RESEARCH FACILITIES

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST

HICET

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Research Centre

Electrical and Electronics Engineering Department is recognized as a Research department of Anna University Chennai since 2008. Eligible internal, external faculty members and industrialist can register their doctoral degree in part time and full time mode. So far 25 research scholars has completed their doctorate degree successfully and further 24 scholars are being guided by five doctorates under the research areas of Electrical and Electronics Engineering.

The Electrical and Electronics Engineering Department has a rich tradition in research and teaching. The research interests of the faculty members of the department encompass the wide area of applied and fundamental aspects of Electrical Engineering. Collaboration in between the research groups of the department and with other departments is also a practice.

Department of EEE offers research programs and acts as hub for consultancy activities of the institution to enhance the industry institute interaction and to foster industry relevant research.

- **Lr No.:2708/IR/EEE/AR 2, dated 23.06.2022.**
- **Lr No.:2708/IR/EEE/AR 2, dated 29.01.2019.**
- **Lr No.:2708/IR/EEE/AR 2, dated 22.11.2016.**
- **Lr No.:708/IR/Renewal/AR1, dated 23.12.2013.**
- **Lr No.:AUTCBE/Research/CR2/DR/1320/3/2012, dated 30.04.2012.**
- **Lr No.:AUTCBE/Research/CR2/DR/1320/3/2011, dated 08.12.2011.**
- **Letter No.:001 / AU-CBE-R/Research/2007-02 dated 22.04.2008.**

Research Area

The Department has strong research programmes in all the areas of Electrical and Electronics Engineering. A large number of Ph.D. scholars are currently engaged in cutting edge research in the Department. The Department has many state of the art facilities for assisting research and development in the following research areas

- Renewable Energy Technology
- Special Electrical Machines
- Control systems
- Embedded System
- Power Quality issues
- Power Converters-DC-DC converter, Multi-level Inverters
- Electrical Drives & Control Techniques

- Electric Vehicle Technology
- Energy Management System/Battery Management Systems
- Low power VLSI
- Soft computing Techniques etc.

DETAILS OF RECOGNISED RESEARCH SUPERVISORS

1. Dr.N.P.Ananthamoorthy (2530027)

2. Dr.K.Sekar (2930024)

3. Dr.M.Karpagam (2830010)

4. Dr.B.Anand (2830002)

Research lab

1. Electrical Machines Lab

All types of DC Machines, single phase and three phase squirrel cage and slip ring induction motors, single-phase and three phase transformers, suitable starters and loading arrangements for machines, measuring instruments of all types needed for the laboratory experiments and calibration meters are used. The Electrical Machines Laboratory is utilized by all branches of students for lab work and project work and researchers pursuing under electrical machines area their research activities etc.,. All these facilities are used by the teachers for research and development work.

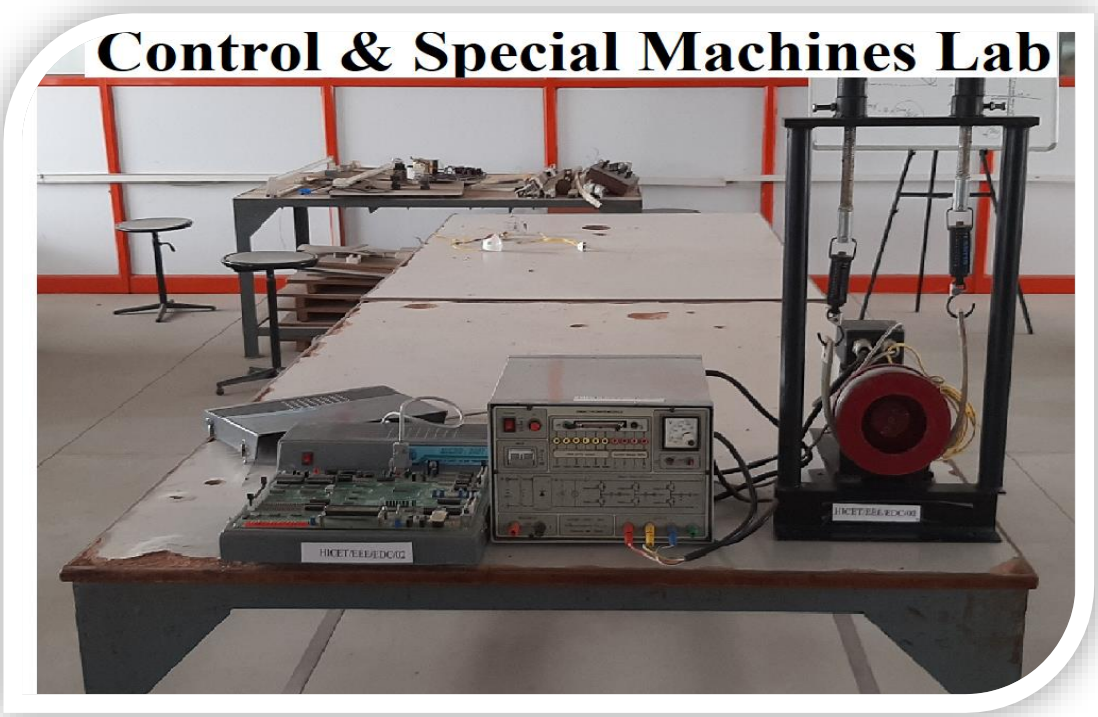
2. Power Electronics Lab:

