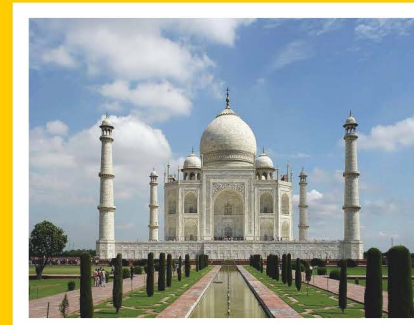


DISTINGUISHED SPEAKERS

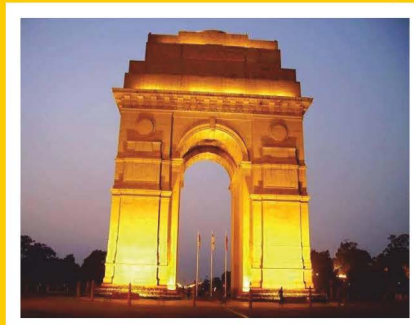
 Prof. (Dr.) J Ramkumar Indian Institute of Technology Kanpur	 Dr. Promod Kumar Indian Institute of Science, Bangalore	 Prof. (Dr.) P M V Subbarao Indian Institute of Technology Delhi	 Prof. (Dr.) Andreas Rosenkranz University of Chile	 Prof. (Dr.) Ahment Selim Dalkili Yildiz Technical University, Istanbul-Turkey	 Dr. Mayank Dwivedi DRDO HQ, New Delhi
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 Prof. (Dr.) Marcell Gáspár Institute of Material Science and Technology, University of Miskolc Hungary	 Prof. (Dr.) Jaharah A Ghani Universiti Kebangsaan Malaysia Bangi, Selangor, Malaysia	 Prof. (Dr.) Sougata Karmakar Indian Institute of Technology Guwahati, Assam, India	 Prof. (Dr.) Balasubramanian K. Dean, Defence Institute of Advanced Technology (DIAT), Pune, India	 Dr. Bhujanga Rao Vepakomma ISRO Chair Professor National Institute of Advanced Studies Indian Institute of Science Campus, Bengaluru	 Prof. (Dr.) Vikas Srivastava Sr. Principal Scientist AcSIR Materials Engineering Division, CSIR-National Metallurgical Laboratory Jamshedpur

and many more...

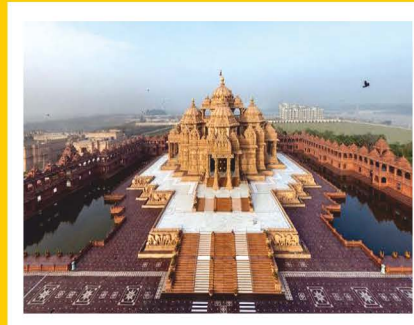
Nearby Places to Visit



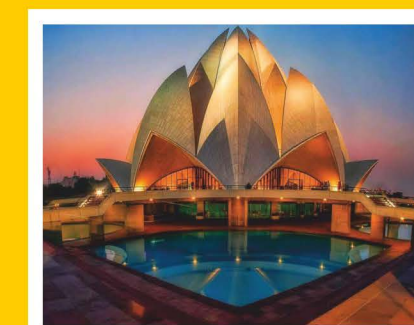
TAJ MAHAL, AGRA



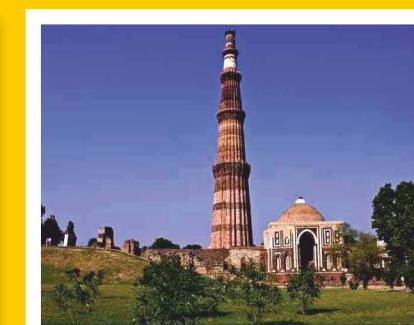
INDIA GATE, DELHI



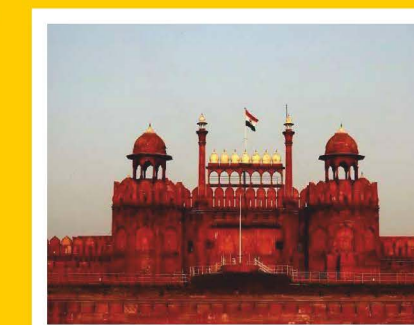
AKSHARDHAM TEMPLE, DELHI



LOTUS TEMPLE, DELHI



QUTUB MINAR, DELHI



RED FORT, DELHI

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.



