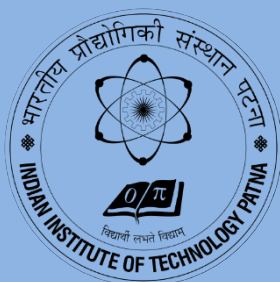


“Short-Term Courses with Hands-on Practice” (Hybrid Mode)



FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY (FIST)

A NIDHI-TBI funded by DST, Govt. of India



INDIAN INSTITUTE OF TECHNOLOGY PATNA

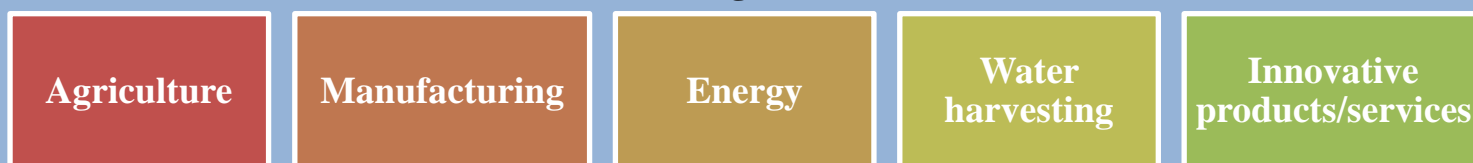
5TH FLOOR (LEFT), BLOCK-9, IIT PATNA
BIHTA, PATNA-801106
Email- info_tbi@iitp.ac.in, Phone- 0611-5233954

About FIST!

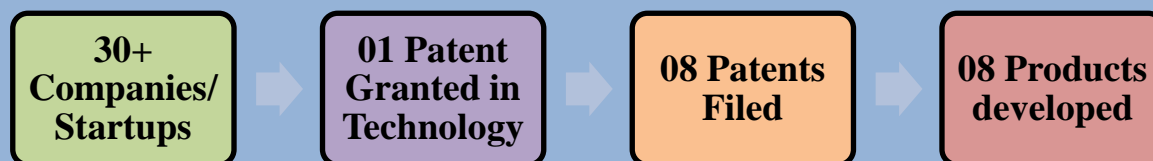
We here at Foundation for Innovators in Science and Technology (FIST) strongly believe that by giving plan, advancement, and research pioneering exercises to a conceptualized thought can prompt a discovery or monetarily plausible plan of action.

Foundation for Innovators in Science and Technology (FIST) at IIT Patna is developed under the NIDHI-TBI initiative of the Ministry of Science & Technology, Department of Science & Technology, Government of India. It is registered as a Section 8 company under the Ministry of Corporate Affairs.

It administers a technology business incubator (TBI) that provides 'Start to scale' support for technology-based entrepreneurship and facilitates the conversion of research ideas into entrepreneurial ventures. It focuses on the incubation of ideas in the areas, including, but not limited to



Highlights:



Short-term courses offered by FIST

| S. No. | Training/ Short-term course | Tentative Date/ Duration (Year - 2023) |
|--------|---|---|
| 1 | 5 Days of hands-on training in CNC & Abrasive Waterjet Machining | July 24 th – July 28 th |
| 2 | 5 Days of hands-on training on 3D Scanners and Reverse Engineering software | August 21 st – August 25 th |
| 3 | 5 Days Training Course on 3D Printing | September 4 th – September 08 th |
| 4 | 5 Days of hands-on training in Industrial Robotics & Automation | September 18 th – September 22 nd |
| 5 | 4 Days of Training in Entrepreneurship Management | October 03 rd – October 06 th |
| 6 | 5 Days of training on Industry 4.0 | October 9 th – October 13 th |

Mode of Instruction: Hybrid (Few lectures will be delivered online and Hands-on practice completely offline)

Mode of Participation: Hybrid (Online/Offline)

Participants may select the mode during application.

