

DEPARTMENT OF CHEMICAL ENGINEERING
DEPARTMENT FOOD ENGINEERING AND TECHNOLOGY
DEPARTMENT OF CHEMISTRY



CENTRE OF EXCELLENCE IN BIOPROCESSES AND BIOENERGY

SANT LONGOWAL INSTITUTE OF ENGINEERING
AND TECHNOLOGY



- Sustainable Resource Utilization through Scientific and Technological Innovation aims to bring holistic and sustainable development using scientific intervention. The Centre provides a vibrant platform for innovative technology development for making the overall process economically viable along with training, dissemination for sustainable living and generation of employment opportunities.
- The major focus of the centre is to develop innovative solutions/technologies/processes for cleaning water/air, promoting water use efficiency across sectors and conserving ecosystem and creating initiatives for innovative technologies and Bioenergy production models that give millions of underserved people in India access to clean energy, and promote energy efficiency in various sectors, particularly in industry, public utilities and buildings with an aim to demonstrate change by improving the quality of life of rural communities through clean cooking, lighting and livelihood solutions and will contribute to India's policies towards low-carbon growth.

OVERVIEW

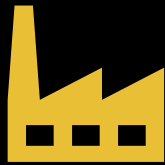




AIMS AND OBJECTIVES



Development of technologies for production of value-added bio-commodities through a biorefinery approach.



End to end process development for biofuel production



Design & development of separations of bio-based, natural, synthetic & semi synthetic products,



Process monitoring through process optimization and product characterization.



CHEMICAL EQUIPMENT'S AND OTHER BASIC FACILITIES AVAILABLE

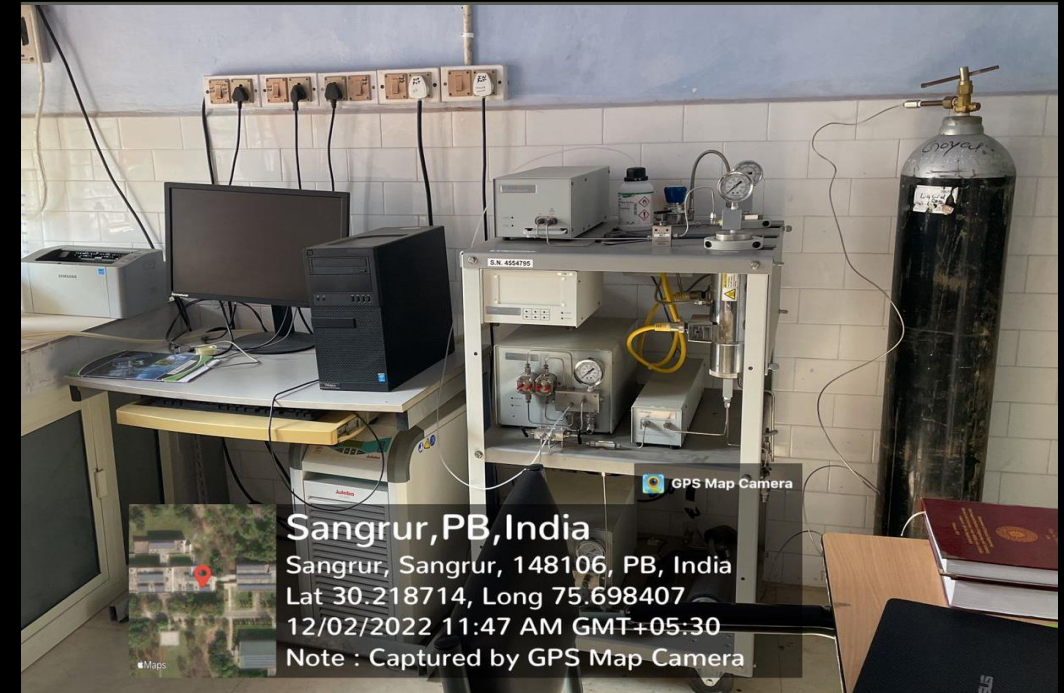
- Carbon dioxide Capture and Sequestration Unit
- Supercritical Fluid Extraction
- Freeze Drier
- High Pressure Liquid Chromatography (HPLC)
- Fermenter
- Microscope
- Probe Sonicator
- Gas Chromatography & Mass Spectrometry (GC MS)
- Shaking Incubator
- Autoclaves
- Deep Freezer
- Water Purification System
- PCR
- Orbital Shaker
- Incubator(s)
- UV-vis Spectrophotometer
- Elemental Analyser
- BET Surface Area Analyzer





