ESTD. 2001

PRATHYUSHA
ENGINEERING COLLEGE
Poonamallee - Thiruvallur Road, Chennai-602 025

MINIPROJECTS 2017-18

ODD SEMESTER

MINIPROJECTS 2017-18
ODD SEMESTER

S.No.	Department	Miniproject Coordinator	Total	Page No.
1	CSE	Ms. K. P. Revathi	116	3
2	IT	Ms. C. Kamatchi	31	53
3	ECE	Ms. S. Vimala	60	77
4	EEE	Ms. S. Shobana	37	139
5	MECHANICAL	Mr. V. Balaji	84	178
6	BIOTECH	Mr. Cholapandian	28	262
7	CIVIL	Mr. Kumaresan	21	293
Total Miniprojects			377	

MINIPROJECTS 2017-18
ODD SEMESTER

16.9.2017

Department	Miniproject Coordinator	Domain	No. of Miniprojects	Total
CSE	Ms.K.P.Revathi	IOT	15	116
		MOBILE APP	4	
		ACS,ANALYTICS CLUB	10	
		GAMING AND MULTIMEDIA CLUB	6	
		PROGRAMMING,NETWORKING CLUB	22	
		WEB-TECH CLUB	38	
		COURSES,LAB PROJECTS	20	

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
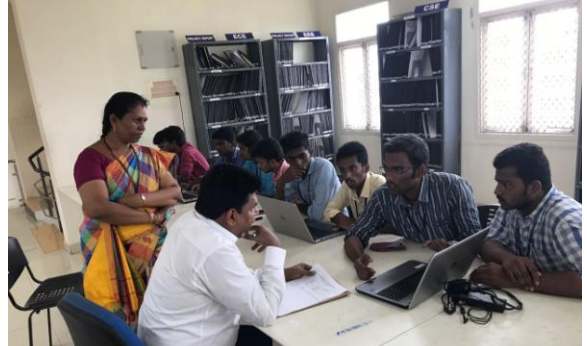
TEAM ID-**MA-IV-27**

TITLE OF THE PROJECT-**Chat Application for Ticketing**

FACULTY GUIDE:Ms.V.R.Kavitha

Name1
:BANDLA VENKATA RAMA PULLA RAO

Name2:
DIVI VISHNU VARDHAN

Miniproject Photo

Abstract :

Teleconferencing or Chatting, is a method of using technology to bring people and ideas "together" despite of the geographical barriers. The technology has been available for years but the acceptance it was quit recent. Our project is an example of a chat server. It is made up of 2applications the client application, which runs on the user's Pc and server application, which runs on any Pc on the network. To start chatting client should get connected to server where they can practice two kinds of chatting, public one (message is broadcasted to all connected users) and private one (between any 2 users only) and during the last one security measures were taken.

Achievements:

Project Design Contests:Nil

Symposium:PEC Sympo,Workshop

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-**IOT-III-14**

TITLE OF THE PROJECT-**Weather Reporting System over IoT**

FACULTY GUIDE:Ms.R.Kannamma

Name1 :PREETHA. P

Name 2: PAVITHRA. R

Miniproject Photo

Abstract :

Our proposed system allows for weather parameter reporting over the internet. It allows the people to directly check the weather stats online without the need of a weather forecasting agency. System uses temperature, humidity as well as rain sensor to monitor weather and provide live reporting of the weather statistics. The system constantly monitors temperature using temperature sensor, humidity using humidity sensor and also for rain. The system constantly transmits this data to the microcontroller, which now processes this data and keeps on transmitting it to the online web server over a wifi connection. This data is live updated to be viewed on the online server system. Also system allows user to set alerts for particular instances, the system provides alerts to user if the weather parameters cross those values. Thus the IOT

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-**TL-II-76**

TITLE OF THE PROJECT-**Fast Shortest path algorithm for road network application**

FACULTY GUIDE:**Ms.M.Vanitha**

Name1:
VAISHALI
.D

Name2:
VARALAKS
HMI .R

**Miniproject
Photo**

Abstract :

Shortest Path problems are inevitable in road network applications such as city emergency handling and drive guiding system, in where the optimal routings have to be found. Therefore, the efficiency of the algorithm is very important. Some approaches take advantage of preprocessing that compute results before demanding. This project aims at the single source shortest path problems and intends to obtain solution by implementing Restricted search algorithm.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-**IOT-III-15**

TITLE OF THE PROJECT- **Voice Based Control for Blind People's**

FACULTY GUIDE:**Ms.K.P.Revathi**

Name1: KARTHICK .M

Name2: N.ABISHEK RAJA

Name3: MOHANLA L

Miniproject Photo

Abstract :

In this paper we present a Home Automation system(HAS) using Intel Galileo that employs the integration of cloud networking, wireless communication, to provide the user with remote control of various lights, fans, and appliances within their home and storing the data in the cloud. The system will automatically change on the basis of sensors' data. This system is designed to be low cost and expandable allowing a variety of devices to be controlled.

Achievements:

Project Design Contests:BitFutra

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-**MA-IV-30**

TITLE OF THE PROJECT- **MOBILE APP ON PEC PLACEMENT CELL**

FACULTY GUIDE:**Ms.K.P.Revathi**

Name1:
SUBHASINI
.P.

Name2:
SOWMIYA.
K.

Name3:
VIJAYALAK
SHMI.T.S.

Miniproject Photo

Abstract :

A college campus recruitment system that consists of a student login, company login and an admin login. The project is beneficial for college students, various companies visiting the campus for recruitment and even the college placement officer. The software system allows the students to create their profiles and upload all their details including their marks onto the system. In this System student can register online instead of going to Placement Department for registration. This System saves time and efforts. The admin can check each student details and can remove faulty accounts. The system also consists of a company login where various companies visiting the college can view a list of students in that college and also their respective resumes. The software system allows students to view a list of companies who have posted for vacancy. The admin has overall rights over the system and can moderate and delete any details not pertaining to college placement rules. The system handles student as well as company data and efficiently displays all this data to respective sides.

Achievements:

Project Design Contests:BitFutra,SRM Univ

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-**GM-II-31**

TITLE OF THE PROJECT- **Sudoku Game**

FACULTY GUIDE:**Ms.V.Anithalakshmi**

Name1:
NAVEEN
KUMAR .K

Name2:
KANAMARLA
PUDI SAI
MANKANTA

Name3:
GANGINE
NI TEJ
KUMAR

**Miniproject
Photo**

Abstract :

A lesser-known fact is that Sudoku is a special case of Latin squares, and hence the enumeration of the total number of possible grids proves to be an interesting combinatorial problem. Previous researchers have come up with an accurate answer to this question through various reduction methods as well as computer-based programming: they derived a way to place all Sudoku grids into 44 different classes, after which each class was enumerated separately. Here we develop a mathematical C++ -approach to solve specific Sudoku problems.In addition, the report details the implementation of the complexity of the algorithms used to solve any kind of Sudoku puzzle. Also, how to generate a puzzle with different level of difficulties and make sure there will be only one solution

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-**GM-II-34**

TITLE OF THE PROJECT- **TIC- TAC-TOE Gaming using C++**

FACULTY GUIDE:**Ms.S.Famitha**

Name1: KRITHIKA S R

Name2: MAHIMA MISHRA

Miniproject Photo

Abstract :

Tic-Tac- Toe is one of the simple game, which is also called as noughts and crosses but in our local terms we called it as cross-zero game. It is a pencil-and-paper game for two players, where player select X and O, as their playing item. It is played on the grid of 3×3. The player who succeeds in placing three respective marks in a horizontal, vertical, or diagonal row wins the game.The win and start game is given a value so to keep who wins the game and where to start from with considering tie as another option. The move on the board by check at the corner and in the middle space.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-**GM-III-36**

TITLE OF THE PROJECT- **Tank Game using C++**

FACULTY GUIDE:**Ms.S.Famitha**

Name1: PRABHU .P

Name2: SURENDA R S

Miniproject Photo

Abstract :

Main objective of this project is to design a military type game with two players. Each player will have tanker and base camp and options to gain points by attacking other player tanker and base. Winner is decided based on points he will achieve by destroying opponent camp. There are three ways to complete game and win points. In first option which player winds gold will win match and second option is destroying opponent base camp and third option is reaching maximum number of moves. The main objective of the project travelling agency is to make avail to the customers all sorts of travelling services. A host of services such as registration, display, search, modify etc are provided. In the registration step, the client has to provide his personal details. In the option of display all the client information is read like name, phone, cost etc. in the search tab, if information of a particular client is required, then that be obtained.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **ACS-IV-17**

TITLE OF THE PROJECT- **Service for establishing an Help Desk for Farmers in Agriculture**

FACULTY GUIDE:**Dr.S.Padmapriya**

Name1: RAMAJAYAM. C.

Name2: JAYAKUMAR .E

Name3: BARATH KUMAR

Miniproject Photo

Abstract :

The objective of the project is to implement good practices in governance of agriculture in general and agricultural extension initiatives in particular for improving effective response to the current challenges of small-holder agriculture. In agriculture zone it will be very difficult to check and monitor the weather parameter through wires and analog devices during some Weather hazards. To overcome this problem here the wireless sensors are used to check and monitor the weather parameters. Monitoring the weather parameters in agriculture zone plays an important role in farming production processes. In this system, a wireless sensor network based on IOT is utilized as a weather station network sending weather information or guideline to the farmers to plan their farm. The weather parameters which are measured by the system are temperature, humidity in the soil. The system takes advantage of wireless sensor networks which can send signals over far distances by using a mesh topology; this transfers the data and also consumes low power. Therefore, this system can be installed in locations that are difficult to hardwire. It can also be extended by creating a Mobile App to control irrigation and farming activities

Achievements:

Project Design Contests:BitFutra.

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **DAS-II-24**

TITLE OF THE PROJECT- **KEYSTROKE ANALYSIS**

FACULTY GUIDE:**Ms.K.P.Revathi**

Name1:
BHAVANI
SREE .S

Name2:
LAVANYA .R

Name3:
DEEPIKA .M

**Miniproject
Photo**

Abstract :

This paper on "Keystroke analysis" offers an introduction to biometric security by the method of keystroke analysis. This system makes use of the rawest form of data which stems from the interaction between humans and computers. This method of keystroke analysis uses the manner and rhythm by which the user types the input on the keyboard. Digraph latency is used to record this behavioral pattern and thereby makes it to a top security feature. The project employs user's identity by the way in which their way of typing in a computer keyboard. The typed key measurements from every keyboard are recorded and this is used to determine dwell time when the key is pressed and flight time which is between key transitions. This recorded keystroke data is processed for a neural algorithm that determines a primary pattern which can be compared in future. The only hardware used is only a keyboard. This can be implemented by a password

Achievements:

Project Design Contests:BitFutra.

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **NW-IV-40**

TITLE OF THE PROJECT- **Intranet Management System**

FACULTY GUIDE:**Ms.V.R.Kavitha**

Name1:
SRIRAM.J.

Name2:
SURESH
ANAND.K.

Name3:
SASIDHARAN.K

**Miniproject
Photo**

Abstract :

The main objective of developing this Java Intranet Management System(JIMS) is to provide the best and effective communication system over the LAN. This project was designed with Java server classes and all other local system clients over the LAN can be communicated with sockets.The server over the LAN takes place to share the resources to all the clients and provide effective communication and this web application can be worked as the web chatting messenger like Yahoo.Here this system architecture works with server and clients using sockets, before sending the message from source to destination this system creates a path and establish a connection between these clients after sending the data successfully it will automatically close the established connection.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **PC-II-42**

TITLE OF THE PROJECT- **Generating Travelling Agency Report**

FACULTY GUIDE:**Ms.S.Famitha**

Name1:
GADIKOTA
SAI AKARSH

Name2:
RAPURU
PAVAN
KUMAR

Name3:
NALLANGU
CHANDRASEK
HAR

Miniproject Pho

Abstract :

The main objective of the project travelling agency is to make avail to the customers all sorts of travelling services. A host of services such as registration, display, search, modify etc are provided. In the registration step, the client has to provide his personal details. In the option of display all the client information is read like name, phone, cost etc. in the search tab, if information of a particular client is required, then that be obtained.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **PC-III-43**

TITLE OF THE PROJECT- **GSM BASED HOME AUTOMATION**

FACULTY GUIDE:**Ms.V.Anithalakshmi**

Name1:
R.GANESH
PRASAD

Name2:
A.GNANA
VEL

Name3:
GOVERTHAN
.D

Miniproject Pho

Abstract :

Mobile phone is a revolutionary invention of the century. It was primarily designed for making and receiving calls & text messages, but it has become the whole world after the Smart phone comes into the picture. In this project we are building a home automation system, where one can control the home appliances, using the simple GSM based phone, just by sending SMS through his phone. In this project, no Smart phone is needed, just the old GSM phone will work to switch ON and OFF any home electronic appliances, from anywhere.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **PC-II-56**

TITLE OF THE PROJECT- **ONLINE COMPLAIN MANAGEMENT SYSTEM.**

FACULTY GUIDE:**Ms.K.Shankar**

Name1: SANTHOSH .V.R

Name2: SANTHOSHK UMAR .C

Name3: SATHISH KUMAR .P

Miniproject P

Abstract :

This project is aimed to develop an "Online Complaint Management System" provides an online way of solving the problems faced by the public by saving time and eradicate corruption. The objective of the complaints management system is to make complaints easier to coordinate, monitor, track and resolve, and to provide company with an effective tool to identify and target problem areas, monitor complaints handling performance and make business improvements. Online Complaint Management is a management technique for assessing, analyzing and responding to customer complaints. Complaints management software is used to record resolve and respond to customer complaints, requests as well as facilitate any other feedback.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **PC-II-55**

TITLE OF THE PROJECT- **Project database System**

FACULTY GUIDE: **Ms. K Sornalatha**

Name1:
SARANYA .T

Name2:
DIVYA .N

Miniproject Photo

Abstract :

Project management is a system of management procedures, practices, and know-how needed to manage a project successfully. Software engineering projects are frequently part of larger, more comprehensive projects that include equipment (hardware), facilities, personnel, and procedures, as well as software. Examples include aircraft systems, accounting systems, radar systems, inventory control systems, and railroad switching systems. These system engineering projects are typically managed by one or more system project managers (sometimes called program managers) who manage projects composed of engineers, experts in the field of the application, scientific specialists, programmers, support personnel, and others.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **PC-II-54**

TITLE OF THE PROJECT- **Time Table Generator**

FACULTY GUIDE: **Ms. K Sornalatha**

Name1: CHAMANTHI .V

Name2: DHANUSHA .V.N

Miniproject Photo

Abstract :

An effective timetable is crucial or the satisfaction on enormous requirement and the efficient utilization on human and space resources, which make it an optimization problem. Traditionally, the problem is solved manually by hit and trial method, where a valid solution is not guaranteed. Even in a valid solution is round it is likely to miss or better solution. These uncertanties have motivated or the scientific study on problem, and to develop an automated solution technique or it. The problem is heavily studied or last more than decades but a general solution technique is yet to be formulated. Timetabling problem can be defined to be the problem on arranging a number on events into a limited number on timetabling as follows. Time tabling is the allocation on sub sect to constraints that are usually divided into two categories hard and for achieving the problem statement.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **NC-II-52**

TITLE OF THE PROJECT- **Andorid Board Crossing App**

FACULTY GUIDE: **Ms. R. Kannamma**

Name1:
SOMINENI
PENCHALA
KRISHNA BABU

Name2:
SUNKARA
BHARATH
KUMAR

Miniproject Photo

Abstract :

User login his account and play the game whenever he register and after finished the race user can see the score. Score is in three form one is Recent score user can see the recent score of himself. User also can see the highest score from all the user. The total score from all the user can be consolidated after playing the game user logout their account. This project aimed to create a boat audio system that was generic in the sense that with the appropriate input the system could believably recreate the sound of any particular boat that might be desired within a racing game. Additionally, the system should not present a significant processing load to the host system, allowing it to be used effectively in resource-restricted game contexts.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **TL-II-62**

TITLE OF THE PROJECT- **Shortest Path in Road Map using Dijikstra's Algorithm**

FACULTY GUIDE: **Ms. S.Famitha**

Name1:
ARAVIND .N

Name2:
DHINESH .M

Miniproject

Abstract :

Shortest Path problems are inevitable in road network applications such as city emergency handling and drive guiding system. The traffic condition among a city changes from time to time and there are usually huge amounts of requests occur, it needs to find the solution quickly. The main objective is the low cost of the implementation. The shortest path problem is to find a path between two vertices (nodes) on a given graph, such that the sum of the weights on its constituent edges is minimized. This problem has been intensively investigated over years, due to its extensive applications in graph theory, artificial intelligence, computer network and the design of transportation systems. The classic Dijkstra's algorithm was designed to solve the single source shortest path problem for a static graph. It works starting from the source node and calculating the shortest path on the whole network. Noting that an upper bound of the distance between two nodes can be evaluated in advance on the given transportation network.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **TL-II-63**

TITLE OF THE PROJECT- **Contact Management System**

FACULTY GUIDE: **Ms. S.Famitha**

Name1:
BODDU VAMSI

Name2:
RAMACHANDRUNI
HEMANTH VALLI
KRISHNA

Miniproject
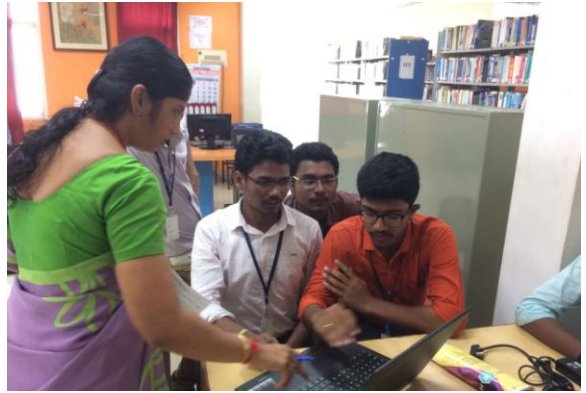
Abstract :

In this project, we can add, view, edit, search and delete contacts. All added and edited records are saved in a file. We can list contacts by name, phone no., address and email. File handling has been used to record all data. The Linked list data structure to store the user name, email and contact. Add new contacts with information such as name, phone number, address, and email. List all contacts: lists all the contacts stored in file with their respective contact details. Search contacts: based on name and phone number. Edit contacts: edit information given while adding the contacts – name, phone number, address, and email. Delete contacts: deletes contacts from file.

