

**7<sup>th</sup> National Conference**  
on  
**Advances in  
Manufacturing  
Technology**  
(e-Conference)

March 25 - 26, 2021



**ORGANISED BY**



**Mechanical Engineering  
Department**  
National Institute of  
Technical Teachers  
Training and Research

Sector 26, Chandigarh - 160019

[www.nitttrchd.ac.in](http://www.nitttrchd.ac.in)

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**PREAMBLE**

Digitalization is transforming manufacturing coupled with material development, processing technologies, automation and use of IoT. Nanostructure materials and nano-composites are gaining more importance because of their remarkable properties and growing areas of applications. Robotics, automation and additive manufacturing processes are the significant drivers of digital manufacturing. Consequently, there is a need to highlight the benefits to be derived from the development and exploitation of advanced materials, robotics, automation and IoT in applications ranging from hydrospace to aerospace. This conference is a cross disciplinary summit that transcends departmental, institutional, industrial, public and private research organizations and global barriers and lends itself to the integration of research and education in the vital fields of advanced materials, their processing, use of automation and industrial robotics. The conference is also in line with Government of India's AatmaNirbhar Bharat Abhiyaan and National Education Policy – 2020 for promoting interdisciplinary research and product development.

**CONFERENCE THEMES**

Original research / technical / review papers are invited from researchers and practitioners from academic institutions, R&D organizations, industry and from professional engineers. The suggested areas to be covered, but not limited to, are:

- Additive Manufacturing and Applications
- Advanced Manufacturing Processes
- AI/ ML in Manufacturing
- Industrial Automation

- Bio-materials and Applications
- Composite and Polymer Manufacturing
- Material Characterization and Testing
- Meta materials
- Recycling and Re-manufacturing of Materials and Components
- Engineering Optimization
- Ergonomics
- Industrial IoT
- Industrial Robotics
- Numerical Modeling and Simulation

The plenary lectures in the e-conference will be delivered by eminent personalities of international repute to introduce the theme of the conference, followed by parallel sessions.

**Note:** All accepted papers after peer review will be published in e-proceedings (with ISBN/ISSN) and selected papers (extended versions) will be published as Book Chapters in 04 Volumes of CRC Press, Taylor and Francis Co. (with similarity index <10% on Turnitin software and second blind review).

**PAPER SUBMISSION**

**Paper Submission:** By email at [ncamt2021@nitttrchd.ac.in](mailto:ncamt2021@nitttrchd.ac.in)

**Paper format:** As per the attached template.

**REGISTRATION**

Authors / Attendees are required to register on the Google Form link: [https://docs.google.com/forms/d/e/1FAIpQLScCzN\\_hKgKcIe5Qp6g3ISBnblzdfKlmsQqt4T1uu2chxCUNa/viewform](https://docs.google.com/forms/d/e/1FAIpQLScCzN_hKgKcIe5Qp6g3ISBnblzdfKlmsQqt4T1uu2chxCUNa/viewform)

*At least one author of a paper has to pay the registration fee.* Co-authors can attend the conference without paying registration fee. Also, there are no charges for only

attending the conference without paper submission.

**Registration charges for paper authors:**

- Industry : Rs. 500/-
- Academics / R&D : Rs. 300/-
- Research Scholars/Students : Rs. 200/-

**Note:** Registration fee is to be paid through online mode in the following account:

**Beneficiary:** National Institute of Technical Teachers Training & Research, Chandigarh

**Account Number:** 55105008209

**IFSC:** SBIN0050116

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**Note:** The transaction number/ID of the registration fee is to be mentioned in the Google Form.

**SPONSORSHIP/ADVERTISEMENT**

Reputed industrial agencies and Academic/R&D organizations are invited to sponsor the conference events. Sponsors will be given 30 minutes slots to present their range of equipment/software/services along with their advertisements in the conference proceedings. The sponsorship amounts are:

- Rs. 5000: Half-page advertisement
- Rs. 10,000: Full-page advertisement
- Rs. 5,000: Digital Banner Display
- Rs. 10,000: Souvenir(s) with Logo

**IMPORTANT DATES**

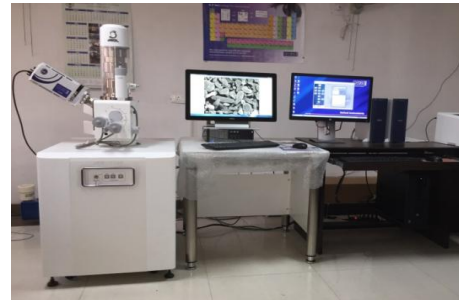
- Full paper submission : **15-02-2021**
- Acceptance intimation: **20-02-2021**
- Registration & camera ready paper submission: **05-03-2021**

## ABOUT THE INSTITUTE

National Institute of Technical Teachers Training & Research (NITTTR), Chandigarh was established in the year 1967 as Technical Teachers Training Institute (TTTI). Since then, the institute has made rapid strides in the areas of Engineering and Technology and other emerging areas like Educational Television, Entrepreneurship Development, Rural Development, Industry-Institute Interaction and Educational Management. Presently, the Institute conducts more than 400 short-term training programs annually for polytechnic and engineering college teachers, professionals and managers of industries. The Institute offers postgraduate and Ph.D. programs in Engineering and Engineering Education through regular and modular modes. In addition to education and training programs, the institute renders extension & consultancy services, undertakes research and development projects and develops print and non-print instructional material.

## ABOUT THE DEPARTMENT

The department started functioning in 1967 when the institute was established by Ministry of Higher Education, Government of India, in collaboration with the Royal Dutch government. The department was established under the guidance of Dutch experts. Equipment in different areas of Mechanical Engineering and training to selected faculty of the department in Netherlands was provided. Presently, the department offers Post-Doctoral, Doctoral, Post graduate programs and short term training programs. Some glimpse of facilities in the department are presented here:



Scanning Electron Microscope with EDS



CNC Vertical Milling Machine



Flexible Manufacturing System

## ABOUT CHANDIGARH

Located 270 km north-west of Delhi, City Beautiful Chandigarh, a well-planned and one of the fastest growing metropolitan cities of modern India is hub of many R&D, academic and industrial institutions including Semi-Conductor Complex Ltd (SCL), Terminal Ballistic Research Lab (TBRL), Central Scientific Instruments Organization (CSIO), Snow & Avalanche Studies Establishment (SASE), Bharat Electronics Ltd. (BEL), Centre for

Development of Advanced Computing (C-DAC), Post-Graduate Institute of Medical Education & Research (PGIMER), National Institute of Pharmaceutical Education & Research (NIPER), Engineering and Medical Colleges, Software Technology park etc. The city also offers pleasing sights in Rock Garden, Rose Garden, Sukhna Lake, Topiary Park, Terrace Garden, Capitol Complex, Museum and Art Gallery etc.

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## ADDRESS FOR COMMUNICATION

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