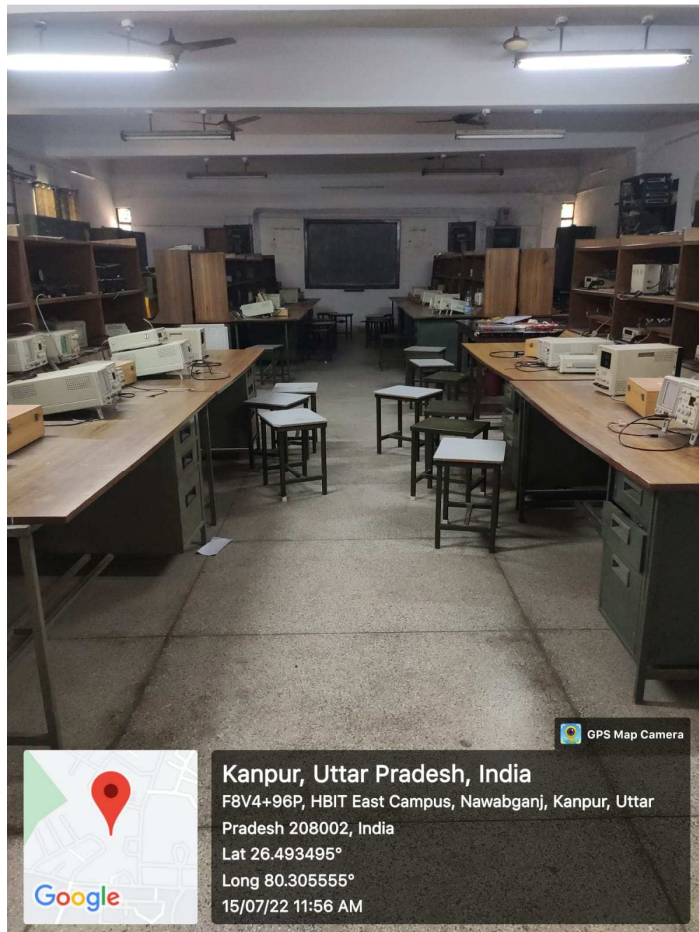


LABORATORIES

ELECTRONICS LABORATORY

This laboratory explores the design, construction, and debugging of analog electronic circuits, investigate the performance characteristics of semiconductor devices (diodes, BJTs and MOSFETs) and functional analog building blocks, including single stage amplifiers, op amps, small audio amplifier, filters. Lectures and laboratory projects of the course are devoted to the design, implementation of a project in an environment similar to that of engineering design in industry.