Thryistor converters, DC chopper modules, power devices such as Thyristors, Power MOSFETs, IGBTs of various voltage and current ratings, Opto-Isolators, Pulse transformers and other related commutating components.

A Number of modules of AC-DC converters, voltage controllers - single phase as well as three phase, DC chopper units and inverters using Power MOSFETs and IGBTs, project works of UG and PG students are carried out here.

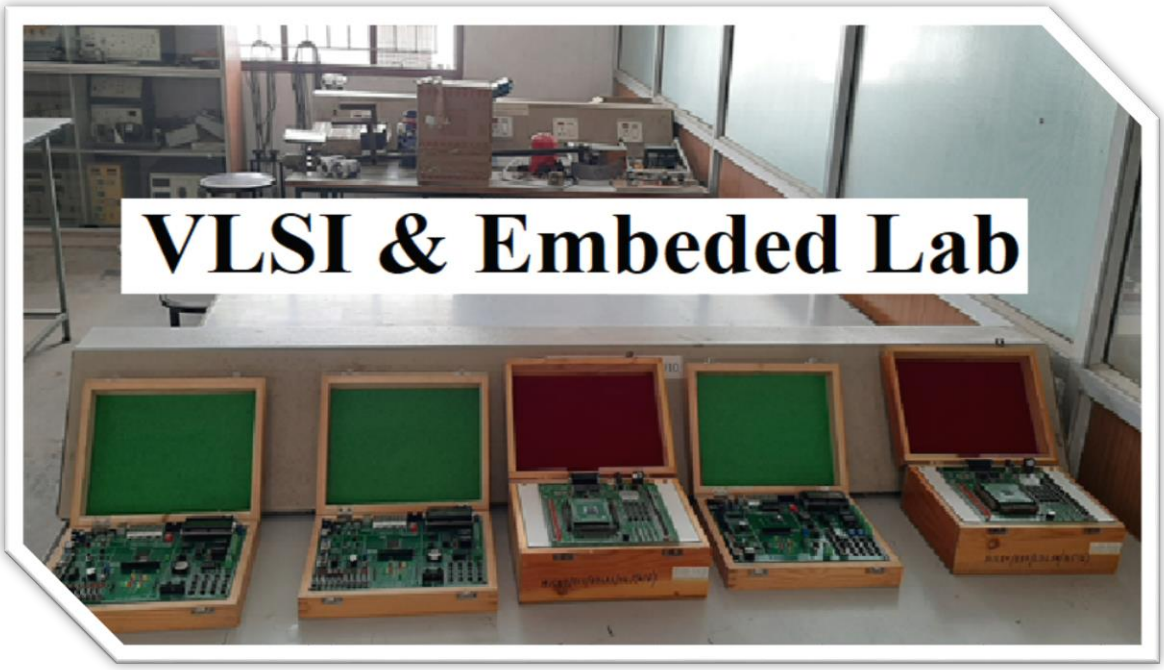
3. Control Systems Lab

The Control systems laboratory has many unique experimental set ups like PI,PID Controllers, Stepper motor Controller, Transfer function determination of a Servo motor and Position controller. It has also equipped with MATLAB for various designing. Students can create virtual models and evaluation is also carried out.



4. Electronic design Lab:

The laboratory facility includes Xilinx FPGA kits and ISE software that is being used for under graduate, post graduate students for their project work and also for research scholars. The laboratory is equipped with ARM, PIC controller, AVR and microcontroller boards, digital storage oscilloscopes, digital multi-meters and IC testers. Research projects are carried out here.



SIMULATION LAB FOR RESEARCH ACTIVITIES