

5 – Day Online
Faculty Development Program (FDP)
on
3D Printing & Design
(7 - 11 December 2020)
Registration Form

1. Name _____
2. Designation _____
3. Department _____
4. Institution/Organization _____
5. Address _____
6. E-mail Address _____
7. Mobile No. _____
8. Telephone No. _____

Paste Recent
Color
Photograph
here

Signature of Applicant

Signature & Seal of Head of the Department / Institute

Note: The participants are advised to apply online at AICTE ATAL registration portal <https://atalacademy.aicte-india.org/signup> on or before 30 October 2020 for the final registration.

PATRON

Prof. P. K. Jain

Director, NIT Patna

ADVISORS

Prof. S. K. Verma

Dy. Director, NIT Patna

Prof. Om Prakash

Dean, Faculty Welfare

Prof. P. Chandra

Dean, Student Welfare

Prof. L. B. Roy

Dean, R & C

Prof. Fulena Rajak

Dean, Plan. & Dev.

CONVENER

Dr. Amit Kumar

Head, Mech. Engg.

COORDINATOR

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NATIONAL INSTITUTE OF TECHNOLOGY PATNA

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How to Reach

The institute campus is 8 km from the Patna Junction railway station, 15 km from the Jai Prakash Narayan International airport and some 200 m inside the NIT more off Ashok Rajpath. One can reach there using the shared autos from South East Gandhi Maidan (Kargil Chowk) is easily accessible from any part of the city.

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Organized by



Department of Mechanical Engineering
NATIONAL INSTITUTE OF TECHNOLOGY PATNA
Ashok Rajpath, Patna, Bihar – 800 005, INDIA

Sponsored by



AICTE Training And Learning (ATAL) Academy



All India Council for Technical Education
New Delhi

ABOUT NIT PATNA

National Institute of Technology Patna (NITP) is the 18th National Institute of Technology created by the Ministry of H.R.D. Government of India after rechristening the erstwhile Bihar College of Engineering Patna on 28.01.2004. NIT Patna marked its humble beginning in 1886 with the establishment of pleaders' survey training school which was subsequently upgraded to Bihar College of Engineering in 1924. This made this Institute the 6th oldest Engineering Institute in India. The Institute is situated on the south bank of the holy river Ganges behind Gandhi Ghat (where the ashes of Mahatma Gandhi were immersed in river Ganges). The campus has a picturesque view with its historic building presenting a spectacle of architectural delight and natural beauty. The Institute imparts high level education, training, research and development in science, engineering, technology and humanities along with high quality education and values at UG, PG and Ph.D levels. At present, the Institute has six disciplines offering degree courses viz. Architecture, Civil Engg., Computer Science & Engg., Electrical Engg., Electronics & Communication Engg., and Mechanical Engg., and well-established departments of Physics, Chemistry, Mathematics, Humanities and Social Science.

OVERVIEW OF THE ONLINE FDP

3D printing is defined by the ASTM F42 committee as the fabrication of objects through the deposition of a material using a print head, nozzle, or other printer technology. However, the term is often used synonymously with additive manufacturing (AM). In particular, it is associated with machines that are lower in relative price and overall functional capability. Additive Manufacturing is used to build physical models, prototypes, patterns, tooling components and production parts with materials like plastics, metal, ceramic, glass, and composite materials. Additive Manufacturing / 3D Printing use thin, horizontal cross sections from computer-aided design (CAD) models, 3D-scanning systems, medical scanners, and video games to produce parts in about every shape imaginable.

OBJECTIVES OF THE FDP

1. To update the participants with the state-of-the-art technologies in Additive Manufacturing.
2. To enable the participants to have experiential learning in 3D modeling, build-setup preparation and 3D printing through hands-on sessions.
3. To enable participants to learn the industrial, real life and pedagogical applications of Additive Manufacturing.
4. To facilitate the participants to develop low-cost 3D printers to teach engineering concepts.
5. To empower the participants to offer a course on Additive Manufacturing technology at their respective institutions.

CONTENT

1. 3D Printing & Additive Manufacturing-An Overview
2. CAD for Additive Manufacturing
3. Stereo lithography File format and its salient features
4. Hands on training on STL file processing technique
5. Stereo lithography & Laminated Object Manufacturing
6. Hands on Operational Training on FDM machine
7. Selective Laser Sintering (SLS) & Selective Laser Melting (SLM)
8. Real-Time Applications of Additive Manufacturing Technologies
9. Materials used in Additive Manufacturing -Polymers and Metals
10. Materials used in Additive Manufacturing -Non-Metals and Ceramics
11. Dynamic Challenges and Opportunities in Additive Manufacturing
12. Bird view on Commercially available Additive Manufacturing Equipments in the market
13. Inspection and Testing techniques adopted in Additive Manufacturing Process
14. Curriculum Development of a Course in 3D Printing Technology

FACULTY

Speakers will be from various disciplines of different IITs/ Research Organizations and other institutions of higher learning, and related industries and R&D organizations from different parts of the country.

ELIGIBILITY

1. There is no registration fee from any participants.
2. All the faculties, Research Scholar and PG Scholars from AICTE approved institutions are eligible for the workshop.
3. No TA/DA will be paid to any participants.
4. Number of participants is limited to 50.
5. Participants will be selected on first-come first-served basis.
6. Selected candidates will be intimated by e-mail confirmations of participation is to be made by email only.
7. Faculty members selected for the programme should get the authorization certificates signed from the principal.
8. The Coordinators decision will be final in the selection of participants.
9. Participants will have to make their own stay arrangements during the five days.

IMPORTANT DATES

Receipt of applications (Online): October 30, 2020

Information to the selected candidates: November 20, 2020

FDP duration: 7 – 11 December 2020.

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TEST AND CERTIFICATE

1. A test shall be conducted at the end of the program.
2. The certificates shall be issued to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.