Achievements:

Project Design Contests:Nil

 Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **TL-IV-64**

TITLE OF THE PROJECT- **Personalized Search Engine**

FACULTY GUIDE: **B.Gunasundari**

Name1:
SATHEESHKUM
AR.R.

Name2:
SELVAGANAPATHY.S.
T.

Miniproj

Abstract :

PSE stands for personalised search engine.Our search engine gets a periodic update of the user's most viewed web pages and displays the website's latest news and updates.This changes depends upon the users geographical area so that the users are enabled to synchronize their current location with the website and provides better results.

Concepts used:

1. Getting permissions using requestPermissions().
2. Heap Allocation of index instance's call priority.
3. Binary Algorithm-to sort the index values in Descending order.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **TL-II-66**

TITLE OF THE PROJECT- **Decision tree classification system**

FACULTY GUIDE: **B.Gunasundari**

Name1:
RANGANI
KALYANI

Name2:
PAVITHRA .K

Miniproject Photo

Abstract :

Classification is considered to be one of the important building blocks in data mining problem. The major issues concerning data mining in large databases are efficiency and scalability. This paper addresses these issues by proposing a data classification method using AVL trees, which enhances the quality and stability. Researchers from various disciplines such as statistics, machine learning, pattern recognition, and data mining considered the issue of building a decision tree from the available data. Specifically, we consider a scenario in which we apply the multi level mining method on the data set and show how the proposed approach tend to give the efficient multiple level classifications of large amounts of data. The results specify the improved performance of the proposed algorithm which acquires designing rules from the knowledge database.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **TL-II-72**

TITLE OF THE PROJECT- **RENEWABLE ENERGY SOURCES**

FACULTY GUIDE: **Ms.Rajapriya**

Name1:
RAGHUL .A

Name2:
Ramesh Rajan

Minip

Abstract :

Energy is the primary and most universal measure of all kinds of work by human beings and nature. Energy is a crucial input in the process of economic, social and industrial development. As conventional energy sources are depleting day by day, utilization of alternative energy sources is the only solution. The increased power demand, depleting fossil fuel resources and growing environmental pollution have led the world to think seriously for other alternative sources of energy. Basic concepts of alternative energy resources are related to the issues of sustainability, renewability and pollution reduction. Here, we analyze the feasibility of providing worldwide energy for all purposes (electric power, transportation, heating/cooling, etc.) from wind, water, and sunlight (WWS).

Achievements:

Project Design Contests:Nil

 Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **TL-II-72**

TITLE OF THE PROJECT- **RAIN WATER HARVESTING**

FACULTY GUIDE: **Ms.Rajapriya**

Name1: NANDHINI .S (17.12.1998)

Name2: PAVITHRA .S

Minip

Abstract :

As the world population increases, the demand increases for quality drinking water. Surface and groundwater resources are being utilized faster than they can be recharged. Water scarcity has a serious global threat due to hazardous population growth, frequent droughts and changing climate pattern. Rainwater harvesting is an environmentally sound solution to address issues brought forth by large projects utilizing centralized water management approaches. Rainwater harvesting (RWH) is the most traditional and sustainable method, which could be easily, used for potable and non potable purposes both in residential and commercial buildings. RWH system offers sufficient amount of water and energy savings through lower consumption. Moreover, considering the cost for installation and maintenance expenses, the system is effective and economical. The chemical and microbial parameters of harvested rain water can be analyzed. Rain water harvesting techniques are proficiently useful to tackle down the water scarcity problem in rural areas. RWH is gaining more and more recognition as a sustainable alternative to other water supply options. It is economically viable, socially compatible and environmentally friendly.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-83**

TITLE OF THE PROJECT- **Staff Profile management**

FACULTY GUIDE: **R. Meena**

Name1:
SUGANYA U

Name2:
SWETHA .M.R

**Miniproject
Photo**

Abstract :

This project is used to manage the human resources - faculty profile of the college. The faculty data can be retrieved and stored. The web application is developed for effective management of staff activities. Attendance monitoring, leave tracking, course handling, personal and other details can be maintained. Faculty profile will be maintained in the University format. The higher education and skill up gradation will be regularly updated. The subjects handled by the faculty and their results will be updated. The research activities such as Paper publications, funds which are received by them are maintained. The project will reduce the paper works done to maintain the faculty details.

Achievements:

Project Design Contests:Nil

 Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-87**

TITLE OF THE PROJECT- **Online village monitoring system**

FACULTY GUIDE: **AnithaLakshmi.V**

Name1: MONISHA .R

Name2: T.K.GAYATHRI

Name3: LIKITHA .C H

Mini

Abstract :

The development of a country depends on the village's development. As part of the smart village concept, we need a system that helps in development of villages in the areas like Primary education, people's healthcare, Roads and Transportation, Drinking water facilities, government policies awareness and availability of basic facilities/infrastructure. This system helps the members to collaborate, plan, assess and implement different activities and learn with others experience/feedbacks and suggestions.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-88**

TITLE OF THE PROJECT- **Student Management System**

FACULTY GUIDE: **I.Mohan**

Name1:
SWETHA .N

Name2:
PREETHI .L

Name3:
UMADEVI .K

Mini

Abstract :

This project is a online web portal which is similar to online forum sites where students will discuss on projects, examination details..etc. In present scenario internet had became one of the fast growing education hub where students want to share and discuss information with others from all over the world and gain knowledge. Engineering students always need platforms to discuss the courses, technical advances, real time projects, challenges faced by them in their curriculum.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-91**

TITLE OF THE PROJECT- **Online Certification System**

FACULTY GUIDE: **H.Vidhya**

Name1:
MEDARAMETL
A TEJASWINI

Name2:
SAMUDRALA
SRIVIDYA

Mini

Abstract :

The online certification system application will list out the technical areas for certification. User can register themselves then, the user can select the specialized area for certification. Each area have two levels of examination, first level is basic level multiple choice questions and the second level is advanced level with advanced questions and high score. At the end of each level, the marks will be calculated and displayed to the user and, the end of second level system gives the online certification. The questions and the answers are stored in the database. The top scorer details are displayed for each area. This system makes certificate accessibility easy. This system saves time and resources.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-93**

TITLE OF THE PROJECT- **Food Alergy Tracker**

FACULTY GUIDE: **I.Mohan**

Name1:
NARENDRA
KUMAR .M

Name2:
PREMKUMAR
.N

Name3:
YUGESH .E

**Miniproject
Photo**

Abstract :

The aim of the present study was to assess the food intakes and nutritional status of children with food allergies following an elimination diet. We conducted a cross sectional study including 96 children (mean age 4.7 ± 2.5 years) with food allergies and 95 paired controls (mean age 4.7 ± 2.7 years) without food allergies. Nutritional status was assessed using measurements of weight and height and Z scores for weight-for-age, height-for-age and weight-for-height. Nutrient intakes assessment was based on a 3-day diet record. Children with food allergies had weight-for-age and height-for-age Z scores lower than controls (0.1 versus 0.6 and 0.2 versus 0.8 respectively). Children with 3 or more food allergies were smaller than those with 2 or less food allergies (p = 0.04). A total of 62 children with food allergies and 52 controls completed usable diet records. Energy, protein and calcium intakes were similar in the two groups. Children with food allergies were smaller for their age than controls even when they received similar nutrient intakes. Nutritional evaluation is essential for the follow up of children with food allergies.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-94**

TITLE OF THE PROJECT- Holistic Help Desk

FACULTY GUIDE: **K.P.Revathi**

Name1:
MAHALAKSHMI
.J

Name2:
SUGANTHI .S

**Miniproject
Photo**

Abstract :

The project is aimed at developing Holistic help desk (HHD) for the facilities in the PEC campus. This is an Intranet based application that can be accessed throughout the campus. It is mainly used in colleges or schools. This application can be used to automate the workflow of service requests for the various facilities in the campus. Facilities like emails, notifications, messages should be provided for better communication. This application that covers different kinds of facilities like classrooms, labs, hostels, mess, canteen, computer labs, club activities etc. The registered users will be able to log in to service for any kind of supported facilities. The request will be sent to the concerned people, who are also users of the system. This application also acts as discussion forum inside the campus via digital media. Through this application one can attain the facilities available within campus without manual help.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-95**

TITLE OF THE PROJECT- **ONSTREAM CATECHISM**

FACULTY GUIDE: **K.P.Revathi**

Name1:
KALAISELVAN
.R

Name2:
MAGESH
KUMAR .P

**Miniproject
Photo**

Abstract :

   This Project assesses students by conducting online objective tests. The tests would be highly customizable. This project will enable educational institutes to conduct test and have automated checking answers based on the response by candidates. This project allows faculties to create their own tests. It would enable educational institute to perform tests, quizzes and create feedback forms. It asks faculty to create his/her set of questions. Faculty then create groups adds related students into the groups. Further the tests are associated with specific groups so that only associated students can appear for the test. The result of the response would be available to the faculty of the question set. Further the result would also be mailed to the student. This project would be helpful for creating practice tests, say for educational institutes and as a feedback form.

Achievements:

Project Design Contests:Nil

 Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-96**

TITLE OF THE PROJECT- **PEC TECHNICAL FORUM**

FACULTY GUIDE: **K.P.Revathi**

Name1:
SANGEETHA .C

Name2:

Ms.Padmini

Miniproject Photo

Abstract :

The project is aimed at developing a PEC TECHNICAL FORUM. It is mainly aimed to develop a platform for college students .It is an interactive platform for students of different college where they can interact among themselves to share their knowledge also to get cleared with their various queries related to their courses and projects .It also has the platform where the college students can get notifications about various events and workshops conducted across in various college. It also serves as a great platform for updating the technical skills and soft skills which is needed to shine in their field. It has the platform where the students can able to download notes for their academics. They can also get notifications about various events and workshops conducted across various colleges for various courses. It also includes videos for the development of soft skills of the Students. The Most essential use is that it has notes for various courses under Computer science and engineering for Anna University syllabus which in future it can be enhanced for all departments.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

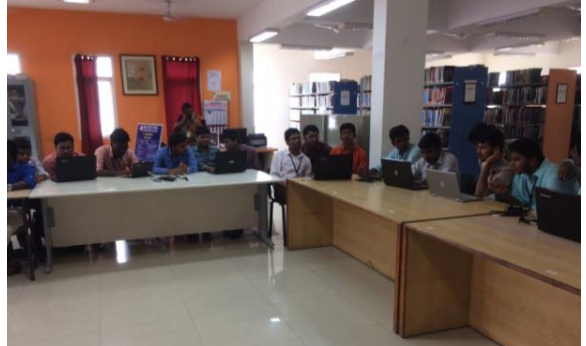TEAM ID- **WT-II-97**

TITLE OF THE PROJECT- **FACEBOOK CLONE**

FACULTY GUIDE: **K.P.Revathi**

Name1:
SHIVARAM .K

Name2:
SUNDER RAJU
.T

Name3:
SUDARSANAM
.D

Abstract :

Social networking is one of the most popular Internet activities, with millions of users from around the world. The time spent on sites like Facebook or LinkedIn is constantly increasing at an impressive rate. At the same time, users populate their online profile with a plethora of information that aims at providing a complete and accurate representation of themselves. Attackers may duplicate a user's online presence in the same or across different social networks and, therefore, fool other users into forming trusting social relations with the fake profile. By abusing that implicit trust transferred from the concept of relations in the physical world, they can launch phishing attacks, harvest sensitive user information, or cause unfavorable repercussions to the legitimate profile's owner. In this paper we propose a methodology for detecting social network profile cloning. Our experimental results from the use of this prototype system prove its efficiency and also demonstrate its simplicity in terms of deployment by everyday users. Finally, we present the findings from a short study in terms of profile information exposed by social network users.

Achievements:

Project Design Contests:Nil

Social Media Reach:

Youtube :NA

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-98**

TITLE OF THE PROJECT- **D2C**

FACULTY GUIDE: **K.P.Revathi**

Name1:
INDHUMATHI
.E

Name2:
NIVETHITHA
.T.M

Abstract :

The main aim of this HTML project is to help orphan children, it is a non-profitable foundation. Which does help for the children, who are from poor background, and this foundation helps Children for education, food, clothes and shelter. People who are interested to help the poor can donate money either by cheque, cash or using debit cards and they can donate food items through courier. People who are interested to educate the children's either directly by person or arranging some resources also acceptable. This project is very much useful to help the poor children. It can be widely used as a social service website. Here it is the simple mini project developed by HTML and JAVA SCRIPT. Here MS ACCESS is the backend server to store all children details.

Achievements:

Project Design Contests:Nil

Social Media Reach:

Youtube :NA

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-99**

TITLE OF THE PROJECT- **CAMPUSPEDIA**

FACULTY GUIDE: **K.P.Revathi**

Name1: PURUSHOTHA MAN .S

Name2:RAVI RAGHAVENDAR .R

Name3: NAVEEN KUMAR.G

Miniproj
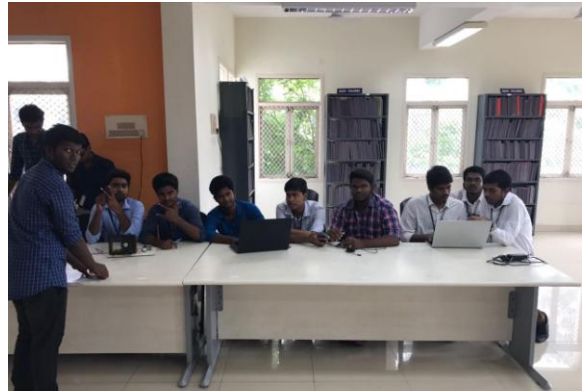
Abstract :

The project is the web portal for **Computer Science Department** which will increase communication between students and lecturers. This system is to make an online web portal for **Computer Science Department**, using this application every one in the department can share information from lab assistants, students, lecturers...etc, students can easily communicate with teachers from anywhere. This application can be help full for departments to track each student status and update them to their parents on regular basis like results, attendance and creating course portal for CSE department. Course Portal allows registered users of the system to join a course available in the site and access the materials published for the course. People can register themselves as students of a course or faculty for a course. When a person registers himself as a Faculty, an approval mechanism should be send through an email to the Administrator for approving the person .The approval mechanism for faculty is based on test. The approval mechanism for students is based on criteria and if selected, they can join the specified course. It has an announcement section which

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-100**

TITLE OF THE PROJECT- **E-shopping Website**

FACULTY GUIDE: **Ms.N.Sripriya**

Name1:
YENDLURI
HARISH BABU

Name2:
YASHWANTH .P

**Miniproject
P**

Abstract :

An online shopping system that permits a customer to submit online orders for items and/or services from a store that serves both walk-in customers and online customers. The online shopping system presents an online display of an order cut off time and an associated delivery window for items selected by the customer. The system accepts the customer's submission of a purchase order for the item in response to a time of submission being before the order cut off time. The online shopping system does not settle with a credit supplier of the customer until the item selected by the customer is picked from inventory but before it is delivered. Therefore, the customer can go online and make changes to the order. In addition, available service windows are presented to the customer as a function of customer selected order and service types and further, the order picking is assigned in accordance with a picker's preference. When ordering goods, many shopping systems provide a virtual shopping cart for holding items selected for purchase. Successive items selected for purchase are placed into the virtual shopping cart until a customer completes their shopping trip.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-101**

TITLE OF THE PROJECT- **Resource Management for PEC**

FACULTY GUIDE: **Ms.N.Sripriya**

Name1: VEERA MANI

Name2: POLLURU JOHN LAWRENCE

Miniproject P

Abstract :

An online shopping system that permits a customer to submit online orders for items and/or services from a store that serves both walk-in customers and online customers. The online shopping system presents an online display of an order cut off time and an associated delivery window for items selected by the customer. The system accepts the customer's submission of a purchase order for the item in response to a time of submission being before the order cut off time. The online shopping system does not settle with a credit supplier of the customer until the item selected by the customer is picked from inventory but before it is delivered. Therefore, the customer can go online and make changes to the order. In addition, available service windows are presented to the customer as a function of customer selected order and service types and further, the order picking is assigned in accordance with a picker's preference. When ordering goods, many shopping systems provide a virtual shopping cart for holding items selected for purchase. Successive items selected for purchase are placed into the virtual shopping cart until a customer completes their shopping trip.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-103**

TITLE OF THE PROJECT- **Bank Management system**

FACULTY GUIDE: **Ms.N.Sripriya**

Name1:
KESANI
JYOSHNA

Name2:
MASWIN
RIYANA .Z

Name3:
JENCY .P

Minip

Abstract :

A computer based management system is designed to handle all the primary information required to calculate monthly statements of customer account which include monthly statement of any month. Separate database is maintained to handle all the details required for the correct statement calculation and generation.

