RESEARCH FACILITY AND INSTRUMENT LABORATORY

Information Brochure

FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY
INDIAN INSTITUTE OF TECHNOLOGY PATNA BIHAR, INDIA, 801106

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

Agriculture	**Manufacturing**	**Energy**	**Water harvesting**	**innovative products/services**

Our Vision

To enable budding entrepreneurs to nurture and translate innovative ideas to create economically viable and commercially competitive technology

Areas of Expertise

- **Entrepreneurship and Start-up Support**
- **Lab Infrastructure**
- **Research Projects & Consultancies**
- **Design, Testing, And Development**
- **Skill Development Training**

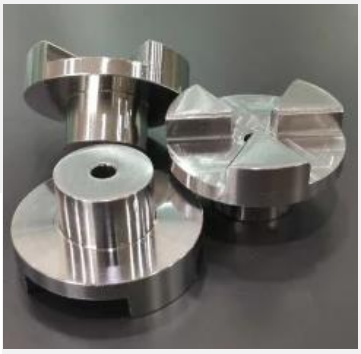
Facilities

CNC Vertical Milling Centre

CNC SINGLE SPINDLE 3 AXES VERTICAL MILLING MACHINE

Brand: Haas CNC, Model: VF-2
Travel-
X axis- 762 mm
Y axis- 406 mm
Z axis- 508 mm
Operations- Face milling, End Milling, Side, and face milling, Drilling, Taping, Profile Machining.
Material- Metal and non-metal

Sample



Abrasive Waterjet Cutting Machine

Brand – Omax, Model- GLOBALMAX 1508

MACHINE DIMENSIONS

Footprint (without pump, controller) : 5’3” x 9’2” (1.60 m x 2.78 m)

Weight (tank empty)	: 3,100 lb (1,406 kg)
Height (with whip plumbing)	: 7’4” (2.2 m)
Operating Weight (with water in tank)	: 5,290 lb (2,400 kg
Maximum weight of workpiece	: 400 Kg.

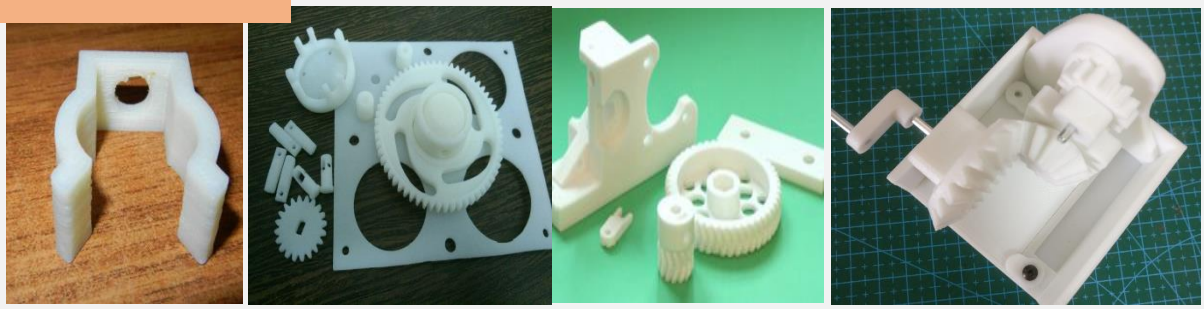
WORK ENVELOPE

X-Y Cutting Travel	: 2’7” x 5’0” (800 mm x 1,525 mm)
Z-Axis Travel	: 5” (125 mm)
Table Size	: 2’10” x 5’5” (864 mm x 1,645 mm)

3D Printing machine

Model-	**: Aeqon 400 V3**
Build Size	**: 400mm X 300mm X 300mm**
Nozzle Diameter	**: 0.4mm - 0.8mm (optional)**
Printing Speed	**: 200mm/s Variable as per material profile)**
Accuracy	**: 80-250 Micron**
Max Extruder Temperature	**: 305°C**
Dimensions	**: L- 730mm X W- 670mm X H- 900mm**
Connectivity	**: USB, Wi-FI, Ethernet**

