

1.1 Electrical Machine Lab I & II

The Electrical Machine Laboratory-I & II are two labs housed in two different Lab rooms at 5th floor of the UAP City Campus. Adequate number of equipment's and machineries has been purchased for these two laboratories. The EEE Department has purchased enough machineries & equipment's for these laboratories. The department has developed the laboratory phase wise without causing suffering to the students. The Electrical Machine Laboratories are now well equipped for the Lab classes of electrical machines. Both single phase and three phase lines are made available in this lab to study and operate various types of motors and generators. Four set of each equipment are provided there so that simultaneously five groups of students can use them during lab class.



Electrical Machine Lab-I



Electrical Machine Lab-II

1.2 Computer Lab

The Department of EEE has its own computer laboratory located at 6th floor of the UAP City Campus which is equipped with 25 numbers of modern PCs. The laboratory has internet and printing facility.



Computer Laboratory

A server room is arranged to administrate the proper functioning of the lab and to accommodate LINUX server, Oracle Server, Windows 2000 server and other sophisticated resources like a scanner, a high resolution digital camera, etc. Computer lab of EEE is equipped with twenty-five updated PCs. All of these PCs are latest IBM brand machines, with Intel Core i3 and 17" LCD display. Each PC is provided with an UPS to ensure reliable and uninterrupted computing. There is a heavy-duty printer stationed in each lab to provide printing facility to the students. Each student is given separate account in EEELAB domain. Students have to log on to their respective accounts to avail the existing network resources. A student can browse from any PC free of charge for unlimited time period. The Department has provided students with broadband Internet browsing facility.

1.3 Electrical Circuit Lab I



Electrical Circuit Lab-I

Electrical Circuit Laboratory is located at 5th floor of the UAP City Campus. This is a rich circuit lab equipped with modern equipment's. The purpose of this lab is to design various electrical circuits. Also this lab is used to study the behavioral characteristics of the different electrical projects. The lab has full-fledged five equipment set-ups so that five groups of students can carry on any electronic and electrical experiment and project simultaneously. Each equipment set-up includes modern Oscilloscope, dc power supply, signal generator, trainer board, high-configured PC. This lab also has sufficient number of all necessary electrical components including resistors, capacitors, inductors, transformers, variacs etc.

1.4 Electronics Lab-I and DLD Lab

Electronics Lab and Digital Logic Design (DLD) Lab are two separate Labs housed in a single room at 5th floor of the UAP City Campus. . DLD Lab has huge resource of digital and analog ICs and other electronic components like IC tester etc. This laboratory has a number of highly sophisticated modern equipments. Power Electronics Laboratory is equipped with power electronics training kits, modern Oscilloscope, dc power supply, signal generator, trainer board and highly-configured PC. This lab is used to design various electrical and electronic circuits, study the behavioral characteristics of the different electrical and electronic projects.



Electronics Lab-I



Power Electrics Lab

Both of these two labs have full-fledged five equipment set-ups so that five groups of students can carry out any digital and interfacing experiment and project simultaneously.

1.5 Electrical Circuit Lab-II

Electrical and Electronic Circuit Laboratory-II is located at 5th floor of UAP city campus which is equipped with modern Oscilloscope, dc power supply, signal generator, trainer board, high-configured PC. This lab also has sufficient number of all necessary electrical and electronic components including ICs (Digital and Analog), resistors, capacitors, inductors, transformers, variacs etc.



Electrical and Electronic Circuit Laboratory-II

This lab is used to design various electrical and electronic circuits, study the behavioral characteristics of the different electrical and electronic projects. This lab has full-fledged five equipment set-ups so that five groups of students can carry on any electronic and electrical experiment and project simultaneously.

1.6 Control System Lab, Measurement Lab and Biomedical Lab

Control System Lab, Measurement Lab and Biomedical Lab are three different Labs housed in a single room at 6th floor of the UAP City Campus. Control Lab contains adequate equipments and modules essential for Control System Engineering. The Control Systems Laboratory is equipped for study of electrical and electromechanical systems both experimental and simulation based using MATLAB and PSpice. D.C. motors and servo-amplifiers are available to implement position and velocity control systems. Equivalent modules of Analog computer are available as components of control systems.



