



DEPARTMENT OF MECHANICAL ENGINEERING (NBA ACCREDITED)

Organizes

One week Faculty Development Program on

“RECENT ADVANCEMENT IN 3D printing Applications”

11th to 15th June, 2024

(Hybrid Mode)

In Association with
ISTE, Self Sponsored



&



Institution's Innovation Council

INSTITUTE VISION

- “To emerge as a learning Center of Excellence in the National Ethos in domains of Science, Technology and Management”

INSTITUTE MISSION

- To strive for rearing standard and stature of the students by practicing high standards of professional ethics, transparency and accountability.
- To provide facilities and services to meet the challenges of Industry and Society.
- To facilitate socially responsive research, innovation and entrepreneurship.
- To ascertain holistic development of the students and staff members by inculcating knowledge and profession as work practices.

ABOUT INSTITUTE

Gaikwad-Patil Group of Institutions (GPGI) provides education in various sectors such as Engineering & Technology, Science, Management, Architecture & Health Science.

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPET) was established in the year 2007 by Vidarbha Bahu-uddeshiya Shikshan Sanstha (VBSS), a registered society. It is a self-financed Private Engineering College, which is affiliated to RTMNU, Nagpur and is approved by AICTE, New Delhi and DTE, Mumbai, Maharashtra State. The Institute is NAAC Accredited with A+ grade (3.32 CGPA). It is an Autonomous Institute affiliated to RTM Nagpur University, Nagpur. TGPET offers Eight PG programs in engineering such as Computer Science and Engineering, Integrated Power System, Structural Engineering, Electronics Communication Engineering, Artificial Intelligence & Machine Learning, Mechanical Engineering Design, Aeronautical Engineering, Electric Vehicle Tech. & also offers PG programs in Master of Business Administration as well as Master in Computer Application.

The College offers UG programs in engineering such as Bio-Technology, Aeronautical Engineering, Computer Science and Engineering, Computer C.S.E. (Data Science), Information Technology, Electronics and Communication Engineering, Mechanical Engineering, Civil Engineering and Electrical Engineering. The institute also offers diploma courses in Mechanical Engineering, Civil Engineering, Computer Science and Engineering & Electrical Engineering.

DEPARTMENT VISION

- “To emerge as a premier centre in the field of Mechanical Engineering Education and produce competent Engineers.”

DEPARTMENT MISSION

- To impart quality Technical Education through effective teaching-learning process.
- To provide a better environment to encourage innovation and entrepreneurship.
- To strengthen industry institute interaction to meet the challenges of industry and society.
- To ensure overall development of students and staff members by inculcating knowledge and professional ethics.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering is focused to create a professional with well defined technical knowledge in the field of Design, Manufacturing and Industrial Engineering. It deals with interdisciplinary fields and projects that draw on fundamental sciences in pursuit of beneficial engineering solutions. The department aims to develop new, effective, and sustainable alternatives to the various applications in the field of mechanical engineering.

OBJECTIVES OF COURSE

The course is designed to provide knowledge of product development through various 3D printing techniques. The FDP will give exposure to the participants about applications of 3D printing in industrial and medical fields. The FDP shall also enable the participants to experience 3D printing techniques, materials options, prototype design and development.

