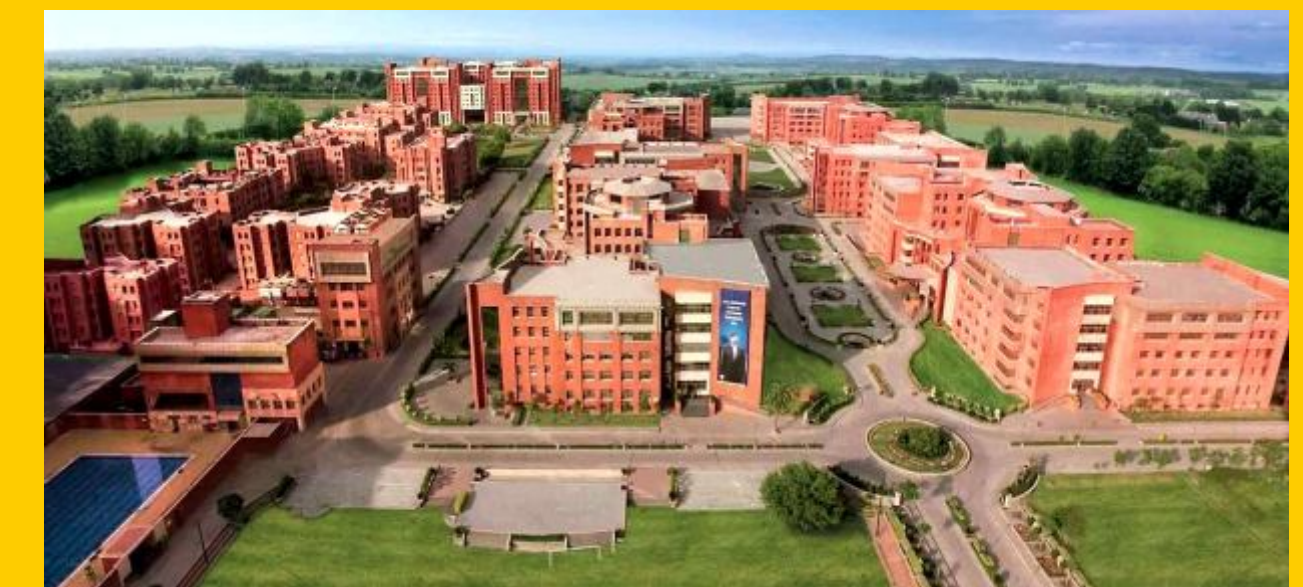


Indexing



Venue

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AMITY UNIVERSITY UTTAR PRADESH, NOIDA CAMPUS

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Special Issue Publication

- ❖ Selected papers will be published in Special Issues:
 - Journal of Enhanced Heat Transfer
 - International Journal of Energy for Clean Environment
- ❖ All the accepted papers will be published in Scopus Indexed Proceedings.
 - Lecture Notes in Mechanical Engineering, Springer Nature.

For more details, please visit the conference website: amity.edu/flame2024



ABOUT THE DEPARTMENT

The Department of Mechanical Engineering at Amity University, Uttar Pradesh, started right at the campus's inception in 2003. The department offers B.Tech, M.Tech, and Ph.D. programs on a science-based engineering curriculum. The curriculum focuses on imparting technical knowledge improving our students' problem-solving and innovative abilities. We follow multi-level pedagogy using the hands-on practical projects-based approach to reinforce theoretical concepts. The department has extensive laboratory and infrastructural facilities for teaching, training, and research. The Mechanical Engineering Department has the best faculty who come from Top Institutions of India and Abroad with International Exposure and Research Experience. Various government bodies and industries fund the many departmental research activities. Different technical societies like SAE, ISME, ASHRAE, etc., have their student chapters on the campus, bridging the gap between industry and academia. Students are placed in reputed companies like Tech Mahindra, Hyundai, Honda, Valvoline, Siemens, Thermax, L&T, railways, MES, etc. Every year more than ten students are selected for Higher education to Foreign Universities.