Control System Lab

Measurement Lab is equally equipped with necessary instruments and meters to facilitate measurement and instrumentation related experiments. Among the equipments including Transducer and Instrumentation Module of LJ Technical Systems.

Biomedical Lab is equipped with necessary metering arrangement to measure various biomedical electronics parameters. All of these three labs can be is used to study the behavioral characteristics of the relevant electrical and electronic projects. This Lab will be developed further to include more sophisticated Biomedical equipment's to facilitate Biomedical electronics related research and projects.

1.7 Simulation Laboratory for VLSI, DSP and Numerical Analysis

Simulation Lab of EEE Department is located at 6th floor of the UAP City Campus. This Lab is an advanced Laboratory equipped with latest and expensive computers with highest configuration available in the market. 25 computers having Intel Core i-7 processors and best quality displays are available in this lab to implement the simulations. Micro Wind and DSCH software simulations are used for VLSI sessional and MATLAB simulation for Digital Signal Processing (DSP) labs. Also other relevant softwares are available for simulation and experiments. In addition, to perform some lab experiments in DSP, portable modules of MIDAS are available. These equipments help the students to learn Languages in machine level and to analyze and study different signals. EEE department is planning to procure more equipment such as Signal Analyzer, Computer based DSO card and other equipments to update this laboratory.

1.8 Microwave communication and Measurement Lab

Measurement Lab and Microwave Lab are housed in a single room at 6th floor of the UAP City Campus. This laboratory is equipped with adequate number of Analog Communication Trainer Kits and Digital Communication Trainer Kits to perform a number of experiments on analog and digital telecommunication systems. It is also equipped with sufficient number of Analog and Digital Oscilloscopes, Power Supplies, Trainer Boards and Personal Computers.



Telecommunication Laboratory



Microwave Laboratory

In this well-equipped lab, students can study various types of analog and digital signal modulation techniques, Demodulation, Multiplexing and De-multiplexing. They can perform the experiments related to different types of active filtering of Signals, processing the Signal using appropriate DACs and ADCs.

Microwave lab is equipped with sufficient number of Dual Beam Oscilloscopes, power supplies, digital and analog trainer boards and personal computers. This laboratory is also equipped with adequate number of antenna trainer (ATS10) kits and Microwave trainer (LRL MODEL 550B-SS) kit. In this well equipped lab, students can study various types of antennas and determine the radiation pattern, polarization, variation of field strength etc. The antenna trainer kit of this lab consists of various types of antennas such as dipole antenna, monopole antenna, Yagi-Uda antenna, microstrip antenna, biconical antenna, rhombus antenna, discone antenna, helix antenna etc. Thus sufficient equipments are available for students to experimentally determine, develop and test original antenna system configurations. Moreover, students can perform the experiments related to different types of waveguide, solid state oscillator, klystron oscillator, tee, directional coupler etc.

7.9 Power Electronics and Microprocessor Lab

Power Electronics Lab and Microprocessor Lab are two different labs housed in a single room at 5th floor of UAP city campus. In this lab, students can design and implement starting from small digital circuits to 8-bit microprocessor. Furthermore, students can easily interface any personal computer with analog world for adaptive control and automation.



DLD Lab



Microprocessor Lab

Microprocessor Lab has a number of 8086 microprocessor kits and other necessary accessories. In this lab, students can acquire the technical know-how of 8086 microprocessor and its peripherals. Furthermore, students can easily interface any external unit with these microprocessors for adaptive control and automation. This lab has full-fledged five equipment set-ups so that five groups of students can carry out any digital and interfacing experiment and project simultaneously.

1.10 Project Lab

Project Laboratory is housed at 5th floor of the UAP City Campus. It is in fact a portion of Electronics and Power Electronics Lab room dedicated for the fourth year thesis/Project works. This Lab also helps the EEE Project Club to conduct different project works of different level of students. Remarkable Project works will be stored in this Lab for future demonstration or further development. This Lab is equipped with necessary equipment's and PCs to help project works.

1.11 Other Laboratories

Besides the core labs, students of the EEE Department have to attend in two other labs: Physics Lab and English Language Lab. The Physics lab is used to perform the various experiments based on physics courses. The English Language lab is provided to enhance the skill of the students in both oral and written communication in English.

1.12 Upcoming Laboratories

Based on the requirement of the students, Department of EEE is planning to establish 'Switchgear & Protection Laboratory' in the near future.