This project intends to introduce more user friendliness in the various activities such as record updating, maintenance, and searching. The searching of record has been made quite simple as all the details of the customer can be obtained by simply keying in the identification or account number of that customer. Similarly, record maintenance and updating can also be accomplished by using the account number with all the details being automatically generated. These details are also being promptly automatically updated in the master file thus keeping the record absolutely up-to-date.

Achievements:

Project Design Contests:Bitfutra.

 Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-104**

TITLE OF THE PROJECT- **Random MCQ for Placement Training**

FACULTY GUIDE: **Ms.N.Sripriya**

Name1:
KARTHIK .M

Name2:
FRANKLIN
DAVID PAUL

Name3:
K.U.AKASH

Miniproject Photo

Abstract :

This Project aims at displaying the multichoice questions for the IV year students during placement. Both Technical and Non-Technical questions are stored in the database. During Online Exams, a randomized questions will be generated for the (we are setting for 10 users) users. Marks will be displayed after the completion of the exams. Ranking (out of 10) will be displayed.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-105**

TITLE OF THE PROJECT- **Hostel Management System.**

FACULTY GUIDE: **Ms.N.Sripriya**

Name1:
POORNIMA .S

Name2:
SMRUTHI .E

Miniproject

Abstract :

In this Hostel Management software, students are at first allocated to their appropriate hostel during the admission. The MESS food charges are additional, so the hostellers who eat food pay for the exact amount. This means, if any hosteller is not present, they don't have to pay for the food for that particular day. The key features of Hostel Management System are Each hosteller is provided a unique id during the admission time. They system keeps track of each and every hosteller by that unique id.The system can be used to find the vacant rooms if the hostel is very big. It can also be used to find the total numbers of rooms in the hostel, and the students residing in a particular hostel room.The system displays information regarding the hostel room for boys and girls. Hostel number can be assigned on the basis of year of admission and the course taken by the hosteller.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-III-106**

TITLE OF THE PROJECT- **Development of a practical online leave management svstem (LMS)**

FACULTY GUIDE: **R. KANNAMMA**

Name1: PODILI ROSHITHA

Name2: SHINY SHARON .P

Name3: RAGAVI .E

Mini

Abstract :

This project is aimed at developing an online leave management system that is of importance to either an organisation or a college . The Leave Management System (LMS) is an Intranet based application that can be accessed throughout the organisation or a specified group/Dept. This system can be used to automate the workflow of leave applications and their approvals. The periodic crediting of leave is also automated. There are features like email notifications, cancellation of leave, automatic approval of leave, report generators etc in this system.

Achievements:

Project Design Contests:Bitfutra.

 Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-108**

TITLE OF THE PROJECT- **Digital Dairy**

FACULTY GUIDE: **R. KANNAMMA**

Name1: UKESH .B

Name2: SATHISH KANNA .K

Mini

Abstract :

Digital Diary application is to makes ease the work of users by this computerized software. By this application a user can store contact details, retrieve contact details, set reminder for important meetings of works and make dead line notes on single platform. Thus the user can manage his contacts and daily working schedules through this application. This application avoids user to make manual contact diaries to store the contact address. A user who is working on system can set reminder for the important work while doing some another work. Reminder will remind him about that work. He can also set reminder message which will tell him what to do at which time by stealing his attention. Through dead line note book a user can set the start date, start date message, end date and end date message for any project. This will remind him about a project that he had started on which date and when to submit that project. On the whole this application will make a user punctual. The dead line note book will show current date dead line notes through red color as a warning. So, this application is convenient platform for a user to manage, contacts, daily work schedules and to enhance the punctuality of the user. This the product which can used as only for personal use. User uses it in their laptop and desktops. It is short and precise application.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-110**

TITLE OF THE PROJECT- **Online Recruitment forum**

FACULTY GUIDE: **Ms. K Sornalatha**

Name1:
ARCHANA .W.R

Name2:
KALPANA .K

Miniproject Photo

Abstract :

Technology plays a vital role in day-to-day activities. And this in turn made great changes in many work fields and out of them recruitment process is one that changed lot of colors in their systematic approaches. The computer based recruitment system is to replace manual operations of recruitment of an IT company. As recruitment is a round the year activity involving thousands of candidates a need has been felt to automate the entire operations. Applications are collected in a prescribed format and checked for eligibility. All eligible candidates are sent Admit cards for the selection test. The test in three areas -Aptitude, Verbal and Technical skills. The results are compiled and presented to management to decide the cut-offs for interviews. Based on the selection criteria decided by management interview letters are generated. The system should provide for queries and management reports during the recruitment process.

Achievements:

Project Design Contests:Bitfutra.

 Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-115**

TITLE OF THE PROJECT- **Invoice billing system**

FACULTY GUIDE: **Ms. K Sornalatha**

Name1:
ANUVITTHA .V

Name2:
MEENATCHI .R

Name3:
MITHRA SINGH
.H

Mini

Abstract :

The main objective of developing Invoice Billing system is to manage the details of products, discounts, inventory, and sales. It manages all the information about products, payments, sales. The project is totally built at administrative end thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the products, discounts, payments, stock. It tracks all the details about the stock, inventory, and sales.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-118**

TITLE OF THE PROJECT- **Tax deduction System**

FACULTY GUIDE: **Ms. K Sornalatha**

Name1:
SWEETHA .I

Name2:
THENMOZHI .R

Name3:
JEEVITHA .M

Miniproject Photo

Abstract :

This system is developed to compensate the needs of company currently running. It will calculate the yearly depreciation and at last will produce final bill which includes all the transactions that are carried out around the year. Daily updating of transaction books of account, long mathematical calculation, yearly depreciation, company tax, government tax etc are covered under this system. These new system developed will provide a good data storage and access of data will be easily possible under high security and high consistency.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-117**

TITLE OF THE PROJECT- **News Publishing portal Svstem**

FACULTY GUIDE: **Ms. K Sornalatha**

Name1:
NAVEEN
KUMAR .S

Name2:
NELAPATI
JAGADEESH
BABU

Name3:
NITHISHKUMA
R .P.K

**Miniproject
Photo**

Abstract :

The purpose of news publishing portal system is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with. News publishing portal system, as described above, can lead to error free; secure reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. This means that one need not be distracted by information that is not relevant, while being able to reach the information.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-116**

TITLE OF THE PROJECT- **Web Based Student Information Management System**

FACULTY GUIDE: **Ms. K Sornalatha**

Name1: SHARMILA .V

Name2: NANDHINI .S (23.10.1998)

Name3: ABIRAME .S

Miniproject Photo

Abstract :

Student Information Management System (SIMS) provides a simple interface for maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. The creation and management of accurate, up-to-date information regarding a students' academic career is critically important in the university as well as colleges. Student information system deals with all kind of student details, academic related reports, College details, course details, curriculum, batch details, placement details and other resource related details too. It tracks all the details of a student from the day one to the end of the course which can be used for all reporting purpose, tracking of attendance, progress in the course, completed semesters, years, coming semester year curriculum details, exam details, project or any other assignment details, final exam result and all these will be available through a secure, online interface embedded in the college's website.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **WT-II-116**

TITLE OF THE PROJECT- **Online Crime File Management Svstem**

FACULTY GUIDE: **Ms. V.Anithalakshmi**

Name1:
MOHANA
PRIYA .T

Name2:
K.DIVYA

**Miniproject
Photo**

Abstract :

Online Crime file Management "is a web based application. This software provides facility for reporting online crimes, complaints, missing persons, show most wanted person details mailing as well as chatting. Any Number of clients can connect to the server. Each user first makes their login to sever to show their availability. The server can be any Web Server. An SMTP Server must be maintained for temporary storage of emails and chat jar files for enable the chatting facilities.

In the current process when a person has to make a complaint he or she has to go to a nearby police station. This process has many drawbacks like it consumes lot of time, man power, consumes large amount of work, lacks attention etc.The online crime file management overcomes all the above drawbacks in the current system. It either reduces or eliminates the drawbacks and provides a user friendly environment.

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- **PC-II-53**

TITLE OF THE PROJECT- **Excel format in Report**

FACULTY GUIDE: **Ms.T.Sornalatha**

Name1: NAGENDRA BABU .S

Name2: DILEEP .M

Miniproject Photo

Abstract :

As the devices become more intelligent the need for a simplified software user interfaces is required. These devices for years have been able to export file, so that the user could generate a standard report or chart in Excel. Now with the capability of importing file the full strength emerges and a common across all products can be accomplished. The user only has to conform to a manufactures defined template in Excel and the settings can be passed to the software and downloaded to the relay

Achievements:

Project Design Contests:Bitfutra.

Symposium:Nil

Social Media Reach:

Youtube :NA

Facebook :Uploaded

MINIPROJECTS 2017-18

ODD SEMESTER
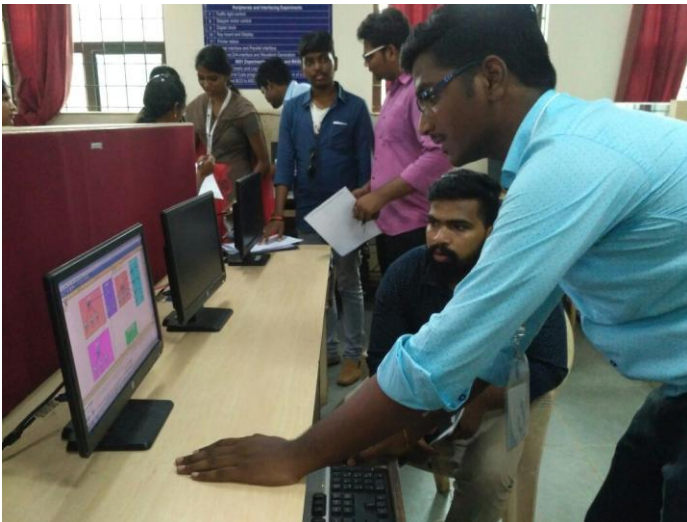
16.09.2017

Department	Miniproject Coordinator	Domain	No. of Miniprojects	Total
INFORMATION TECHNOLOGY	Ms.C.KAMATCHI	Web Technology	4	31
		Networking	3	
		Intelligent System	7	
		Embedded	1	
		Digital Signal Processing	2	
		Wireless Communication	2	
		Mobile Application	2	
		Data Mining	4	
		Data Analytics	2	
		Cloud Computing	4	

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT304

TITLE OF THE PROJECT

AUTOMATIC BIRTHDAY WISHES

FACULTY GUIDE:**Mr.I.MOHAN**

Name1:

S.Dheivanai.

Name2:

R.Sowmiya

Name3:

J.Vasukidivya
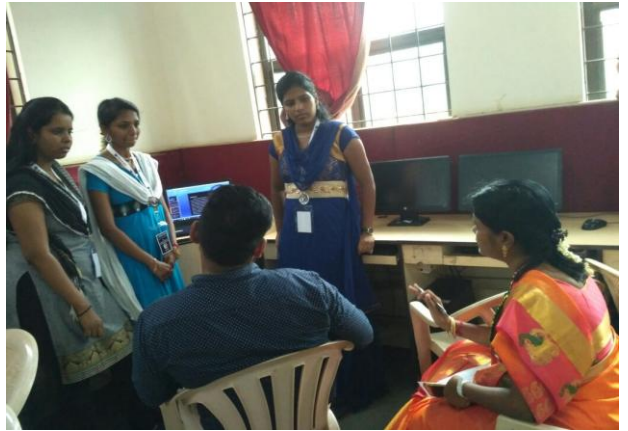
To create a System that sends automatic birthday wishes ,for that we design a data basein MySql Data Base that Store Basic student details like name ,DOB, Email and Phone Number and also we Design A Front End code in PHP to match DOB Filed in the Data Base with the Current Date if Match Record Found then the Automatic Birthday Wishes Generate and Send totheir Respective Email , Phone Number Stored in the Data Base .this System also used tomaintain Record of the Student Wishes . The Manual Work of the user Every Day the Need put Reminder and Type Wishes Spent More Time to send the Corresponding person to avoid this system make Automated all this Process easy to wish your beloved ones Daily.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT402

TITLE OF THE PROJECT

DIABETICS MELLITUS PREVENTION SYSTEM

FACULTY GUIDE:**Ms.J.OMANA**

Name1:

S.Sujithra.

Name2:

S.Vishali

Name3:

Yuvashree
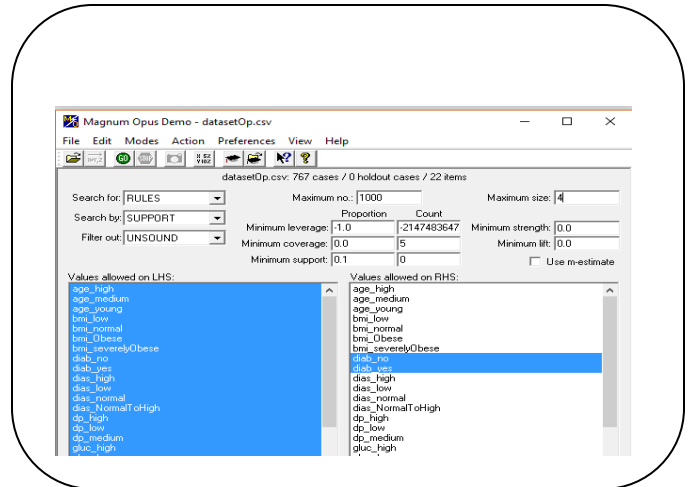
Diabetes is a threatening epidemic disease which is spreading rapidly all over the world. It is hard for a medical expert to diagnose manually, a person with diabetes. Here we present an implementation of mining of regular and maximal association rules using various association rule mining algorithm. These Rule set are the fundamental part of machine learning process. This project aims at discussing the process carried out in the association rule mining technique along with the merits, demerits and application of the algorithm thereby producing the maximum efficiency

Achievements:

Project Design Contests: ICT

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : yes

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT418

TITLE OF THE PROJECT

VERSATILE CHARGE SAFETY

FACULTY GUIDE:**Dr.P.Chitra**

Name1:

B.Sangeetha

Name2:

V.Saranya

Name3:

R.Shalini
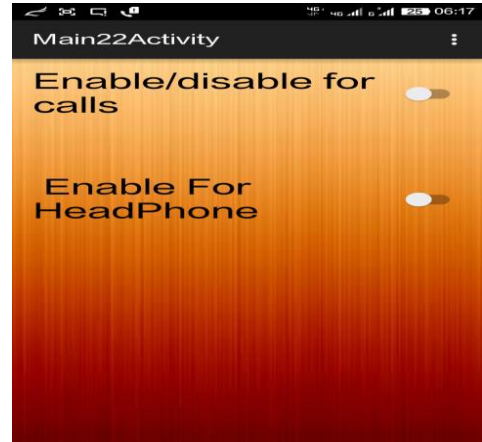
This project aim is to avoid the human contact with the smart phone while it is in the charging mode and reduce the injuries caused during the usage, so we developed the application for the safety purpose. The mobile application VCS is ,when we attend calls during the charge period,it may lead to emission of radiations that may lead to burst of the device,to avoid this injuries,this app will automatically help to lock so we can't receive the call though the user tried to unlock and receive the call then automatically mute the device. If it is plugged out from charger then the call can be received and unmuted.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT302

TITLE OF THE PROJECT

WIRELESS POWER TRANSFER

FACULTY GUIDE:**Ms.B.S.LIYA**

Name1:

P.Jayashree

Name2:

P.M.Sarisha

Name3:

M.Lakshmi Priya
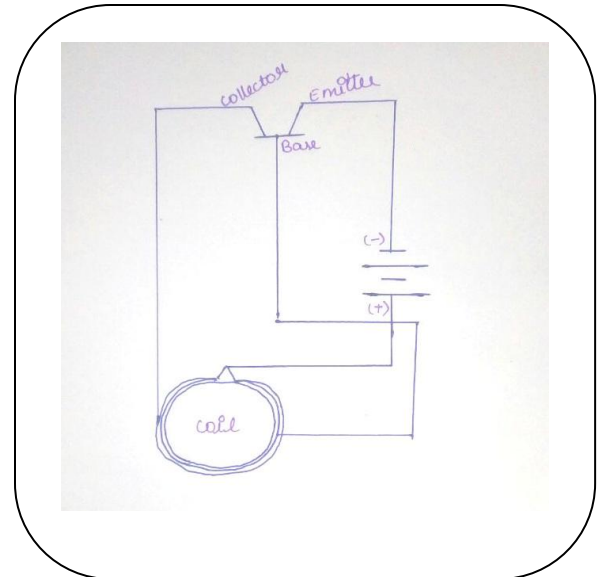
The main objective of this project is to develop a device for wireless power transfer. Wireless power transfer can make a remarkable change in the field of the electrical engineering which eliminates the use of conventional copper cables and current carrying wires. Based on this concept, the project is developed to transfer power within a small range. This project can be used for charging batteries those are physically not possible to be connected electrically such as pace makers implemented in the body that runs on a battery. This project is designed to charge a rechargeable battery wirelessly for the purpose.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT301

