K.L.N. COLLEGE OF ENGINEERING, POTTAPALAYAM

List of Current Undergraduate Projects - 2016- 2017

Subject Code & Name: EE6811- PROJECT WORK (R - 2013)

Department   : EEE   **Year/Semester: IV/ VIII**

Sl. No.	Project Title	Students Name and Register Number	Guide Name
1	Smart Hybrid Energy Management Using Solar Power	SANTHANA KRISHNAN T L (Reg. No. 910613105065) SYED ABDULLAH S (Reg. No. 910613105331) YOKESH M (Reg. No. 910613105094)	Dr.S.M.Kannan Prof.&HOD/EEE
2	Search, Rescue and Health Care Drone *(Medic Drone)*	MAGESWARAN S (Reg. No. 910613105037) PARTHASARATHY G (Reg. No. 910613105052) RAMKUMAR P (Reg. No. 910613105060) RISHIKESH T K (Reg. No. 9106131050)	Dr.S.Venkatesan Prof./EEE
3	Missile Launcher Pad Based Military Robot	SARAVANAN. T. (Reg. No. 9106131050) SINGARAJA. K (Reg. No. 910613105074) SRINIVASAN. J (Reg. No. 910613105080) VINEETH KUMAR. R (Reg. No. 910613105092)	
4	Energy Efficient Processing System with Smart Switching	SASIKUMAR M 910613105068 SURYA PANDIAN K 910613105082 SOMA SUNDARAM D 910613105077 VAITHEE SUBRAMANIAN B 910613105084	Dr.K.Gnanambal Prof./EEE
5.	Maximum Loadability Limit Evaluation by using Hybrid Flower Pollination Algorithm	V.SRINIDHI TRISHNA (Reg. No. 910613105079) S.R.VANITHA (Reg. No. 910613105085) T.R.SUGANYA (Reg. No. 910613105329)	
6	Mobile Application based Load Scheduling Unit using IOT Technique	DHARANI.P (Reg. No 910613105016) INDIRA.G (Reg. No 910613105021)	Dr.S.Parthasarathy Prof./EEE
7	Retrofitting of Ward Leonard System and DC Motors with Advanced AC Motor and Drives	ARAVIND.JR (Reg. No. 910613105008) DINESH KANNA.B (Reg. No. 910613105018)	Dr.S.Venkatanarayanan Prof./EEE

		KARTHIK VIKRAM K.G.K. (Reg. No. 910613105027)	
8	Design and Implementation of MPPT by using SEPIC Converter for Maximum Energy Efficiency	SOWENDARYA S (Reg. No. 910613105078)	
		SUBASHINI R (Reg. No. 910613105081)	
		VAHITHA SULTHANA A (Reg. No. 910613105083)	
		VIGNESHWARI M (Reg. No. 910613105091)	
9	Optimal Location and Sizing of DG in Distribution System using Moth Swarm Optimization (MSO)	PAVITHRA R (Reg. No.910613105053)	Mr.A.Marimuthu ASP/EEE
		RADHIKA S (Reg. No.910613105059)	
		ROMIKA A (Reg. No.910613105062)	
10	Smart Monitoring and Reduction of Energy Consumption of Consumer using GSM	SHALINI M (Reg. No. 910613105072)	Mr.P.Loganthurai ASP/EEE
		VANMATHI A (Reg. No. 910613105086)	
		VEERALAKSHMI M (Reg. No. 910613105388)	
		VIVITHA V (Reg.No.910613105090)	
11	Impacts of Anxiety In Building Fire and Smoke Evacuation using IOT	SHANTHINI G (Reg. No. 910613105073)	
		SIVASAKTHI G (Reg. No. 910613105328)	
		VARSHINI S (Reg. No.910613105087)	
12	Embedded System based Car Security System	B.LAKSHMANAN (Reg.No.910613105034)	Mr.M.Jegadeesan ASP/EEE
		K.PANDI (Reg.No.910613105049)	
		M.PUVANESWARAN (Reg.No.910613105058)	
		A.G.SANJEEV KUMAR (Reg.No.910613105063)	
13	A Modernistic Technique for Maximization of Output in Medium Scale PV System	AJITH R (Reg. No. 910613105003)	Dr.A.S.S.Murugan ASP/EEE
		AJITH PANDIAN V (Reg. No. 910613105004)	
		KANNAN A (Reg. No. 910613105024)	
		KARTHICK S (Reg. No. 910613105026)	
14	SCADA Systems for Power Distribution for Large Machines and Lighting Loads	DHINESH.M (Reg.No.910613105017)	
		KATHIRVEL.M (Reg.No.910613105028)	
		AJITHKUMAR.K.S (Reg.No.910613105303)	

15	Automatic Solar Tracking and Measuring using PIC Microcontroller	A.ARAVINTHANSAMY (Reg. No.910613105009)	Dr.C.Vimalarani ASP/EEE
		B.DHANASEKARAN (Reg. No.910613105307)	
		R.DINESHBABU (Reg. No.910613105308)	
16	Online Power Monitoring using Labview	A.KOKILA (Reg.No.910613105031)	Mr.S.Manoharan AP(Sr.Gr)/EEE
		M.KALEESWARI (Reg.No.910613105023)	
17	Design of DVR using Microcontroller for Power Quality Improvement	M.KOWSALYA(08.08.1995) (Reg.No.910613105032)	Mrs.M.Ganesh Kumari AP(Sr.Gr)/EEE
		M.KOWSALYA(30.06.1996) (Reg.No.910613105033)	
		T.G.MEENA (Reg.No.910613105319)	
		S.PRATHIBAH (Reg.No.910613105322)	
18	Impact of Distributed Generation (DG) with SVC in Meshed Transmission System	S.NAVANEETHA (Reg. No.910613105044)	Mr.M.Jeyamurugan AP (Sr.Gr) / EEE
		M.PERIANAYAGI (Reg. No.910613105054)	
		R.R.PRIYANKA (Reg. No.910613105056)	
19	Voice for Voiceless using Flex Sensor and Arduino	LAVANYA.R (Reg.No.910613105035)	Mrs.K.R.Jeyavelumani AP/EEE
		NOORJAHAN ROFINA.K (Reg.No.910613105046)	
		PACKIALAKSHMI.D (Reg.No.910613105047)	
20	Transmission Line Fault Detecting Unmanned Drone	SANKAR PANDIAN T (Reg. No. 910613105064)	Mr.M.Balamurugan AP/EEE
		SARAVANAN P (Reg. No. 910613105066)	
		SELVARAJ U (Reg. No. 910613105070)	
		VIGNESH R (Reg. No. 910613105333)	
21	Multilayer Security Vault System using RASPBERRY PI	PRAVEEN KUMAR S. (Reg. No.910613105701)	
		SNEGAJAN S.C. (Reg. No. 910613105076)	
		SURESH KUMAR U. (Reg. No. 910613105330)	
		VARUN VEL S. (Reg. No. 910613105332)	
22	Globally Accessible Robotic Arm	AMBRISH BABU S (Reg. No. 910613105007)	Mr.T.Gopu AP/EEE
		DHANUSHKUMAR G (Reg. No. 910613105015)	
		BALAMURUGAN P (Reg. No. 910613105011)	