WELCOME TO FLAME 2024

Igniting Innovation in Mechanical Engineering

Amity University Uttar Pradesh, Noida, India, cordially invites students, researchers, scientists, professors, industry professionals, and entrepreneurs around the globe to participate in FLAME 2024. This premier event is dedicated to fostering the exchange of ideas, theories, technologies, and research findings in the dynamic realm of mechanical engineering. Many Distinguished speakers from esteemed institutions worldwide will share their invaluable insights on the latest technological advancements in mechanical engineering through engaging plenary and keynote sessions. Explore and contribute to the forefront of innovation in the field during this collaborative gathering of minds.

TOPICS COVERED

The FLAME 2024 is an ongoing mission to detect novel trends in Mechanical Engineering, but are not limited to:

- Fluid and Thermal Engineering
- Production Engineering and Technology
- Engineering Design
- Industrial Engineering
- Engineering Materials
- Robotics and Automation
- Computational Engineering
- Energy Conversion and Management
- Many other frontier areas of research in Mechanical Engineering

Fluids and Thermal Engineering

- Biomimetic/Bioinspired Engineering
- Boiler Design
- Case Studies in Thermal Engineering
- Combustion Engines
- Computational Fluid Dynamics (CFD)
- Cooling of computer chips
- Cooling Systems
- Energy Conservation
- Energy Conversion
- Flow Analysis and Instability
- Gas Turbines
- Heat Exchangers
- Heat Pipes and Pumps
- Heat Transfer Augmentation
- Hydel and Wind Power Systems
- Multiphase Flow/Heat Transfer
- Nano Fluids
- Nuclear Power Stations
- Pollution Control
- Porous Media
- Refrigeration and HVAC Systems
- Renewable Energy
- Rheology of Complex Fluids
- Satellite Meteorology
- Solar Heating

Thermal Hydraulics of Nuclear Systems

- Thermal Power Plants
- Thermodynamics
- Behavior of Solids and Structures
- Biomechanics
- Contact Mechanics
- Fracture Mechanics
- Micro and Nano-mechanics
- Multi-body Dynamics
- Non-linear Dynamic/Chaos
- Solid and Structural Mechanics
- Stability of Solids
- Synthesis of Mechanism
- Vibration and Acoustics

Engineering Design

- Advanced 2D and 3D materials
- Advanced Materials Processing
- Bio-ceramics and medical applications
- Biomaterial designing
- Biomedical devices
- Biopolymers and bioplastics packaging
- Rheology of Complex Fluids
- Computational Materials
- Condensed Matter

Corrosion

- Electronic materials
- Functionally graded composites
- Magnetic materials
- Material for Semiconductor devices
- Material properties and applications
- Materials Synthesis and Processing
- Mechanical Characterization
- Materials Organs and Tissues
- Photovoltaic, Fuel cells and Solar Cells
- Polymers and Ceramics
- Semiconductors
- Smart Materials and Biomaterials
- Super-alloys
- Superconductors
- Surface Engineering

Robotics and Automation

- Actuation
- Automated Mining
- Autonomy Levels
- Dynamics and Kinematics
- Environmental Interaction and Navigation
- Humanoid Robots
- Industrial Applications of Robotics
- Locomotion
- Marine Robotics
- Medical Robotics

- Micro Robot
- Nanorobotics and Sensors
- Robotic Outsourcing
- Robots & Society

Production Engineering and Technology

- 3D/4D/5D Printing
- Artificial Intelligence in Production
- Automation in Production
- Casting Process
- CAD/CAM/CAPP/CIM
- Computer Numerical Control (CNC)
- Cyber Physical Production Systems
- Cyber Security in Manufacturing
- Digital manufacturing
- Digital Twins and Threads
- Green Manufacturing
- Industrial Application of Cleaner Production
- Industry 4.0 and 5.0 in Production
- Infrared Thermography in Production
- Intelligent Manufacturing
- Material Forming and Joining Processes
- MEMS
- Metrology and Measurement
- Micro/Nano Processing / Fabrication and Tribology
- Nano-metrology, Nanomaterials, and nano-manufacturing
- Nature Inspired Algorithms in Production Processes
- Non-conventional machining processes
- Non-Destructive Testing Techniques
- Optimizations, Modelling, Analysis and Simulation of Manufacturing Processes
- Powder Metallurgy
- Rapid Prototyping

