

S.No	Dept	Guide	HT.No	Title	Status	Publications	Abstract
1	EEE	Mr. K. DAVID KIRAN	14361A0206 14361A0209 14361A0213 15365A0204 14361A0203	HYBRID POWER ELECTRONIC CONTROLLER FOR COMBINED OPERATION OF CONSTAT POWER AND MAXIMUM POWER POINT TRACKING FOR 1-PHASE GRID TIED PHOTOVOLTAIC SYSTEM.	working	--	This study presents a hybrid technique that offers constant power operation for single-phase grid-tied photovoltaic (PV) systems while performing maximum power point tracking function. A boost converter and a line commutated inverter (LCI) have been used for interfacing PV array with utility grid. Fixed firing angle of the LCI keeps the dc-link voltage constant and the boost converter extracts maximum power from the solar PV array by simply adjusting the duty ratio of the boost converter. A low capacity battery bank connected at the dc link is used to deliver constant power to grid. Harmonic filter is eliminated as the system inherently delivers quality supply with reduced current harmonics. PIC microcontrollers have been programmed for generating pulses to the inverter and the boost converter. And the simulation results are presented. The parameters of a PV panel rated for 100 W, 21.5 V and 6.83 A have been used for the simulation.
2	EEE	Mr. KURUMURTHY	15365A0203 15365A0202 15365A0201 14361A0214 15365A0208	ARDUINO BASED INDUSTRIAL APPLIANCES CONTROL SYSTEM BY DECODING DTMF SIGNAL ON GSM/CDMA NETWORK.	working	--	The project works on the principle of DTMF tone command, which is received from any phone to remotely switch any electrical load such as agricultural pump, domestic and industrial loads etc. In industries, the loads are spread over a large area and thus, operating these loads is a very tiresome and difficult task. In agricultural fields also, pumps and other loads are connected over a large area and hence it is difficult for the farmer to operate all the loads and similarly for house hold loads. Keeping these problems in mind, the proposed system has been designed which uses DTMF technology to control the loads remotely. A cell phone is interfaced to a DTMF decoder in the system from its audio output socket for receiving tone commands. The receiving cell phone codes are converted into digital commands by a DTMF Decoder which will identify the frequency of the key and convert that frequency to its equivalent digital code which is then fed to the Arduino board. As per the commands sent from the sender's mobile, the Arduino board sends signals through a buffer to actuate respective loads by turning the relays ON/OFF. These relays are actuated by a relay driver IC interfaced to the Arduino board.

3	EEE	Mr. SUSANT PANIGRAHI	14361A0205 14361A0202 14D21A0223 14361A0217 13361A0215	AC MC BASED HYBRID AC/LVDC MICROGRID.	working	--	<p>This study proposes the detailed modelling of a novel automatic centralised micro-grid controller (ACMC)-based hybrid AC/low-voltage DC (LVDC) micro-grid network, capable of off-grid and on-grid operation of the system with a coordinated control. The micro-grid is designed to work majorly with renewable power sources. This hybrid micro-grid is capable of inter connecting very large AC and LVDC networks, using a bi-directional AC/DC/AC converter. The AC and the LVDC networks consist of different feeders with loads connected at various voltages. The ACMC design proposed is responsible for controlling the real(P) and reactive(Q) power from the sources based on load requirement and voltage control of the LVDC network. It enables the system to have a plug and play feature. The proposed ACMC has been implemented on a test system consisting of AC and LVDC radial distribution networks designed, with a bi-directional converter. A doubly fed induction generator-based wind turbine and solar photovoltaic array with maximum power point tracking have been used as the sources. The system has been simulated in Simulink. The results show the ACMC successfully performs the four quadrant operation of P,Q in the system for various system conditions.</p>
4	EEE	Mr. P.MAHESH	14361A0201 14361A0208 14361A0211 15365A0205 14361A0215	ARDUINO BSED UNDERGROUND CBLE FACULT DETECTION	workng	--	<p>The objective of this project is to determine the distance of underground cable fault from base station in kilometers USING AN Arduino board. The underground cable system is a common practice followed in many urban areas. While a fault occurs for some reason, at that time the repairing process related to that particular cable is difficult due to not knowing the exact location of the cable fault. The proposed system is to find the exact location of the fault. The project uses the standard concept of Ohms law i.e., when a low DC voltage is applied at the feeder end through a series resistor (Cable lines), then current would vary depending upon the location of fault in the cable. In case there is a short circuit (Line to Ground), the voltage across series resistors changes accordingly, which is then fed to inbuilt ADC of Arduino board to develop precise digital data for display in kilometers.</p>

5	EEE	Mr. SAMPATH PATEL M	15365A0210 14361A0216 14361A0210 15365A0209 127U1A0220	AUTO METRO TRAIN TWO SHUTTLE BETWEEN STATIONS	working	--	<p>This project is designed to demonstrate the technology used in metro train movement which are used in most of the developed countries. This train is equipped with a controller, that enables the automatic running of the train from one station to another. This proposed system is an autonomous train and it eliminates the need of any driver. Thus, any human error is ruled out. In this project microcontroller from 8051 family has been used as CPU. Whenever the train arrives at the station it stops automatically, as sensed by an IR sensor. It is also equipped with a passenger counting section, which counts the number of passengers leaving and entering the train. The door closes when it reaches maximum occupancy level irrespective of time allotted for the door to remain open. The passenger counts are displayed on a seven segment display interfaced to the microcontroller. As the train reaches the destination the process repeats thus achieving the desired operation.</p>
6	EEE	Mr. B. VEERESHAM	15365A0211 15365A0207 14361A0207 15365A0206 117U1A0203	SOLAR WATER PUMP CONTROL WITH FOUR DIFFRENT TIME SLOT FOR POWER SAVING APPLICATIONS	working	--	<p>The solar energy is converted into electrical energy by photo-voltaic cells. This energy is stored in batteries during the day time for it to be utilized to run water pump for agriculture. This project deals with a controlled charging mechanism with protections for over charge, deep discharge and under voltage of the battery. It is interfaced to a microcontroller of the 8051 family. While the set time equals to the real time, then microcontroller gives command to the corresponding relay to turn on the load, and then another command to switch off as programmed by the user. Multiple on/off time entry is the biggest advantage with this project. A matrix keypad helps entering different time slots. A 7-segment display is interfaced to the microcontroller to display time. In this project, a solar panel is used to charge a battery. A set of op-amps are used as comparators to continuously monitor panel voltage, load current, etc. Indications are also provided by a green LED for fully charged battery while a set of red LEDs to indicate under charged, overloaded and deep discharge condition. Charge controller also uses MOSFET as power semiconductor switch to ensure cutting of the load in low battery or overload condition.</p>