		HARISHANKAR L (Reg. No. 910613105309)	
23	Novel FUZZY and Series Transformer based Fault Current Limiter	VENKATSABARI K K (Reg. No. 910613105090)	Mr.R.Jeyapandiprathap AP/EEE
		SEEMAN K (Reg. No. 910613105069)	
		SIVA KUMAR M (Reg. No. 910613105075)	
24	Wireless Networks for Powered Base Station by Decentralized Energy Distribution	K.KASI (Reg.No. 910613105316)	Mr.R.Jeyapandiprathap AP/EEE
		M.PRAVEEN KUMAR (Reg.No.910613105323)	
25	Advanced Energy Management with Automatic Monitoring and Security System	A. ARIHARAN (Reg. No. 910613105304)	Mr.S.Rajalingam AP/EEE
		P. BALAVIKNESH (Reg. No. 910613105305)	
		M. KALEESWARAN (Reg. No. 910613105311)	
		T. KANNU SAMY (Reg. No. 910613105312)	
26	High Voltage Direct Current Generation for X-Ray Generator using PWM Technique to Check Boiler Weld	AKASH KARMEGAM.VR (Reg.910613105005)	Mr.N.Vimal Radha Vignesh AP/EEE
		ARUN PANDIAN.S (Reg.910613105010)	
		KARTHICK.P (Reg.910613105025)	
		ABBAS.S.B (Reg.910613105301)	
27	Micro Grid Controlling using Transformer based Solid State Fault Current Limiter "TBSSFCL"	P. MEENA PRIYA DHARSHINI (910613105039)	Mr.A.Manoj AP/EEE
		J. MERIBA CECILI (910613105040)	
		T. MUTHUMATHI (910613105043)	
28	PIC Microcontroller based Home Automation using Bluetooth and GSM	AKILA K (Reg.No.910613105006)	Mrs.R.Jeyarohini AP/EEE
		HEMA R (Reg.No.910613105019)	
		IMAYAKANI B (Reg.No.910613105020)	
		KATHUN SARIFA M (Reg.No.910613105029)	
29	Smart Sensed Automatic Control of Boiler using PID Controller	A.MANIKANDAMARIAPPAN (Reg.No.910613105038)	Mr.S.P.Rajaram AP/EEE
		M.MONISH (Reg.No.910613105041)	
		S.MUTHUKUMAR (Reg.No.910613105042)	
		B.N.PADMANABAN (Reg.No.910613105048)	
30	Design and Implementation of PV based Hybrid Harmonic Filter using	BOOMATHI.M (Reg.No.910613105013)	Ms.E.Jeyasri AP/EEE

	LabVIEW	COLEEN.S (Reg.No.910613105014)	
		KAVITHA.S (Reg.No.910613105030)	
31	Economic Dispatch at Maximum Allowable Load using Flower Pollination Algorithm	AADHITHYA S (Reg.No.910613105001)	Mrs.A.P.S.Ramalakshmi AP/EEE
		AARTHI J (Reg.No.910613105002)	
		BIRUNDHA S (Reg.No.910613105012)	
32	Voltage Regulation on Transmission Line using PV System	K.KARTHICK (Reg.No.910613105313)	Mrs.V.Sindhu AP/EEE
		N.N.KARTHIKEYAN (Reg.No.910613105315)	
		M.MANIKANDAN (Reg.No.910613105317)	
		S.NIZHARUDEEN (Reg.No.910613105321)	
33	Attendance Monitoring System for Educational Institutions using RASPBERRY PI	SENTHILKUMAR K (Reg. No. 910613105071)	Ms.R,Divya AP/EEE
		VEERAPATHIRAN K (Reg. No. 910613105089)	
		SASIKUMAR D (Reg. No. 910613105325)	
		RASUKUTTY R (Reg. No. 910613105324)	
34	Energy Efficient BLDC Drive with Constant Torque using C-Dump Technology	PARAMESWARI M (Reg.No.910613105051)	Mrs.M.Bharanilakshmi AP/EEE
		PON SARUMATHI M (Reg.No.910613105055)	
		PRIYANKA S (Reg.No.910613105057)	
35	Remote Wide-Area Oscillation Monitoring and Load Shedding using Load Restoration Method	M.P.LAXMEN BABU (910613105036)	Dr.M.Mahalakshmi AP/EEE
		P.NAVEEN KUMAR (910613105045)	
		K.MANOJKUMAR (910613105318)	
		A.MOHAMMED FAIZAL (910613105320)	

TITLE OF THE PROJECT

SMART HYBRID ENERGY MANAGEMENT USING SOLAR POWER

PROJECT MEMBERS

SANTHANA KRISHNAN T L	**(Reg. No. 910613105065)**
SYED ABDULLAH S	**(Reg. No. 910613105331)**
YOKESH M	**(Reg. No. 910613105094)**

GUIDED BY

Dr.S.M.KANNAN, PROFESSOR & HOD/EEE

ABSTRACT

This project is making use of supply from the Electricity Board and solar energy to meet the load demand economically. The new feature is that, when EB power is available the solar panel alone charges the battery and the load is connected to the EB supply. When the charge in the battery is full, the solar and battery together share most of the loads and cut the main line, until the half of the battery power. This ensures utility of battery effectively, (i.e.) charging and discharging occurs periodically, even EB power is available. This reduces the EB bill as it shares the load and charges the battery only by solar power. The project prototype will contain a solar panel, battery power converter and the Arduino microcontroller for switching between the sources. This can be developed in real time which motivated everyone to use the solar power, as it reduces the electricity bill for energy consumption and increases the life time of the battery.

TITLE OF THE PROJECT

SEARCH, RESCUE AND HEALTH CARE DRONE

(Medic Drone)

PROJECT MEMBERS

    MAGESWARAN S   **(Reg.No. 910613105037)**

    PARTHASARATHY G   **(Reg.No. 910613105052)**

    RAMKUMAR P   **(Reg.No. 910613105060)**

    RISHIKESH T K   **(Reg,No. 910613105061)**

GUIDED BY

    Dr.S.VENKATESAN, PROFESSOR/EEE

ABSTRACT

Medical emergencies are likely to occur anywhere, anytime and require immediate attention to avoid complications over time. The availability of trained first aiders or a nearby hospital might save the person in despair but that is not the case all the time. The emergency service is opted in such times which takes several minutes to locate the exact place and to reach. The time delay of even 2 to 3 minutes may worsen the situation. Our project aims at reducing the time for arrival of emergency kit/help at location of emergency crisis. A terrestrial vehicle would be unreliable as the location of catastrophe could be inaccessible by means of land transport. So, our project makes use of UAV (Unmanned Aerial Vehicle) in this case a Quadcopter to attend the holocaust.