- Semiconductor Materials Manufacturing
- Surface Engineering and Coatings
- Sustainable Tribology
- Theoretical Fundamentals of Cleaner Production
- Thin & Thick Coatings
- Tool Engineering
- Tribology in Manufacturing
- Ultra-precision Machining
- Wear, Tear and Lubrications
- Welding Techniques

Industrial Engineering and Management

- Big Data and Analytics
- Blockchain
- Decision Support Systems
- Economy and Cost Analysis
- Facilities planning and management
- Green technology and productivity
- Healthcare Operations Management
- Industrial automation and control
- Industry 4.0 / 5.0
- Information Management Communication Systems
- Intelligent logistics and transportation
- Inventory & Logistics management
- Multi Objective Optimization
- Operations Research
- Project Management
- Quality Control and Management
- Reliability & Maintenance Engineering
- Safety, Security and Risk Management
- Smart Cities and Factories
- Supply Chain Management
- Sustainable Manufacturing

Computational Engineering

- Artificial Intelligence

- Artificial Neural Networks & Deep learning
- Augmented reality and virtual reality
- Big Data analytics
- Cloud computing
- Cognitive computing
- Computational learning theory
- Computer graphics
- Condition monitoring
- Cyber-physical systems
- Digital Thread and Twins
- Evolutionary Computing
- Fuzzy stochastic/time series modeling
- Hybrid machine intelligence techniques
- Hybrid systems modeling and simulation
- Image processing
- Intelligent Decision Support Systems
- Machine learning
- Multi Agent Systems (MAS)
- Statistical computation and simulation

Defence Technologies

- The aim of this topic is to give insights on the advancement of defence systems, modelling and simulation technology, methodology, and theory. It covers emerging areas of the military/defence mission, maintaining a focus on the practical side of systems simulation versus pure theoretical applications.
- It will cover the following areas of Defence Technologies:
- Combat Vehicle Engineering
- Naval Technology
- Communication Systems & Sensors
- Directed Energy Technology
- High Energy Materials

Note

- Students must produce a valid id card issued by concerned institute to register in student's category.
- Minimum one registration is mandatory for a paper to be the part of proceedings.
- Registration fees does not include accommodation and transportation expenses.
- Accommodation could be arranged in guest house of Amity University or nearby hotels as per the availability, on the payment basis for which the organizers will provide necessary assistance if informed well in advance.

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Call For Paper

Authors are requested to submit full length paper in FLAME 2024 through Microsoft CMT. The paper submission link is given below:

<https://cmt3.research.microsoft.com/User/Login?ReturnUrl=%2FFLAME2024%2F>

REGISTRATION FEE

CATEGORY	INDIAN	FOREIGNERS
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❖ Faculty	6500 INR	350 USD
❖ Industry	7500 INR	400 USD
❖ Listener	1500 INR	100 USD



SPECIAL SESSIONS

- Session - 1: Surface Engineering for Sustainability and Reliability
- Session - 2: Synergy in Action: Cutting-Edge Technologies for Multigeneration and Renewable Integration

PANEL DISCUSSION

- Sustainable Manufacturing in India for Industry 4.0

IMPORTANT DATES

- ❖ Deadline for Full-length Paper Submission 15th April 2024
- ❖ Notification of Paper Acceptance/Rejection 30th April 2024
- ❖ Submission of Camera-Ready Paper 15th May 2024
- ❖ Registration 25th May 2024

Note: Please visit the conference website for regular updates. amity.edu/flame2024