TITLE OF THE PROJECT

WIRELESS LIGHT SWITCH

FACULTY GUIDE: **Ms.ASHIBA**

Name1:

Hariharan

Name2:

P.Poorna Chandra

Name3:

G.V. Sai Krishna
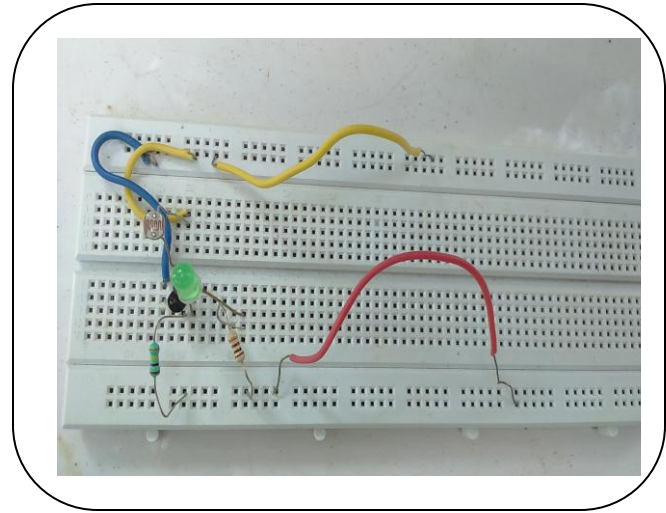
This project is to implement a wireless switch which will turn off a light without physical contact. This works on the photo detection or light detection. IR led continuously emits IR radiation.These radiation fall on the photo transistor and provide a base current to the photo transistor which used to turn on the transistor. As long as the transistor is on, the input at the non-inverting terminal (pin 3) of the op amp, which acts as a comparator, is less than that of inverting terminal (pin 2). The output of the op amp is low. When there is an interrupt to the light falling on the photo transistor, due to placing an object like hand,then the transistor turns off due to no presence of current in transistor. As photo transistor turned off, the input to the non-inverting terminal of the op amp will be higher. Then the output of op amp is high. This will turn on the transistor BC547 and the relay is energised. The light that is connected to the relay coil is turned on.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT303

TITLE OF THE PROJECT

AUTOMATIC REQUEST FOR VOTER ID REGISTRATION

FACULTY GUIDE: **Ms.B.S.Liya**

Name1:

S.Janani

Name2:

D.Dharani
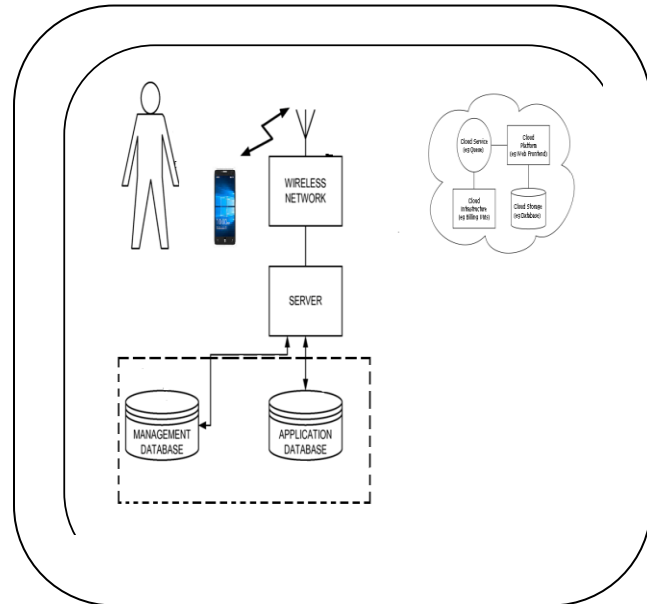
Automatic request for voter ID registration includes the overall technical idea behind the registration of voting. The people who are all above or equal to the age of 18 can get the request using our proposed system to register for voter ID. The work of the proposed system starts from the birth registration of the human. On every year, the updation can be done automatically. When the age reaches 18, the head of the family can get the notification to remind that a eligible person is there to apply for voter ID . This system acts like a remainder through the nation , it creates awareness about the importance of voting system and it enforces the people about the fake votes. Every citizen must have a right to vote and to register for voter ID. The proposed system should help the nation to remind for registration for voting.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT305

TITLE OF THE PROJECT

WIRELESS MOBILE CHARGER

FACULTY GUIDE:**Ms.ASHIBA**

Name1:

M.I.Almas Banu.

Name2:

K.Anupriya

Wireless Power Transmission using inductive coupling, is one of the effective ways to transfer power between points without the use of conventional wire system. Wireless power transmission is effective in areas where wire system is unreachable or impossible. The power is transferred using inductive coupling, resonant induction or electromagnetic wave transmission depending on whether its short range, mid-range or high range. The goal of this project Wireless mobile charger circuit using inductive coupling is to charge a low power device using wireless power transmission. This is done using charging a resonant coil from AC and then transmitting subsequent power to the resistive load.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT306

TITLE OF THE PROJECT

SECURE CAMPUS NETWORK

FACULTY GUIDE: **Mr.A.SUBBARAYDU**

Name1:

T.Praveen kumar

Name2:

T.Janarthanan
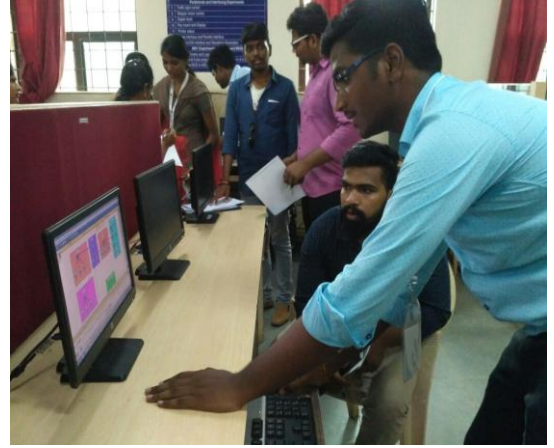
Security has been a pivotal issue in the design and deployment of an enterprise network. With the innovation and diffusion of new technology such as Universal computing, Enterprise mobility, E-commerce and Cloud computing, the network security has still remained as an ever increasing challenge. A Campus network is an important part of campus life and network security is essential for a campus. Campus network faces challenges to address core issues of security which are governed by network architecture. Secured network protects an institution from security attacks associated with network.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT308

TITLE OF THE PROJECT

HOSTEL MANAGEMENT SYSTEM

FACULTY GUIDE:**Mr.I.MOHAN**

Name1:

M.Logesh

Name2:

M.Srikanth

Name3:

E.Vijay

"HOSTEL MANAGEMENT SYSTEM" is software developed for managing various activities in the hostel. For the past few years the number of educational institutions is increasing rapidly. Thereby the number of hostels is also increasing for the accommodation of the students studying in this institution. And hence there is a lot of strain on the person who are running the hostel and software's are not usually used in this context. This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually. Hostel Management System is a system for managing the various activities in the hostel. It is used for managing the hostel information. It manages the student information, room information, room allocation details, fee details, mess bill details and employee details of the hostel. It is also used to generate reports of student details, fee details and mess bill details of the student. It keeps track of the number of student in the room and availability of the room. It helps organization from the manual work from which it is very difficult to find the record of the students.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT307

TITLE OF THE PROJECT

DETECTION OF SOIL FOR CULTIVATION OF CROPS

FACULTY GUIDE:**Ms.J.OMANA**

Name1:

M.J.A.Pranathi

Name2:

J.Sandhiya
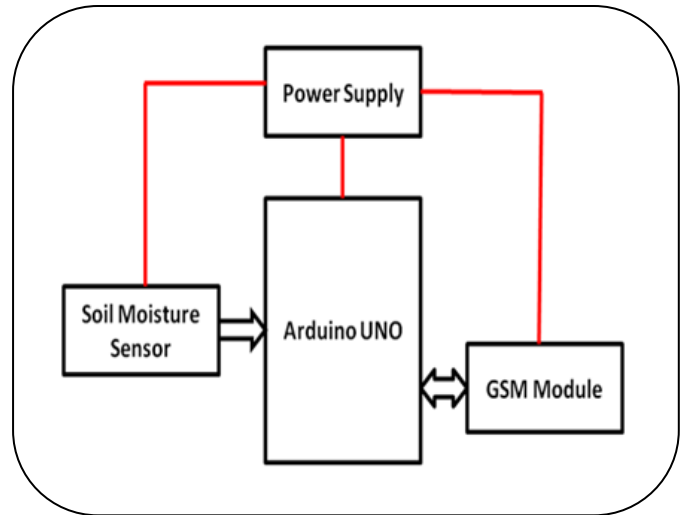
India is the third largest economy in Asia after Japan and China; it is continuing to grow rapidly. About 75% of people are living in rural areas and are still dependent on agriculture. About 43% of India's geographical areas is used for Agriculture. So as a whole in India there is a lot of contribution from Agricultural Sector. In this system we discuss everything about providing the updates on Agriculture details as per user requirements on his/her GSM or GPRS mobile phone without Internet. This updates includes climatic conditions   for various crops, soil details, crop details, harvesting details, Pesticides and Fertilizer details. We believe that this system will be of great use for the farmers.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

**Social Media Reach:** Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT310

TITLE OF THE PROJECT

IMAGE RESTORATION

FACULTY GUIDE:**Ms.VIMALA**

Name1:

R.Ambika

Name2:

M.Jayabharathi
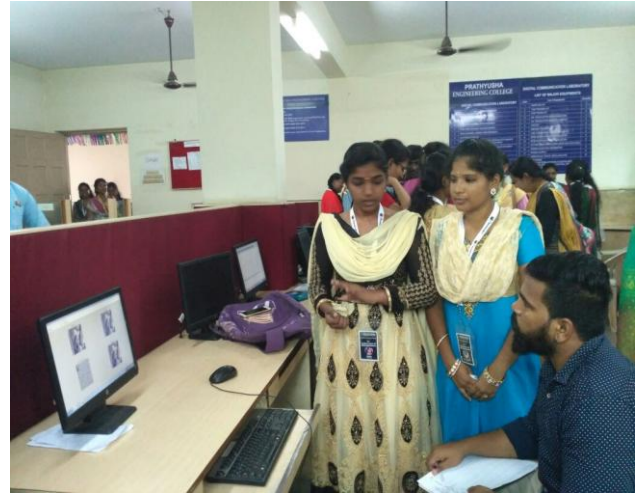
Scalar imaging techniques are widely used in fluid mechanics, but the effects of imaging system blur on the measured scalar gradients are often inadequately considered. Depending on the flow condition and imaging system used, the blurring can cause unacceptable errors in gradient related measurements, which are much larger than those for the scalar itself. Planar Laser-Induced Fluorescence (PLIF) images of turbulent jet fluid concentration were corrected for blur based on the Richardson-Lucy Expectation Maximization (R-L-EM) image restoration algorithm. This algorithm relies on the shot-noise limited nature of PLIF images and the measured Point Spread Function (PSF). The restored PLIF images show much higher peak dissipations and thinner fine scale structures in the images, particularly when the structures are clustered.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT309

TITLE OF THE PROJECT

STUDENT HELP DESK SYSTEM

FACULTY GUIDE:**Ms.J.OMANA**

Name1:

V.Lekhasree

Name2:

K.Monisha

Name3:

S.Yogalakshmi
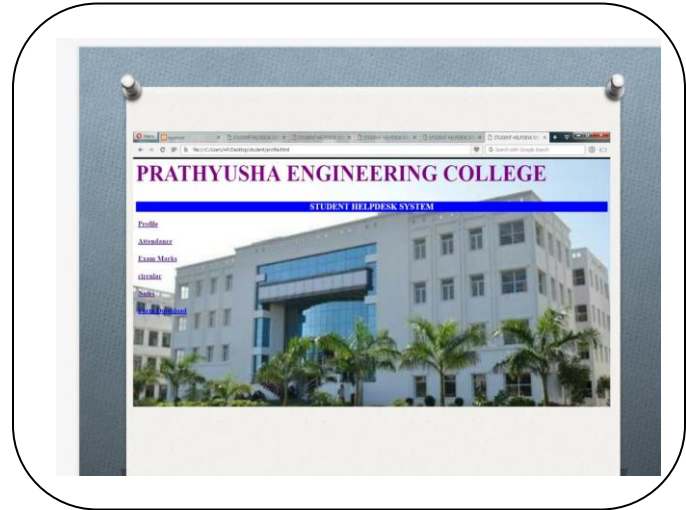
Student helpdesk is useful for the students to get the information easily. It uses minimum step framework. This system provides a simple interface for the maintenance of student information. Student can also get a helpdesk to assist them and they may download the required materials easily.We are integrating all the information which are useful for the students and feed it in the centralised system.Students are always worring about books and the notes while they going for the exams,this project will helpful to the students to provide a solution to the problem.Internal test mark representation is also be viewed any time by the student by using this project.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT311

TITLE OF THE PROJECT

TEXT DETECTION & EXTRACTION

FACULTY GUIDE:**Ms.VIMALA**

Name1:

G.Divya Rani

Name2:

D.C.Pravalika
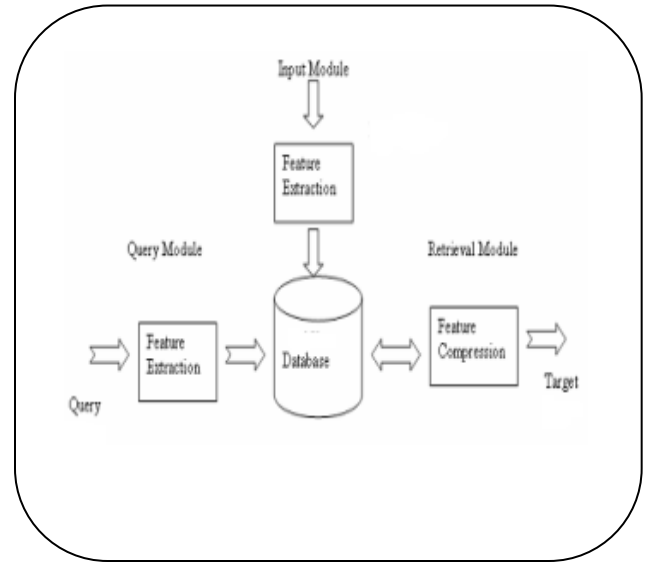
Extraction of features can be viewed as a preprocessing step which eliminates distracting inconsistency from a dataset, so that downstream classifiers or regression estimators perform better and hence various applications can be implemented from it. The area where feature extraction ends and classification, or regression, begins is necessarily gloomy: an ultimate feature extractor would simply map the data to its class labels, for the categorization task. These features can be used for image matching or recognition techniques or learning in supervised algorithms. Here in this paper all methods that are implemented for the extraction of features is converse about and a relative investigation is exposed in the paper so that by analyzing the various limitations of the algorithms in the future a more modified and effective feature extraction based technique is implemented.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT312

TITLE OF THE PROJECT

LIBRARY MANAGEMENT SYSTEM

FACULTY GUIDE:**Ms.J.OMANA**

Name1:

E.Gnananda Bharathy

Name2:

D.Muthukumar

Name3:

S.Sabarish
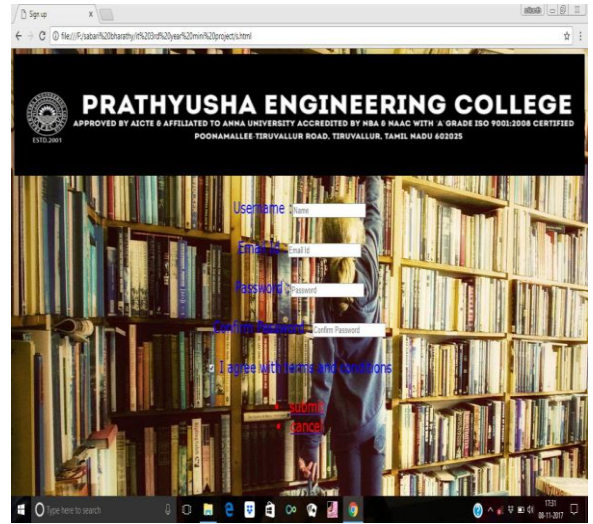
The main aim of our project is to create web application for library management System. The home page contains 2 options; one to create a new account and another to login. The login contains two fields student name and id. After login students will able to see No. of books borrowed, No. of books in due, No. of books that can be taken and the due amount to be paid is visible. Search option is also available for the student which enables to search a book by author name and text book name. Hence this web app will help the student to access their college library details from anywhere.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT401