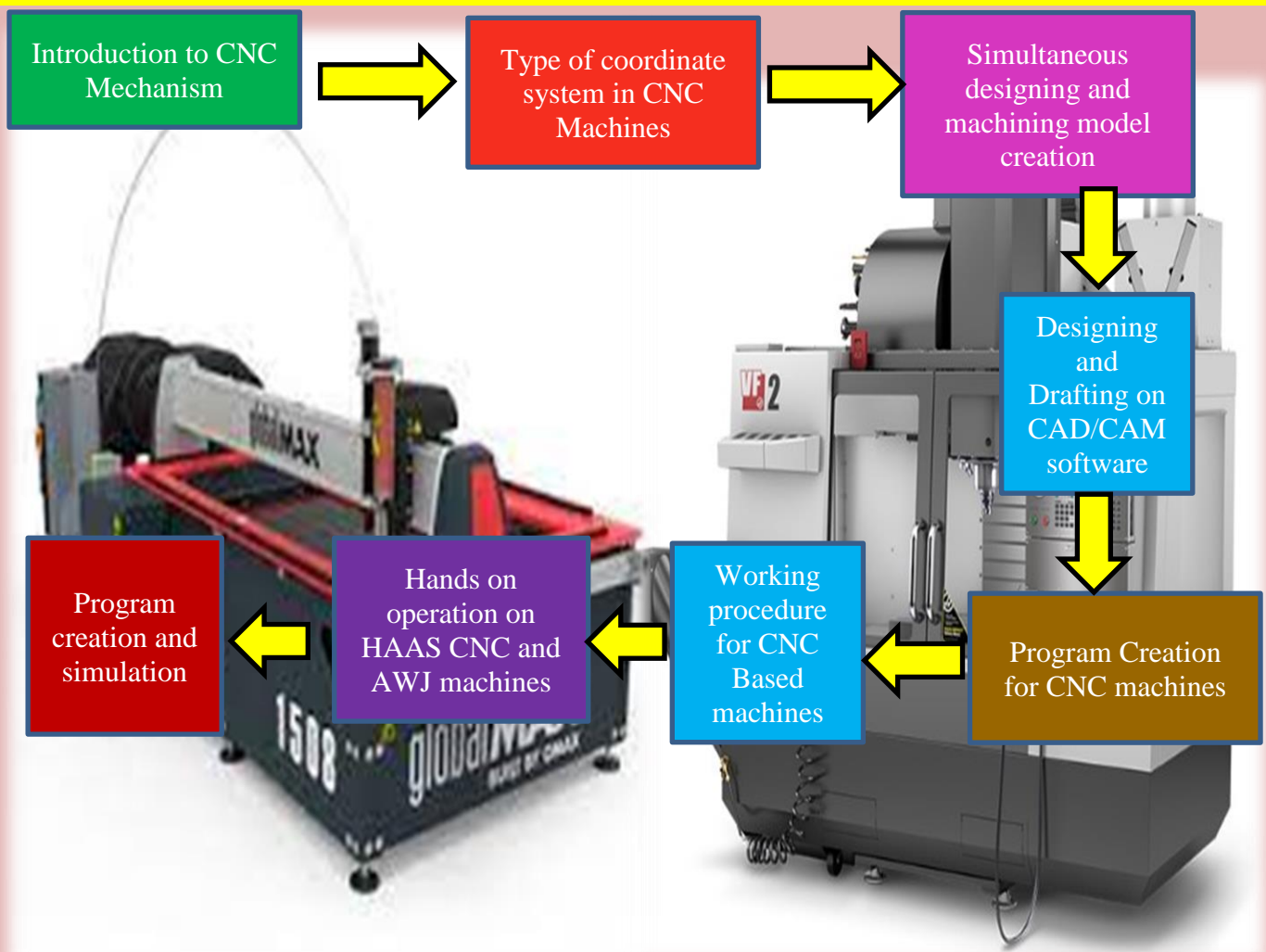
Online participants can join through video conference for all lectures and hands-on practice.

5 Days hands-on training on CNC & Abrasive Waterjet Machining

Who can join the course?

- Start-Ups, Entrepreneurs, MSME employees, craftsmen, etc.
- Any undergraduate/Postgraduate/ diploma/ ITI student.
- Industrial working professionals, Research scholars, Teaching professionals & faculties

Course Highlights



Course Fees

| Students | Academic teaching professionals and trainer | Industrial professionals |
|--------------|---|--------------------------|
| Rs. 5,000.00 | Rs. 10,000.00 | Rs. 15,000.00 |

Expert from Industry

1. Mr. Prasad Auti (Phillips Education; Phillips Machine Tools India Pvt. Ltd.)

Expert from Academia/Research Organization:

2. Prof. Karali Patra (Professor, Mechanical Engineering, IIT Patna)
3. Dr. Probir Saha (Associate Professor, Mechanical Engineering, IIT Patna)

5 Days of hands-on training on 3D Scanners and Reverse Engineering software

Who can join the course?