TITLE OF THE PROJECT

MISSILE LAUNCHER PAD BASED MILITARY ROBOT

PROJECT MEMBERS

SARAVANAN. T.S	**(Reg. No. 910613105067)**
SINGARAJA. K	**(Reg. No. 910613105074)**
SRINIVASAN. J	**(Reg. No. 910613105080)**
VINEETHKUMAR. R	**(Reg. No. 910613105092)**

GUIDED BY

Dr.S.VENKATESAN, PROFESSOR/EEE

ABSTRACT

The aim of this project design and implementing the missile control concept for defence purpose. The basic concept of Missile launcher pad based military robot is used for launching small kind of missiles and rockets. This robot is mainly replacing the soldiers in critical situations and dangerous situations during war. The robot has two major parts likely base pad and launcher pad. The base pad is controlled by RF transmitter and Receiver. Another part mainly operated by stepper and server motors. These motors are especially for set the direction and launcher pad angle have been controlled by using software. Two Arduino have been used, the first one for robot and another for controlling the transfer of data.

TITLE OF THE PROJECT

ENERGY EFFICIENT PROCESSING SYSTEM WITH SMART SWITCHING

PROJECT MEMBERS

SASIKUMAR M	**(Reg. No. 910613105068)**
SURYA PANDIAN K	**(Reg. No. 910613105082)**
SOMA SUNDARAM D	**(Reg. No. 910613105077)**
VAITHEE SUBRAMANIAN B	**(Reg. No. 910613105084)**

GUIDED BY

Dr.K.GNANAMBAL, PROFESSOR/EEE

ABSTRACT

This project is mainly concerned on replacing the existing power supply for personnel computers, with a power supply that directly runs on DC voltage supplied by the PV panel. This eliminates the need for AC-DC converters which in turn reduces Conversion losses and thus improving Efficiency. The processing system of a Personnel computer requires various levels of voltage for proper operation. The different voltage levels are provided by using Buck converters. By following this method the power reliability is further increased by a smart switch which ensures continuity of power supply by getting the supply from Grid. The time interval between the switching must be as less as possible in order to ensure proper and reliable operation of the processing system. The real time switching between the power supply from PV panel and Electricity Board, without the usage of storage devices like batteries reduces the total cost and size of the system. The main aim of any energy efficient system is to reduce the total capital cost of the overall system. When large number computers are considered, the cost is considerably reduced due to the elimination of battery and inverters.

TITLE OF THE PROJECT

MAXIMUM LOADABILITY LIMIT EVALUATION BY USING HYBRID FLOWER POLLINATION ALGORITHM

PROJECT MEMBERS

    V.SRINIDHI TRISHNA   **(Reg. No. 910613105079)**

    S.R.VANITHA   **(Reg. No. 910613105085)**

    T.R.SUGANYA   **(Reg. No. 910613105329)**

GUIDED BY

    Dr.K.GNANAMBAL, PROFESSOR/EEE

ABSTRACT

Flower pollination algorithm is a new nature-inspired algorithm, based on the characteristics of flowering plants. In this project, we extend this flower pollination algorithm to solve maximum loadability problem. Flower Pollination Algorithm (FPA) is an intelligent algorithm which uses the whole update and evaluation strategy on solutions. Differential Evolution algorithm is usually used for crossover,mutation and selection. In this project DE algorithm is used for crossover operation.

TITLE OF THE PROJECT

MOBILE APPLICATION BASED LOAD SCHEDULING UNIT USING IOT TECHNIQUE

PROJECT MEMBERS

DHARANI.P **(Reg. No 910613105016)**

INDIRA.G **(Reg. No 910613105021)**

GUIDED BY

Dr.S.PARTHASARATHY, PROFESSOR/EEE

ABSTRACT

Power demand is one of the major problems being faced by the developing countries like India. Henceforth an alternative source of supply such as solar power, diesel generator, power generated using wind mills etc., are used to meet out the demand and support the conventional power generation. Predominantly, Diesel Generator (DG) acts as a reliable alternative source of power supply to the consumers in major industrial, commercial and domestic applications.

The *per-unit cost of power generated* by the diesel generator (DG) is very much higher than solar, wind or conventional source of power supply. The over usage of the alternative source of supply and excessive consumption of electricity can be reduced by sensing the nature (source) of the supply. Apart from sensing, the scheduling of loads can be made on an hourly, daily, weekly or monthly basis depending on the source of supply, in order to meet out the demand. Moreover, the problem of lack of interaction between utility (source) and end user (load) creates unprecedented changes in the usage of loads which affects the ultimate output.

This project work proposes and highlights the need for completely automatic communication network that identifies the source and interacts with the user effectively to control the loads. The identification of the source is achieved by transmitting a high frequency carrier signal super imposed over the supply frequency signal. In order to schedule the loads the logical selector gets the input from the HF signal receiver and communicates with the Raspberry PI 3 (Model B) and controls the loads over Internet. This information is logged on a periodical basis daily, weekly or monthly basis. The loads can be controlled through internet from anywhere.

TITLE OF THE PROJECT

RETROFITTING OF WARD LEONARD SYSTEM AND DC MOTORS WITH ADVANCED AC MOTOR AND DRIVES

PROJECT MEMBERS

ARAVIND.J.R   (Reg. No. 910613105008)

DINESH KANNA.B   (Reg. No. 910613105018)

KARTHIK VIKRAM K.G.K. (Reg. No. 910613105027)

GUIDED BY

Dr.S.VENKATANARAYANAN, PROFESSOR /EEE

ABSTRACT

The planning process of these materials are done using Double Column planning machine. The existing machines in the industries use Ward-Leonard system with DC motor drives. Normally DC shunt motors are used. Since the DC motor is used for the drive purpose efficiency decreases. DC motor with additional AC motor and DC generators are used for both coupling and field energizing of the motor. Nearly 45% of the energy is lost in this process. We have proposed and implemented an idea to replace the DC motor with 3φ induction motor to reduce energy loss and thereby improve the efficiency. Prime advantage of using 3φ induction motor is reliability and ease of control using power electronic drives.

Our project primarily focuses on reducing the investment made. Ward-Leonard system uses three generators and three motors. Compared to the latter two motors with a generator reduces the investment for the machines so that energy saving is achieved. Our project method will occupy less space compared to that of the older method. Our project method does not need frequent maintenance since DC motor and generator are replaced with the AC motor and the generator. As a whole both the energy and time is conserved.

TITLE OF THE PROJECT

DESIGN AND IMPLEMENTATION OF MPPT BY USING SEPIC CONVERTER FOR MAXIMUM ENERGY EFFICIENCY

PROJECT MEMBERS

SOWENDARYA S   (Reg. No. 910613105078)

SUBASHINI R   (Reg. No. 910613105081)

VAHITHA SULTHANA A   (Reg. No. 910613105083)

VIGNESHWARI M   (Reg. No. 910613105091)

GUIDED BY

Dr.S.VENKATANARAYANAN, PROFESSOR /EEE

ABSTRACT

Photovoltaic (PV) energy is one of the most important renewable energy sources. Maximum Power Point Tracking (MPPT) techniques should be used in photovoltaic systems to maximize the PV panel output power by tracking continuously the maximum power point which depends on panel's temperature and on irradiance conditions. Incremental conductance control method has been used as MPPT algorithm. The methodology is based on connecting a pulse width modulated dc/dc SEPIC converter, which is controlled by a microprocessor based unit. The SEPIC converter is one of the buck-boost converters which maintain the output voltage as constant irrespective of the solar isolation level. By adjusting the switching frequency of the converter the maximum power point has been achieved. The main difference between the method used in the proposed MPPT systems and other technique used in the past is that PV array output power is used to directly control the dc/dc converter thus reducing the complexity of the system. The resulting system has high efficiency, low cost and can be easily modified. In previous method fuzzy logic controller was used in our concept we are going to use PIC controller.PIC controller is used to drive the gate pulse for the MOSFET.