GLIMPSE OF FLAME –2020

- More than 350 articles were presented and published in the LNME series by Springer Nature and Materials Today Proceeding by Elsevier.
- Three special Issues are published in the Scopus Indexed journals *International Journal of Vehicle Structures and Systems*, *International Journal of Advanced Operations Management*, and *International Journal of Six Sigma and Competitive Advantage*
- More than 30 keynote speakers have been joined across the world.
- 470 papers were presented in the 40 technical sessions.
- Panel discussion on the implementation of industry 4.0 in academics during industry-academia interactions
- Panel discussion on the emerging areas of research and development in the field of Mechanical Engineering.



CONTACT DETAILS:

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AMITY UNIVERSITY

UTTAR PRADESH

3rd International Conference

on
“Future Learning Aspects of Mechanical Engineering”
(FLAME 2022)



FLAME
2022

Organised By
Department of Mechanical Engineering
Amity School of Engineering and Technology
Amity University Uttar Pradesh, Noida

August 3rd-5th 2022

Venue
Amity University, Sector-125, Noida, Uttar Pradesh



In Association With



Industry Partner



- ❖ Lecture Notes in Mechanical Engineering – Springer
- ❖ Materials Today: Proceedings – Elsevier

Special Issue Publication

- ★ International Journal of Vehicle Structures and Systems
- ★ Advances in Mechanical Engineering (SAGE)
- ★ FME Transactions
and many more in progress



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 2022

The Department of Mechanical Engineering, Amity School of Engineering and Technology, Amity University, Noida has the great pleasure to welcome scientists, students, engineers, professors, industry professionals, and entrepreneurs from all over the world to attend The 3rd Biennial international conference on "Future Learning Aspects of Mechanical Engineering" (FLAME 2022) to be held from 3rd-5th August 2022. FLAME is a leading event of Mechanical Engineering and has an objective to provide a platform to share the research results, exchange ideas on theories, technologies and applications. Distinguished plenary lectures will present recent developments in important topics which include discussion about future learning aspects of mechanical engineering and its applications.

- All the accepted and presented papers will be published in any of the following proceedings:
 - LNME – Springer
 - Materials Today: Proceedings – Elsevier
- Selected papers will be published as Special Issues in various SCOPUS /ESCI / SCI / indexed International journals of repute.
- All the accepted papers will be indexed in the SCOPUS database.

TOPICS COVERED

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

Engineering Design

- Behavior of Solids and Structures
- Biomechanics
- Contact Mechanics
- Failure Analysis
- 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 Materials

- Advanced 2D and 3D materials
- Advanced Materials Processing
- Bio-ceramics and medical applications
- Biomaterial designing
- Biomedical devices
- Biopolymers and bioplastics packaging

- Composite Materials
- 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
- 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
- Intelligent Manufacturing
- Material Forming and Joining Processes
- MEMS
- 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
- Manufacturing
- Surface Engineering and Coatings
- Sustainable Tribology
- Tool Engineering
- Ultra-precision Machining
- Welding Techniques

Defence Technologies

- Combat Vehicle Engineering
- Naval Technology
- Communication Systems & Sensors
- Directed Energy Technology
- High Energy Materials
- Defence Electronics Systems
- High-speed machining of aerospace materials
- Modelling & Simulation in Defence Science & Technology

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

CALL FOR PAPERS

Authors are requested to submit full length paper related to the topics covered in FLAME 2022 through EasyChair.

Submission Link:
<https://tinylink.net/hUwLh>

CALL FOR POSTERS

Students and research scholars will present their research work as a poster presentation during the conference, highlighting their innovation in the field of mechanical engineering.

REGISTRATION FEE

CATEGORY	INDIAN	FOREIGNERS
❖ Students/Research Scholars	4500 INR	250 USD
❖ Faculty	6500 INR	350 USD
❖ Industry	7500 INR	400 USD
❖ Listener	1500 INR	100 USD

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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SPECIAL SESSIONS

- Session 1** : Future Learning Aspects of Sustainable Tribology
- Session 2** : Hybrid Power Cycles for Efficient Energy Utilization
- Session 3** : Advances in Defense Technologies
- Session 4** : Advances in Engineering Materials

IMPORTANT DATES

- ❖ Deadline for Full-length Paper Submission 15th May 2022
- ❖ Notification of Paper Acceptance/Rejection 30th May 2022
- ❖ Submission of Camera-Ready Paper 15th June 2022
- ❖ Registration 25th June 2022

Note: Please refer conference website for more updates amity.edu/flame2022