

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:

UV-VISIBLE SPECTROPHOTOMETER

Multiskan FC Micro Plate Photometer

MICROWAVE SYNTHESIZER

TABLET DISPENSER (DISSOLUTION APPARATUS)

LMDV VISCOMETER

Biopac (Data Acquisition System)

HPLC

MINI TABLET PRESS

REFRIGERATED CENTRIFUGE

HOMOGENISER

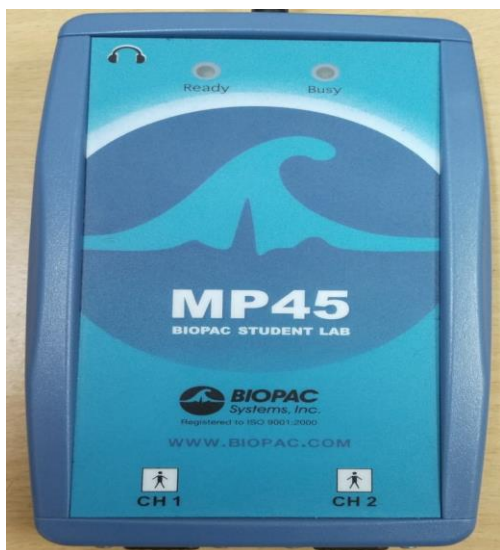
Equipment Name: UV-VISIBLE SPECTROPHOTOMETER

Make: Shimadzu

Model: UV-1800

Application: It is used for the determination of impurities in organic molecules.

It is useful in the structure elucidation of organic molecules, the presence or absence of unsaturation, the presence of hetero atoms



Equipment Name: Biopac (Data Acquisition System)

Make: BIOPAC Systems, Inc.

Model: MP45

Application: Used to measure physiology anywhere, anytime. Used to record and analyze ECG, EEG and EMG data. Used for animal analysis like Gastric wave analysis, pressure volume loop analysis, Blood pressure, sleep analysis. Also used to check the potency of a drug by using Bioassays (invitro)

Equipment Name: HPLC

Make: Agilent Technologies

Model: 1200 Infinity series

Application: HPLC is commonly used for the separation and analysis of non-volatile compounds.

It is used in tablet dissolution study of the pharmaceutical dosage form.



Equipment Name: Multiskan FC Micro Plate Photometer (FIST)

Make: Thermo Scientific

Model: FSP 120-AAAN3

Application: Used to Perform a Quantitative ELISA Assay to Detect Human TNF- α , Detection of Bacterial Endotoxins, Immunochemical determination of 17 β -estradiol from bovine urine samples, An Easy Determination of the Antioxidant Power of Beverage Samples

Equipment Name: MICROWAVE SYNTHESIZER

Make: CATALYST SYSTEMS

Model: CATA-2 R

Application: Microwave assisted organic synthesis exploits dielectric volumetric heating as an alternative heat source, which results in faster and more selective reactions due to uniform heat distribution and for the synthesis of organic compounds with in low time and high yield.





Equipment Name: MINI TABLET PRESS

Make: Riddhi

Model: CT-5000

Application: The tablet press system is very valuable in the pharmaceutical industry.

It is mainly used for manufacturing a wide range of tablets in a uniform format from various materials such as powder moulded and many others.

The finely ground powder is filled in between the cavities created by the punches and dies during the tablet formation process, and then the fists are pushed together with great force.

Equipment Name: TABLET DISPENSER (DISSOLUTION APPARATUS)

Make: LABINDIA

Model: DS8000

Application: Dissolution testing evaluated critical parameter such as

- 1) Predict adequate bioavailability
- 2) Help to avoid batch to batch variation
- 3) QC and IPQC test.
- 4) Selection of best formulation & comparison of excipient effect on dosage form
- 5) In vivo - in vitro co-relation



Equipment Name: REFRIGERATED CENTRIFUGE

Make: THERMOFISHER SCIENTIFIC

Model: SORVALL ST8R

Application: Refrigerated centrifuges are used to separate samples of different densities while under a consistent range of temperature. As such, it is essential that this kind of laboratory centrifuge run at maximum speeds while still maintaining a consistent level of temperature. Most refrigerated centrifuges maintain and control temperatures ranging anywhere between -20 and -40 degrees Celsius.



Equipment Name: LMDV VISCOMETER

Make: LABMAN

Model: LMDV-200

Application:

1. Labman LMDV series is Rotational Digital Direct Reading Viscometer to measure absolute viscosity of Newton Liquids as well apparent viscosity of non-Newton liquid featured by high flexibility reliable Test result, easy operation and good appearance



Equipment Name: HOMOGENISER

Make: BIO-GEN SERIES

Model: PRO200

Application:

1. Scaling for drug development
2. Synthesis of essential drug components
3. Increase in stability of emulsions in order to avoid creaming and coalescence
4. Employed in daily beverages ,pharmaceutical and cosmetic industry