

## Available infrastructural facilities

### Department of Civil Engineering



Structures & Dynamics Laboratory-Shake Table & Vibration of Beams (TEQIP-III)



Concrete Laboratory- Jaw Crusher (SRIC)



Concrete Laboratory-Segregator (SRIC)



Concrete Laboratory-Creep Testing Equipment (Plan Grants)



Structures Laboratory- 100 Ton UTM (TEQIP-III)



Structures & Dynamics Laboratory- Drop Weight Impact Tester (IMPRINT-2)



Concrete Mixer (DST)

## Metallurgy and Materials Lab

- Glove box to maintain argon atmosphere.
- Upright Metallurgical Microscope (Quasmo make & QX4RT model) in Physical metallurgy lab to investigate the microstructure of materials.
- Chipset (SEM computer part) of Tescan brand.



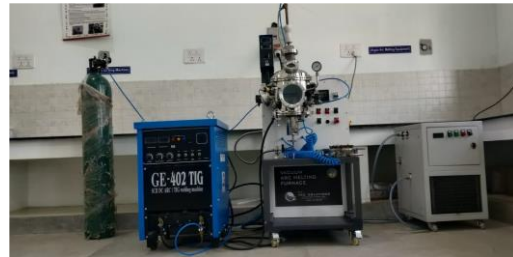
Established 'welding Lab' with the instruments of Shielded metal arc welding (SMAW), Gas metal arc welding (GMAW), Gas Tungsten arc welding (GMAW), Abrasive cutting machine, Sub merged arc welding (SAW) and Vareststraint testing equipment.



Gas metal arc welding (GMAW)



Gas Tungsten arc welding (GMAW)



Argon arc melting equipment



Abrasive cutting machine



Vareststraint testing equipment



Sub merged arc welding (SAW)

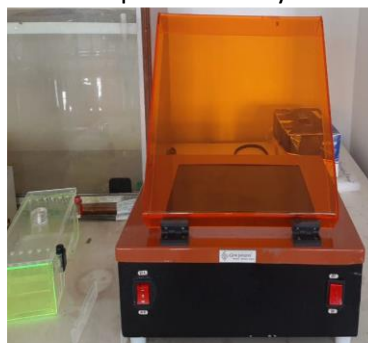
## Department of Chemical Engineering

### **New Lab Equipments/software/Workstations Installed**

1. Purchased & Installed High Pressure Hydrothermal Autoclave Reactor.
  2. Purchased & Installed Photochemical Reactor
  3. Purchased & Installed Fast Pyrolysis reactor
  4. Purchased & Installed Emulsion Polymerization Reactor
  5. Purchased & Installed 3D Printer with Curing and Washing Accessories
  6. Purchased & Installed Bench Ultraviolet Light Accelerated Weathering Tester
  7. Purchased & Installed Refrigerated centrifuge
  8. Purchased & Installed Optical Microscope
  9. Purchased Doctor blade
  10. Purchased & Installed Coin cell crymper
  11. Purchased & Installed Servers (Tyrone 2 x Intel DDR4 SDRAM with EC 64GB).
  12. Purchased & Installed Pervaporation Membrane System.
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## Department of Biotechnology

1. Purchased & Installed UV Transilluminator for genetic engineering laboratory.
2. Purchased & Installed Ice flaking machine in biochemistry laboratory.
3. Schrodinger software purchased and installed for the Bioinformatics laboratory.
4. Purchased & Installed water purification system in genetic engineering laboratory.



## Department of Physics

1. Linear Four Probe equipment to measure resistance of large area samples



3. Refrigerated centrifuge; 21000 rpm, REMI Instruments.
4. Ultrasonicator, M/s: Athena Technology - 29500/- Plan-General Equipment (P845)" –Department of physics 2021-2022.
5. Spin coater, M/s: Apex instruments company private limited (MSE) -1,56,188 "Plan-General Equipment (P845)" –Department of physics 2021-22.
6. UV-VISIBLE SPECTROMETER, Metler Toledo-UV5, Rs. 7,50,000/-"Plan-General Equipment (P845)" –Department of physics 2021-22.



7. Zeta potential and particle size analyser, Model Name: Litesizer 500, Rs.28,00,000.00, "Plan-General Equipment (P845)".



8. CO2 Incubator, Rs. 500000/- from DBT Project – 2021
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## Department of Chemistry

1. Purchased & Installed Liquid Nitrogen Plant
  2. Purchased & Installed Oil-free scroll compressor for 400 MHz NMR instrument.
  3. Dr. Raghu Chitta. Electrochemical workstation (CH Instruments) procured under the DST SERB Grant DST/CRG/2018/002661
  4. Dr. B. Srinivas. Procured Solid-state probe for 400 MHz NMR Instrument under TEQIP-III Grants.
  5. Dr. Ravinder Pawar. 3 Node Cluster procured under DST SERB Grant ECR/2018/002346.
  6. Dr. Ravinder Pawar. VASP software procured under DST SERB Grant ECR/2018/002346.
  7. Dr. Ravinder Pawar. 4 computing Nodes Cluster procured under DST SERB Grant EEQ/2019/000656.
  8. Dr. Ravinder Pawar. AMS-SCM software procured under DST SERB Grant EEQ/2019/000656.
  9. Dr. Mukul Pradhan. Electrochemical workstation (CH Instruments) procured under the DST INSPIRE Faculty Grant DST/INSPIRE Faculty Award /2016/DST/INSPIRE/04/2015/003227.
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## Department of Mathematics



Computational Lab



HP Z800 workstation Dual Quad core



PowerEdge 750xs Rack Server

**Software:** Tecplot 360, Matlab

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# CENTRAL RESEARCH INSTRUMENTATION FACILITY



**Liquid Chromatography-Photofluorescence Mass Spectrometry**  
 Make: Agilent Technologies  
 Model: G7107A

**Laser Doppler Velocimeter**  
 Make: OLS OPTONICS, Inc., Japan  
 Model: LS-FA100

**DMS Spectrometer**  
 Make: Bruker  
 Model: Aurora 11100 400 MHz

**Inductively Coupled Plasma Optical Emission Spectrometer**  
 Make: Agilent Technologies  
 Model: 790 series

**Laser Doppler Velocimeter**  
 Make: Agilent Technologies  
 Model: Carry 5000

**Dynamic Mechanical Analyzer**  
 Make: TA INSTRUMENTS INCORPORATED, USA  
 Model: FL 3000



**Two Port Vector Network Analyzer (VNA)**  
 Make: Anritsu  
 Model: MS46122B



**Anechoic chamber**  
 Make: Entuple Technologies.  
 Size of Chamber: 3 x 3 x 2.4 m (LWH)



**CHNS Analyser**  
 Make: Elementar, Germany  
 Model: UNICUBE+



**PCB Prototype Machine**  
 Make: Enthuftech  
 Model: ETS-PCBMATE-1500W



**Universal Testing Machine (UTM)**  
 Make: JINAN TESTING EQUIPMENT I.E CORPORATION, China  
 Model: WDW-100S



**TGDTA**  
 Make: Netzsch  
 Model: Regulars STA 2500

2 new