



Innovation Centre Bundelkhand University, Jhansi



Innovation Centre, Bundelkhand University, Jhansi provides analytical facilities in the area of biological, physical and chemical sciences. The centre has established Central Instrumentation Facility (CIF) to promote R&D in university and its affiliated colleges and to provide analytical facilities to researchers and industries throughout India. Sophisticated analytical instruments are vital for pursuing research and performing quality R&D. X Ray Diffractometer, Gas Chromatograph Mass Spectrometer, Ultra Centrifuge, Digital Imaging System, Multi Mode Microplate Reader, Real Time PCR, PQMS, Two Dimensional Gel Electrophoresis etc. These instruments are expensive and cannot be provided through individual project mechanism. Moreover, these instruments are of inter/multidisciplinary utility and thus it is desirable to use them on sharing basis for their optimum utilization.

**Minimum Analysis Charges; Rs. 150/sample*.
to be made through DD/Cheque in favor of
Finance Officer, Bundelkhand University, Jhansi**

About the Innovation Centre

Objectives:

- To inculcate and nurture the innovative ideas of students and faculty members of the university.
- Provide facilities of sophisticated analytical instruments to scientists and other users from academic institutes, R&D laboratories and industries
- Development of new measurement/analytical techniques.
- Train technicians for maintenance and operation of sophisticated instruments.
- Organize short term courses/workshops on the use and application of various instruments and analytical techniques.

Major Equipments Facility:



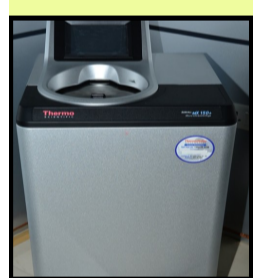
X Ray Diffractometer: The equipment is used for X ray studies of small molecules especially power samples. Excellent facility of analysis of rock samples as well as nanoparticle studies. Make-Shimadzu

Application Area: Earth Sciences, Physical Sciences, Chemical Sciences, Biological Sciences.



Digital Imaging System: The equipment is used for genomics and proteomics provides great opportunity for analysis of nucleic acid and protein gels. The equipment is ideal for both qualitative and quantitative analysis. Make-Bio-Rad

Application Area: Pharmaceutical, Biological, Agricultural and Forensic Sciences, Food Tech.



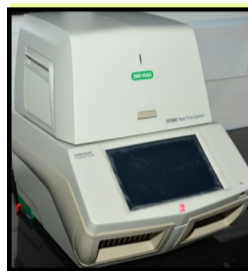
Ultra Centrifuge: The equipment provides spinning facility at approximately 10 lacs RCF value for separation of molecules. Make-Thermo Scientific

Application Area: Chemical Sciences, Pharmaceutical Sciences, Biological Sciences, Food Technology, Agricultural Sciences, Forensic Sciences



2D Gel Electrophoresis: Used in Qualitative and quantitative analysis of proteins from cells and tissues. Make-Bio-Rad

Application Area: Pharmaceutical Sciences, Biological Sciences, Forensic Sciences.



Real Time PCR: The equipment is required for real time analysis of the gene expression profiles in cell based and in vivo system. Make-Bio-Rad
Application Area: Pharmaceutical, Biological, Agricultural and Forensic Sciences and Food Technology.



Gas Chromatograph Mass Spectrometer (GC-MS): Required for characterization of chemical molecules of synthetic and natural origin. Make-PerkinElmer

Application Area: Pharmaceutical, Biological, Agricultural and Forensic Sciences.



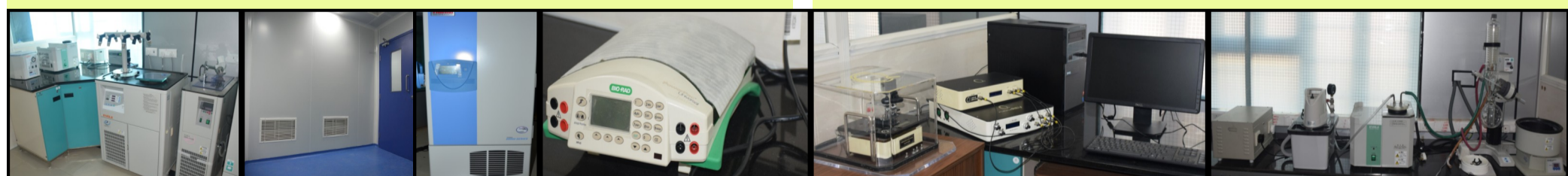
Inverted Microscope with Phase Contrast and fluorescence attachment: Used in animal cell culture studies. Make-Nikon

Application Area: Pharmaceutical Sciences, Biological, Agricultural and Forensic Sciences and Food Technology

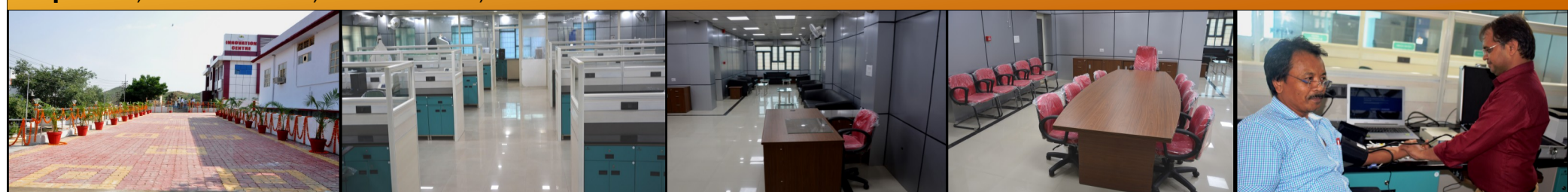


Particles Quantity Measurement System: Provides great opportunity for material and physical sciences researchers. Make-Indigenous

Application Area: Physical Sciences, Material Sciences and Food Tech.



Moreover other equipments facility viz. Lyophilizer, Scanning Tunneling Microscope (STM), Ultrasonicator, Multimode Plate Reader (capable to read absorbance, fluorescence and luminescence of the sample), Biomedical Data Acquisition System (capable to acquire EEG, ECG, EMG, BP, Pulse Rate etc.), Atomic Absorption Spectrophotometer (AAS), Freeze Dryer, Vacuum Hood, Animal Cell Culture Facility, Deep Freezer (-80), GM Counter, Gamma Scintillation Counter, Clean Room for the synthesis of Nano particles, Rota evaporator, Microbalance, Ice Machines, Distillation Plant etc are also available in the centre at reasonable rates.



***For further detail pl. contact to- Prof. MM Singh- Coordinator, Dr. JP Yadav & Dr. Lavkush Dwivedi-Co-Coordinators
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