

# 2nd International Conference on Fluid, Thermal and Energy Systems (ICFTES'24)

June 6 - 8, 2024





# **Call For Papers**

ICFTES'24 invites faculties, researchers, industrial participants to submit their original research work in the fields of Fluid, Thermal and Energy systems. The recommended papers only will be allowed to submit full-length articles for special issues in conference proceedings/journals.

## **Submission Guidelines**

The paper should be restricted to 6 pages with an abstract of maximum 250 words. Authors are requested to restrict the similarity index to 20%. The received manuscripts will be reviewed by a technical committee

# Link for Paper Submission: https://cmt3.research.microsoft.com/ICFTES2024

## Organized by

Department of Chemical Engineering
Department of Mechanical Engineering
National Institute of Technology Calicut, India

## In Collaboration with

Department of Mechanical & Mechatronics Engineering Stellenbosch University, South Africa

## In Association with







Important dates		
Full length paper submission	October 1st, 2023 to February 15th, 2024	
Notifying the decision to authors	April 1st, 2024	
Registration	May 1st, 2024	
Last Date to Submit Revised Manuscript	May 1st, 2024	
Pre-recorded videos	May 20th, 2024	

# **Registration Fee**

# **Indian Participants**

Registration Fee (₹)	Faculty	Industry/R&D Organization	Research Scholars	Attendee
Early Bird	8850	11800	5900	3540
Late	10620	14160	7080	3540

# **SAARC Countries Participants (Except India)**

Registration Fee* (\$)	Faculty	Industry/R&D Organization	Research Scholars	Attendee
Early Bird	236	354	177	118
Late	354	472	236	118

# **Other Participants (Except SAARC Countries)**

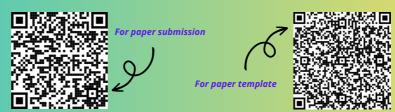
Registration Fee* (\$)	Faculty	Industry/R&D Organization	Research Scholars	Attendee
Early Bird	354	472	236	118
Late	472	590	295	118

<sup>\*</sup> Registration fee includes 18% GST

# **Sponsorship**

Category	Charges (₹)	Benefits (+)
Platinum	150000 + 18% GST	Registration waiver for 4 attendees. Company logo and organization's name in proceedings and website. Exhibition space, Promotional videos during breaks.
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Gold	75000 + 18% GST	Registration waiver for 2 attendees. Company logo and organization's name in proceedings and website. Exhibition space.
Silver	50000 + 18% GST	Registration waiver for 1 attendees. Company logo and organization's name in proceedings and website.

+ Visit website for more details



## **About ICFTES**

The first edition of ICFTES (June, 2022) was a massive success with 177 participants from India and abroad. The objective of ICFTES is to share the advancements in the fields of Thermal Science, Fluid Flow, and Energy Sciences. It is an effort to bring the global research community both from academia and industry to a single platform to share and learn the knowledge of resolving current challenges of these broad domains.

## **About NIT Calicut**

National Institute of Technology Calicut is a public funded institute, established in 1961. Set in a picturesque at the foothills of the Western Ghats, it is located about 22 kilometres northeast of Calicut city. It is a prestigious institute with a reputation for excellence at undergraduate, postgraduate and research levels, fostering the spirit of national integration among the students and close interaction with industry.

## **Themes of ICFTES'24**

#### **Thermal Science**

#### **Fundamental**

- Modes of heat transfer
- Phase change heat transfer
- Mass Transfer
- Micro and nanoscale heat transfer
- Porous media
- Solidification
- Thermodynamic Process
- Wetting and Capillarity

#### **Numerical/Computational**

- Machine Learning / Al Techniques
- Single Phase/Two-Phase/Multiphase Flows
- Inverse Problems
- Turbulent heat transfer
- Biological heat transfer

#### **Application of Thermal Science**

- Battery Thermal Management
- Cooling Techniques
- Nanotechnology
- Refrigeration and Cryogenics
- Advanced Energy Systems
- Advanced Environmental Systems
- Aerospace and Automotive Technology
- Material Processing
- Fire Technology and safety
- Heat exchangers
- Micro-electrochemical Systems

#### **Fluid Flow**

#### **Fundamental**

- Flow measurements using PIV, PDA/PDPA, LDV, HWA, Holography etc.
- Microfluidics
- Vortex dynamics
- Boundary-layer flows
- Separated flows
- Pulsating flows
- Supersonic, hypersonic flows

#### **Computational**

- Studies using FDM, FVM, FEM, LBM, IBM techniques
- Studies using Mesh-free approaches (DEM, SPH etc.)

- Turbulence and Multiphase modelling
- Fluid-structure interaction
- Instability, Transition and Turbulence
- Fluid-structure Interaction
- AI/ML

#### **Application**

- Biological flows
- MHD and EHD flows
- Granular flows
- Mineral processing
- Nuclear reactor thermal hydraulics
- Fluidized bed technology
- Aerodynamics
- Turbomachinery
- Propulsion and Power
- Sensors development

# **Energy Science**

#### **Fundamental**

- Hydrogen Production and Storage
- CO2 Capture and Sequestration
- Fuel Cells
- Energy Materials
- Phase Change Materials
- Energy Storage and Transformation
- Energy Efficiency
- Heat Recovery
- Polygeneration

#### **Modelling**

- CFD modelling of Energy Systems
- FEM analysis of Hydrogen Tanks
- Mathematical Modelling
- Energy Audit/Modelling

#### **Application**

- Hydrogen Transport and Utilisation
- Energy Harvesting
- Sorption Systems
- Solar Energy Technologies
- Renewable Energy Conversion Systems
- Green Buildings
- Modern Innovations in HVAC Systems
- Heat Pipes
- Bio-Fuels

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