



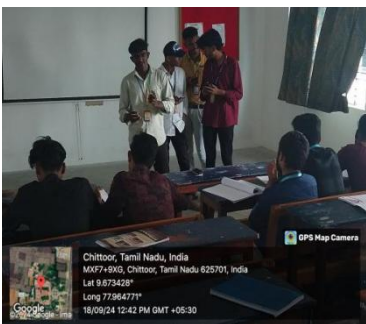
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

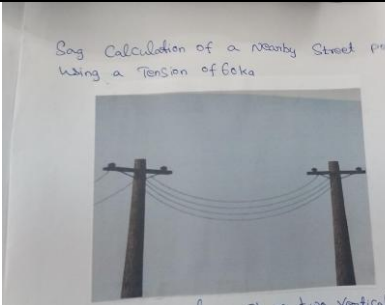
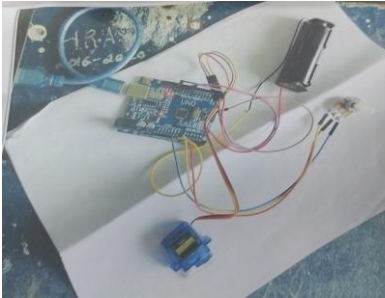
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

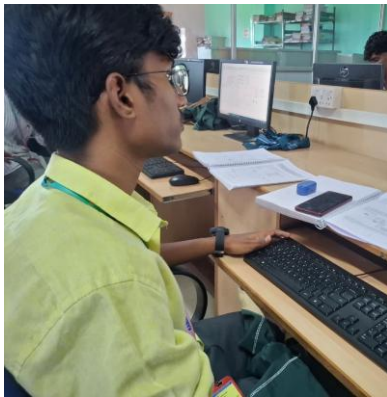
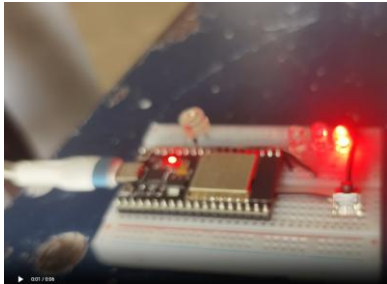
ICT Tools/Activity Based Learning followed in Classroom Teaching

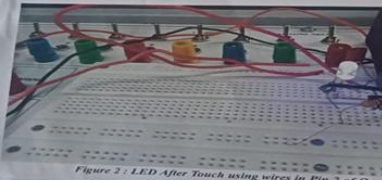
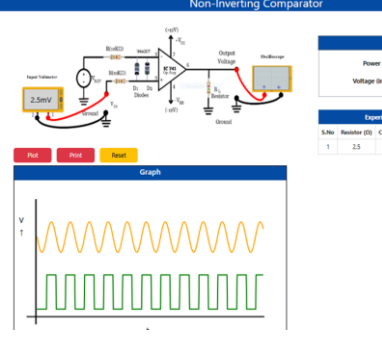
S. No	Course code & Name	Pedagogical tool used / ABL	Purpose	Proof
1.	EE2302- Microprocessors & Microcontrollers	Arduino based Mini projects	To teach pin outs, I/O and programming concepts	
2.	EE2301- AC Machines	Animation Videos	To visually demonstrate the working principles of 3-phase induction motors for better student understanding	
3.	EE2204 – Measurements & Instrumentation	Role Play	To explain the role of measurement devices in day-to-day life	

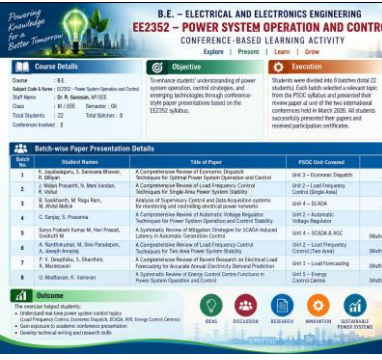
4.	EE2303 – Protection and Switch Gear	Case Study	To detail, how electric motors can be protected from abnormal conditions	
5.	VEE334 – Power Quality	Real Time PQ Issue Detection using Modern Meters	To explain how harmonics are generated and how it can be located	
6.	EE2208-Electrical Drives and Control	Single Phase Half Wave Rectifier	To understand the working of a single-phase half-wave rectifier and also to identify the various elements in the circuit	
7.	GE2201-Design Thinking	ABL – Thinkathon 2024	To encourage participants to think creatively and develop innovative solutions to real-world problems	

