

ABOUT CONFERENCE

With 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 November 23 & 24. 2024. This conference will cover the area of manufacturing material science. 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.

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 shaper 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 promote and inspire students to have 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 workshop, short term training program and international conference, producing technical magazines, undertaking several research projects, inviting industrial experts collaborating industrial visit to ignite confidence among the technocrats.

AN ONLINE INTERNATIONAL CONFERENCE "SMART MATERIAL. MANUFACTURING **AND CHARACTERISATION TECHNIQUES"**

ICSMMCT 2K24

NOVEMBER 23 & 24, 2024



Organized By **Research and Development Cell**

IPS COLLEGE OF TECHNOLOGY & MANAGEMENT, GWALIOR

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- 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
- Geopolymer 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 processesLean 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 with in 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 for "Best Paper award" in the valedictory session.

Category	Registration Fee	
	National	International
Regular Research Scholar & Student	₹ 1000	USD 40
Faculty Member (Academician)	₹ 1500	USD 70
Delegates (R&D Centers & Industry Person)	₹ 2000	USD 100
Guest / Attendee / Listener	₹ 300	USD 20

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.

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IMPORTANT DATES		
Full Paper Submission Starts	August 12, 2024	
Full Paper Submission Ends	October 10, 2024	
Notification of Acceptance	October 20, 2024	
Registration and Camera Ready Paper Ends	November 05, 2024	
Conference Date	November 23-24, 2024	

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:

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