

## ABOUT INSTITUTE

IPS College of Technology and Management was established in the year 2007, aiming to become the most preferred engineering college in central India for students and to obtain a world-class engineering education, thus developing into the leaders of tomorrow. IPS CTM endeavors to make the students technologically superior and ethically strong, who in turn, shall contribute to the advancement of society and humankind. The committed faculty advances the boundaries of knowledge through interdisciplinary research. The Institute, on its part, pursues continuous development of infrastructure and enhancement of state-of-the art equipment to provide our students a technologically up-to-date and intellectually inspiring environment of learning, research, creativity, innovation, and professional activity. R & D Cell of the institute facilitates faculty members and students to shape their skills through various projects and activities.

## ABOUT R & D CELL

Research and Development Cell was established to encourage faculty members to engage themselves in research work. The R & D Cell also promotes and inspires students to have a research-oriented approach by creating a research environment in the institute. The objective of the R & D is to guide the students to focus their research skills to create the best form of technology needed for human excellence. The performance of any R&D Cell is measured in terms of publications, patents, hosting conferences/seminars, funding received and industrial consultancy. We have taken solid steps to achieve these targets and are continually moving towards further success in these areas. We have been doing this by organizing workshops, short-term training programs and international conferences, producing technical magazines, undertaking several research projects, inviting industrial experts and collaborating industrial visits to ignite confidence among the technocrats.

## AN ONLINE INTERNATIONAL CONFERENCE

ON

## "SMART MATERIAL, MANUFACTURING AND CHARACTERISATION TECHNIQUES"

ICSMMCT 2K25

DECEMBER 26 & 27, 2025



**Organized By**

**Research and Development Cell**

**IPS COLLEGE OF TECHNOLOGY & MANAGEMENT, GWALIOR**

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## ABOUT CONFERENCE

With the era of industry 4.0, new technologies are introducing every day to drastically transform the future of Industry. The economic growth of a nation largely depends upon the development of new technologies and products that suit to ever-changing demands of consumer. International Conference on Smart Material, Manufacturing and Characterization Techniques is scheduled to be held at IPS College of Technology and Management, Gwalior (M.P.) on December 26 & 27, 2025. This conference will cover the area of material science, manufacturing and characterization techniques. The aim of the conference is to provide an international forum to scientists, engineers, researchers, academicians, industry professionals and research students from all over the world to interact and discuss the latest challenges and trends in material science focusing "Industry 4.0". The conference focuses on the role of engineers/scientists in development of affordable technologies and concepts to fulfill the consumer requirements. It is important for the engineers to look out for research and development opportunities.





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- Dr. Mukul Pastor Bundelakhanda University, Jhansi
- Dr. Nitin Narang, Associate Professor, Thapar Institute of Engineering & Technology
- Dr. R Prasad, Associate Professor, HCST, Mathura
- Mr. Prabhat Bhargava, President, IE(India) Gwalior Chapter Institution of Engineers (INDIA)
- Mr. R K Khetan, Vice-President, IE(India) Gwalior Chapter Institution of Engineers (INDIA)

## Conference Theme

### Theme – I

- Ceramics
- Shape Memory Alloys
- Energy Storage Materials and Energy Harvesting
- Nanomaterials/Materials for Aerospace
- Glasses and Amorphous Bio Materials
- 3D materials
- Cryogenic materials
- Materials for Photoelectric Devices
- Composites
- Micro / Nano Materials
- Feature Engineering Polymers
- Magnetic/Non-Magnetic Materials
- Biomaterials
- Smart/Intelligent Materials
- Polymeric Materials
- Thin Films
- Active polymers, materials, and actuators