TITLE OF THE PROJECT

OPTIMAL LOCATION AND SIZING OF DG IN DISTRIBUTION SYSTEM USING MOTH SWARM OPTIMIZATION (MSO)

PROJECT MEMBERS

PAVITHRA R　　　**(Reg. No.910613105053)**

RADHIKA S　　　**(Reg. No.910613105059)**

ROMIKA A　　　**(Reg. No.910613105062)**

GUIDED BY

Mr. A.MARIMUTHU, ASSOCIATE PROFESSOR/EEE

ABSTRACT

This project is about the optimal placement of Distributed Generator(DG), in the presence of load growth, the impact of distributed generation (DG) placement at combined load power factor, impact of DG on voltage stability margin improvement. DG is developing fast all over the world in recent years due to its promising potential to reduce the portion of fossil energy consumption in electric power generation and mitigate power losses and harmful carbon emissions. DG placement plays a major role due to the increase in application of distribution system. A Standalone DG can provide required power to the remote applications. Optimum locations and sizes of DG sources reduce power losses, cost and it also have impact on voltage profile and voltage stability of a distribution network. For optimal allocation and sizing of DGs in distribution systems Moth Swarm Optimization (MSO) technique is adopted which is inspired by the movement of moth towards moonlight. A complete analysis is carried out on an IEEE 69 bus Radial Distribution System to prove the accuracy of proposed method. The results obtained by the proposed method are better than the other methods in terms of quality of the solution and efficiency.

TITLE OF THE PROJECT

SMART MONITORING & REDUCTION OF ENERGY CONSUMPTION OF CONSUMER USING GSM

PROJECT MEMBERS

SHALINI M	**(Reg. No. 910613105072)**
VANMATHI A	**(Reg. No. 910613105086)**
VEERALAKSHMI M	**(Reg. No. 910613105088)**
VIVITHA V	**(Reg. No. 910613105093)**

GUIDED BY

Mr. P. LOGANTHURAI, ASSOCIATE PROFESSOR/EEE

ABSTRACT

The gap between electric power generation and demand is going on increasing every year due development of industry and modernization of life style. The electric tariff is not linear, it increases when cross a margin, hence an increase of one unit consumption results in high electric bill. The main aim of the project is to reduce the consumer electric bill and create awareness to the public how billing method is executed in TANGEDCO and this project helps to modernize our billing system using GSM. The GSM is a technique works on the principle of TDMA (time division multiple access) and operates at the frequency of 900MHZ .The details of parameters measured from the measuring circuit is transferred to the mobile using GSM and it also shows the units consumed by the consumer. If the units consumed by the consumer exceed the 70% of target value, it will give a warning through SMS. Thus with the help of this project the consumption of energy and bill of the consumer will be reduced.

Our motive is to make people to get some knowledge about tariff method followed by TANGEDCO and saving their electricity by efficient process through warning system. This smart monitoring system is a wireless technology. This method is to reduce the energy consumption, there are some potent like Energy management system.The indication process also reduce the energy consumption of consumers through warning system.

TITLE OF THE PROJECT

IMPACTS OF ANXIETY IN BUILDING FIRE AND SMOKE EVACUATION USING IOT

PROJECT MEMBERS

SHANTHINI.G   (Reg. No. 910613105073)

SIVASAKTHI.G   (Reg. No. 910613105328)

VARSHITHA.S   (Reg. No. 910613105087)

GUIDED BY

Mr. P. LOGANTHURAI, ASSOCIATE PROFESSOR/EEE

ABSTRACT

Gas leakage and its related hazards are well known to us. This project proposes a micro controller based solution for this problem. Here the gas leakage problems are identified in two main domains, in industry and automobiles. Here we implement the gas sensing using commercial gas sensors. The sensor output will be fed to the micro controller. In an industry, on sensing gas leakage the system will immediately identify the location of the sensor and starts its quenching operation. At the same time temperature and smoke sensors are used in order to indicate the occurrence of fire and evacuate people. This project also enables stampede avoidance by putting set of arrows that indicate the specific direction for the people to avoid getting trapped in to the gas leakage and fire zone. The people can follow the direction indicated by the arrows for a safe exit. This project also enables a secondary light control system will come in to power when main power is shut down to avoid electrocutions.

TITLE OF THE PROJECT

EMBEDDED SYSTEM BASED CAR SECURITY SYSTEM

PROJECT MEMBERS

> **B.LAKSHMANAN**   **(Reg.No.910613105034)**
>
> **K.PANDI**   **(Reg.No.910613105049)**
>
> **M.PUVANESWARAN**   **(Reg.No.910613105058)**
>
> **A.G.SANJEEV KUMAR** **(Reg.No.910613105063)**

GUIDED BY

> **Mr. M.JEGADEESAN, ASSOCIATE PROFESSOR/EEE**

ABSTRACT

In today's world safety and security plays an important role, hence we tend to provide a good safety and security system while travelling. Vehicle tracking system installed in the vehicle to track its position. This system works with the help of Global Positioning system (GPS) and Global system for mobile communication (GSM). With the help of ultrasonic sensor GSM passes short message service (SMS) about the position of the vehicle that is tracked with the help of GPS the concerned person. Additionally we also provided with a Theft alert system. Nowadays, a lot of car thefts occur when they are parked. The theft alert system takes the photograph of the person who tries to open the car when it is parked and mails it to the owner of the vehicles. This system is provided with sensors and advanced microcontrollers.

TITLE OF THE PROJECT

A MODERNISTIC TECHNIQUE FOR MAXIMIZATION OF OUTPUT IN MEDIUM SCALE PV SYSTEM

PROJECT MEMBERS

AJITH R   (Reg. No. 910613105003)

AJITH PANDIAN V   (Reg. No. 910613105004)

KANNAN A   (Reg. No. 910613105024)

KARTHICK S   (Reg. No. 910613105026)

GUIDED BY

Dr.A.S.S.MURUGAN, ASSOCIATE PROFESSOR /EEE

ABSTRACT

The recent upsurge in the demand of PV (Photovoltaic) systems is due to the fact that they produce electric power without hampering the environment by directly converting the solar radiation into electric power. So the irradiance of sun should be utilized properly. Solar energy is completely natural and also considered a clean energy source. So the study on improving the efficiency of solar panel is very necessary. In this project,a proposed technique of cooling system is used .To increase the power output, efficiency and life time of solar panel. Temperature is the major factor that to be considered in solar panel design because it reduces the power output and life time of the solar panel. As panel temperature increases, the output power of solar panel decreases so cooling of panel is necessary for improvement of efficiency.The nominal operating temperature of solar panel is 28^0 Celsius and hence every increase in temperature from 28^0C,there is a drop in output voltage.