ABOUT FDP

It is a matter of honour and pride that Tulsiramji Gaikwad- Patil College of Engineering and Technology, Nagpur (TGPET) is organizing a FDP on Recent Advancement in 3 D Printing Materials, on 11th to 15th June, 2024. The FDP aims to bring together faculties, researchers, and research scholars to understand the following key factors in the field of 3D printing, State-of Art of 3D printing techniques, Basic components and assembly of 3D printing equipment, Selection of materials for 3D printing, Mechanical and Metallurgical properties of 3D printed materials, Need of 3D printing in industrial applications, Recent Advancement in 3D Printing Materials. In an era defined by rapid technological advancements, additive manufacturing stands at the forefront of innovation, revolutionizing the way we design, create, and manufacture products. Additive manufacturing, often referred to as 3D printing, is a disruptive manufacturing process that builds objects layer by layer from digital 3D models. It offers unparalleled flexibility, speed, and design freedom, making it a gamechanger across industries such as aerospace, healthcare, automotive, and consumer goods. Our comprehensive training course is designed to equip everyone with the knowledge and skills needed to harness the power of additive manufacturing effectively. By the end of this course, you will be equipped with the knowledge and skills to leverage additive manufacturing for your own projects, research, or career advancements. So, get ready to embark on an exciting journey into the world of additive manufacturing. Let's unlock the limitless possibilities that 3D printing has to offer and pave the way for a future where creativity knows no bounds. Welcome to the Additive Manufacturing Workshop, where we shape your Digital manufacturing future layer by layer.

PATRONS

Dr. Mohan Gaikwad-Patil,

Chairman, Gaikwad-Patil Group

Shri. Akash Gaikwad-Patil,

Vice Chairman, Gaikwad-Patil Group

Dr. Anjali Gaikwad-Patil, President,

Gaikwad-Patil Group of Institutions

Dr. Sandeep Gaikwad, Treasurer,

Gaikwad-Patil Group of Institutions

Shri. Vinod Gaikwad, Member,

Gaikwad-Patil Group of Institutions

Dr. Premanand Naktode,

Principal

Prof. Pragati Patil Bedekar,

Vice Principal

CONVENER

Dr. Vijay Talodhikar

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ORGANISING COMMITTEE

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WHO CAN PARTICIPATE?

Faculty members / Ph.D/M. Tech./ BE//B.
Tech

REGISTRATION FEES:

Faculty members/ResearchScholars
(Ph.D/M. Tech./ BE/B. Tech.):Rs. 300/-

Payments can be made in cash, Demand draft, NEFT, Bhim
or Google Pay Apptour bank account.: Bank of India A/C
No. 875610110004588 Dongargaon Branch, House No. 6,
Wardha No. 1, Wardha Road At & Post Dongargaon, Dist.
Nagpur – 441108 IFSC: BKID0008756

*While paying registration fee, in remarks the purpose is to be
written as “Workshop - Name of Applicant”.

(Kindly save the receipt or take screenshot of the payment)

IMPORTANT DATES:

Last date of registration: 10th June , 2024.

Workshop Dates: June 11th-15th, 2024.

Registration Link: <https://forms.gle/suUCrcu3rTpd9w5s9>

CERTIFICATE DETAILS

The certificates will be issued to participants
having minimum 80% attendance in all sessions
followed by feedback and valedictory function
by the institute

TOPICS

1. Role and importance of Additive Manufacturing
in Industry 4.0
2. CAD for Additive Manufacturing
3. Materials for 3D Printing
4. Topology Optimization
5. 3D Printing of Polymer
6. 3D Printing of Metals
7. 3D printing of shape memory alloys
8. Additive manufacturing of smart materials
9. Post-processing Requirements and Techniques
10. Sustainable Aspects of 3D Printing Technologies

RESOURCE PERSONS

Prof. Pavan Kankar, Professor of ME,IIT, Indore.

Prof. Radharaman Mishra, Associate Prof. of ME,
BITS, Pilani

Dr. A M Kuthe, Prof. of ME VNIT, Nagpur

Dr. G K Awari, Professor, HoD AE, Govt.
Polytechnic, Nagpur

Mr. Murtaza Cochinwala, Director, Institute of
Industrial Design, Nagpur

Dr. Vijay Talodhikar, HOD- ME, TGPCET, Nagpur

Prof. Ritesh Banpurkar, Dean IQAC, TGPCET,
Nagpur

Prof. Vishwjeet Ambade, Asst. Professor ME,
TGPCET, Nagpur

Prof. Abhijeet Raut, Master Trainer, 3D Printer
Nagpur.