Related Courses: Solid State Devices and Circuits, Digital Electronics

Faculty In charge: Dr. Kumar Gaurav

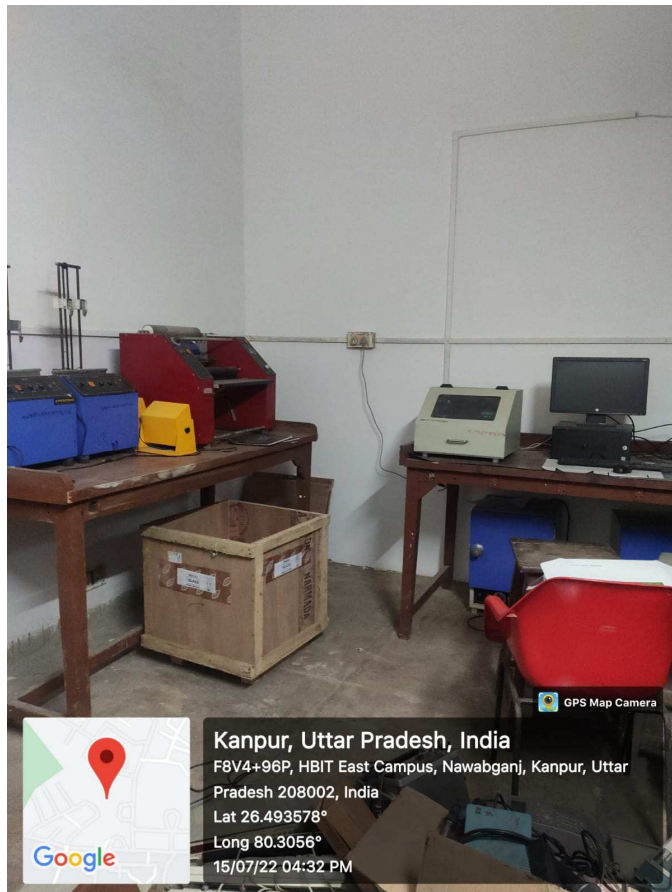
Technical Assistant: Mr. Irfan Mohammad

Location: West Wing, Ground Floor

PCB LABORATORY

This lab is fully equipped with hardware & software tools including transformer and coil winding machine. Single Sided PCB of Analog & Digital circuits can be designed in this Lab. In order to design Layout of complex circuits Express PCB software is available. A spin coater system is available to make a uniform & thin coating of chemicals on a glass epoxy sheet.

A dry film laminator facility is also available which is helpful in single sided PCB designing. Along with above facilities, all the basic facility for PCB designing is available in this Lab. The transformer winding facility is also available in this lab. This Lab is useful for faculty, staff and students for their research work / higher study & completion of project work.



Related Courses: PCB design Lab and Projects

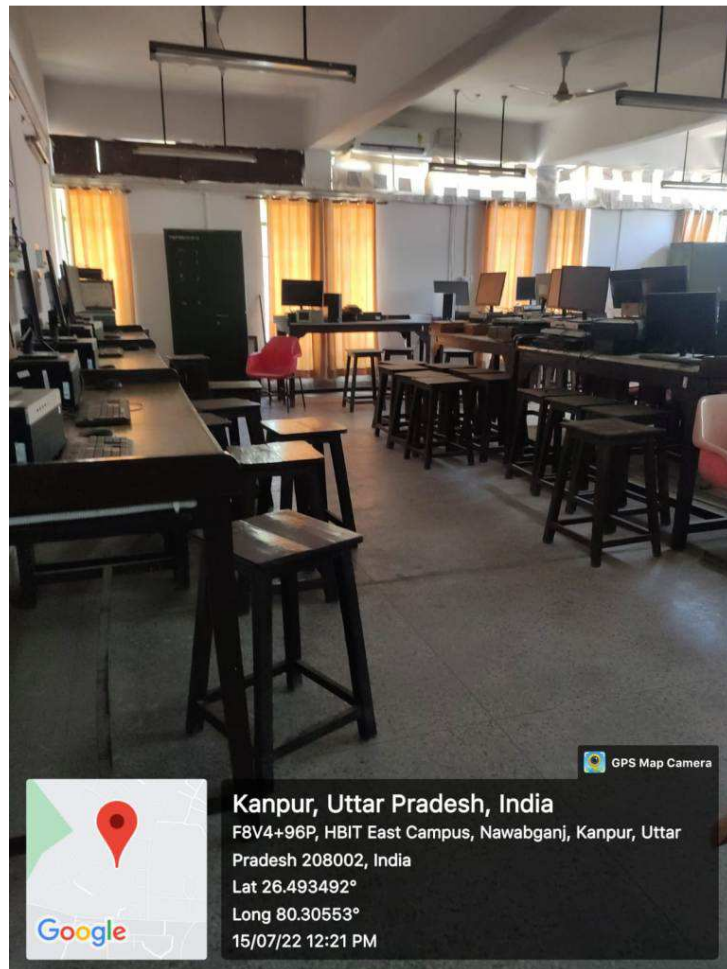
Faculty In charge: Dr. Kumar Gaurav

Technical Assistant: Mr. Irfan Mohammad

Location: West Wing, Ground Floor

MICROPROCESSORS LABORATORY

The Microprocessor Lab is utilized for understanding the internal organization of basic and advanced microprocessors. In this lab, the students are trained for attaining the objectives of mathematical operations and interfacing through Assembly Language Programs which employs instruction sets of processors. In addition to it, the students also educated regarding the interfacing of the processor with various peripheral devices. Microprocessor laboratory is equipped with several modern microprocessor kits and interfacing devices. The Faculties provide in depth knowledge of writing and executing assembly language programs to the students so that they can solve the real world problems.