TITLE OF THE PROJECT

SCADA SYSTEMS FOR POWER DISTRIBUTION FOR LARGE MACHINES AND LIGHTING LOADS

PROJECT MEMBERS

DHINESH.M   (Reg.No.910613105017)

KATHIRVEL.M   (Reg.No.910613105028)

AJITHKUMAR.K.S   (Reg.No.910613105303)

GUIDED BY

Dr.A.S.S.MURUGAN, ASSOCIATE PROFESSOR /EEE

ABSTRACT

The aim of the project is to monitor and control the power system parameters in real time. The SCADA (Supervisory Control And Data Acquisition) system is used to measure the parameters of input voltage, input current, frequency and power factor. An advanced microcontroller is used to monitor the condition of power system. The parameter values exceeds the nominal value, the condition of the system and the measured values are transmitted to the higher official through the wireless data transmission and also signal in given to the relay circuit to trip the large machine from the supply, The simulation is done using with the help of LAB VIEW software.

TITLE OF THE PROJECT

AUTOMATIC SOLAR TRACKING AND MEASURING USING PIC MICROCONTROLLER

PROJECT MEMBERS

A.ARAVINTHANSAMY   (Reg. No.910613105009)

B.DHANASEKARAN   (Reg. No.910613105307)

R.DINESHBABU   (Reg. No.910613105308)

GUIDED BY

Dr.C.VIMALARANI, ASSOCIATE PROFESSOR /EEE

ABSTRACT

The aim of this project is to measure solar cell parameters through multiple sensor data acquisition. In this project a solar panel is used which keeps monitoring the sunlight. Here different parameters of the solar panel like the light intensity, voltage, current and the temperature are monitored. The microcontroller used here is PIC16F8 family.

The light intensity is monitored using an LDR sensor, voltage by voltage divider principle, current by current sensor and temperature by temperature sensor. All these data are displayed on a 16X2 LCD interfaced to PIC microcontroller.

The power supply consists of a step down transformer 230/12V, which steps down the voltage to 12V AC. This is converted to DC using a bridge rectifier. The ripples are removed using a capacitive filter and it is then regulated to +5V using a voltage regulator 7805 which is required for the operation of microcontroller and other circuits.

Tracking the sun from east in the morning to west in the evening will increase the efficiency of the solar panel the highest benefit of tracking the sun.

TITLE OF THE PROJECT

ONLINE POWER MONITORING USING LABVIEW

PROJECT MEMBERS

A.KOKILA   (Reg.No.910613105031)

M.KALEESWARI   (Reg.No.910613105023)

GUIDED BY

Mr.S.MANOHARAN,ASSISTANT PROFESSOR (Sr.Gr) /EEE

ABSTRACT

"Online Power Monitoring Using Lab VIEW" is used to measure the current, voltage, rms current, rms voltage and power factor of the incoming power. The existing methods of power monitoring having the drawback of incorrect measurements due to weather condition. There are different types of loads in industries such as resistive, inductive and capacitive loads. Generally industries having more inductive load , due to this inductive load power factor comes down, it can be measured by using NI-MyDAQ toolkit and improve the power factor by switching the capacitor bank automatically. If there is any overload occurs, it can be removed by using relay circuit through overload indication in lab view front panel virtual instrumentation. Through this system, we can overcome the problem of expenses of measurement devices like ammeter, voltmeter, harmonic analyzer and power factor measurement devices.

TITLE OF THE PROJECT

DESIGN OF DVR USING MICROCONTROLLER FOR POWER QUALITY IMPROVEMENT

PROJECT MEMBERS

M.KOWSALYA   (Reg.No.910613105032)

M.KOWSALYA   (Reg.No.910613105033)

T.G.MEENA   (Reg.No.910613105319)

S.PRATHIBAH   (Reg.No.910613105322)

GUIDED BY

Mrs.M.GANESHKUMARI, ASSISTANT PROFESSOR (Sr.Gr) EEE

ABSTRACT

This project work focus on model of Dynamic Voltage Restorer (DVR) which is used to mitigate the voltage sag and voltage swell which mostly occur in the power systems due to various factors. The basic principle of Dynamic Voltage Restorer is to inject the voltage of required magnitude and frequency, so that it can restore the load side voltage to the desired amplitude and waveform. It employs compact controller, external DC source, power converters, harmonic filter. The compact and economical custom power device is DVR which is effectively used in the industries where large motors are employed and in distribution networks. In this system we employ MSP430 Microcontroller and external source fed from the supply. The overall system is developed and validated by using MATLAB– SIMULINK environment and the proposed approach is developed in hardware. The designed hardware will provide compensation for the power quality problem for voltage sag.

TITLE OF THE PROJECT

IMPACT OF DISTRIBUTED GENERATION (DG) WITH SVC IN MESHED TRANSMISSION SYSTEM

PROJECT MEMBERS

S.NAVANEETHA   (Reg. No.910613105044)

M.PERIANAYAGI   (Reg. No.910613105054)

R.R.PRIYANKA   (Reg. No.910613105056)

GUIDED BY

Mr.M.JEYAMURUGAN, ASSISTANT PROFESSOR (Sr.Gr) /EEE

ABSTRACT

This project is about the impact of DG with SVC in meshed Transmission system. Voltage Profile is an important aspect of the Power system. But due to various load changes in the system the voltage is not constant it varies according to the changes in the load. This causes the problem of instability in the power system and it may lead to the damage of equipments connected to the system. Newton Raphson method is used for load flow analysis for the determination of the weakest Bus. In this work the integration of DG with SVC is used to improve the voltage profile of the system. By this integration both active and reactive power control is obtained. By injecting the reactive power at correct instance the voltage profile of the system is improved thereby the system stability is also maintained.

TITLE OF THE PROJECT

VOICE FOR VOICELESS USING FLEX SENSOR AND ARDUINO

PROJECT MEMBERS

LAVANYA.R   (Reg.No.910613105035)

NOORJAHAN ROFINA.K   (Reg.No.910613105046)

PACKIALAKSHMI.D   (Reg.No.910613105047)

GUIDED BY

Mrs.K.R.JEYAVELUMANI, ASSISTANT PROFESSOR /EEE

ABSTRACT

Communication is the best media for the people to share their views with each other. Generally dumb people use sign language for communication, but they find difficulty in communicating with others who don't understand sign language. This project aims to lower this barrier in communication. Gloves fitted with flex sensors are used along the length of each finger and the thumb. DUMB people can use the gloves to perform hand gesture and it will be Displayed and converted into speech so that normal people can understand their expression. A sign language usually provides sign for whole words. It can also provide sign for letters to perform words that don't have a corresponding sign in that sign language. Here Flex Sensor plays the major role, the resistance of the sensors changes depending on the amount of bend experienced by the sensor. Here the device recognizes the sign language for Alphabets and Numbers. In this project, a prototype is developed to reduce the communication gap between speech inspired people and normal people. Arduino software is used program in the hardware circuitry which is designed using microcontroller and sensors. According to the hand gestures the corresponding alphabets or word is displayed in LCD and given as voice through speaker.

