

# INTERNATIONAL CONFERENCE ON GREENER TECHNOLOGIES IN MECHANICAL ENGINEERING (ICGTME-2025)

(An Event under Diamond Jubilee Celebrations at BITS Pilani)



*BITS Pilani*, an institution of eminence, is celebrating its 60<sup>th</sup> year of establishment and has been at the forefront of education, research and entrepreneurship globally. To commemorate BITS Pilani’s diamond jubilee, the Mechanical Engineering Department at BITS Pilani is organizing an international conference with the core theme of “*Greening mind for greener future*”. This conference aims to explore and foster innovative solutions that promote eco-friendly practices and technologies for a greener future. In this context, the convergence of thermal, design, manufacturing and industrial system engineering offers a powerful platform to drive sustainability. This conference will explore the role of mechanical engineering in driving sustainability and achieving the UN’s Sustainable Development Goals (SDGs). This conference targets the following areas with respect to the focused SDGs:

 <b>Energy</b> <ul style="list-style-type: none"><li>✓ SDG 7</li><li>✓ SDG 9</li><li>✓ SDG 12</li></ul>	 <b>Climate Change</b> <ul style="list-style-type: none"><li>✓ SDG 6</li><li>✓ SDG 9</li><li>✓ SDG 12</li><li>✓ SDG 13</li></ul>	 <b>Air Emission</b> <ul style="list-style-type: none"><li>✓ SDG 9</li><li>✓ SDG 13</li></ul>
 <b>Resources</b> <ul style="list-style-type: none"><li>✓ SDG 6</li><li>✓ SDG 9</li><li>✓ SDG 12</li></ul>	 <b>Waste</b> <ul style="list-style-type: none"><li>✓ SDG 14</li><li>✓ SDG 15</li></ul>	

This conference will gather thought leaders, industry experts, and academic researchers to share insights, exchange ideas and collaborate on pioneering solutions that will shape a sustainable and green future.

## ABOUT BITS PILANI

Birla Institute of Technology & Science, BITS Pilani, is an all-India Institute for higher education. Founded with strong technical collaboration with MIT (USA) under the Ford Foundation Grant, BITS Pilani has evolved into India's leading institute of higher education, distinguished by its illustrious legacy, modern campuses, and exceptional placement records. The institute's commitment to excellence, adherence to merit, transparency, innovation, and enterprise has been the hallmark of its journey. BITS Pilani has got campuses in Dubai, Hyderabad, Goa and Mumbai in addition to Pilani. These expansions have solidified BITS Pilani's reputation as a premier educational institution.

The past six decades have been exceptional for BITS Pilani, marked by groundbreaking achievements in research, teaching, and fostering entrepreneurship. Some of the milestones and key achievements include:

- **Institute of Eminence**
- **BITS BioCyTiH Foundation**
- **BITS-Technology Enabling Centres (TEC)**
- **Center for Research Excellence in Semiconductor Technologies (CREST)**
- **Center for Research Excellence in National Security (CRENS)**
- **BITS GATI (Gender Advancement for Transforming Institutions)**
- **SATHI Project Award**



## ABOUT DEPARTMENT OF MECHANICAL ENGINEERING

Started in 1946, Mechanical Engineering Degree Program is one of the oldest at BITS Pilani. It is a DST-FIST Sponsored (2002-2007) and UGC-SAP Sponsored (2007-2012) Department. The Department offers two Integrated First Degree Programs and three Higher Degree Programs on campus apart from off campus programs under continued education scheme. The undergraduate Mechanical Engineering program started way back in 1946 and the Masters (Higher Degree) program in Mechanical Engineering was introduced in 1965 and thereafter came MSc Tech. Engineering Studies in 1981, another first degree program. Two specializations in Higher Degree level, namely ME Design Engineering and ME Manufacturing Systems Engineering were introduced in 1998. The most recent addition to the department is BE Manufacturing Engineering, started in 2009.