- Start-Ups, Entrepreneurs, MSME employees, craftsmen, etc.
- Any undergraduate/Postgraduate/ diploma/ ITI student.
- Industrial working professionals, Research scholars, Teaching professionals & faculties

Course Highlights

- Sensor calibration
- ATOS measurements Quick scanning
- Usages of marker
- Sensor Configuration
- Creating a new project
- Basic Scanning
- Polygonization & Recalculate
- Mesh Editing
- Sections & Export STL
- Scanning from both sides
- Element Creation
- Alignment & reports
- Basic Alignment, RPS, PLP
- Surface deviation, picking surface deviation, sectional deviation
- Reverse Engineering
- Application of reverse engineering
- Brain Storming Session

Course Fees

| Students | Academic teaching professionals and trainer | Industrial professionals |
|--------------|---|--------------------------|
| Rs. 5,000.00 | Rs. 10,000.00 | Rs. 15,000.00 |

Expert from Industry:

1. Mr. Prashant Tiwari (Application Engineer, APM Technologies 3D Pvt. Ltd.)

Expert from Academia/Research Organization:

2. Dr. Pranab Kumar Dan (Associate Professor, R. M. School of Engineering Entrepreneurship, IIT Kharagpur)

5 Days Training Course on 3D Printing

The objective of the Course:

The main objective of this course is to provide knowledge and experience on the digitization of industry. Modern industries adopt modern technology far better than what has been in practice. The training course will bring the opportunity to work with the future technology that industries will adopt. Also, it enhances skills and knowledge.

Who can join the course?

- Start-Ups, Entrepreneurs, MSME employees, craftsmen, etc.
- Any undergraduate/Postgraduate/ diploma/ ITI student.
- Industrial working professionals, Research scholars, Teaching professionals & faculties
- 3D Printing/ Additive Manufacturing Enthusiasts.

Course Highlights

- Introduction to 3D Printing
- About Additive Manufacturing Technologies. Application of 3D technology
- Popular FDM, SLA, SLS, Binder Jetting, Material Jetting, and Direct Energy deposition 3D printing materials.
- Various forms of 3D printing raw material- Liquid, Solid, Wire, and Powder.
- Choosing the Right 3D Printing Material on the Basis of Performance Requirements and Material Properties.
- Metals, alloys, and composites for Additive Manufacturing
- Powder Materials for Additive Manufacturing and their characterization
- Modeling and designing for Additive Manufacturing
- Defects and their causes. Need of post-processing: Functional and Aesthetic reasons.
- Steps of Post Processing: Cleaning/Support removal, Fixing, Curing or hardening, Surface finishing, Coloring.
- Brain Storming Session

Expert from Academia/Research Organization:

1. Dr. Biranchi Panda (Assistant Professor, Department of Mechanical Engineering, IIT Guwahati)
2. Dr. Murshid Imam (Assistant Professor, Department of Mechanical Engineering, IIT Patna)
3. Prof. Karali Patra (Professor, Department of Mechanical Engineering, IIT Patna)

Expert from Industry:

4. Div by Zero Technologies
5. Markforged
6. Alfatek Systems

Course Fees

| Students | Academic teaching professionals and trainer | Industrial professionals |
|--------------|---|--------------------------|
| Rs. 5,000.00 | Rs. 10,000.00 | Rs. 15,000.00 |

5 Days of hands-on training in Industrial Robotics & Automation

Who can join the course?

- Start-Ups, Entrepreneurs, MSME employees, craftsmen, etc.
- Any undergraduate/Postgraduate/ diploma/ ITI student.
- Industrial working professionals, Research scholars, Teaching professionals & faculties

Course Highlights

- Introduction of robotics and its mechanism
- Working of Industrial Robots
- Fundamental principle of Robotics
- Hands-on programming for Robots
- Languages used in Robotics
- Automation in the Manufacturing industry
- Demonstration of Robots
- Brainstorming session



Course Fees

| Students | Academic teaching professionals and trainer | Industrial professionals |
|--------------|---|--------------------------|
| Rs. 5,000.00 | Rs. 10,000.00 | Rs. 15,000.00 |

Experts from Academia/Research Organization:

1. Prof. Santhakumar Mohan (Professor, Mechanical Engineering, IIT Palakkad)
2. Prof. Karali Patra (Professor, Mechanical Engineering, IIT Patna)

Experts from Industry:

3. MTAB
4. Fanuc
5. Siemens

4 Days of Training in Entrepreneurship Management

Who can join the course?