LABORATORY EQUIPMENT'S

Supercritical Fluid Extraction (SFE) Unit



Carbon dioxide Capture and Sequestration Unit



LABORATORY EQUIPMENT'S

HPLC and Centrifuge



Sangrur, PB, India
Sangrur, Sangrur, 148106, PB, India
Lat 30.218666, Long 75.697610
12/02/2022 12:08 PM GMT+05:30
Note : Captured by GPS Map Camera



Sangrur, PB, India
Sangrur, Sangrur, 148106, PB, India
Lat 30.218720, Long 75.697572
12/02/2022 12:10 PM GMT+05:30
Note : Captured by GPS Map Camera

Incubator and Freeze Drier



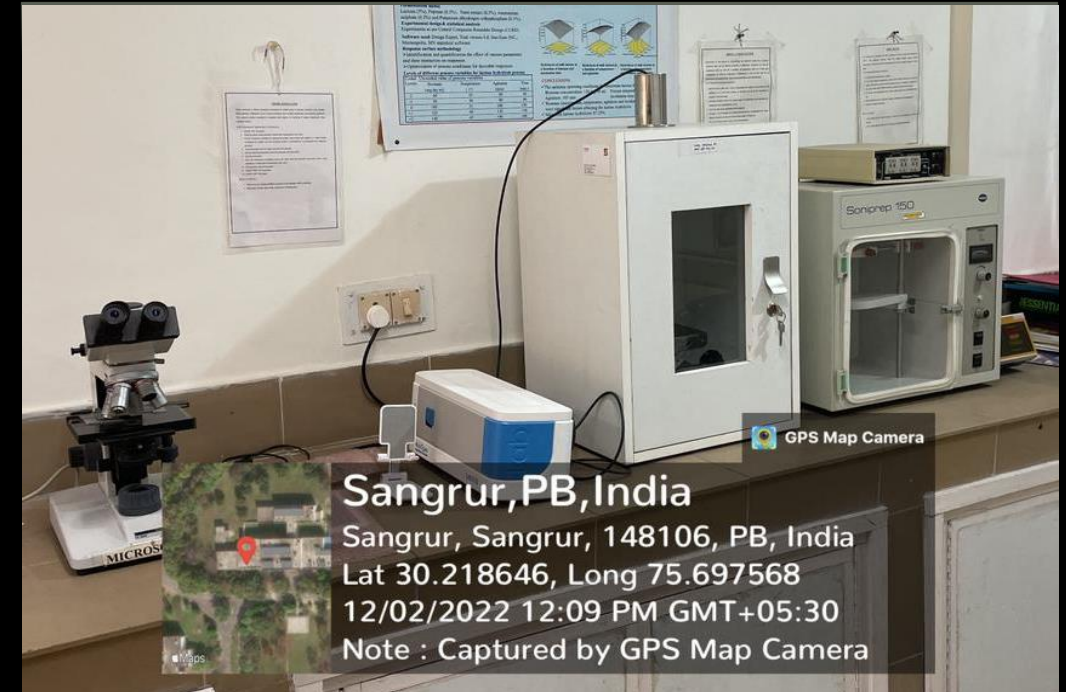
LABORATORY EQUIPMENT'S

Microscope and Ultrasonic Probe Sonicator



Sangrur, PB, India
Sangrur, Sangrur, 148106, PB, India
Lat 30.218759, Long 75.697571
12/02/2022 12:10 PM GMT+05:30
Note : Captured by GPS Map Camera