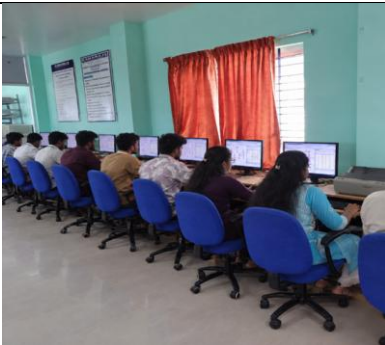
8.	GE2201-Design Thinking	Online course	To instill a culture of continuous learning by introducing students to accessible, high quality online educational resources	
9.	EE2202 - Circuit Theory	Circuit Simulation using MATLAB, crack the circuit	To illustrate the basic concepts through practical demonstrations and provide hands-on experience for better understanding and application of the concepts	
10.	EE2203 - Electronic Devices and Circuits	Circuit Simulations Using MATLAB and Virtual Software	To gain practical exposure to MATLAB/Simulink and virtual circuit simulation software. Design, simulate, and analyze basic electronic circuits.	
11.	EE2204 - Measurements and Instrumentation	Hands on	To explain how to measure and process the sensor data	

12.	EE2205 - Transmission and Distribution	Real time Field Observation and Measurement	To calculate and understand transmission line sag using real-time measurements from nearby street electrical poles.	
13.	GE2201 - Design Thinking	Project on Design Thinking	Intra-college prototype contest "Thinkathon 2025"	
14.	EE2301 - AC Machines	Micro Project on Application of AC machines	To apply AC machine concepts through a practical mini-project and develop students' analytical, design, and problem-solving skills.	
15.	EE2303 - Protection and Switchgear	Field Visit	To visualize the various protection devices in sub station	
16.	VEE312 - Utilization and Conservation of Electrical Energy	PowerPoint	To enhance student's understanding of welding techniques through prototype-based demonstrations and critical review of IEEE and reputed journal publications, while developing their technical presentation, research, analytical, and communication skills	

17.	EE2401 - Renewable Energy Systems	Demonstration	Lecture cum Demonstration on Solar PV/T System	
18.	EE2251-Control Systems	MATLAB Simulation	To illustrate time-domain and frequency-domain responses through MATLAB simulation and provide hands-on experience for better understanding of system behaviour.	
19.	EE2252-DC Machines and Transformers	Field visit	Field visit for transformer testing “Concept to Practice: Transformer Oil Testing and Maintenance – A Case Study at Kamaraj College of Engineering and Technology”	
20.	EE2253-Digital Logic Circuits	Case study	To enhance students’ ability to apply digital logic design concepts to real-world problems by analyzing practical requirements and developing optimized combinational and sequential logic solutions. The activity aims to	

			strengthen problem-solving, logical reasoning, circuit-design, and application-oriented thinking skills through practical case studies and assignments	
21.	EE2254-Linear Integrated Circuits and Applications	Miniproject	To implement the real time applications using ICs	  
22.	EE2255-Power System Analysis	Project Based Learning	To develop a C-based automated tool for calculating load sharing between parallel alternators and simplify power system analysis.	
23.	EE2258-Linear and Digital Integrated Circuits Laboratory	VLab	To observe the output waveform of comparator which compares the input of an op amp with a reference voltage.	

24.	EE2352-Power System Operation and Control	International Conference Presentation	To enhance students' technical knowledge, research skills, communication abilities, and understanding of power system operation and control.	
25.	VEE313-Solar Photovoltaic System	International Conference Presentation	To analyse the impact of performance factors in the design of solar PV systems	
26.	VEE316-Energy Storage Technologies	Model & Field visit	Batteries were dismantled so that the parts can be identified. Visit to industry helped to identify various energy storage methods	

27.	EE2355-Power System Simulation Laboratory	This Activity contributed positively to their practical understanding of power flow analysis and computer-based power system simulation.	The objective was to provide hands-on experience in power system analysis and simulation using GS and NR methods.	
28.	EE2353-Mini Project	Identify the Components	The components were shown for better understanding so that it helps in easy fabrication.	