TITLE OF THE PROJECT

 IOT BASED AUTOMATED FOOT BELL INTIMATION

FACULTY GUIDE:**Ms.B.S.LIYA**

Name1:

M.Hemashalini

Name2:

P.Lakshmipriya

Name3:

V.Monisha

Foot Step Activated Doorbell
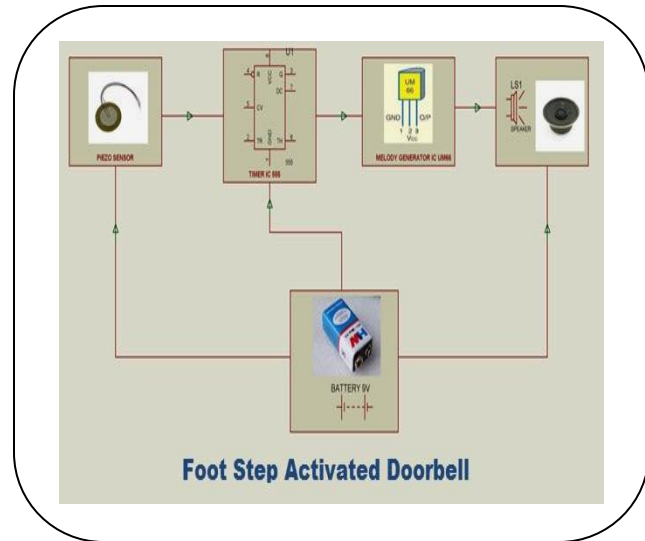
Door bells are used in houses in order to alert the household in the event of persons to visit their house. The piezo sensor which is attached with the floor picks up the sound and converts that to an electrical signal which in turn activates a 555 timer running in monostable mode, this 555 timer in turn activates a Melody generator IC is driven delivering a melodious music, hence alerting the household about the outside person is waiting at the door. The time for which the melody sound to be activated can be set, thus making user friendly and hence a smart way of using the technology at home. so we propose a system which automatically send messages to house mates that someone has arrived to their home.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT413

TITLE OF THE PROJECT

SYMPTOMS BASED CLINICAL DOCUMENT CLUSTERING

FACULTY GUIDE:**Mr.I.MOHAN**

Name1:

Hrithu Sathish

Name2:

S.Krubha Gayathri

Name3:

R.Nanadhini Devi
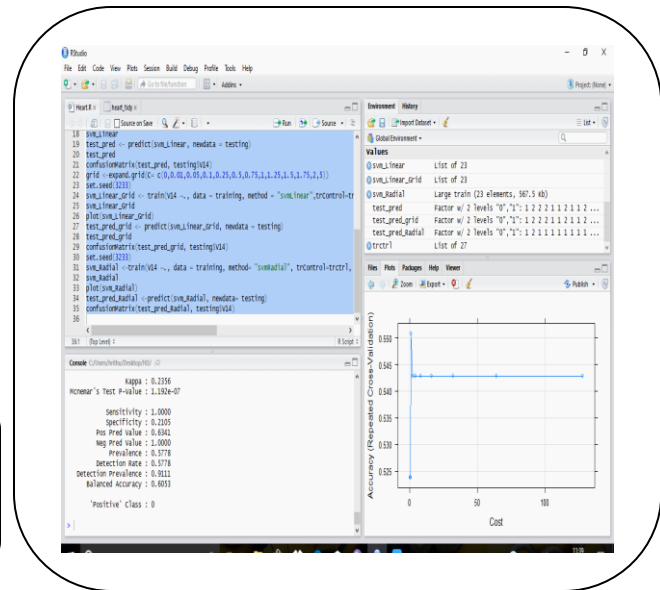
Clinical documents are rich free-text date sources containing information like symptom types, medication,age, gender and some demographic information. All these information can be used for giving quick relief from a particular disease. Data mining techniques are applied on this clinical data, which is an important source to improve the current healthcare system by making it more proficient. In this project, we build an integrating system for extracting medicine names and symptoms from clinical notes. Then we apply Non-negative Matrix Factorization (NMF) and Multi-view Non-negative Matrix Factorization to cluster clinical notes into meaningful cluster based on sample-feature matrices. Pre-processing of textual data is done to amplify the performance of Clustering**.** Hence multi-view NMF is a preferable method for clinical document clustering. Moreover, we find that using extracted medication or symptom to cluster clinical documents outperforms just using words.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT411

TITLE OF THE PROJECT **INTIMATION OF TRAFFIC SIGNAL EXCEEDING SYSTEM**

FACULTY GUIDE: **Ms.B.S.LIYA**

Name1:

M.Ragavi

Name2:

B.Suhashini prabhu

Name3:

V.Kavya
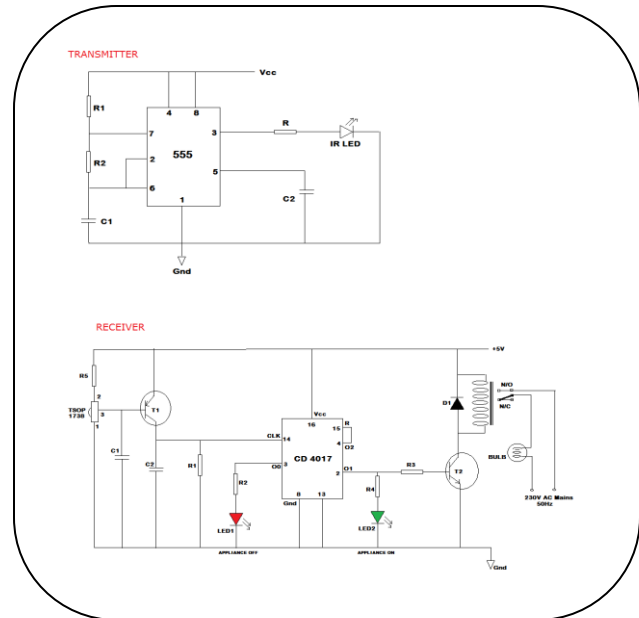
As the population increases in the cities it becomes difficult to control the traffic system and violating the rules get increases which leads to the many accidents. In existing, the system is only able to control the traffic in a traditional way such as traffic police and traffic signals , to avoid this we propose a system which gives intimation to the traffic police. when the traffic signal gets violated .This works based on IOT based sensor. when the traffic light changes to red the sensor get activated. If any vehicles get passed when red light is on it will pass the information to the traffic control system. This will provide the solution to avoid accidents.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT415

TITLE OF THE PROJECT

IOT BASED DATA LOGGER FOR MONITORING EQUIPMENT USING SENSORS.

FACULTY GUIDE:**Ms.C.KAMATCHI**

Name1:

Suresh kumar

Name2:

Vigneshwar

Name3:

Udhaya Kumar
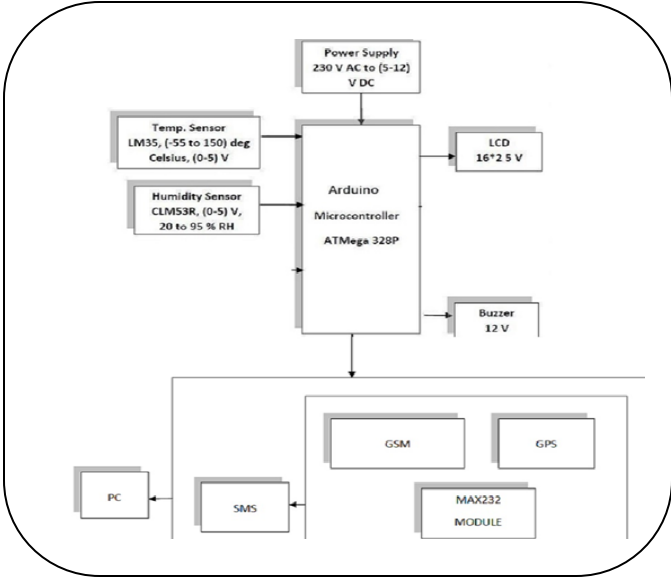
IOT based data logger is an excellent way to monitor and control the environmental condition as well as equipment working status in industry, home and agriculture etc., from anywhere in the world. IOTDL (IOT based data logger) collects the information by all kind of sensors. Now the information collected is transmitted to database server using GSM module with GPRS capability. It then create log file of information collected from sensor on data base server. Which is helpful in keep database of past information, equipment failure graph analysis and maintenance record etc. So as to suit, integrating these intelligent devices to the web server & controlling them over the internet needs effective user interface in the form of web page. For a instance, Irrigation status is updated to the server or localhost using Personal Computer.. In addition for better cropping system, fertilizers required for the crops, best crops to cultivate for the particular climatic and soil conditions are updated to server at regular basis by monitoring soil PH level, Temperature level of the field area etc., By using PC host, crop is continuously monitored.

Achievements:

Project Design Contests: Texas

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT406

TITLE OF THE PROJECT

MY TALK(FOR DUMB PEOPLE)

FACULTY GUIDE: **Ms.C.KAMATCHI**

Name1:

B.AJITH KUMAR

Name2:

M.AKASH

Name3:

S.FASIK AHAMED

The main purpose of this project is to help the mute for speaking. We speak to communicate the world. Speaking ability is the natural gift for human being to express him/her to the outer world.we worring about the dump people. Showing sympathy on them is what people do. But using this android application, dumb people can communicate with others as if they can speak so that they can express their intension of speaking without difficulty. This application can take the input as text and convert it in to the voice. Whenever there is need to speak, the dumb can open this application, enter some text and speak it out. This app helps the dumb by speaking on behalf of them, so that they can be beneficial by avoiding their usual way of sign language. It is one of the wonderful app for the current society and they are combine with all the people not to different for us. This app can be new way of helping the dumb people.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT419

TITLE OF THE PROJECT

THE SMARTPHONE ACCESORY HEART RATE MONITOR

FACULTY GUIDE: **Mr.A.SUBBARAYUDU**

Name1:

M.Pavithra

Name2:

G.S.Shruthi

Name3:

M.Sushmitha
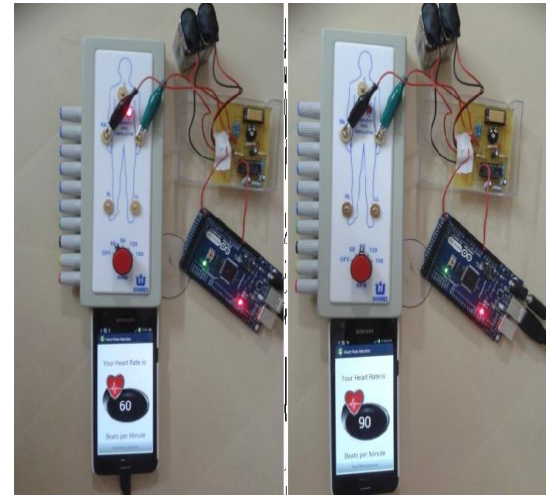
This project describes the design for a smart phone accessory that aims to determine the human heart rate especially for the cardiac patients who need to monitor their heart rate, it being an important indicator for prognosis and diagnosis, and also share it with their physician any time to seek medical advice when needed. The goal of this paper is to present our design of this compact size and user friendly smart phone accessory that can be accounted in clinical care and practice

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT420

TITLE OF THE PROJECT

IMPROVING STAKEHOLDER CONNECTIVITY FOR QUALITY EDUCATION

FACULTY GUIDE:**Ms.P.CHITRA**

Name1:

D.Keerthana

Name2:

K.Jayasree

Name3:

K.V.Lakshmipriya

Educational data mining is a new discipline in research community that applies various tools and techniques of data mining to explore in the field of education. A recently introduced concept of academic analytics uses the data mining algorithm on the educational data of student and percentage of resources properly utilized. Here we applies a new strategies like gathering creating discussion thread for different topics of interest to collect input from student, faculty, management, parents and from industries. With the help of those inputs we can produce summary refine existing system and introduce innovative for improving quality education.

Achievements:

Project Design Contests: ICT

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-IT414

TITLE OF THE PROJECT

DATA LEAKAGE DETECTION USING CLOUD COMPUTING

FACULTY GUIDE: **Ms.M.D.BOOMIJA**

Name1:	Name2:	Name3:
M.Avita	**Dhanalakshmi**	**Kowsalya**

Sample request

Case 1) M>[t],M=∑i=1...n

Agents	Files requested	Files given
Arch1	5	5
Arch2	5	-
Arch3	10	10
Arch4	10	-

Here M =30 i.e M>[t]

Graph probability (p)=0.3

Today the present world mostly depends on exchange of information.The data is sent from the distributor to the user are confidential so the data distributed only between the distributor and the trusted third parties. The data sent by the distributor must be secure, confidential and must not be reproduced. In some occasions the data distributed by the distributor are copied by different agencies which cause a huge damage to the institution and this process of losing data is known as Data Leakage.The data leakage must be deteced in early stages in order to protect the data form being open source. This project deals with the protection of data from being outsourcing by giving a special inscription to the sensitive data so that it cannot be reproduced.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MINIPROJECTS 2017-18

ODD SEMESTER
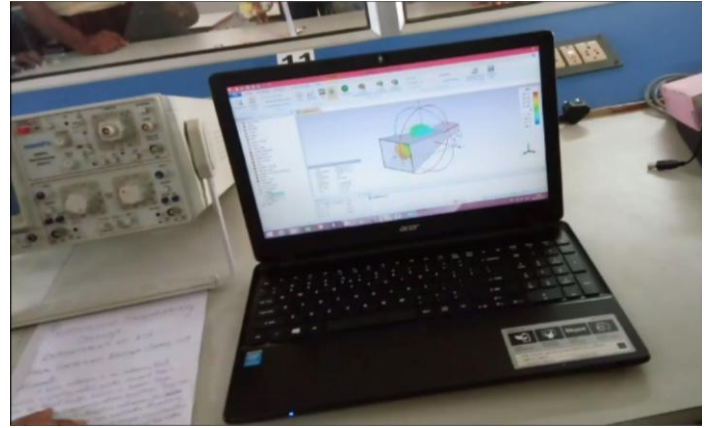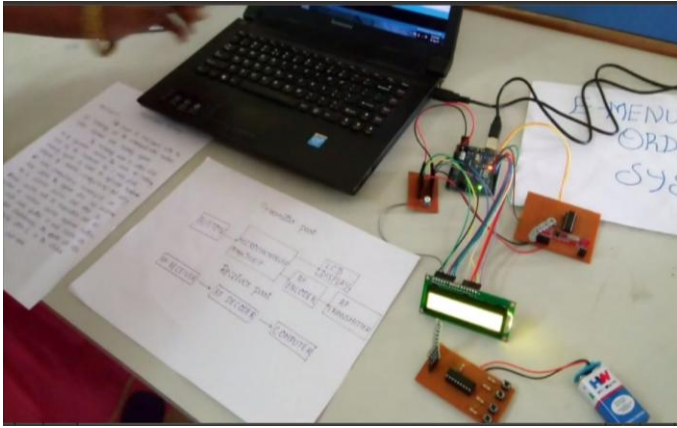
16.09.2017

Department	Miniproject Coordinator	Domain	No. of Miniprojects	Total
ECE	Ms. Vimala.S	Embedded & Robotics	43	60
		VLSI	5	
		Antenna	5	
		MATLAB	7	

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID:ECE-II(A)-2017-1

TITLE OF THE PROJECT: Variable Voltage Power Supply (0 to 30V)

FACULTY GUIDE: Ms.Subbulekshmi

A SATHISH KUMAR

BASAM MANISH KUMAR

GOWTHAM KUMAR B
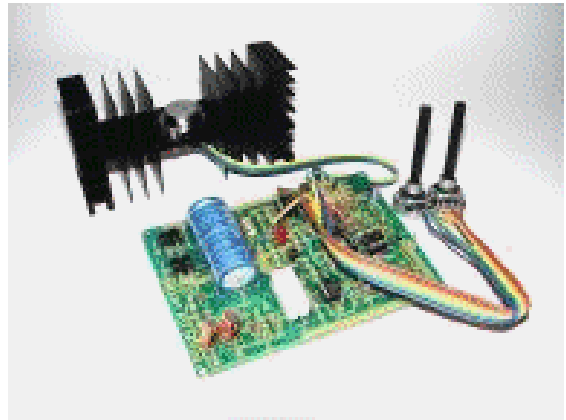
Abstract :

This is a high quality power supply with a continuously variable stabilised output adjustable at any value between 0 and 30VDC. The circuit also incorporates an electronic output current limiter that effectively controls the output current from a few milliamperes (2 mA) to the maximum output of three amperes that the circuit can deliver. This feature makes this power supply indispensable in the experimenters laboratory as it is possible to limit the current to the typical maximum that a circuit under test may require, and power it up then, without any fear that it may be damaged if something goes wrong. There is also a visual indication that the current limiter is in operation so that you can see at a glance that your circuit is exceeding or not its preset limits.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID:ECE-II(A)-2017-3

TITLE OF THE PROJECT: Pick and drop robot with Atmega8 Microcontroller

FACULTY GUIDE: Mr.Dilliraj

BADHEPUDI MALYADRI

BALU ANUDEEP

BELLAMKONDA VINODH

Abstract :

Mankind has always strived to give life like qualities to its artifacts in an attempt to find substitutes for himself to carry out his orders and also to work in a hostile environment. The popular concept of a robot is of a machine that looks and works like a human being. The industry is moving from current state of automation to Robotization, to increase productivity and to deliver uniform quality. The industrial robots of today may not look the least bit like a human being although all the research is directed to provide more and more anthropomorphic and humanlike features and super-human capabilities in these. One type of robot commonly used in industry is a robotic manipulator or simply a robotic arm. It is an open or closed kinematic chain of rigid links interconnected by movable joints. Here how a pick and place robot can be designed for a workstation where loading and packing of lead batteries is been presented. All the various problems and obstructions for the loading process has been deeply analyzed and been taken into consideration while designing the pick and place robot.