Sample

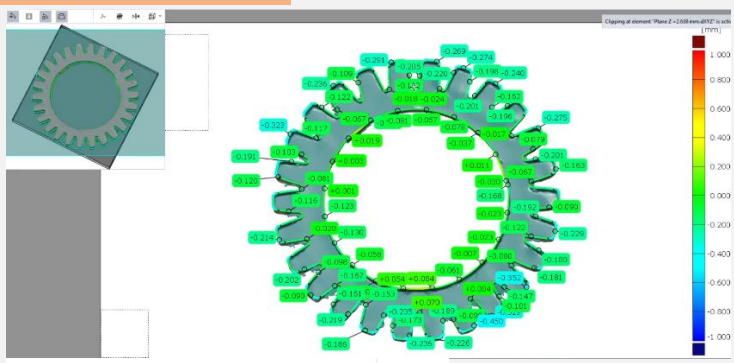


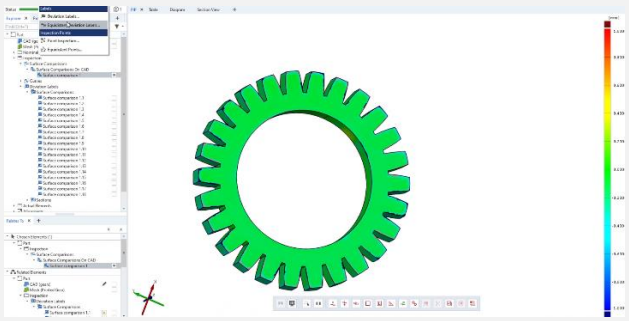
3D Scanner

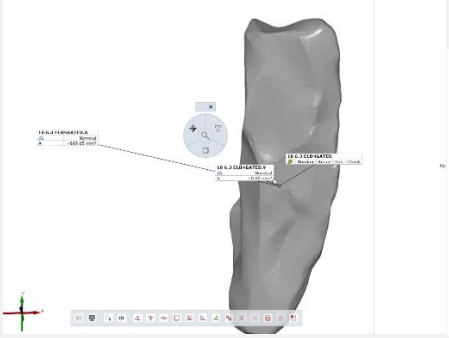
GOM 3D Scanner
Model- GOM Scan 1 (400)
Points per scan : 6 million
Point distance : 0.129 mm
Measuring area : 400 x 250 mm²
Working distance : 500 mm
Light source : LED
Software : GOM Inspect

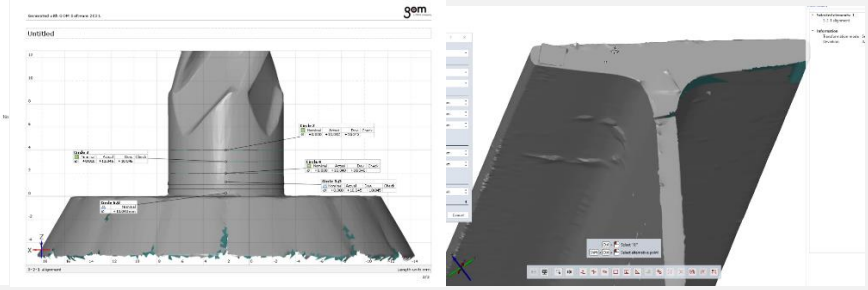
Application: 3D printing, Reverse engineering & manufacturing, Virtual display or 3D models. Research and education, Art and heritage, Design, Healthcare

