# **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:**

- 1. WD-XRF
- 2. HR-ICP-MS
- 3. Ion Chromatography
- 4. IR-MS
- 5. SEM-EDS
- 6. LA system
- 7. LSS
- 8. DI-IRMS
- 9. OSL

# Equipment Name: WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE SPECTROMETER Make: Malvern Panalytical Model: Axios mAX Application: For the determination of major oxides in geological samples. Useful in the mineral exploration and crustal evolution studies.





# Equipment Name: HIGH RESOLUTION INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER <u>Make:</u> Nu Instruments <u>Model:</u> ATTOM

**Application:** For the determination of trace elements including REE and PGE in geological and environmental samples. It is useful in the mineral exploration, crustal evolution and environmental studies.

# Equipment Name: SCANNING ELECTRON MICROSCOPE-ENERGY DISPERSIVE SPECTROMETER <u>Make:</u> HITACHI, Japan <u>Model:</u> S-3400 N

**Application:** Widely used for the imaging and characterization in material science, geological and environmental sciences. It is used for studying the sample surface topography, chemical composition etc.

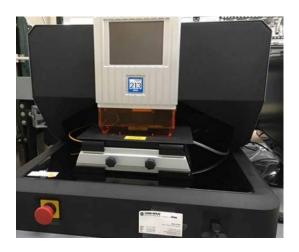




Equipment Name: ION-CHROMATOGRAPHY <u>Make:</u> Metrohm <u>Model:</u> 882 Compact IC Plus <u>Application:</u> It is used for the determination of anion and few cations in water samples. It is useful in the environmental sciences.

### Equipment Name: LASER ABLATION SYSTEM (coupled with HR-ICP-MS) <u>Make:</u> ESI <u>Model:</u> NWR 193

**<u>Application:</u>** Used for the in-situ determination of trace elements and isotope ratios in minerals. It is useful in the earth sciences and materials science.





Equipment Name: DUEL-INLET ISOTOPE RATIO MASS SPECTROMETER Make: GB instruments Model: Isoprime JB-202 Application: It is used for analyzing stable isotopes in

**Apprication:** It is used for analyzing stable isotopes in natural water samples. It has several applications in the hydrological and environmental sciences.

### Equipment Name: LIQUID SCINTILLATION SPECTROMETER <u>Make:</u> Wallac Model: Wallac Quantulus, 1220 Ultra-low

<u>Model:</u> Wallac Quantulus, 1220 Ultra-low level

**Application:** It is used to detect ionizing radiation emitted by radioisotopes, with a specific focus on detecting alpha or beta particles; this allows for the measurement of the radioactivity of the sample for applications such as radiocarbon dating.





### Equipment Name: RISØ TL/OSL READER Make: Risø National Laboratory Roskilde Denmark Model: TL-DA-15 Application: It is used for OSL dating of

Application: It is used for OSL dating of sediment grains to determine the age of Quaternary sedimentary deposits. It has applications in Radiation monitoring, archaeology and Quaternary Geology including paleo-seismic studies.