

Centre for Innovative Manufacturing Research (CIMR)

CIMR was established to advance knowledge and nurture technically grounded leaders and innovators who address societal needs through sustainable manufacturing. The Centre promotes multidisciplinary research and collaboration among industries and academic partners to address complex commercial and technological challenges.

CIMR focuses on training faculty and students to develop systemically complex, technologically intensive, socially impactful solutions that are functional, usable, and sustainable. The Centre further strengthens research at VIT through knowledge transfer, intellectual property generation, industry collaboration, and the development of innovative manufacturing technologies.

Vision

To become a Centre of Excellence in Innovative Manufacturing and Materials Processing through cutting-edge research, advanced technologies, interdisciplinary collaboration, and impactful solutions for industry and society.

Mission

To foster world-class research and innovation in advanced manufacturing and materials processing by developing state-of-the-art capabilities, nurturing researchers and students, promoting interdisciplinary and industry collaboration, and translating research outcomes into sustainable technological solutions.



About the Institute

Vellore Institute of Technology (VIT) was founded in 1984 as Vellore Engineering College by Chancellor Dr G. Viswanathan. VIT attracts students from all states of India and different countries because of its academic excellence. VIT was established with the aim of providing quality higher education on par with international standards. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. Memoranda of Understanding with various international universities are a major strength. These MoU's provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities. VIT has been constantly ranked among the best Universities and is aspiring to emerge as a global leader. VIT has already been ranked by major International rankings agencies QS and Times Higher Education, and others.



VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Vellore Institute of Technology

Two-Day National Workshop

On

**Advanced Manufacturing & Materials:
From Processing to Performance
Evaluation**



26th – 27th October, 2026

Organized by

Centre for Innovative Manufacturing Research

Vellore Institute of Technology

Vellore, Tamil Nadu, India- 632014



About The Workshop

Advanced manufacturing technologies, including Additive Manufacturing and Powder Metallurgy, have emerged as important approaches for developing engineering components with complex geometries, tailored microstructures, efficient material utilization, and application-specific performance. These technologies are increasingly being employed for the processing of high-temperature materials, ceramics, composites, and other advanced engineering materials. The performance and reliability of components produced through these technologies depend strongly on their microstructure, phase composition, defect characteristics, surface condition, deformation behaviour, and mechanical properties. Comprehensive characterization and testing are therefore essential for understanding material behaviour, identifying processing–structure–property relationships, and evaluating component performance.

The proposed workshop aims to provide participants with fundamental knowledge and hands-on exposure to advanced manufacturing, material processing, characterization, and mechanical testing techniques. The program will cover the principles and processing aspects of Additive Manufacturing and Powder Metallurgy, material behaviour, post-processing, and performance evaluation. Emphasis will be placed on understanding the influence of processing and post-processing parameters on microstructure, defects, phase constitution, surface characteristics, mechanical properties, and overall component performance.

Lab Visit and demonstrations: As part of the workshop, participants will have the opportunity to undertake a laboratory tour and live demonstrations of advanced manufacturing and materials characterization facilities, including Additive Manufacturing, Powder Metallurgy, Wear Testing, Fatigue Testing, Creep Testing, FE-SEM, XRD, Micro-CT Scanning, and Nano-indentation.

The workshop will provide a valuable platform for interaction and knowledge exchange among participants. It will facilitate discussions on emerging technologies, encourage collaborative research, partnerships, and provide participants with practical exposure to advanced manufacturing processes, materials characterization techniques, and mechanical testing methodologies.

Resource Persons

Experts from VIT research centres and schools, along with experienced academicians from IITs, NITs, and State/Central Universities, will serve as Resource Persons, bringing expertise in advanced manufacturing, materials processing, characterization, and mechanical testing.

Important Dates

The **last date** for the receipt of registration form is **20/10/2026**. Intimation of selection: through email

Accommodation

- Selection will be done in first come first serve basis.
- The selected applicants will be provided a paid accommodation at VIT Hostels (sharing basis) on payment basis with prior request and based on availability

Registration

For Registration and Payment:

<https://events.vit.ac.in>

Registration Fee

External Participant – Rs. 600/-

Internal Participant – Rs. 300/-



*Registration fees includes working lunch for external participants. Registration fee is non- refundable.

Target Audience

UG/PG/Ph.D. students, faculty members, researchers, and industry professionals working in the following areas are expected to benefit from the workshop:

- ❖ Mechanical and Metallurgical Engineering
- ❖ Material Science and Physics
- ❖ Additive Manufacturing & Powder Metallurgy
- ❖ Mechanical Testing and Characterization
- ❖ Deformation Behavior & Small-Scale Mechanical Testing
- ❖ Surface Engineering, Tribology & Coatings
- ❖ Superalloys, Titanium and Ceramics

Contact

Prof. Arivarasu M

Professor & Director

Centre for Innovative Manufacturing Research

Vellore Institute of Technology, Vellore

Katpadi-632014, Tamil Nadu, India

director.cimr@vit.ac.in

arivarasu.m@vit.ac.in

Organising Committee

Chief Patron

Dr. G. Viswanathan, Chancellor, VIT

Patrons

Dr. Sankar Viswanathan

Vice President, VIT

Dr. Sekar Viswanathan

Vice President, VIT

Dr. G. V. Selvam

Vice President, VIT

Dr. Sandhya Pentareddy

Executive Director, VIT

Ms. Kadhambari S Viswanathan

Assistant Vice President, VIT

Co-Patrons

Dr. V. S. Kanchana Bhaaskaran

Vice Chancellor, VIT, Vellore

Dr. Partha Sharathi Mallick

Pro Vice-Chancellor, VIT, Vellore

Dr. T. Jayabarathi

Registrar, VIT, Vellore

Convenor

Prof. M Arivarasu,

Professor & Director, CIMR

Faculty Co-ordinators

Dr. Ashish Kumar, CIMR

Dr. Gururaja S, CIMR

