### About program

The aim of this FDP is to impart recent advancements in material, manufacturing, characterization and applications of 3D printed composites. This FDP will disseminate state of art knowledge used in 3d printing and composites to research scholars and faculty. This FDP will also provide unique opportunity to the participants and to interact with experts from premier institutes as IIT, NIIT, R&D organizations and globally renowned researchers. The scope of this FDP Program is not limited only to conceptual knowledge but also to provide some hands-on experience on these technologies.

## About AICTE-ATAL

AICTE Training and Learning (ATAL) Academy is established with the vision "To empower faculty to achieve goals of Higher Education such as access, equity and quality". AICTE is committed for development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development. Council understands that there is a need of the day to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies.



AICTE Training and Learning (ATAL) Academy Sponsored One Week Online Faculty Development Program (FDP) on



# 3D Printed Composites: Materials, Technologies, and Applications

### **06<sup>th</sup> January to 11<sup>th</sup> January 2025** (06:00 PM to 9:00 PM)

Organized by



Department of Mechanical Engineering MKSSS's Cummins College of Engineering for Women, Pune - 411052, Maharashtra

### About Institute

**Our founder Bharat Ratna Maharshi Karve** sowed the seeds of empowerment for women through education in 1896. Cummins College of Engineering for Women, affiliated to Savitribai Phule Pune University, Pune, started with support from Cummins Diesel (India) Foundation in the year 1991. Cummins College recognized and approved by All India Council of Technical Education (AICTE), New Delhi. It is accredited by National Board of Accreditation six times since 1998. It has also been awarded Grade: A by NAAC in 2023. We are proud receiver of Best college award in the year 2021 by Savitribai Phule Pune University.

### About Mechanical Department

The Department of Mechanical Engineering established in the year 2007. It is the first college in India offering Mechanical Engineering degree program to all girls students. Department offers four years undergraduate degree course. Mechanical Engineering Program has been accredited by National Board of Accreditation (NBA), New Delhi. The department also runs post-graduate program with specialization in Mechanical Engineering Design. The department has excellent faculty and is known for its commitment for high academic standard through disciplined approach and well-maintained facilities. This is well reflected in success of students as well as alumni. The department has received research grants from RGS&T, AICTE, DST and other agencies of Rs. 1.16 cr.

### Patrons

Shri. Jayant Inamdar Chairman, MKSSS's

Dr. P. V. S. Shastry Secretary, MKSSS's

### Advisory Committee

Dr. Madhuri Khambete Principal, Cummins COEW

Dr. Anand Bewoor Dean Academics

**Dr. Ajit Bhosale** HoD (Mechanical Engineering)

### Coordinators

#### Dr. Yashwant Munde

Asst. Professor, Mech. Engg. yashwant.munde@cumminscollege.in

#### Dr. Avinash Shinde

Asst. Professor, Mech. Engg. avinash.shinde@cumminscollege.in



### Organizing Committee

Dr. A. K. Bewoor	Dr. G. S. Chandekar
Dr. D. S. Watvisave	Dr. P. S. Chaware
Prof. P. A. Bhore	Dr. S. A. Kedar
Prof. R. A. Agavekar	Prof. A. P. Rajurkar
Prof. N. R. Patil	Dr. N. R. Kolhalkar
Dr. H. M. Shinde	Prof. M. A. Vahadne



### Eligibility Criteria for the Participants

The faculty members (Assistant/Associate Professor) of the AICTE approved institutions, PhD scholars, PG students, participants from Government, Industry. The FDPs will be purely in online mode for six days from 6:00 PM - 9:30 PM. Min Limit of 100 participants from the Higher Education Institutions from the same city/within 100 km of the host institute. (A maximum of 20% of participants can be from the host institution). Participants should be nominated by the respective Heads of Institutions. Candidates would be eligible to receive a certificate up on achieving following aspects

I. Attendance - minimum 80% attendance essential. 2. Test - 70% marks in test - Assessment is combination of MCQs/short answer type/reasoning based, etc. -(Individual)

#### Registration (Through ATAL Portal only)

https://atalacademy.aicte-india.org/login Visit Signup by creating your login credential and select this FDP. It will be approved by the Coordinator through Coordinator Login.

#### No Charge for Registration, Course, and Certification

**Registration Last Date: 31st December 2024** 

#### Topics Synthesis and fabrication of bioactive glass for bone

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- Architected flexible syntactic foams through additive manufacturing.
- 3D printing advancements in polymer composites
- absorption transmission Sound and loss characteristics of 3D printed bio-degradable materials.
- Additive manufacturing of metal matrix composites.
- Numerical Modelling and Design for AM.

#### composites using machine learning (ML) approach. **Resource** Persons



Dr. Pavana Prabhakar Charles G. Salmon Associate Professor. Mechanical Engineering. University of Wisconsin-Madison, USA.



Dr. M. R. Sanjay Principal Research Scientist (Specialist 3) & Associate Professor, KMUTNB, Bangkok Thailand



Prediction modeling of FDM

printed

Design optimization for additive manufacturing

implant using 3D printing.

using artificial intelligence.

Luminescent 3D

nanocomposites.

Dr. Mrityunjay Doddamani Associate Professor, Mechanical Engineering, Indian Institute of Technology (IIT) Mandi, India

Dr. Harshit K. Dave

Mechanical Engineering,

Technology (SVNIT),

Surat, Gujarat, India

S. V. National Institute of

Professor, Department of

poly(lactic

3D

acid)

printed



Dr. Jeyaraj Pitchaimani Professor, Department of Mechanical Engineering, National Institute of Technology Karnataka (NITK), Surathkal, India

Mr. Yogirai Dama

Products and Solutions,

Portfolio, HCL Software,

Digital Manufacturing

Group Manager.

Pune, India



**Dr. Gurminder Singh** Assistant Professor. Department of Mechanical Engineering, Indian Institute of Technology (IIT), Bombay, Mumbai, India

Dr. Ranga Srinivas

Mr. Dattatrava Sabale Senior Lead Manufacturing Engineer Organization: John Deere India Pvt. Ltd., Pune, India



Mr. Abhishek Shete Founder / CEO, Positron Additive, Pune, India

Dr. Kadhiravan Shanmuganathan **Principal Scientist &** Associate Professor (AcSIR), CSIR-National Chemical Laboratory, Pune, India

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Asst. Professor, Mech. Engg. +91 94235 69228



Gunti General Manager -India

Prof. Prashnat Anerao Assistant Professor, Mechanical Engineering, VIIT. Pune. India