Related Courses: Microprocessor, Digital Signal Processing, VLSI Design

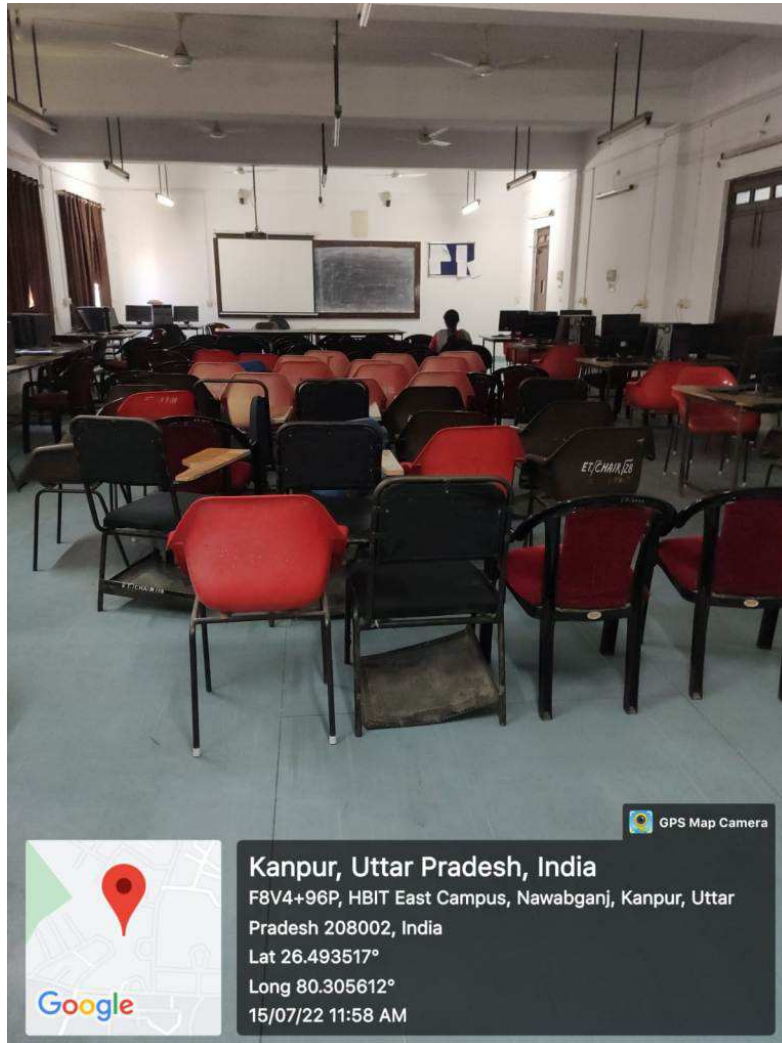
Faculty In charge: Prof. Krishna Raj

Technical Assistant: Mr. Raj Kumar

Location: West Wing, First Floor

SIMULATION LABORATORY

In this laboratory, the students are exposed with programming and simulation side of Electronics Engineering. Here, several advanced and updated software including Lab View, MATLAB, Proteus, OptiSim and others are available for helping students in better understanding of concepts of Electronics and Communication Engineering. In this lab, the real time interfacing of equipped with computer may also be made with the help of DAQ Cards. The laboratory is also equipped with several personal computers connected with LAN along with Printing facility.