Achievements:

Project Design Contests:BIT FUTURA

Symposium:Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook :
https://www.facebook.com/PrathyushaInstitute/videos/1837922582889440/
Views: 1.2k, Like: 142, Shares: 54, Comments: 42

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(A)-2017-7

TITLE OF THE PROJECT: Rolling Display using Arduino

FACULTY GUIDE: Ms.S.Vimala

AMBAVARAPU LOKESH

GOWTHAMAN K

GUJJULA SATHISH KUMAR

ic:
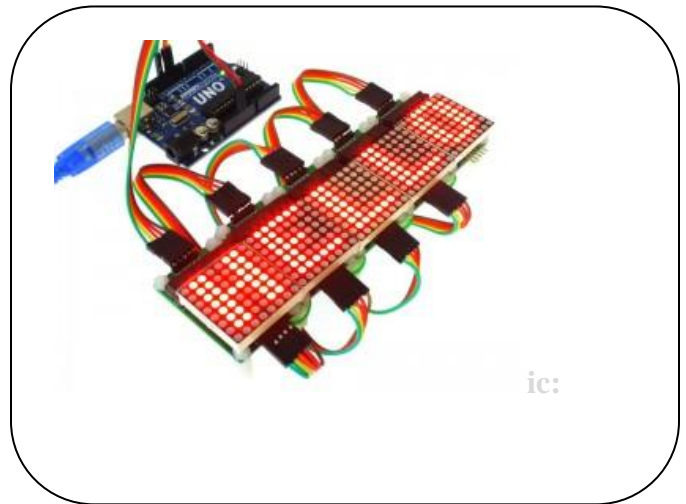
Abstract :

The rolling display boards are the most attractive among all kind of display boards. They are widely used in advertisements, used in public transport vehicles, used as information boards in railway station, airport etc. They are commonly made of LEDs or LCD screen and are usually connected to a computer or a simple microcontroller which can send the data to the screen. The arduino controller can send data to the screen using its serial port. The data could be saved in the arduino itself. The serial communication port is the one of the most effective communication method available with a microcontroller. The Arduino provides the easiest way by which the can read each other's data.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-II(A)-2017-8

TITLE OF THE PROJECT: IOT based humidity and temperature monitoring using ARDUINO UNO

FACULTY GUIDE: Mr.Darwin

KALPAM SUKUMAR

KANAPARTHI VAMSI

RAGAVENDRA REDDY
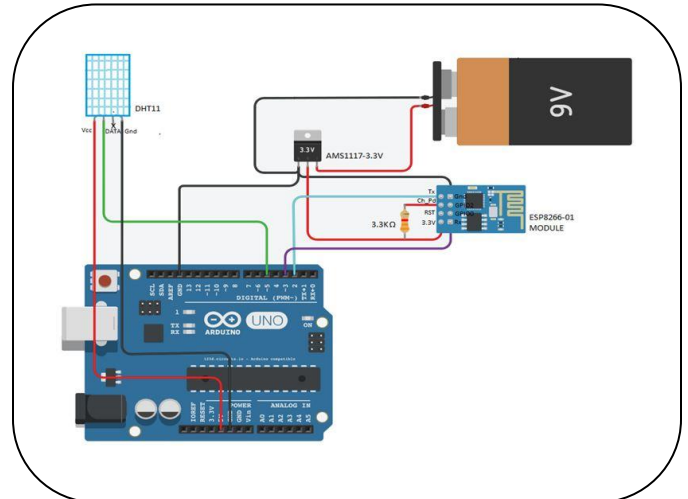
Abstract :

Using Internet of Things (IOT), we can control any electronic equipment in homes and industries. Moreover, you can read a data from any sensor and analyse it graphically from anywhere in the world. Here, we can read temperature and humidity data from DHT11 sensor and upload it to a Thing Speak cloud using Arduino Uno and ESP8266-01 module. Arduino Uno is MCU, it fetch a data of humidity and temperature from DHT11 sensor and Process it and give it to a ESP8266 Module.ESP8266 is a WiFi module, it is one of the leading platform for Internet of Things. It can transfer a data to IOT cloud.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(A)-2017-9

TITLE OF THE PROJECT: Design of combinational circuit using C++

FACULTY GUIDE: Ms.Anithalakshmi/CSE

KANIKIREDDY VENKATA PAVANKUMAR REDDY

KARIMETI PRUDHVIRAJ

KATRAGUNTA VENKATA SAI KARTHIK
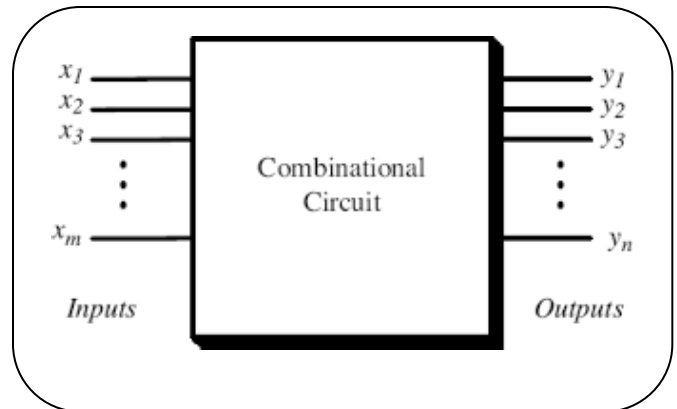
Abstract :

Combinational circuits are defined as a logical circuit the output of which depends upon only on the input. The output does not depend upon past input and output value. Therefore combinational circuit does not require memory. Adders, subtractors, multiplier are designed using combinational circuits. These are all mainly used for the binary code converters.

The design of combinational circuits consists of three steps. First the equations are written relating the input and output. The second step is to draw the K-map for the given data. The last step is to draw the logic diagram.

The main objective of this project is to write C++ program for the above steps to design combinational circuits using the three steps. Thus the design using C++ program for sequential circuits helps to design complex circuits easily.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(A)-2017-12

TITLE OF THE PROJECT: Temperature Controlled DC Fan by using 8051 Microcontroller

FACULTY GUIDE: Mr.Darwin

V. HARINI

V. KAVI PRIYA

B. MONISHA
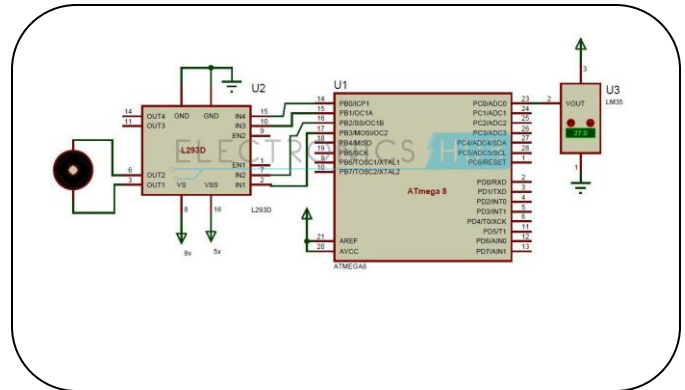
Abstract :

The aim of this project is to design a temperature controlled fan using 8051 microcontroller, in which the fan is automatically turned ON or OFF according to the temperature. The working of the project is explained here. In this circuit, the LM35 temperature sensor will give continuous analog output corresponding to the temperature sensed by it. This analog signal is given to the ADC, which converts the analog values to digital values. The digital output of the ADC is equivalent to sensed analog voltage. In order to get the temperature from the sensed analog voltage, we need to perform some calculations in the programming for the microcontroller. Once the calculations are done by the microcontroller according to the logic, the temperature is displayed on the LCD. Like this, the microcontroller will continuously monitor the temperature. If the temperature exceeds more than 50 deg Celsius (as per the code), the microcontroller will turn on the relay to start the fan. If the temperature drops below 40 deg Celsius (as per the code).

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(A)-2017-13

TITLE OF THE PROJECT: Audio Amplifier using IC LM386

FACULTY GUIDE: Ms.Subbulekshmi

DOMMARAJU GAYATHRI

DURGA M

KIRUBA DHANASHREE D
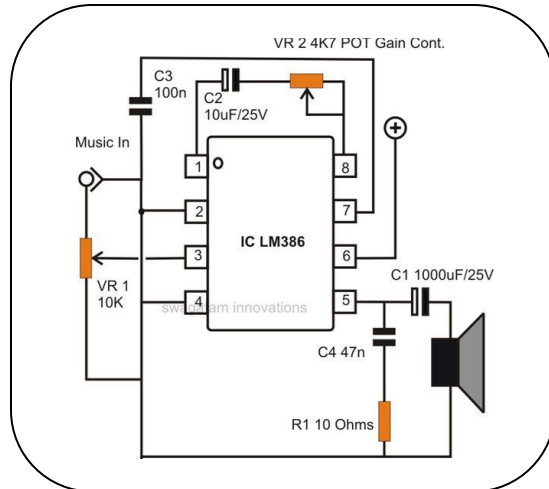
Abstract :

Simple Mic audio amplifier can amplify sound that is given from Microphone. This circuit can be used as "Small mic and loudspeaker system" for a small space like a room. This circuit can also be used in many applications like portable music players, intercoms, radio amplifiers, TV sound systems, Ultrasonic drivers etc. It can also be used as sound sensor for microcontrollers. It is inexpensive, low power operated and only need few components to work. This circuit is based on LM386 IC to amplify sound.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-II(A)-2017-14

TITLE OF THE PROJECT: Shadow Alarm using Photo diode

FACULTY GUIDE: Ms.V.Savitha

BHUVANESHWARI M

CHEBROLU JYOTSNA

LAVANYA U
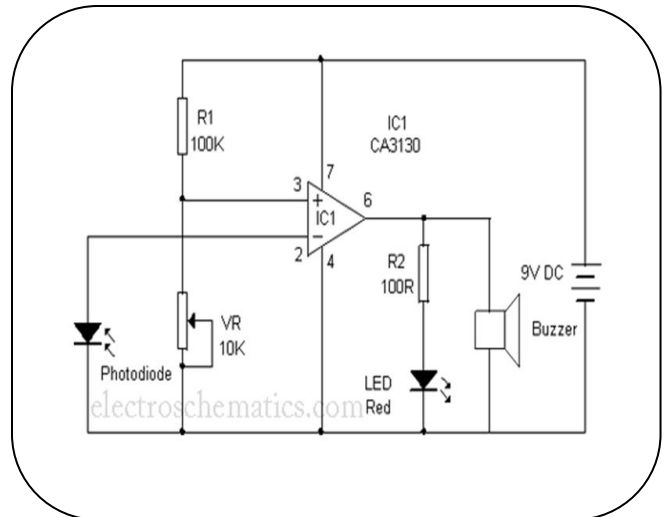
Abstract :

This shadow alarm circuit can sense a moving shadow in a confined area. It can be used to protect things from theft. When somebody approaches the unit, it will give a loud alarm to abort the attempt of theft. The circuit uses the light sensing property of the Photo diode. The circuit uses the light sensing property of the PIN Photodiode.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(A)-2017-15

TITLE OF THE PROJECT: Automatic Night Lamp by LDR

FACULTY GUIDE: Ms.V.Savitha

ANKIREDDYPALLI SRAVANI

DAMA LAKSHMI SRAVYA

KALLURU NANDINI REDDY

Figure 1: Automatic Night Light Circuit
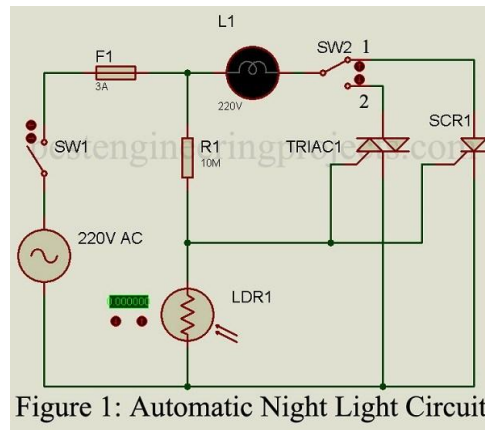
Abstract :

Automatic night lamp as the name suggests is for turning ON and OFF the lamp automatically without the need of human interventions. It senses the light intensity from surroundings and find whether its day or night. And it automatically turns ON when the surrounding is dark and it turns OFF when it receives light from surroundings. A sensor called LDR is used to detect the light intensity. This project finds wide outdoor applications in streets, gardens and public places where it finds difficulty to appoint a person to operate the lights.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-16

TITLE OF THE PROJECT: Obstacle avoiding robot using arduino

FACULTY GUIDE: Ms.Vimala

ANUSHA M

GUNTA NIROSHA
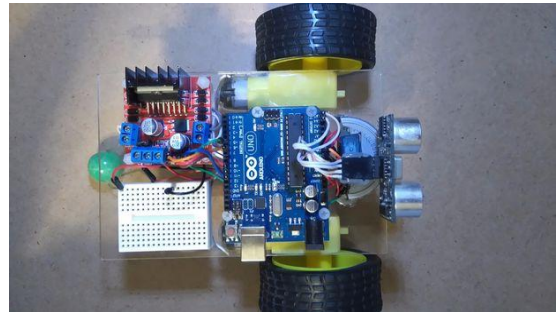
Abstract :

Robotics is an interesting and fast growing field. The applications of robotics are increasing with the advancement of technology. The concept of Mobile Robot is fast evolving and the number of mobile robots and their complexities are increasing with different applications.There are many types of mobile robot navigation techniques like path planning, self – localization and map interpreting. An Obstacle Avoiding Robot is a type of autonomous mobile robot that avoids collision with unexpected obstacles. In this project, an Obstacle Avoiding Robot is designed. It is an Arduino based robot that uses Ultrasonic range finder sensors to avoid collisions.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(A)-2017-17

TITLE OF THE PROJECT: Flash light controlled solar powered robot using Arduino

FACULTY GUIDE: Mr.R.Rajesh

HARITHA R

JAYALAKSHMI A

JAYASHREE S
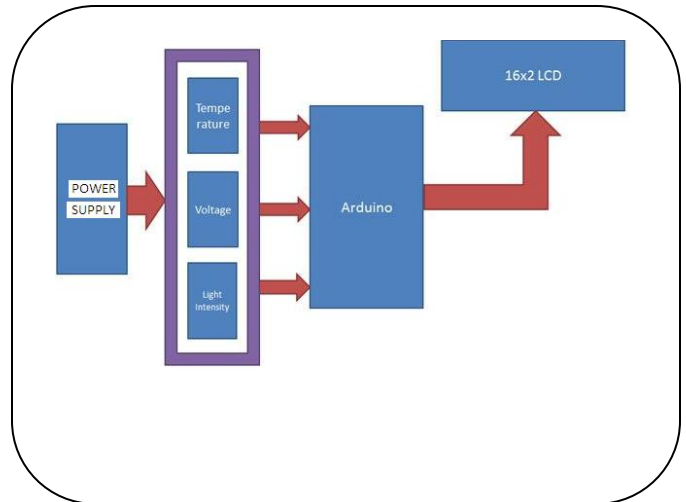
Abstract :

This project is a light gradient sensitive robot with solar charging capabilities, in other words it seeks out the light to charge itself. It accomplishes this behavior with a set of four light sensitive photoresistors in voltage divider circuits, the Arduino unit reads the four values which correspond to the intensity of the light received by the sensors through its analog read pins. It then applies a high voltage across a reed switch which completes a circuit between a 9v battery, and two toy motors, resulting in turning or moving towards the light. These motors were not able to be activated directly with the Arduino. If any of the four photodiodes is registering much higher than the others, it detects which photodiode is receiving the heightened signal and turns or moves in that direction for as long as the heightened signal is being received. This light tracking algorithm can be used to program solar panels to track on the sun, or for control of robot via flashlight.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-:ECE-II(A)-2017-18

TITLE OF THE PROJECT: Mobile controlled robotic vehicle using Arduino

FACULTY GUIDE: Mr.Dilliraj

KATTAMURI JYOTHIRMAI

LAVANYA R

FHANY SHARON P

Abstract :(10 lines)

Now-a-days the world is optimizing and is becoming more precise by switching from the world of personal computers to laptops to android phones. Human is moving and is accepting compact technologies so that, the gap between personages and the machines is being reduced to ease the standard of living. The purpose of this project is to design and implement a compound robot. The compound robot will be able to move in four directions (left, right, forward, backward) and will detect the distance of the obstacle from the robot on the android app. The main intent of this project is to design and bring about a robot prototype by using Arduino Uno, Motor Driver L293D, HC05-Bluetooth module and to procure the goal of this project, to gain knowledge about Ultrasonic sensor HCSR-04, reconcilable software and controlled motor circuit need to be determined.