Fermenter

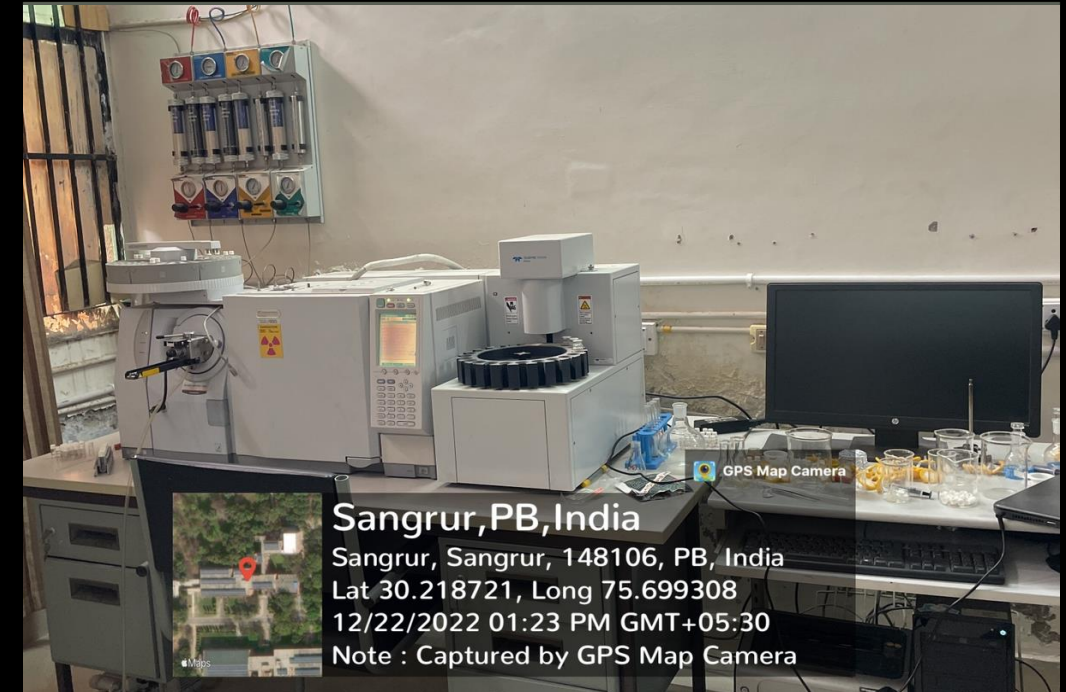


Sangrur, PB, India
Sangrur, Sangrur, 148106, PB, India
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Note : Captured by GPS Map Camera