Related Courses: Analog Communication, Digital Communication, VLSI Design, Optical Fiber Communication

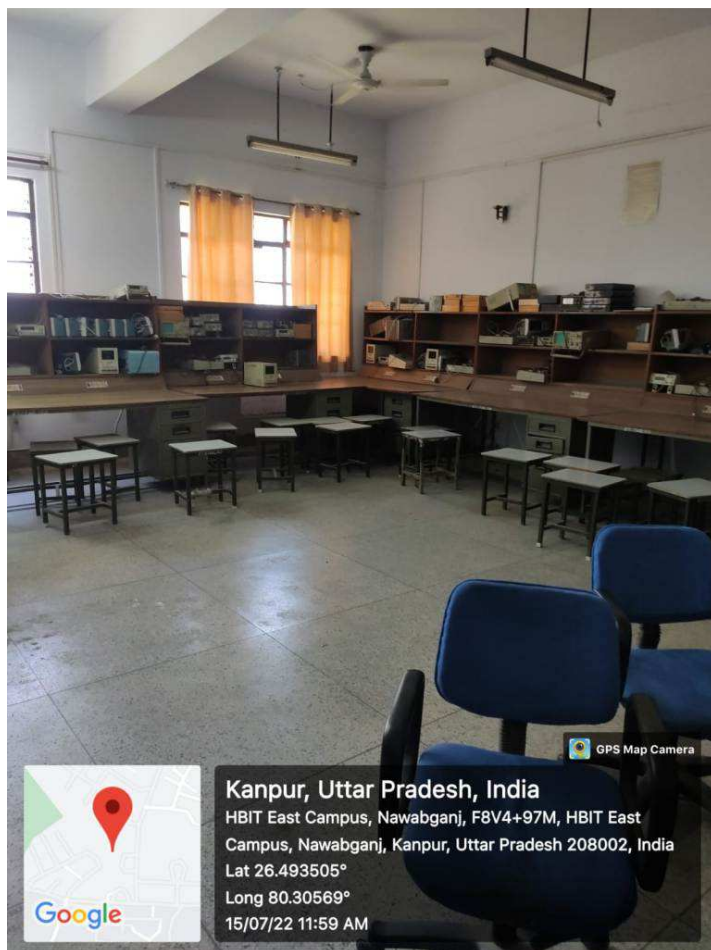
Faculty In charge: Prof. Ashutosh Singh

Technical Assistant: Mr. Raj Kumar

Location: West Wing, First Floor

COMMUNICATION LABORATORY

Without communication, no information may be processed. In this laboratory, the practical exposure of Analog and digital communication is provided to students through experiments performed on kits and components in association with state of art. The experiments performed in this lab help in enhancing the knowledge of students about various Communication techniques including AM, FM, PM, DSB-SC, SSB-SC, PAM, PPM, PWM, PCM, ASK, FSK, PSK etc. They are also provided with the exposure of modern communication techniques which includes CDMA, GSM and others. The lab is equipped with communication System Trainer Kits, Microwave & Antenna Trainer Kits, X-Band Microwave Kit, Fiber Optics Trainer Kit, CTV Trainer with Video Camera & Monitors O/E & E/O Converters, Optical Attenuator and Optical Power Meter etc.



RELATED COURSES: Analog Integrated Circuits, Analog Communication, Digital Communication, Optical Fiber Communication