Achievements:

Project Design Contests: Bit futura, Bannari Amman College of engineering

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16ᵀᴴ SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-19

TITLE OF THE PROJECT: Tracking a moving person using ultrasonic sensor

FACULTY GUIDE: Ms.S.Vimala

MADHAN KUMAR G

MADHAVAGIRI SRINIVASA VISHNU TEJA

MUKKAM ESWAR SAI
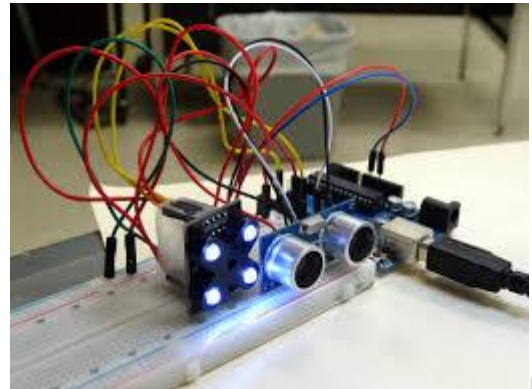
t Photo/ **Block Diagram or schematic:**

Abstract :

For a mobile robot to follow a moving target, the mobile robot should have the capability of first detecting the target and then measuring its position and velocity. This paper proposes a new solution for this problem, using the virtual ultrasonic image which is simply constructed by accumulating the returned ultrasonic signal along the time axis for a certain number of measurement periods. In the virtual ultrasonic image, the slope of the trajectory of an object represents the relative speed of the object with reference to the mobile robot and a static obstacle has a trajectory whose slope is greater than a certain threshold. The mobile robot implemented for testing the performance of the proposed algorithm has shown that it follows a moving target successfully in various working environments.

Achievements:

Project Design Contests:BIT FUTURA

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-II(B)-2017-20

TITLE OF THE PROJECT: Mosquito repeller

FACULTY GUIDE:Ms.Vimala.S

PUNUGOTI MUNISAIKUMAR

SYED SAJEED

THANGISETTY TIRUMALA NAIDU
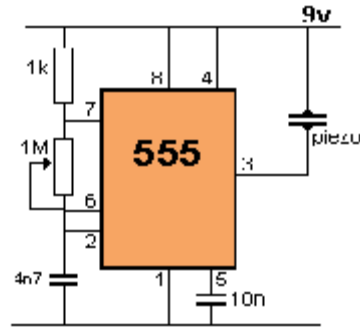
Abstract :

A sound with frequency higher than 20 kHz is termed as "Ultrasound". Humans sound only ranging between 20 Hz to 20 kHz frequency is audible, and any sound with frequency below or higher than this range wouldn't be audible for us. But there are various animals and insects (including mosquitoes) that could hear the ultrasound. Generally ultrasound in a range of 20 kHz to 40kHz is transmitted by male mosquitoes and received by female mosquitoes, however after breeding female mosquitoes tend to avoid male mosquitoes and so they tend to avoid ultrasound in that range. As we know that only female breeding mosquitoes bites humans, we can use this concept and can design a circuit which produces the ultrasound in frequency range specified above.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(A)-2017-21

TITLE OF THE PROJECT: Line following Robot using Atmega8 Microcontroller

FACULTY GUIDE: Ms.Vadivu.P

MOHANBABU VISHNUTEJA

NNAGIREDDY DATTA HARSHITH REDDY

THARUN T M
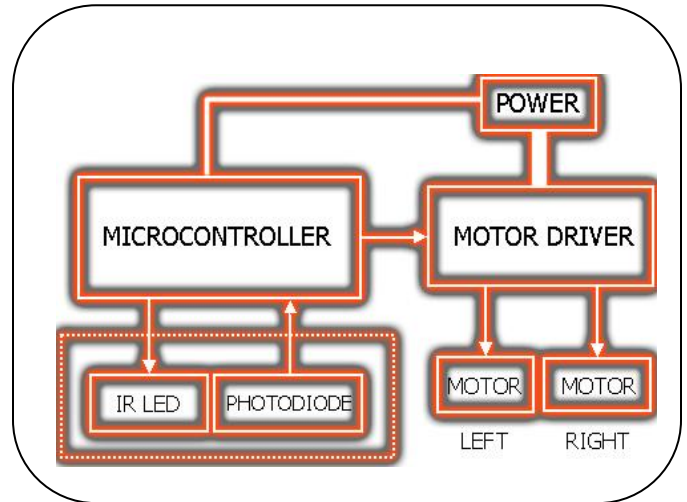
Abstract :

Line follower Robot is a machine which follows a line, it may be a black line or a white line. Basically two types of line follower robots are: one is black line follower which follows black line and second one is white line follower which follows white line. Line follower actually senses the line and run over it. In our project, we are going to make white line follower using 8051 microcontroller. In this line follower robot project we have used IR Transmitters and IR receivers also called photo diodes for sending and receiving light. IR transmits infrared lights. When infrared rays falls on white surface, it is reflected back and catched by photodiode and generates some voltage changes. When IR light falls on black surface light is absorbed by the black surface and not rays reflect back, so photo diode did not received any light or rays. Here in this line follower robot when sensor senses white surface then microcontroller gets 0 as input and when senses black line microcontroller gets 1 as input.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-22

TITLE OF THE PROJECT: Performance analysis of Adders

FACULTY GUIDE: Mr.Ajin

MANNURU VINOD KUMAR

VEMIREDDY AMARNADH REDDY

VIGNESH E
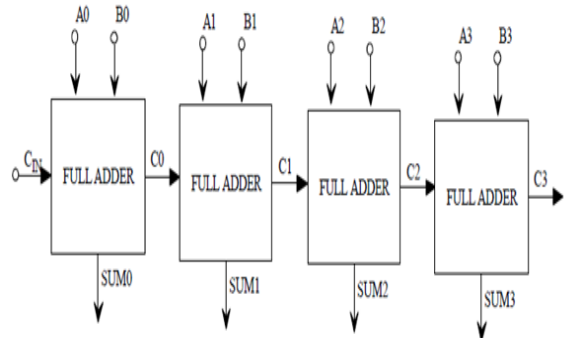
Abstract :

This project discusses about the performance characteristics of a Full Adder based Carry Select Adder, Ripple Carry adders and Carry loop ahead adder technique. The adders are used in many data path applications and also the area, power consumption and delay in the design can be reduced. These types of Full Adders are designed by Structural model Verilog HDL and they are compared and the most efficient technique is identified.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-II(B)-2017-24

TITLE OF THE PROJECT: Power analysis of 4-bit RCA

FACULTY GUIDE: Mr.Ajin

RAMANATHAN M

SHAKHALE PREETHAM

SEBULOAN J
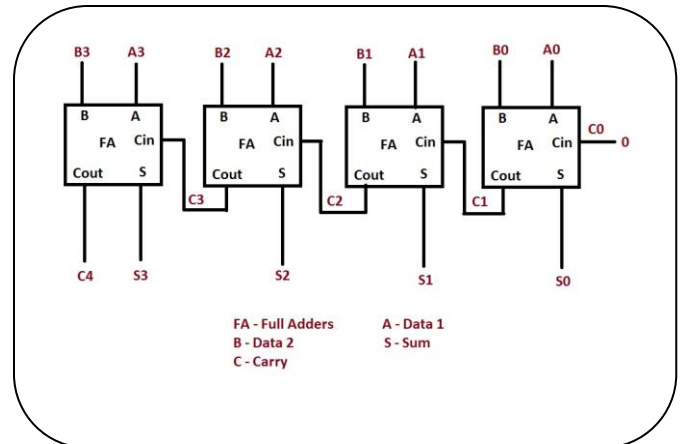
FA - Full Adders   A - Data 1
B - Data 2   S - Sum
C - Carry

Abstract :

This project discusses about the performance characteristics of a Full Adder based Ripple Carry Adder using CMOS and GDI logic. The adders are used in many data path applications and also the area, power consumption and delay in the design can be reduced. The proposed techniques the GDI-Full adder which enables the reduction of above mentioned parameters and also reduce the number of transistors. The Full Adder based Ripple Carry Adder designed in Complementary Metal Oxide Semiconductor Logic and Gate Diffusion Input logic and they are compared and the most efficient technique is identified.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-25

TITLE OF THE PROJECT: Chopper based speed control of DC motor

FACULTY GUIDE: Ms.Subbulekshmi

SHAIK SUHAIL

SURAPANENI GOPI

SURESHKUMAR P
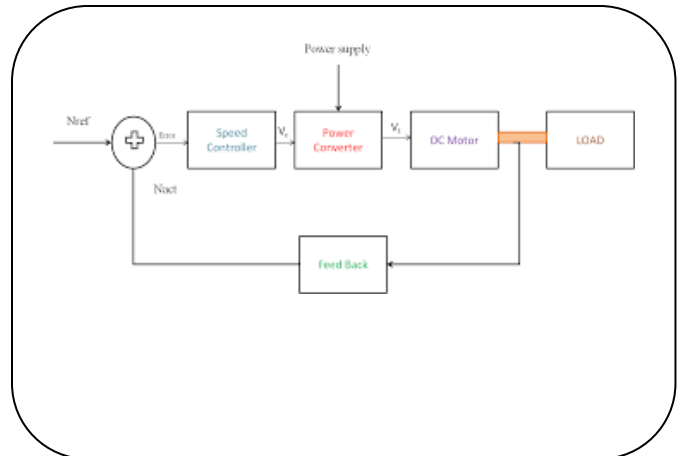
Abstract :

The speed control of separately excited dc motor is carried out by varying the armature voltage for below rated speed and by varying field flux to achieve speed above the rated speed. This thesis presents the speed control methodology by varying armature voltage using chopper by providing control signal to the switches. Speed can be controlled from below and up to rated speed .The firing circuit of chopper receives signal from controller and variable voltage is given to the armature of dc motor according to the desired speed .There are two controllers we are using here one is speed controller and other is current controller. Both controllers are of proportional -integral type .The reason behind using PI type controller is it removes the delay and provide fast control. Now the simulation of model is done and analyzed in MATLAB (Simulink) under varying speed and torque condition .

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
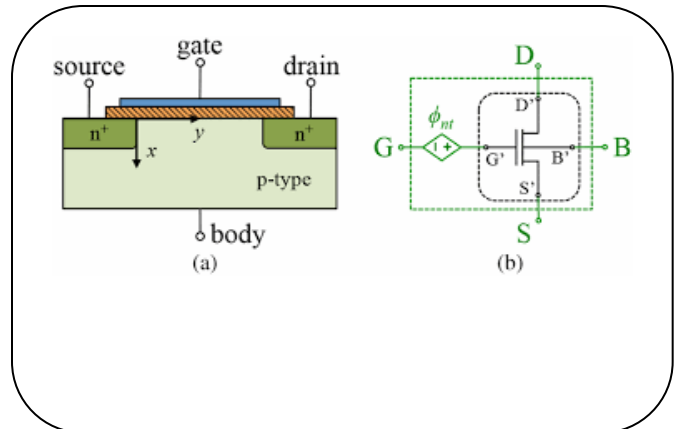
TEAM ID: ECE-II(B)-2017-26

TITLE OF THE PROJECT: Design of FET Amplifier using C++

FACULTY GUIDE: Ms.Anithalakshmi/CSE

| MANIKANDAN D | TAMIZH SELVAN V | VALLABANENI NIKESH |

Abstract :

Field effect Transistor (FET) is an electronic device that regulates current or voltage flow. To design a FET for amplifier applications many formulae is required to calculate various parameter such as Q-point, forward current gain, resistances and capacitances.

In practical applications, FET used in AM and FM transmitter in which ac input signal is amplified so that it transmits to a longer distance. It can also be used in various gates like AND, NOT etc.

The basic step in designing FET

*DC analysis:-Remove ac input and output, replace capacitors by open circuit.

*AC analysis:-Remove dc supply by grounding them, replace capacitor by short circuit.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-II(B)-2017-27

TITLE OF THE PROJECT: Wireless mobile phone charger

FACULTY GUIDE: Ms.Ashiba

ORUMPATI SAIKRISHNA

YEKAMBRAM SRIDHAR
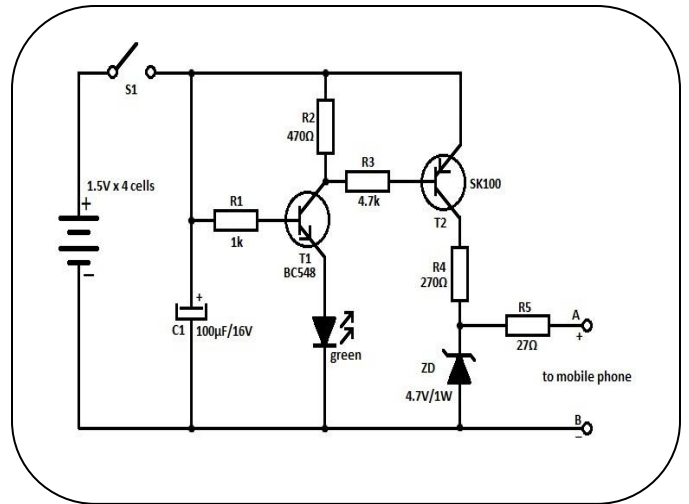
Abstract :

Wireless Power Transmission using inductive coupling, is one of the effective ways to transfer power between points without the use of conventional wire system. Wireless power transmission is effective in areas where wire system is unreachable or impossible. The power is transferred using inductive coupling, resonant induction or electromagnetic wave transmission depending on whether its short range, mid-range or high range. The goal of this project Wireless mobile charger circuit using inductive coupling is to charge a low power device using wireless power transmission. This is done using charging a resonant coil from AC and then transmitting subsequent power to the resistive load.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-28

TITLE OF THE PROJECT: Clap switch by using D flip flop IC 7474

FACULTY GUIDE: Ms.Subbulekshmi

M KUNDHANA

NARAYANA CHARISHMA

PALAPATI NAVYA

Abstract :

A "Clap On Clap Off" switch is an interesting concept that could be used in home automation. It works as a switch which makes devices On and Off by making a clap sound. Although its name is "Clap switch", but it can be turned ON by any sound of about same pitch of Clap sound. The main component of the circuit is the Electric Condenser Mic, which has been used as a sound sensor. Condenser Mic basically converts sound energy into electrical energy, that in turns used to trigger 555 timer IC, through a Transistor. And triggering of 555 ic works as a Clock pulse for D-type flip-flop and would turn ON the LED, which will remain ON until the next clock pulse means until the next Clap/sound. So this is the Clap Switch which will turn ON with first Clap and turn OFF with the second Clap. If we remove the D-type Flip flop from the circuit, the LED will be turned OFF automatically after some time.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-29

TITLE OF THE PROJECT: Cell phone detector

FACULTY GUIDE: Ms.Vimala

ROHITHA B

SURUTHY K
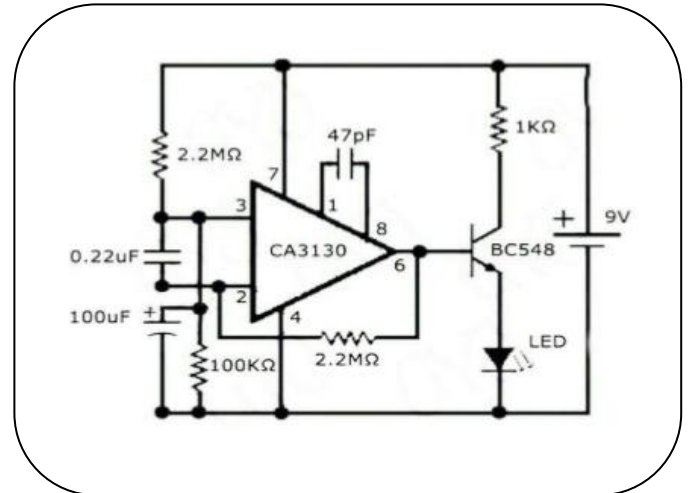
Abstract :

It is also useful for detecting the use of mobile phone for spying and un-authorized video transmission. Certain places where use of mobile phones are not allowed like exam hall, temple, offices and theaters, in those places to detect and restrict the use of mobile phones this proposed system is very helpful. This must detect the incoming and outgoing calls, SMS and video transmission even if the mobile phone is kept in the silent mode. The illegal use of cell phones is a growing and dangerous problem in correctional institutions worldwide. These devices are a significant threat to prison security and circumvent the monitoring processes in prisons, while helping inmates commit new crimes both inside and outside the facility.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-30

TITLE OF THE PROJECT: Small FM Radio Circuit.

