

Research Facilities

Material Properties, Characterization and Manufacturing Research Facilities

SI. No.	Name of the Instrument, Model & Manufacture
1.	CNC Machine
2.	Universal Testing Machine
3.	Micro Hardness Tester and Wear Testing Machine
4.	Hydraulic Press
5.	3D Printed Technology
6.	Computational Fluid Dynamics Research Facilities
7.	Electronic Balance
8.	pH Meter
9.	Muffle Furnace
10.	Constant Temperature Bath
11.	Distilled Water Plant
12.	Hot Plates
13.	Magnetic Stirrers
14.	Electrochemical Analyzer CHI 604 D
15.	UV-Visible Spectrophotometer Systronics
16.	FT IR Affinity-1 Shimadzu
17.	Gel Documentation System Genei Merck
18.	Rotovap Superfit
19.	Incubator Technico
20.	Deep Freezer Blue Star

Process Control, Payload and Simulation Research Facilities

SI. No.	Name of the Instrument, Model & Manufacture
1.	Distributed Control System (DCS) and Programmable Logic Controllers (PLC) & SCADA
2.	Electronics and Communication and Payload Lab
3.	Lab is Equipped with the Following Software and Tools for Research <ul style="list-style-type: none">• MATLAB• WEKA• NS2• Cloudsim

Nano Characterization Instruments

SI. No.	Name of the Instrument, Model & Manufacture
1.	Atomic Force Microscope, XE-70, Park System, Korea
2.	Electro Chemical Work Station, CHI Instruments 604 D, USA
3.	Particle Size Analyser, CPS Instruments DC 12000, USA
4.	FTIR, Bruker, Alpha T, Germany
5.	TG/DTA, SIINT 6300, Japan
6.	Ball Mill, PM 100, Germany
7.	Elga Ultra-Pure Water, Pure lab Q7, UK
8.	UV-Vis Spectrophotometer, Systronics, 2202, India
9.	Surface Area Analyzer, Smart Instruments SS-9, India
10.	BH Curve Tracer, BHCT-CRO, India
11.	UPS for AFM, MU 300, Matrix India

Nano Synthesis Instruments

SI. No.	Name of the Instrument, Model & Manufacture
1.	Digital Electronic Balance, D432813364, Japan.
2.	Electric Water Bath Double Walled, NLWB 6, New Lab Equipment, India.
3.	Hot Air Oven, Type: AVSO4A, Eltek Equipment Private Ltd, Mumbai.
4.	Heating Mantel, 2486, Guna Enterprises, India.
5.	Mechanical Stirrer Remi Make, FOL 1756, Rajendra Electrical Instruments Limited, India.
6.	Magnetic Stirrer, Rajendra Electrical Industry Limited, India. (2Nos)
7.	Vacuum Pump, Ambika Enterprises, India.
8.	UV Lamp with Fitting Long Ware, United Scientific
9.	Double Distilled Water Plant, United Scientific
10.	Hair Drier, Salon Compact 1000w, Philips.
11.	Vacuum Oven, Technico.
12.	Muffle Furnace, United Scientific
13.	Spin Coater, Spectrospin Instrument Inc. India.
14.	Magnetic Stirrer, Remi Electro technic Limited, Vasai-India.
15.	Centrifuge Model (R-8C), Remi, Electro Technic Limited, India.
16.	Ultrasonic Cleaner, United Scientific
17.	Gun For Liq Spray, Type 59, pilot spray gun, Manic Machinery Manufactures Private Limited, Mumbai.
18.	Air Compressor, Indian Make Gajendra.
19.	Ultrasonic Probe Sonicator, PS-3182

Nano Applications & Research Instruments

SI. No.	Name of the Instrument, Model & Manufacture
1.	Autoclave, Sujha Surgical
2.	Laminar Flow Combiner, B8C Industries, India.
3.	Peristaltic Pump, Mumbai, India.
4.	Heating Mantel, Rotex Instruments, B&C Industries, India.(2Nos)
5.	Incubator, Rotek, India.
6.	Magnetic Stirrer, Guna Enterprises, India
7.	Hot Plat Ceramic Top, Tarson.
8.	pH meter, Pen Type, Sujha Surgical
9.	Orbital Shaking Incubator, LAB Line Industries, Cochin India.

Advanced Nano Material Research Instruments

Sl. No.	Available Major/Minor Equipment's/Apparatus
1.	Fluorescence Spectrophotometer (SL174, ELICO)
2.	NIR Spectrophotometer (SL153, ELICO)
3.	Planetary High Energy Ball Mill
4.	High-Temperature Tubular Furnace (1600°C)
5.	Groove Rolled Box Furnace (1000°C)
6.	Muffle Furnace (900°C)
7.	Glove Box
8.	Electronic Balance (Shimadzu, Japan)
9.	Electronic Balance (Anamed, India)
10.	Hot Air Oven
11.	Hydraulic Press
12.	Air Compressor
13.	Vacuum Pump
14.	Heating Mantles
15.	Ultra Sonicator
16.	Mechanical Stirrers
17.	Water Bath
18.	Laboratory Centrifuge REMI - 8C (5400 rpm)
19.	Bench Top Centrifuge Model R- 24 REMI (17300 rpm)
20.	Autoclaves (for Hydrothermal Synthesis)
21.	Water Distillation Plant
22.	pH Meter
23.	Microwave Oven
24.	IR Lamp
25.	UV Lamp
26.	Oxygen Cylinder with Regulator
27.	Nitrogen Cylinder with Regulator
28.	Argon Cylinder with Regulator