Faculty In charge: Prof. A. K. Shankhwar

Technical Assistant: Mr. Raj Kumar

Location: East Wing, First Floor

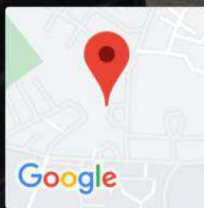
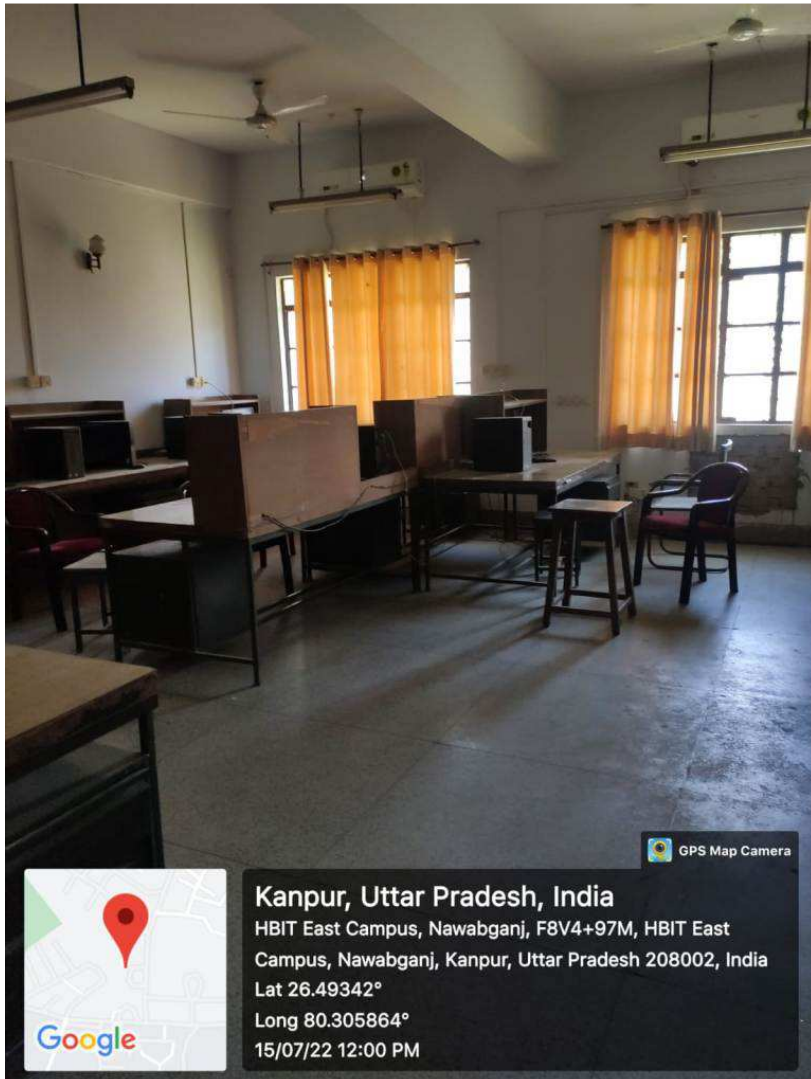
RESEARCH LABORATORY

Related Courses: Utilized by M. Tech. and Ph.D. students for their research activities

Faculty In charge: Prof. Ashutosh Singh

Technical Assistant: Mr. Raj Kumar

Location: East Wing, First Floor



Kanpur, Uttar Pradesh, India

HBIT East Campus, Nawabganj, F8V4+97M, HBIT East
Campus, Nawabganj, Kanpur, Uttar Pradesh 208002, India

Lat 26.49342°

Long 80.305864°

15/07/22 12:00 PM

All the labs are well equipped with basic equipped having Digital Storage Oscilloscopes, Power Supplies, Function Generators, Component Development Boards etc.. Apart from basic equipped, the Department is also having specialized equipped. Some of them are as follows. State of the art Oscilloscopes

- Facilities for developing PCBs
- Microwave Benches
- Optical Fiber Kits and Trainers
- Antenna Trainer
- FPGA Kits
- Vector Network Analyzer
- Work Stations with latest Configurations
- Communication Kits
- CDMA Trainer,
- Microprocessors Kits
- DSP Kits
- Instrumentation Kits

SOFTWARE

- Lab View (Virtual Instrumentation Software with DAQ Cards)
- OptiSim (Optical Communication Link and Network Simulator),
- Proteus (Circuit Simulation Software)
- Active HDL (Logic Level Simulator)
- AIM SPICE (Circuit Level Simulator)
- Tanner Tool (Semiconductor Device Design Simulator)
- Optimization Software
- MATLAB