- Start-Ups, Entrepreneurs, MSME employees, craftsmen, etc.
- Any undergraduate/Postgraduate
- Industrial working professionals, Research scholars, Teaching professionals & faculties
- Executives from the startup ecosystem

Course Highlights

- Entrepreneurship Development and management
- Basic Characteristics: The Entrepreneurial Eco-System
- Successful Entrepreneurs
- Business Planning
- Technology readiness levels (TRLs)
- Selecting Entrepreneurs: Rationale for Selection
- Incentives and Assistance to Entrepreneurs
- Estimating and Financing of Funds
- Pitching strategies for investors
- Financial Planning for Startups and Entrepreneurs
- Incentives and Assistance to Entrepreneurs
- Case Studies
- Intellectual Property Rights
- Brain Storming Session



Course Fees

| Students | Academic teaching professionals and trainer | Industrial professionals |
|--------------|---|--------------------------|
| Rs. 5,000.00 | Rs. 10,000.00 | Rs. 15,000.00 |

Expert from Academia/Research Organization:

1. Dr. Jayashree Patnaik (Assistant Professor, Department of Entrepreneurship & Management, IIT Hyderabad)
2. Dr. Nakul Parameswar (Assistant Professor, Entrepreneurship & Management, IIT Hyderabad)
3. Dr. Praveen Kumar (CEO FIST TBI, IIT Patna)

Expert from Industry:

4. Ms. Indrani Mahto (Senior Associate, Strategy&, Gurugram, Haryana)

5 Days of training on Industry 4.0

Who can join the course?

- Start-Ups, Entrepreneurs, MSME employees, craftsmen, etc.
- Any undergraduate/Postgraduate/ diploma/ ITI student.
- Industrial working professionals, Research scholars, Teaching professionals & faculties

Course Highlights

- Evaluation of the manufacturing sector
- Introduction to Industry 4.0
- The Basic Characteristics of Industry 4.0
- Smart Applications of Industry 4.0
- Intermate of things
- Artificial intelligence
- Introduction to Cyber-Physical Systems (CPS)
- Application of CPS.
- Use of Artificial Intelligence in smart manufacturing
- Importance of data in manufacturing technology
- Sensors and Signals for smart industry
- Brainstorming session

Course Fees

| Students | Academic teaching professionals and trainer | Industrial professionals |
|--------------|---|--------------------------|
| Rs. 5,000.00 | Rs. 10,000.00 | Rs. 15,000.00 |

Experts from Academia/Research Organization:

1. Prof. Pradipta Biswas (Associate Professor, Centre for Product Design and Manufacturing & Robert Bosch Centre for Cyber Physical Systems, IISc Bangalore)
2. Prof. Surjya K Pal (Professor, Mechanical Engineering, IIT Kharagpur)
3. Prof. Karali Patra (Professor, Mechanical Engineering, IIT Patna)

Registration procedure

The applicant shall use the following link for registration after making payment for the selected course through the provided link.

Link for registration: <https://forms.gle/acbRrpgatkYUF9yz7>



Account details for fee payment:

Customer Name: Messrs Foundation For Innovators In Science And Technology
Account No: 6244101000090
IFSC: CNRB0006244

Once the requisite registration amount is paid by the applicants. The money receipt must be sent/attached during his/her registration.

Accommodation, Fooding, etc.

- Accommodation will be provided in the Institute Guest House/hostel subject to availability on a first come first serve basis. The participants will pay on their own. The participants need to mention/confirm their requirements for accommodation through the link provided during registration.
- After successful course completion by participants, a participation certificate will be issued to the participants.

Coordinators

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For more details

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LinkedIn : <https://www.linkedin.com/in/fist-iit-patna-7227b9255/>
Twitter : <https://twitter.com/FISTIITP>