## VENUE

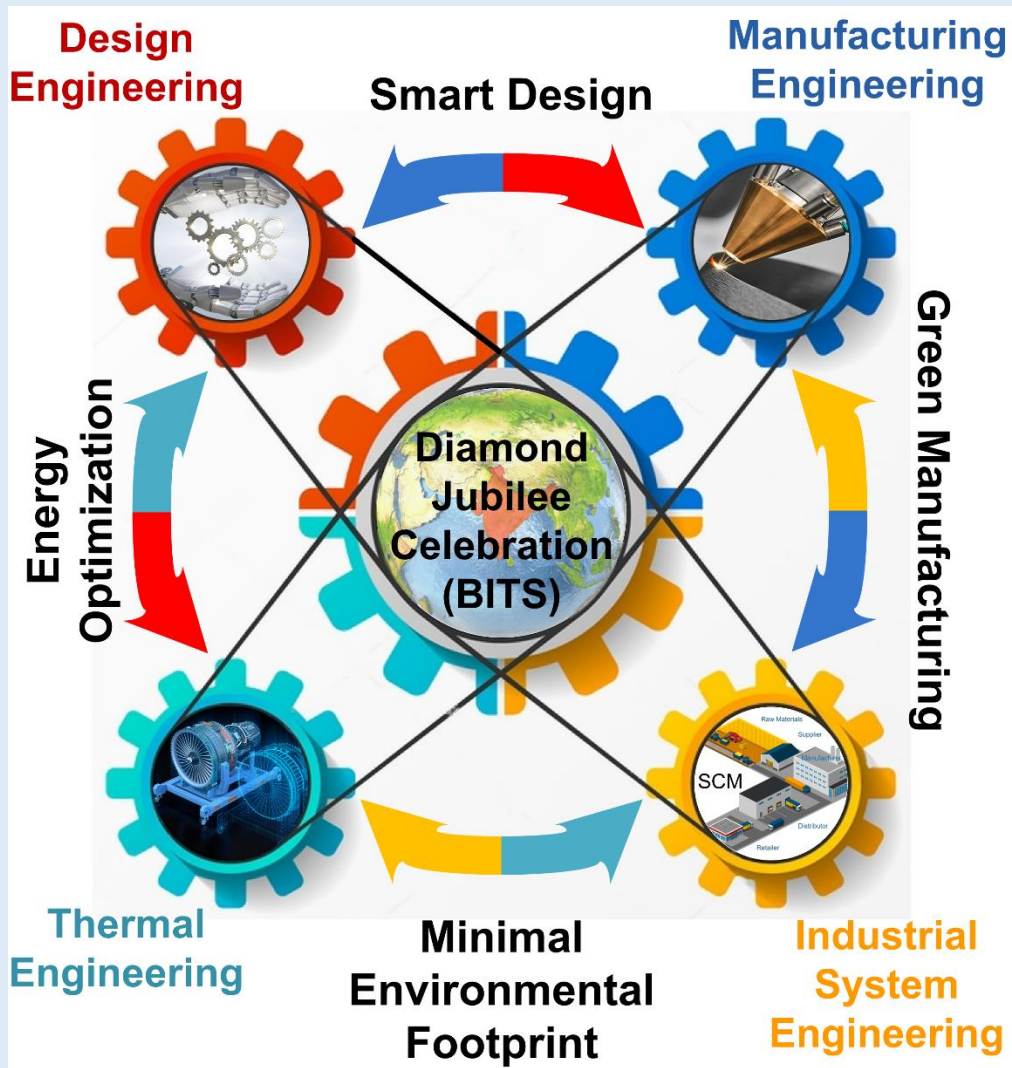
JC Chaudhry Auditorium and Room 6106  
New Academic Block  
Birla Institute of Technology and Science,  
Pilani (BITS Pilani), Rajasthan – 333031, India



## THEMES AND CORE AREAS

Key themes:

- ✓ **Sustainable Advances and Innovations in Thermal Engineering:**
  - Energy optimization.
  - Digital twin approaches.
  - Compact and micro-channel heat exchangers.
  - Application of renewable and sustainable energy.
- ✓ **Eco-centric Design Innovations:**
  - Designing for durability, recyclability, and reduced environmental impact.
  - Utilization of sustainable and novel materials for smart design technologies.
  - Processing of sustainable polymeric materials.
  - Implementing life cycle assessment (LCA) in product development.
- ✓ **Sustainable Manufacturing Practices:**
  - Implementation of new sustainable technologies in manufacturing practices for micro and nano fabrications.
  - Green practices in material processing such as Casting, Forming, Machining, Joining etc.
  - Additive Manufacturing and composite fabrication for a green future.
  - Advancements in waste reduction, recycling, and resource efficiency.
  - Integration of renewable energy sources in manufacturing processes.
- ✓ **Industrial Engineering for the Green Economy:**
  - Optimizing processes for energy efficiency and minimal environmental footprint.
  - Leveraging Industry 4.0 technologies to enhance sustainability.
  - Systems thinking for sustainable industrial ecosystems.
  - Development of green supply chains and circular economy models.
- ✓ **Collaborative Efforts and Policy Integration:**
  - Public-private partnerships for green innovation.
  - Policy frameworks supporting sustainable industrial practices.
  - Community engagement and education in sustainable engineering.
  - Medical waste management
- ✓ **Case Studies and Best Practices:**
  - Real-world applications of sustainable engineering solutions.
  - Success stories from leading industries and organizations.
  - Lessons learned and strategies for overcoming sustainability challenges.



## IMPORTANT DATES

Call for papers	1 <sup>st</sup> September, 2024
Last Date for Abstract submission	15 <sup>th</sup> November, 2024
Acceptance of abstract	30 <sup>th</sup> November, 2024
Commencement of Registration	30 <sup>th</sup> November, 2024
Conference Dates	3 <sup>rd</sup> – 4 <sup>th</sup> February, 2025

Note:

- Submission of Abstract ([format attached](#)) has to be made by uploading PDF file in goggle form (For submission click [here](#))
- Best paper award will be given to one speaker in each session
- Recommended abstracts from each presentation session will be invited for full paper submission after the conference. Submitted full length papers will be published in Scopus/SCI indexed journal (communicated with potential journals).