TITLE OF THE PROJECT

TRANSMISSION LINE FAULT DETECTING UNMANNED DRONE

PROJECT MEMBERS

SANKAR PANDIAN.T   (Reg. No. 910613105064)

SARAVANAN.P   (Reg. No. 910613105066)

SELVARAJ.U   (Reg. No. 910613105070)

VIGNESH.R   (Reg. No. 910613105333)

GUIDED BY

Mr.M.BALAMURUGAN, ASSISTANT PROFESSOR /EEE

ABSTRACT

The aim of this project is to design and develop a remote system for continuous monitoring of fault currents and ground currents in high voltage electrical substations. Unmanned aerial vehicles (UAVs) or drones are nowadays very popular and widely used in scientific research for distributed data collection and remote sensing. Transmission line protection is an important issue in power system engineering because 85-87% of power system faults are occurring in transmission lines. This project presents a technique to detect faults on a transmission lines for quick and reliable operation of protection schemes propose a battery-powered board that can be embedded with any type of drone. The results are measured and send to the monitoring system by using ZigBee receiver and transmitter. We evaluated the effectiveness of the sensing methods by means of field experiment.

TITLE OF THE PROJECT

MULTILAYER SECURITY VAULT SYSTEM USING RASPBERRY PI

PROJECT MEMBERS

PRAVEEN KUMAR S.   (Reg. No.910613105701)

SNEGAJAN S.C.   (Reg. No. 910613105076)

SURESH KUMAR. U.   (Reg. No. 910613105330)

VARUN VEL S.   (Reg. No. 910613105332)

GUIDED BY

Mr.M.BALAMURUGAN, ASSISTANT PROFESSOR /EEE

ABSTRACT

Security is a thing of prime importance in the digital era. All access control systems forms a vital link in a security chain. The digital lock presented here is a system that allows only people with the right key to open the vault. This system is best suitable for corporate offices, ATMs and home security. The system comprises a small electronic unit with a numeric keypad, which is fixed outside the entry of vault to control a solenoid-operated lock with the help of a stepper motor. When an authorized person enters predetermined user ID(4 digit pin) and the on time password via the keypad, the stepper motor is operated for a limited time to unlock the solenoid-operated lock so the vault can be opened. The authentication is provided only when both the codes are matched. At the end of preset delay, the stepper motor is operated in reverse direction and the vault get locked again. When the code has been incorrectly entered three times in a row, the code lock will switch to block mode, and the alert message is sent and un authorized entry is identified and the image is captured and sent through the e-mail to the authorized person.

TITLE OF THE PROJECT

GLOBALLY ACCESSIBLE ROBOTIC ARM

PROJECT MEMBERS

AMBRISH BABU S   (Reg. No. 910613105007)

DHANUSHKUMAR G   (Reg. No. 910613105015)

BALAMURUGAN P   (Reg. No. 910613105011)

HARISHANKAR L   (Reg. No. 910613105309)

GUIDED BY

Mr.T.GOPU, ASSISTANT PROFESSOR /EEE

ABSTRACT

In this modern world in almost all industries, most of the work is done by robots or robotic arm with different angles of rotation as per the requirement of the work done. By using this robotic arm in industries, we can able to control and solve the problems instantly. This arm consists of a camera too by this we can able to see what is happening and what is the exact scenario there. This arm is especially used in industries where man can't work. These kinds of robots are very helpful in increasing the productivity and solving problems. The Arm can rotate different angle with the help of PWM signals. By this we have designed the robotic arm as human hand. The hand movements are made by the servomotor combination. The Robotic arm is placed above the rover the rover consists of 4 dc motors and the dc motors are controlled by the motor driver IC L293D. when the user make any changes in the Front panel. The process will start in the Block diagram and the signals will send to the raspberry pi by local IO communication. The DO pins are connected to the motor driver IC by the logical arrangement the motor starts rotate. And we have interfaced a temperature sensor to measure the room temperature. If the temperature exceeds a certain value, the Robotic Arm automatically displays a message that critical problems occur. After that the user can able to find out the problem with the camera interfaced with this Arm. And it can be diagnosed by the arm. If the temperature can't be accessed by the Robotic Arm is also displayed in the user
interface screen.

TITLE OF THE PROJECT

NOVEL FUZZY AND SERIES TRANSFORMER BASED FAULT CURRENT LIMITER

PROJECT MEMBERS

VENKATSABARI K K   (Reg. No. 910613105090)

SEEMAN K   (Reg. No. 910613105069)

SIVA KUMAR M   (Reg. No. 910613105075)

SENTHILKUMAR K   (Reg. No. 910613105071)

GUIDED BY

Mr.R.JEYAPANDI PRATHAP, **ASSISTANT PROFESSOR /EEE**

ABSTRACT

Developing power system networks and their interconnections may increase the short-circuit levels beyond the capacity of circuit breakers (CBs).Short-circuit fault can cause overvoltage transients, loss of synchronization, This project proposes a novel transformer-based solid state fault current limiter (TBSSFCL) for radial distribution network applications. The proposed TBSSFCL is capable of controlling the magnitude of fault current. In order to control the fault current, primary winding of an isolating transformer is connected in series with the line and the secondary side is connected to a reactor, paralleled with a bypass switch which is made of anti-parallel insulated gate bipolar transistors. Fuzzy control logic used to control active devices switching activities By controlling the magnitude of ac reactor current, the fault current is reduced and voltage of the point of common coupling is kept at an acceptable level. Also, by this TBSSFCL, switching overvoltage is reduced significantly.

TITLE OF THE PROJECT

WIRELESS NETWORKS FOR POWERED BASE STATION BY DECENTRALIZED ENERGY DISTRIBUTION

PROJECT MEMBERS

K.KASI   (Reg.No. 910613105316)

M.PRAVEEN KUMAR   (Reg.No.910613105323)

GUIDED BY

Mr.R.JEYAPANDI PRATHAP, **ASSISTANT PROFESSOR /EEE**

ABSTRACT

This project proposes a vision of next-generation monitoring, analysis, and control functions for tomorrow's smart power system control centres. Work reviews the present control center technology and then presents the vision of the next generation monitoring .Proposes a digital system for energy usage evaluation, condition monitoring, diagnosis, and supervisory control for electric systems applying wireless sensor networks (WSNs) with dynamic power management (DPM). The communication network and controller has been modeled and tested for the performance of monitoring system and data communication capability on smart grid using network simulator

TITLE OF THE PROJECT

ADVANCED ENERGY MANAGEMENT WITH AUTOMATIC MONITORING AND SECURITY SYSTEM

PROJECT MEMBERS

A. ARIHARAN   (Reg. No. 910613105304)

P. BALAVIKNESH   (Reg. No. 910613105305)

M. KALEESWARAN   (Reg. No. 910613105311)

T. KANNU SAMY   (Reg. No. 910613105312)

GUIDED BY

Mr. S. RAJALINGAM, **ASSISTANT PROFESSOR /EEE**

ABSTRACT

A home appliance control system (HACS) is a system which provides various services to remote systems such as a mobile phone, desktop and palm-top, to control, monitor and coordinate home appliances such as microwave oven, entertainment system, security system, air conditioning system, Sprinklers, Pet Feeder etc. The HACS system is illustrated below. This document furnishes the Use Case diagrams, Class diagrams, Sequence diagrams and Collaboration diagrams for the Home Appliance Control System using UML The Home appliance control system is controlled either by a cell phone or a by palm top or by a PC. They are connected either through IOT, the Internet, or intranet. It controls various appliances such as a microwave, TV etc. The HACS system receives commands from remote devices that are manipulated by user. The system in turn dispatch commands to respective appliances that will perform the actions. HACS is responsible for keeping track of the states of the devices. If something goes wrong, it will notify the user by sending messages back to the remote devices as well as emergency department if necessary. IOT or internet of things is an upcoming technology that allows us to control hardware devices through the internet. Here we propose to use IOT in order to control home appliances, thus automating modern homes through the internet. This system uses three loads to demonstrate as house lighting and a fan. Our user friendly interface allows a user to easily control these home appliances through the internet. For this system we use an PIC microcontroller. This microcontroller is interfaced with a Wi-Fi modem to get user commands over the internet. With advancement of Automation technology, life is getting simpler and easier in all aspects. In today's world Automatic systems are being preferred over manual system. With the rapid increase in the number of users of internet over the past decade has made Internet a part and parcel of life, and IoT is the