Sample







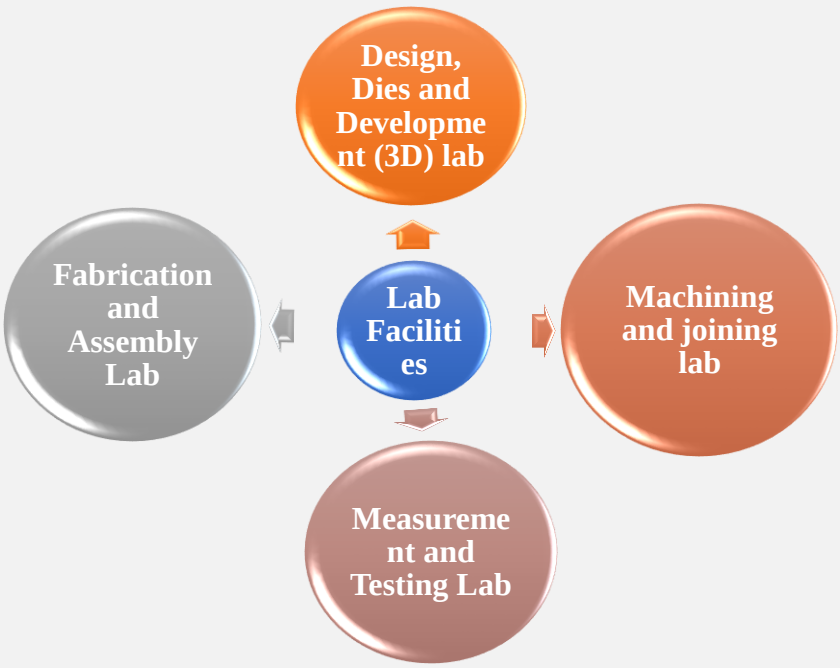


Entrepreneurship and Start-up Support

FIST IIT Patna 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 in various aspects of the startup journey.

Lab Infrastructure

State-of-the-art laboratories, containing computers, internet, and seating space to ensure complete facilities for research and development.



Research Projects & Consultancies

FIST, IIT Patna offers access to various technical facilities and equipment to the students, researchers, faculty members, and industry fraternity to support their needs on a chargeable basis. If you are interested in avail of the facilities available at FIST such as machining, design and development facilities, 3D Printing, etc. FIST, IIT Patna provides cost-effective R&D and consultancy services.

S.No.	Facility	FIST, IIT Patna			
		Internal Users, Amount (Rs.)			External Users, Amount (Rs.)
1	**3D Scanner**	**Research Users, Amount (Rs.)**	**Sponsored project Users, Amount (Rs.)**	**Consultancy users, Amount (Rs.)**	3000 /hr
	Scanning of Part (STL file)	1200 /hr	1500 /hr	2000 /hr	
	Scanning + 3d inspection report	Scanning time/hr (1200) + 3D inspection (1200)	Scanning time/hr (1500) + 3D inspection (1500)	Scanning time/hr (2000) + 3D inspection (2000)	Scanning time/hr (3000) + 3D inspection (3000)
	Scanning+ 2d Inspection	Scanning time/hr (1200) + 50/dimension	Scanning time/hr (1500) + 70/dimension	Scanning time/hr (2000) + 80/dimension	Scanning time/hr (3000) + 90/dimension
	Scanning + Modelling (RE)	Scanning time/hr (1200) + Modelling time/hr (700)	Scanning time/hr (1500) + Modelling time/hr (700)	Scanning time/hr (2000) + Modelling time/hr (700)	Scanning time/hr (3000) + Modelling time/hr (700)
2	**VMC Machining**	600.00 (Per hr.)	720.00 (Per hr.)	960.00 (Per hr.)	1200 (Per hr.)
3	**TIG MIG Welding**	300 (Per hr.)+ Consumable	400 (Per hr.)+ Consumable	600 (Per hr.)+ Consumable	750 (Per hr.)+ Consumable
4	**3D Printing**	10 /gm. (Material ABS, PLA)	15 /gm. (Material ABS, PLA)	20 /gm. (Material ABS, PLA)	25 /gm. (Material ABS, PLA)
5	**Abrasive waterjet cutting**	1000/ hr.	1200/ hr.	1500/ hr.	2000/ hr.

For more details visit our website
Website: https://fistiitp.com/
Twitter: https://twitter.com/FISTIITP
Linkedin: https://www.linkedin.com/in/fist-iit-patna-7227b9255/
Facebook: https://www.facebook.com/FISTIITP/

Regd. Office:

FOUNDATION FOR INNOVATORS IN SCIENCE AND TECHNOLOGY

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