ABOUT PROGRAM

Why Faculty Development Program on Shaping the Future of Manufacturing with 3D Printing Techniques?

The rapid evolution of manufacturing technologies, especially with the emergence of 3D printing and additive manufacturing, is redefining the way products are designed, developed, and delivered. These technologies offer unprecedented advantages such as design freedom, reduced material waste, rapid prototyping, mass customization, and decentralized production. To keep pace with these advancements, it is essential that faculty members—who play a crucial role in shaping the next generation of engineers—are well-versed in these innovations.

A FDP on 3D printing provides an essential platform for educators to

- Gain in-depth knowledge of various additive manufacturing processes, material systems, and their real-world applications.
- Explore the applications of 3D printing in diverse fields such as biomedical engineering, aerospace, architecture, and product design.

PROGRAM OBJECTIVES

- Explore State-of-the-Art Technologies: Familiarize participants with the latest advancements in 3D printing technologies.
- Understand Emerging Trends: Provide insights into current and emerging trends in 3D printing technology to keep faculty updated with industry developments.
- Bridge Academia and Industry: Address the gap between academic learning and industry demands by integrating practical applications of 3D printing into the curriculum.
- Interdisciplinary Applications: Encourage the exploration of 3D printing applications across various fields, including biomedical devices, to promote interdisciplinary teaching and research.
- Skill Workforce: To discuss comprehensive strategies for the workforce with the necessary technical capabilities to implement additive manufacturing processes effectively.
- Future Avenues: To foster collaborative dialogue among academia, industry professionals, and researchers for developing innovative 3D printing driven manufacturing solutions.

REGISTRATION PROCESS

- Participant shall register for the program as per the specified process of AICTE's Training and Learning (ATAL) Academy.
- Visit **https://www.aicte-india.org/atal** for registration
- Refer AICTE'S ATAL scheme document for assessment criteria to receive certificate and distinction

RESOURCE PERSONS

The program will be conducted by eminent speakers from industry and academia (including experts from overseas).

SCHEDULE

Duration : 01st – 06th December 2025
Timing : 06:00 pm to 9:30 pm (Monday-Friday)
02:00 pm to 08:00 pm (Saturday)
Mode : Online

PROGRAM OUTCOMES

At the end of this faculty development program, participants will be able to:

- Understand different 3D printing techniques.
- Understand various processes involved in 3D printing and articulate process plan.
- Understand and apply Design for Additive Manufacturing (DfAM)
- Understand steps in product design and development pertinent to 3D printing.
- Classify and select appropriate 3D printing and reverse engineering techniques for specific technical applications
- Integrate industrial 3D printing practices into teaching, fostering innovation and research
- Find different research avenues in 3D printing processes and Design Thinking approach.
- Articulate a comprehensive plan for adopting 3D printing techniques for imparting knowledge to the students/learners

CONTACT FOR MORE INFORMATION

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All India Council for Technical Education (AICTE) Training and Learning (ATAL) Academy

Sponsored One Week Online Faculty Development Program

on

"Shaping the Future of Manufacturing with 3D Printing Techniques"

01st – 06th December 2025

Coordinator

Dr. Kiran S. Bhole
Dean (R&D) and
Associate Professor
Co-coordinator
Dr. B. N. Bhasme
Assistant Professor

Organized By

Department of Mechanical Engineering
Bharatiya Vidya Bhavan's
Sardar Patel College of Engineering
(Government Aided Autonomous Institution Affiliated to University of Mumbai)

Telephone: 91-22-262 32 192 / 262 89 777
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ABOUT THE INSTITUTE

Sardar Patel College of Engineering (SPCE) under the management of the Bhartaiya Vidya Bhavan, was founded by Kulapati Dr. K. M. Munshi. It was established to meet the growing demand for engineering talent.

The foundation stone of the college was laid on 17th September 1961 by Shri. Y. B. Chavan (the then Chief Minister of Maharashtra who later became the Defence Minister of India).

The college was inaugurated by the first Prime Minister of Independent India, Pandit Jawaharlal Nehru in 1962. The college is dedicated to Sardar Vallabhbhai Patel, an eminent nation builder of independent India.

SPCE has celebrated its diamond jubilee in the year 2022 by organizing AICTE, SERB and CSIR sponsored Sardar Patel International Conference on Industry 4.0 - Nascent Technologies and Sustainability for 'Make in India' Initiative 2022 (SPICON-2022).

The college is autonomous and affiliated to the University of Mumbai for the full-time degree, post graduate, and research programs. The institute has set high standards for aspiring engineering students and also meets the need of quality education in the challenging world of business.

Over the last 60 years the college has gained an excellent reputation in the field of Technical Education.

MECHANICAL ENGINEERING DEPARTMENT

Mechanical Engineering Department of Sardar Patel College of Engineering commenced in 1962. The Department offers undergraduate program (B. Tech in Mechanical Engineering) and postgraduate program M. Tech. in Machine Design and a Ph.D. program.

The B. Tech. (Mechanical Engineering) program is awarded accreditation (Tier-I) by NBA up to 30th June 2025.

The department has several sponsored projects from Department of Science and Technology (DST), Anusandhan National Research Foundation (ANRF)/ Science and Engineering Research Board (SERB) in the field of micro-machining and micro fabrication.

The department has modern infrastructure with well-equipped laboratories and computational facilities with up-to-date hardware and software resources. The well qualified and experienced faculty of the department imparts knowledge to the students in the fundamental and applied aspects of Mechanical Engineering courses by adopting conventional as well as the latest teaching and assessment tools. The department also uses DST NIDHI prayas and AICTE IDEA lab to convert ideas into prototype and further to the product development.

OBJECTIVES OF AICTE ATAL

- To set up an Academy which will plan and help in imparting quality technical education in the country
- To support technical institutions in fostering research & innovation and entrepreneurship through training
- To stress upon empowering technical teachers & technicians using Information & Communication Technology
- To utilize SWAYAM platform and other resource for the delivery of trainings
- To provide a variety of opportunities for training and exchange of experiences such as workshops, Orientations, learning communities, peer mentoring and other faculty development programs.
- To support policy makers for incorporating training as per requirements

PATRON

Dr. Sesha Iyer
Chairman, BoG, Sardar Patel College of Engineering

Dr. M. M. Murudi
Principal In-charge, Sardar Patel College of Engineering

ORGANIZING COMMITTEE

Dr. M. M. Murudi	Principal In-Charge
Dr. Anupa Sabnis	Dean Academics
Dr. S. B. Rane	Head of Mechanical Engineering Department
Dr. Kiran S. Bhole	Course Coordinator
Dr. B. N. Bhasme	Course Co-Coordinator
Mr. Luis Dias	Assistant for FDP

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