About STUTI:

The Scheme 'Synergistic Training program Utilizing the Scientific and Technological Infrastructure' (STUTI) is intended to build human resource and its knowledge capacity through open access S&T Infrastructure across the country. As a complement to the various schemes of DST funding for expansion of R&D Infrastructure at academic institutions, STUTI scheme envisions a hands-on training program and sensitization of the state-of-the-art equipment as well as towards sharing while ensuring transparent access of S&T facilities.

Instruments covered for training:

RAMAN Spectrophotometer HPLC-PDA HRSTEM Particle Size Analyzer

E-Beam deposit system GC-FID PCR Animal Research Facilities

FESEM AFM TG-DSC/DTA Cell Culture Facilities

FTIR XRD ICP-MS Spectro-fluorometer

E-Beam depot system

Make: FRANCE

Model: MEB 600, Plassys

Applications: Optical thin film

applications as laser optics and solar panels

to eyeglasses and architectural glass





HRSTEM

Make: Thermofisher Scientific, USA

Model: TALOS F200S G2

Applications: To image atomic structure

of molecules

FESEM

Make: GERMANY

Model: ZEISS SIGMA 300

Applications: Surface morphology, advanced coating thickness and structure uniformity

determination





AFM

Make: Ireland

Model: NTEGRA PRIMA-NTMDT Applications: Used for imaging of almost any type of surface, including polymers, ceramics, composites, glass

and biological materials

Confocal RAMAN Spectrophotometer

Make: Renishaw

Model: Renishaw

Applications: To study the vibrational, rotational, and low-frequency modes of

the molecules.





FTIR

Make: Japan

Model: JASCO, FTIR 6600

Applications: To quickly and definitively identify compounds such as compounded plastics, blends, fillers, paints, rubbers, coatings, resins, and

adhesives

XRD

Make: Thermofisher Scientific,

USA

Model: ARL EQUINOX 3000

Applications: Identification of unknown crystalline materials (e.g. minerals, inorganic

compounds)





High Performance Liquid Chromatography-PDA

Make: Waters, USA Model: 2545 HPLC-PDA

Applications: pharmaceutical, bioanalytical, food and beverage, clinical, forensic, environmental and drug development.

Thermal Cycler

Make: Agilent Technologies

Model: SureCycler 8800

Applications: Amplification of target gene using PCR for various downstream applications such as genotyping, cloning, mutation detection, sequencing,

microarrays, forensics, etc.





Inductively coupled plasma mass spectrometry (ICP-MS)

Make: Agilent Technologies, USA

Model: 7700

Applications: Inductively coupled plasma mass spectrometry (ICP-MS) is an analytical technique that can be used to measure elements at trace levels

in biological fluids

Particle Size Analyzer

Make: Nanopartica
Model: SZ 100V2

Applications: Particle analyzers are used to determine the size and distribution of particles making up a material. Particle size analyzers are used in numerous fields for research and development, manufacturing and for quality control and product testing.