## REGISTRATION DETAILS

Access conference website (to be added) for registrations. Fee details are given as:

Early bird (inclusive of GST) till 31st December, 2024 (midnight)

- Industry/R&D Organization: INR 4000
- Academia: INR 3000
- Accompanying person: INR 1500
- Students/research scholars: INR 1500

Regular (inclusive of GST) 1st January, 2025 onwards

- Industry/R&D Organization: INR 4500
- Academia: INR 3500
- Accompanying person: INR 2000
- Students/research scholars: INR 2000

Registration fee can be paid through Bank transfer/Online.

For Bank transfer, please mention Registration Number / Name in remarks column. Bank details are given below:

Beneficiary Name :	Birla Institute of Technology & Science, Pilani
IFSC CODE No.	UTIB0001188
Account	SAVING ACCOUNT
Bank Account No.	918010089946355
Bank	AXIS BANK LTD
Branch :	PILANI
City	PILANI
MICR No.	333211177

**TREASURER:** Prof. Tribeni Roy, Assistant Professor, BITS Pilani, Pilani campus

## ACCOMMODATION

Assistance will be provided for arranging accommodation at nominal price within the campus based on availability. A list of Hotels available in Pilani and nearby places will be published on website.

## PATRONS

Chief Patron: Prof. V. Ramgopal Rao, Group Vice-Chancellor, Birla Institute of Technology & Science (BITS) Pilani

Patron: Prof. Sudhirkumar V Barai, Director, Birla Institute of Technology & Science (BITS) Pilani, Pilani campus

## CONVENER

Prof. Srikanta Routroy, HoD (Mechanical Engineering), BITS Pilani, Pilani campus

Prof. Radha Raman Mishra, Co-convener, Assistant Professor, BITS Pilani, Pilani campus

## **ORGANIZING SECRETARY**

Prof. Chennu Ranganayakulu, Visiting Professor, BITS Pilani, Pilani campus

## **ORGANISING COMMITTEE**

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Prof. Sachin Waigaonkar, HoD (Mechanical), BITS Pilani, Goa campus

Prof. M. S. Dasgupta, Senior Professor, BITS Pilani, Pilani campus

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Prof. Rajit Ranjan, Assistant Professor, BITS Pilani, Pilani campus

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Prof. Sudhy S. Panicker, Assistant Professor, BITS Pilani, Goa campus

Prof. Sunil Sinhar, Assistant Professor, BITS Pilani, Pilani campus

Prof. Venkatesh K Prabhakar Rao, Assistant Professor, BITS Pilani, Pilani campus

## **PUBLICATION COMMITTEE**

Prof. Srikanta Routroy, Professor, BITS Pilani, Pilani campus

Prof. Chennu Ranganayakulu, Visiting Professor, BITS Pilani, Pilani campus

Prof. Arun Kr. Jalan, Associate Professor, BITS Pilani, Pilani campus

Prof. Suvanjan Bhattacharyya, Assistant Professor, BITS Pilani, Pilani campus

## **INVITED SPEAKERS**

1	Prof. Dr.-Ing. Stephan Kabelac, Head- Dept. of Thermodynamics, Leibniz University, Hannover, Germany
2	Prof. Perumal Nithiarasu, Personal Chair, Civil Engineering, Swansea University, UK
3	Dr. Viswas V. Wadekar, Former Director, PS2E, France
4	Prof. Gao Naiping, Tongji University, Shanghai, China
5	Prof. Dr. Moghtada Mobedi, Mechanical Engineering Department, Faculty of Engineering, Shizuoka University, Hamamatsu city, Japan
6	Prof. V. Vasudeva Rao, Mechanical & Industrial Engineering, University of South Africa (UNISA), South Africa.

## SPONSORSHIPS

Platinum, Diamond, Gold and Silver Sponsorships are planned. Final Details are being worked out and will be published on the website.

	Diamond	Gold	Silver
Sponsorship amount (excluding GST *)	INR. 1 Lakh	INR 50, 000	INR 25, 000
Brochure insertion for delegates	✓	✓	✓
Complimentary registrations	3	2	1
Exhibition stall	✓	✓	--
Presentation slot	✓	✓	--
Banner at the venue	✓	✓	✓

\*Sponsors to pay applicable GST directly to the Government

## EXHIBITION STALLS

It is planned to put up a few stalls. Details are being worked out and will be published on the website. Priority will be given to sponsors.

## CONTACT DETAILS

Prof. Rajit Ranjan, Assistant Professor, BITS Pilani, Pilani campus  
[conference.me@pilani.bits-pilani.ac.in](mailto:conference.me@pilani.bits-pilani.ac.in), +91-1596-25-5788