latest and emerging internet technology. Internet of things is a growing network of everyday object-from industrial machine to consumer goods that can share information and complete tasks while you are busy with other activities. Wireless Home Automation system(WHAS) using IoT is a system that uses computers or mobile devices to control basic home functions and features automatically through internet from anywhere around the world, an automated home is sometimes called a smart home.

TITLE OF THE PROJECT

HIGH VOLTAGE DIRECT CURRENT GENERATION FOR X-RAY GENERATOR USING PWM TECHNIQUE TO CHECK BOILER WELD

PROJECT MEMBERS

AKASH KARMEGAM.V.R   (Reg.No.910613105005)

ARUN PANDIAN.S   (Reg.No.910613105010)

KARTHICK.P   (Reg.No.910613105025)

ABBAS.S.B   (Reg.No.910613105301)

GUIDED BY

Mr.N.VIMAL RADHA VIGNESH, ASSISTANT PROFESSOR /EEE

ABSTRACT

X-ray generator is mainly used for non-destructive testing for security purposes and so on. In order to adjust cross voltage and current through the X-ray tube, this project adopts a PWM technique to vary the output of HV transformer and produce the high voltage direct current required for the X-ray generation .The tube voltage adjustable range is 20kv to 320kV and the tube current is maintained as 10mA.Thousands of welded joints present in the boiler are made using automatic and semi automatic welding machine and in this welds different flaws may occur. Real time system using X-rays have been installed at BHEL Trichy for online inspection of boiler welds. This project can set up work parameters and get the working status by LCD and console on the generator. In this project the flaws in boiler tube welds can be identified by using X-ray based testing (radiographic testing).

TITLE OF THE PROJECT

MICRO GRID CONTROLLING USING TRANSFORMER BASED SOLID STATE FAULT CURRENT LIMITER "TBSSFCL"

PROJECT MEMBERS

P. MEENA PRIYA DHARSHINI (Reg.No.910613105039)

J. MERIBA CECILI (Reg.No.910613105040)

T. MUTHUMATHI (Reg.No.910613105043)

GUIDED BY

Mr.T.MANOJ, ASSISTANT PROFESSOR /EEE

ABSTRACT

Aiming at controlling the micro grid with multiple distributed generation (DG) units, this project has a novel transformer-based solid state fault current limiter (TBSSFCL) for radial distribution network applications. The proposed TBSSFCL is capable of controlling the magnitude of fault current, so as to improve its transient performance under fault conditions. In order to control the fault current, primary winding of an isolating transformer is connected in series with the line and the secondary side is connected to a reactor, paralleled with a bypass switch which is made of anti-parallel insulated gate bipolar transistors. By controlling the magnitude of ac reactor current, the fault current is reduced and voltage of the point of common coupling is kept at an acceptable level. Also, by this TBSSFCL, switching overvoltage is reduced significantly. Relevant theory analysis of structure principle, control strategy and simulations under different fault conditions are performed in MATLAB. From the results, the control of SFCL can contribute to limit the fault current. The proposed TBSSFCL can improve the power quality factors and also, due to its simple structure, the cost is relatively low**.**

TITLE OF THE PROJECT

PIC MICROCONTROLLER BASED HOME AUTOMATION USING BLUETOOTH AND GSM

PROJECT MEMBERS

AKILA K   (Reg.No.910613105006)

HEMA R   (Reg.No.910613105019)

IMAYAKANI B   (Reg.No.910613105020)

KATHUN SARIFA M   (Reg.No.910613105029)

GUIDED BY

Mrs.R.JEYAROHINI, ASSISTANT PROFESSOR /EEE

ABSTRACT

The main objective of the project is to help old aged people and handicapped people to control their home appliances from remote places in a secured way. PIC16F877A can be used as the master controller to control the electrical appliances. Software tool named CCS C compiler is used to program a PIC in embedded C language. PIC microcontroller controls the home from outdoor through the GSM module and indoor through Bluetooth module. In the Existing System any user can access the Home automation system. So our work is to improve the security of the home automation control. And hence we can send the SMS to the PIC after the password authentification step. In the same way, the Bluetooth HC05/06 can be accessed only after entering a recognized code in the Android Application which is interfaced with the Master PIC Microcontroller. By this way only registered users can access their home appliances.

TITLE OF THE PROJECT

SMART SENSED AUTOMATIC CONTROL OF BOILER USING PID CONTROLLER

PROJECT MEMBERS

A.MANIKANDAMARIAPPAN   (Reg.No.910613105038)

M.MONISH   (Reg.No.910613105041)

S.MUTHUKUMAR   (Reg.No.910613105042)

B.N.PADMANABAN   (Reg.No.910613105048)

GUIDED BY

Mr.S.P.RAJARAM, ASSISTANT PROFESSOR /EEE

ABSTRACT

The large majority of electric power that is generated world-wide involves heat engines of one kind or another. In this paper we are showing the control of constant temperature according to the desired value (set point) in a closed loop using PID controller system. For this, we are using a microcontroller, a temperature sensor for sensing the temperature of the closed loops. By using the microcontroller we compare the desired value with current value and it is displayed in the LCD. Also to provide the constant temperature, Fan or Heater is turned On or Off according with the variations of current temperature in o^C from desired set point.

TITLE OF THE PROJECT

DESIGN AND IMPLEMENTATION OF PV BASED HYBRID HARMONIC FILTER USING LabVIEW

PROJECT MEMBERS

BOOMATHI.M   (Reg.No.910613105013)

COLEEN.S   (Reg.No.910613105014)

KAVITHA.S   (Reg.No.910613105030)

GUIDED BY

Ms. E.JEYASRI, ASSISTANT PROFESSOR /EEE

ABSTRACT

The power demand becomes high and to meet out the demand, the renewable energy resources are utilized. The proposed work utilizes Solar Energy to generate electric power. The PV system utilizes the power electronic devices for inversion and conversion systems. Due to the integration of power electronic devices, the power quality issues have been raised and have led to waveform distortion. As a consequence of Harmonics, the strange condition at various electrical equipment that are connected to the PV system has been created. As a result of this, current Total Harmonic Distortion (THDI) values violates its limit as mentioned in standard specified by IEEE 519-1992. The proposed work deals with the design of hybrid harmonic filter for PV based Power Systems. The proposed system makes use of LabVIEW software for automation and hybrid filter design. The LabVIEW act as a controller for the proposed work in acquiring, monitoring and controlling the distorted current waveform. The current waveform of the system is analyzed and based on the power spectrum, filter circuit is designed and coupled with the PV system. The THD of the current waveform of the proposed PV system is reduced using hybrid harmonic filter.