LABORATORY EQUIPMENT'S

Gas Chromatography & Mass Spectroscopy



Gas Chromatography



LABORATORY EQUIPMENT'S

Deep Freezer & Water Purification System



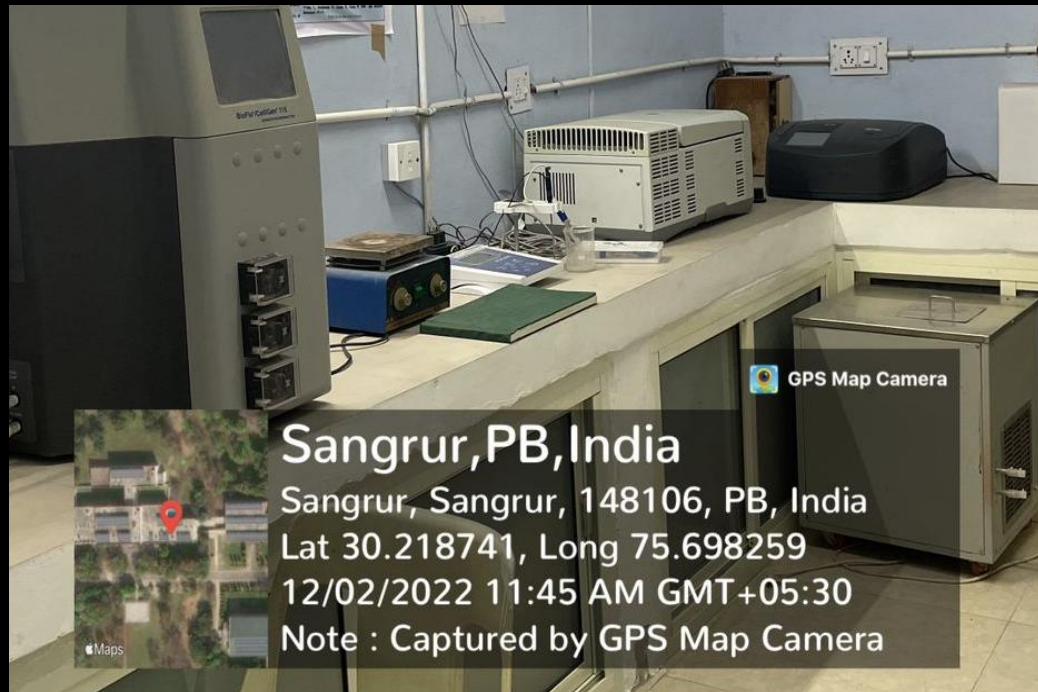
Autoclave



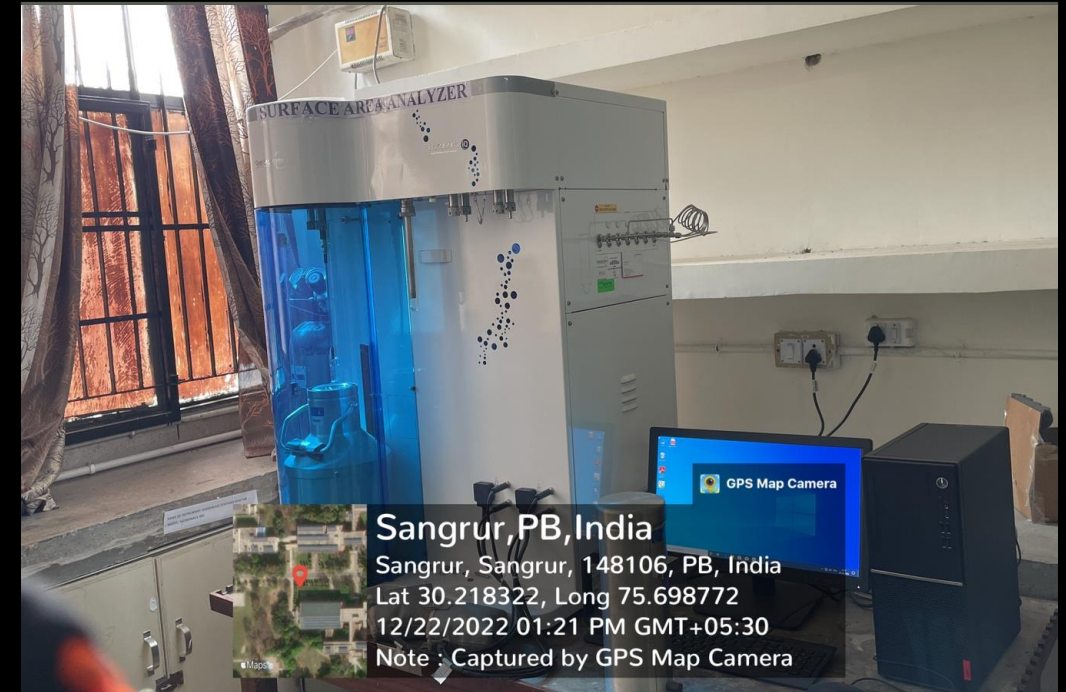


LABORATORY EQUIPMENT'S

BET Surface Analyser



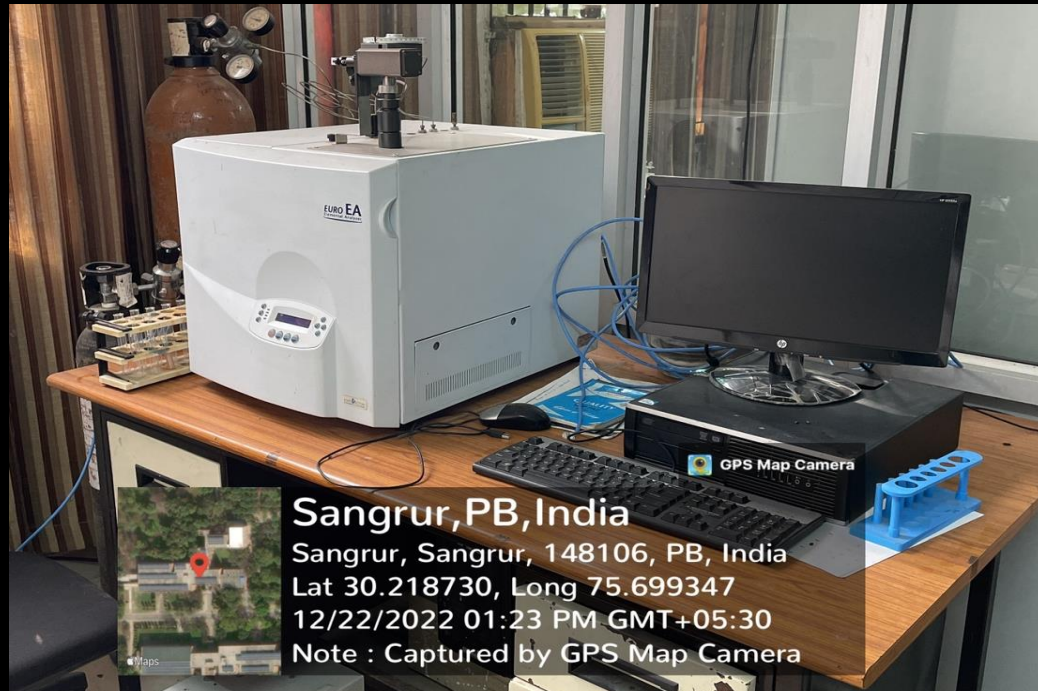
Spectrophotometer





LABORATORY EQUIPMENT'S

Equilibrium Cell



Sangrur, PB, India

Sangrur, Sangrur, 148106, PB, India

Lat 30.218730, Long 75.699347

12/22/2022 01:23 PM GMT+05:30

Note : Captured by GPS Map Camera

Elemental Analyser



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ENGINEERING AND TECHNOLOGY
DEEMED TO BE UNIVERSITY

WHAT SLIET OFFERS...





THANK YOU!

SLIET.... A Modern Gurukul of Tech Education