### Theme – II

- Advances in Concrete & Construction Technology
- Recycled & Secondary Materials
- Geo-polymer Concrete
- Fibre Reinforced Concrete & Self Compacting Concrete
- Steel & Structural Materials
- Processing of Materials
- Use of Slag & Quarry Waste in Concrete
- Sustainable Materials & Technologies in Concrete
- Value Added Use of Materials
- Corrosion Science & Durability Issues
- Self-healing Concrete
- Polymer Concrete & Bacterial Materials
- Non-ferrous Reinforcements
- Smart Sensors
- Fly Ash Concrete
- Bituminous & Pavement Materials
- Geotechnical Engineering & Materials
- Earthquake Structural Dynamics & Forensic Engineering
- Future Developments & Trends in Constructional Material

### Theme – III

- Ferrous and non-ferrous materials
- Metals and Alloys
- High Temperature Materials
- Materials Processing and Characterization
- Materials Applications, Performance, and Life Cycle
- Manufacturing Micro/Nano Machining
- Metal Forming Green Manufacturing
- Non-Conventional Machining Processes
- Additive Manufacturing
- Metal Joining
- Subtractive Manufacturing
- Sustainable Manufacturing
- Sensors for automation
- Mechanical dynamics and vibration
- Renewable energy materials
- Thermal aspect of materials
- Machine design
- High strain rate forming
- Fatigue and fracture mechanics

- Metal cutting processes
- Metal finishing processes
- Lean manufacturing
- Design for manufacturing
- Non-conventional manufacturing
- Tribology and surface engineering
- FEM in manufacturing processes
- Modelling and simulation of manufacturing processes

#### Theme – IV

- Optical/Electronic Materials
- Semiconductors and their Composites
- Liquid Crystals
- Conducting Polymers
- Photonic Materials
- Multi Ferric and Magnetic materials
- Carbon and Related Materials
- Signal/Image/Video/Speech Processing
- Advanced communication systems with a focus on 5G technology
- Applications of AI & ML in Signal Processing
- Wireless Communication Technologies, Networks & Big Data Applications
- Electromagnetic, RF, Microwave & Wearable Technology, Radar Signal Processing

### Call for Papers

Original unpublished papers are invited on the prescribed format available on the conference website.

The paper should have abstract of not more than 150 words with 4-6 keywords. The abstract, figures and tables should be accommodated within the prescribed pages of manuscript. Submitted papers will be peer reviewed by review committee. Few high quality selected, accepted and registered papers will be published in Scopus/SCI/SCIE indexed journal.

The papers will be published after presentation by at least one of the registered authors. Certificate of participation and a souvenir will be given to all the authors who attend the conference. Three papers will be selected and awarded

Category	Registration Fee	
	National	International
Regular Research Scholar & Student	₹ 1500	USD 50
Faculty Member (Academician)	₹ 2000	USD 100
Delegates (R&D Centers & Industry Person)	₹ 2500	USD 150
Guest / Attendee / Listener	₹ 500	USD 30

### Souvenir

All accepted and presented papers will be published in conference proceedings with ISBN number. Extended version of papers may be published in Scopus index journals with additional charges.

### Publication Partner

Selected papers from the conference are likely to be published in

- SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCE (SCOPUS)
- JOURNAL OF MINES, METALS AND FUELS (JMMF) (SCOPUS)
- JOURNAL OF POLYMER AND COMPOSITES (JOPC) (Web of Science, ESCI)

Further announcements regarding publication partnerships will be updated on the conference website

### Contact US

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### IMPORTANT DATES

Full Paper Submission Starts	May 05, 2025
Full Paper Submission Ends	October 10, 2025
Notification of Acceptance	November 15, 2025
Registration and Camera Ready Paper Ends	November 30, 2025
Conference Date	December 26-27, 2025

Note: Payment to be made through Demand Draft/NEFT/RTGS in favour of “IPS College of Technology and Management” payable at Gwalior. Please keep the printed details of fee receipt which will be submitted at the time of physical registration at conference venue.

### Payment Details - RTGS/NEFT Transfer:

Account Name	IPS College of Technology and Management
Account No.	63016155289
Bank Name	State Bank of India
Branch	SME Branch Lashkar, Patankar Bazar, Lashkar Gwalior
IFSC Code	SBIN0030119
MICR Code	474002026