TITLE OF THE PROJECT

ECONOMIC DISPATCH AT MAXIMUM ALLOWABLE LOAD USING FLOWER POLLINATION ALGORITHM

PROJECT MEMBERS

AADHITHYA S   (Reg.No.910613105001)

AARTHI J   (Reg.No.910613105002)

BIRUNDHA S   (Reg.No.910613105012)

GUIDED BY

Mrs. A.P.S.RAMALAKSHMI, ASSISTANT PROFESSOR /EEE

ABSTRACT

Maximum allowable load is the margin between the operating point of the system and the maximum loading point. Economic dispatch is used to minimize the cost of generation. In this work, a multi-objective optimization is used to reduce the fuel cost at maximum allowable load. Several evolutionary algorithm have been emerging for optimizing problems. A new emerging algorithm called Flower Pollination Algorithm (FPA) is to be considered, to minimize the cost and to maximize the loading parameter(λ).This work presents the application of FPA to determine the economic dispatch at maximum allowable load of power system. FPA is an emerging nature inspired algorithm,which has been developed rapidly and has been applied to solve constrained and unconstrained problems. The proposed work has been tested on IEEE 30 bus system. The results show that the proposed approach FPA converges to a better solution and compared to differential evolution algorithm fuel cost of generation is reduced.

TITLE OF THE PROJECT

VOLTAGE REGULATION ON TRANSMISSION LINE USING PV SYSTEM

PROJECT MEMBERS

    K.KARTHICK   (Reg.No.910613105313)

    N.N.KARTHIKEYAN (Reg.No.910613105315)

    M.MANIKANDAN   (Reg.No.910613105317)

    S.NIZHARUDEEN   (Reg.No.910613105321)

GUIDED BY

    Mrs. V.SINDHU, ASSISTANT PROFESSOR /EEE

ABSTRACT

A power system is said to be well designed if it gives a good quality of reliable supply. Voltage level maintained within reasonable limits is referred as good quality. If voltage variation is more than specified value, the performance of equipment suffers and also the life of equipment is affected. When the load on the system increases the voltage at the consumer terminals falls due to the increased voltage drop in alternator synchronous impedance, transmission line, transformer impedance, feeders and distributors. In our project this voltage drop is compensated by using PV system. So in order to maintain the power system quality, the STATCOM will absorb and provide reactive power to mitigate the voltage sag and swell occurred due to different causes. STATCOM requires some energy storage devices such as battery. The battery can be charged with the help of PV panel. Voltage from the PV panel can be regulated by DC-DC converter circuit. The result of our project is to maintain the voltage at the line with respect to load conditions.

TITLE OF THE PROJECT

ATTENDANCE MONITORING SYSTEM FOR EDUCATIONAL INSTITUTIONS USING RASPBERRY PI

PROJECT MEMBERS

SENTHILKUMAR K   (Reg. No. 910613105071)

VEERAPATHIRAN K   (Reg. No. 910613105089)

SASIKUMAR D   (Reg. No. 910613105325)

RASUKUTTY R   (Reg. No. 910613105324)

GUIDED BY

Ms. R. DIVYA, ASSISTANT PROFESSOR /EEE

ABSTRACT

Automated Information System is playing a major role in the growth, advancement, and modernization of our daily work processes. The main purpose of this proposed work is to develop a safe and secure Radio Frequency Identification (RFID) based attendance monitoring system using Raspberry Pi. The conventional method of taking attendance by calling names or signing on paper consumes large amount of time and hence inefficient. Thus, RFID based attendance monitoring system using Raspberry Pi is one of the solutions to address this problem. The proposed RFID based technique facilitates use of automatic wireless identification through electronic passive tags with suitable readers which can automatically capture student's attendance by flashing their student card at the RFID reader. The proposed system of automated attendance monitoring illustrates a physical system which incorporates an application of RFID and wireless data base record entries using Raspberry Pi. This automated system not only eliminates the huge time consumption in traditional attendance monitoring system but also maintains the record of entries of the students which can be used for statistical purposes like allocation of appropriate attendance score, calculation of attendance percentage and further administrative tasks. This system can also maintain the attendance records of teachers/staff members of an institution. The proposed system is also facilitated with an automated SMS service, which sends an SMS automatically to the parents in order to notify that their ward has successfully reached the college. Both parents and their wards will be notified via SMS if the student is lagging behind in their attendance percentage which gives an idea of the student's consistency in attendance throughout the semester.

TITLE OF THE PROJECT

ENERGY EFFICIENT BLDC DRIVE WITH CONSTANT TORQUE USING C-DUMP TECHNOLOGY

PROJECT MEMBERS

PARAMESWARI M   (Reg.No.910613105051)

PON SARUMATHI M   (Reg.No.910613105055)

PRIYANKA S   (Reg.No.910613105057)

GUIDED BY

Mrs. M.BHARANILAKSHMI ASSISTANT PROFESSOR /EEE

ABSTRACT

Permanent magnet brushless DC motor (PMBLDC) has a wide range of applications in many fields such as Industries, Medical, Domestic as well as Transport. This high usage is achieved due to its high torque, compact size, longer lifetime and reliability. In our project these features can be enhanced by using energy recovery scheme. In this we employ C dump technology for better efficiency. The capacitor is added to the circuit to store the demagnetized energy of the stator winding. The stator winding is excited using in a manner to produce the Trapezoidal back emf as well as to produce the constant torque. Hence the PMBLDC drive act with constant torque and also efficiency gets improved. The torque control and increased efficiency is obtained by our project.

TITLE OF THE PROJECT

REMOTE WIDE AREA OSCILLATION MONITORING AND LOAD SHEDDING USING LOAD RESTORATION METHOD

PROJECT MEMBERS

M.P.LAXMEN BABU   (Reg.No.910613105036)

P.NAVEEN KUMAR   (Reg.No.910613105045)

K.MANOJKUMAR   (Reg.No.910613105318)

A.MOHAMMED FAIZAL   (Reg.No.910613105320)

GUIDED BY

Dr. M.MAHALAKSHMI, ASSISTANT PROFESSOR /EEE

ABSTRACT

Restoring a large-scale power system has always been a complicated and important issue. A lot of research work has been done on different aspects of the whole power system restoration procedure. However, more time will be required to complete the power system restoration process in an actual situation if accurate and real-time system data cannot be obtained. With the development of the wide area monitoring system (WAMS), power system operators are capable of accessing to more accurate data in the restoration stage after a major outage. The ultimate goal of the system restoration is to restore as much load as possible while in the shortest period of time after a blackout, and the restorable load can be estimated by employing WAMS. Moreover, discrete restorable loads are employed considering the limited number of circuit-breaker operations and the practical topology of distribution systems. In this work, a restorable load estimation method is proposed employing WAMS data after the network frame has been reenergized, and WAMS is also employed to monitor the system parameters in case the newly recovered system becomes unstable again.