FACULTY GUIDE: Ms.Ashiba

MARTHU INDU NIHARIKA

NAIDU BHAVYASRI

Abstract :

This Project uses simplest and smallest FM radio receiver that can receive the FM stations available locally. Its simple design makes it ideal for a pocket sized FM receiver. The output of the receiver drives a head phone. The circuit works off a small 4.5 volt battery or two 3.6 volt Lithium button cells. The FM receiver section has two RF transistors T1 and T2 to detect the Frequency Modulated signals. Coil L1 and the trimmer capacitor form the tuned tank circuit to tune the receiver to the best FM station with strong signals. The signals are capacitor coupled through C2.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

**MINIPROJECT EXHIBITION DATED 16ᵀᴴ SEPTEMBER 2017**

TEAM ID: ECE-II(B)-2017-31

TITLE OF THE PROJECT: Automatic control of light brightness in room

FACULTY GUIDE: Ms.Ashiba

MADISETTY MOUNIKA

MEGAVARSHINI P

NANDHINI K
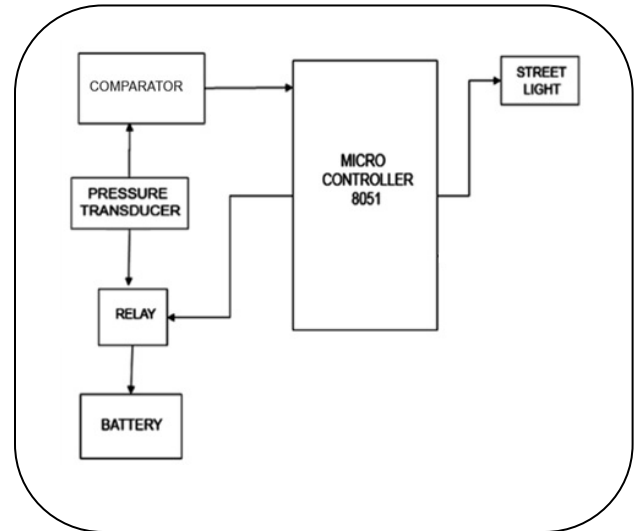
Abstract :

Nowadays without electricity we cannot imagine our daily life because electricity has become a necessity for all, without which day-to-day life chores & daily activities become stand still. Due to the depletion of non-renewable resources, conservation of energy has become mandatory and by doing so we can reduce electricity bills as well. We know that energies like wind energy, solar energy and hydro energy are called renewable energy sources which are renewable in nature. Therefore, utilization of these resources for power supply is the best possible way of producing, conserving and renewing energy, which is advantageous as it is pollution free, affordable, and free from environmental impacts.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-32

TITLE OF THE PROJECT: PC based load control

FACULTY GUIDE: Mr.Anand/EEE

MADISETTY MOUNIKA

MEGAVARSHINI P

NANDHINI K
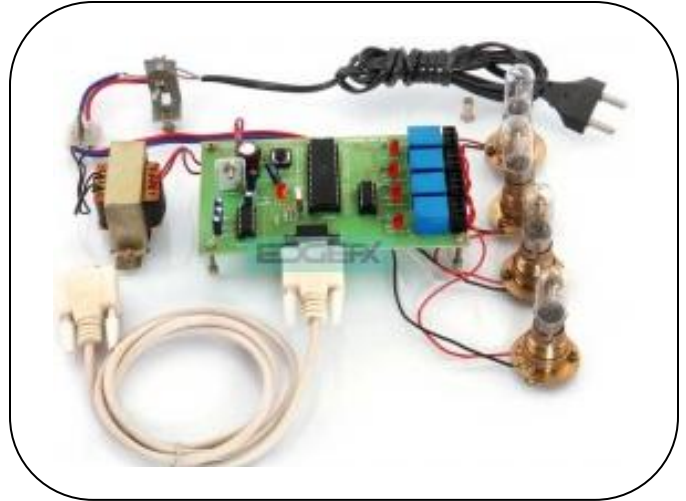
Abstract :

In this project we propose a design using both a microprocessor and light sensors for automatic room light detection and control. Our design, the HLCM (home light control module) which will be installed in every light fixture of a family, is made up of four blocks: the pyroelectric infrared (PIR) sensor circuit, the light sensor circuit, the microprocessor and the RF module. By using the PIR sensor circuit, the HLCM detects if a human body enters the detection area or not. If there is no human body present, all controlled lights are turned off. If there is, the HLCM detects the light intensity under the environment and maintains sufficient light by controlling the number of lights. We have also integrated an RF module to transmit and receive the data from each HLCM so we can control different lights in different regions. The result of using the HLCM shows that the total power consumption can be reduced.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-34

TITLE OF THE PROJECT: Traffic Light Control using counter IC 4017

FACULTY GUIDE: Ms.V.Savitha

UPPULETI SHALINI

VEMULAPALLI MOUNIKA CHOWDARY

T MADHURI
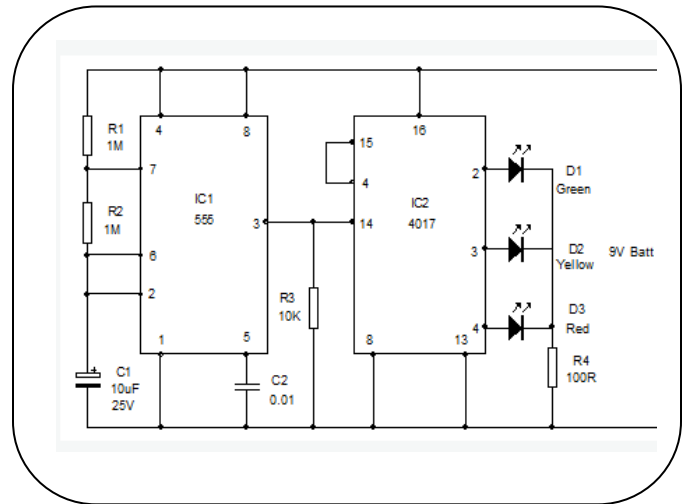
Abstract :

Traffic Lights are used to control the vehicular traffic. Traffic light has proved to be an amazing way to stop the vehicular collisions and control the traffic jams in today's modern era where everyone owns the different types of vehicles. This traffic light is made with the help of counter IC, which is mainly used for Sequential Circuits. We can also call it as Sequential Traffic Lights. Sequential Circuits are used to count the numbers in the series. the main IC is 4017 counter IC which is used to glow the Red, yellow and green LED respectively. 555 timer acts as a pulse generator providing an input to the 4017 counter IC.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-35

TITLE OF THE PROJECT: Designing & implementation of stop watch using microcontroller

FACULTY GUIDE: Mr.Anand

MADHUMETHA A

NARA GEETHA VARSHINI

NIVETHA P
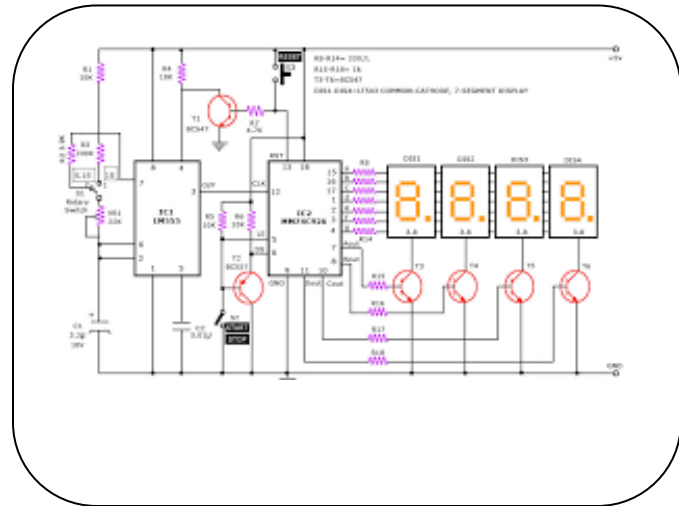
Abstract :

The stop watch is used to measure the time required for a certain event. This is different from normal clocks in many ways, one of which is the accuracy of time. The stop watch requires much more accuracy than the normal clocks.

In this project, an ATmega8535 microcontroller was used to control the stop watch, by which perfect accuracy can be ensured. For compiling the C code and for loading the compiled .hex file into the microcontroller, AVR studio and Pony Prog were used respectively

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-36

TITLE OF THE PROJECT: Eyeball Tracking Robot

FACULTY GUIDE: Ms.Kalpana Devi

REKHA R

SRILAKSHMI
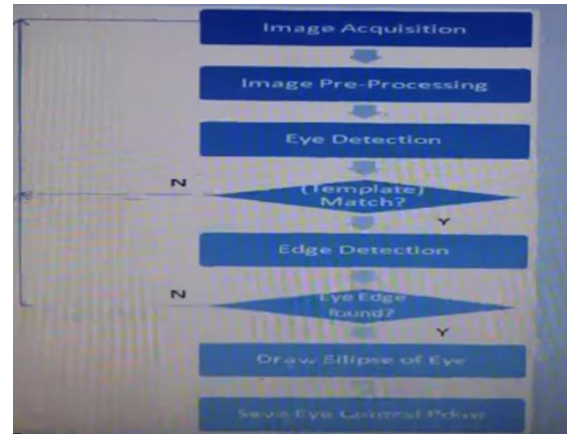
Abstract :

In the case of paralysis a person's ability to move any muscles may be limited to the eyes, which is the only way for a person to communicate. We developed a computationally efficient and cost effective approach for controlling the motor (wheel chair) using the LabVIEW tool, tracking the eyeball movements using the camera. Eye ball movement can be obtained by capturing the image of the eye. After the image is captured using the LabVIEW tool, the edge of the eyeball are detected. These edges give the outline layer of the eyeball. Then the edge detected image is converted into a matrix(n*n) form. The edges are filled with numeric 1 in the matrix. In the matrix if the numeric 1's is found on the left side of the matrix then the motor runs forward, if the numeric 1's is found on right side of the matrix then the motor runs in the reverse direction.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-II(B)-2017-37

TITLE OF THE PROJECT: Arduino light sensor

FACULTY GUIDE: Mr.Darwin

SUKANYA K

VARSHA DEVI M

Abstract :

Whenever a room gets dark due to a fused bulb or any other factors, a light bulb automatically turns ON. This can even be used as an emergency lighting system. It can be used to automatically turn a light ON whenever there isn't sufficient light in a room.

In order to detect the intensity of light or darkness, we use a sensor called an LDR .The LDR is a special type of resistor which allows higher voltages to pass through it (low resistance) whenever there is a high intensity of light, and passes a low voltage (high resistance) whenever it is dark. We can take advantage of this LDR property and use it in our DIY Arduino LDR sensor project.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-II(B)-2017-38

TITLE OF THE PROJECT: R-Shaped microstrip patch antenna usind ADS for WiFi Applications

FACULTY GUIDE: Mr.Arun Prasath

ULISI LIKHITHA

VIGNESHWARI M

VANDANA
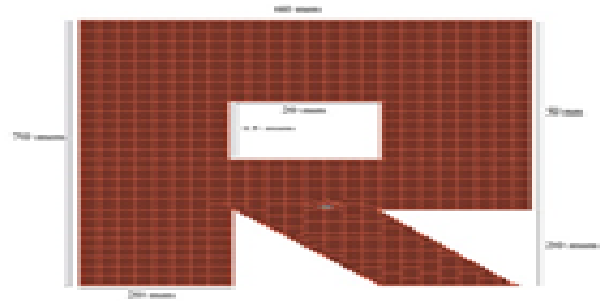
Abstract :

- This proposed Microstrip Patch Antenna (MPA) for Wireless Fidelity(Wi-Fi) applications is designed to operate at 2.4GHz range of frequency with its standard of IEEE 802.11.

- The alphabets R shape design is simulated using Advanced Design System 2009(ADS 2009) software.

- The patch is sketched for a thickness of 1.5mm, height of 70mm and a width of 60mm.

- The Microstrip line feed technique is applied.

- The substrate material of the antenna is Flame Retardant-4(FR4), with a relative permittivity of 4.4.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(A)-2017-39

TITLE OF THE PROJECT: Emotion detection in human beings using ECG signals

FACULTY GUIDE: Ms. L.Vanitha

ADDANKI JAHNAVI

BHAVANA M

BUSI BHARATHI
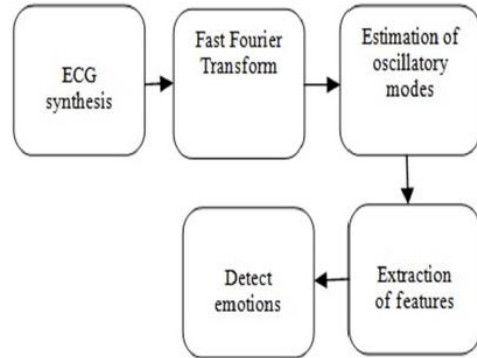
Abstract :

Emotions include feelings, bodily changes, cognitive reactions, behavior, and thoughts. Emotions are important in many different areas including rational decision making and purposeful behavior. Consequently, emotions can cause affective experiences such as feelings of arousal and pleasure. As people display the emotional expressions of others to their various degrees individually, it is not an easy task to judge or to model human emotions. The main difficulty in formulating these models lies in the fact that we must rely on visible manifestations of emotions to produce and verify them since the latent factors that generate emotions are unobservable. The objective of this project is to analyze the emotional states, of students. In the proposed methodology the ECG of the person is acquired by displaying different videos which stimulate different emotions and the analog signal is acquired using NI labVIEW instrumentation. The acquired ECG signal is analyzed.

Achievements:

Project Design Contests:Nil

Symposium: Attended in Sai Ram Engineering College

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(A)-2017-40

TITLE OF THE PROJECT: Reverse car parking using IR sensor

FACULTY GUIDE: Ms.Ashiba

GUNTURU RUPADEVI

JUANA VINCI R S

KASTHURI SANDHYARANI
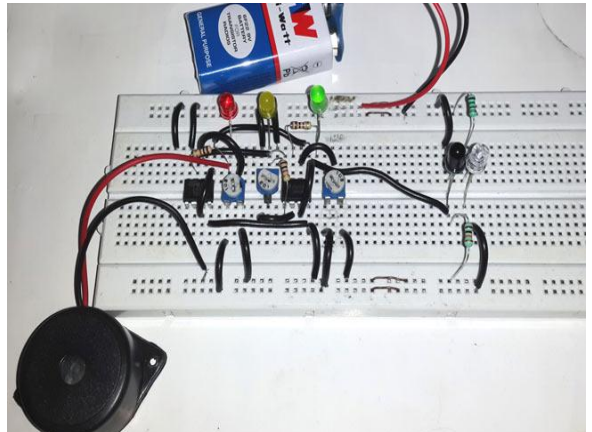
Abstract :

This car parking assistant can protect your car from any damage while reverse parking. It indicates the distance of car from any object and raise an alarm when it reaches close to the wall or the object and needs to be stopped. This car parking circuit is quite easy and uses few commonly available components.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(A)-2017-41

TITLE OF THE PROJECT: Traffic light controller using LABVIEW

FACULTY GUIDE: Ms. M. Priya

ANMOL SACHIN P M

BHARKAVI V

BHUVANESWARI S

Abstract :

As vehicular travel is increasing, the problem of urban traffic congestion spreads and as such there is a pressing need for the introduction of advanced technology and equipment to improve the state-of-the-art of traffic control. Traffic problems now-a-days are increasing because of the growing number of vehicles and the limited resources provided by current infrastructures. So a simulating and optimizing traffic control algorithms for increasing demand is need of the time. The simplest way for controlling a traffic light is to use a timer for each phase. Lab VIEW Simulation model for controlling the traffic lights based on time interval. This Simulation model can be extended to control the time interval of the traffic light based on traffic density. This can be even extended to integrated traffic management system for a metropolitan city based on the density of traffic.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-III(A)-2017-43

TITLE OF THE PROJECT: Image forgery detection using artificial neural networks

FACULTY GUIDE: Ms. L.Vanitha

DEEPIKA D

DHARSHANA V

GOMATHI E
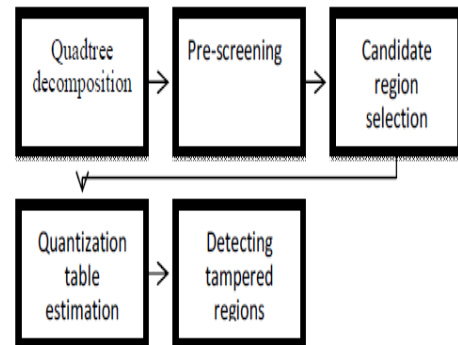
Abstract :

Today manipulation of digital images has become easy due to powerful computers, advanced photo-editing software packages and high resolution capturing devices. Verifying the integrity of images and detecting traces of tampering without requiring extra prior knowledge of the image content or any embedded watermarks is an important research field. Blind or passive methods do not need any explicit prior information about the image. Thus a blind-passive scheme is devised in order to estimate quantization table. Segmentations is done by quadtree decomposition, then quantization and rounding is carried out. AC and DC coefficients are found. To avoid merging suspect regions, a candidate region refinement operation is performed in the region growing step. After estimating the quantization table from the candidate regions, a maximum-likelihood ratio classifier exploits the inconsistency of the quantization table to identify tampered regions. The time taken to compare the pixels is more and in future some other comparison technique or any clustering method can be used in order to reduce time consumption.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(A)-2017-44

TITLE OF THE PROJECT: Voice based controlling robot

FACULTY GUIDE: Ms.Kalpana Devi

JAYASHREE V

HARSHINI P

KAVIYA S
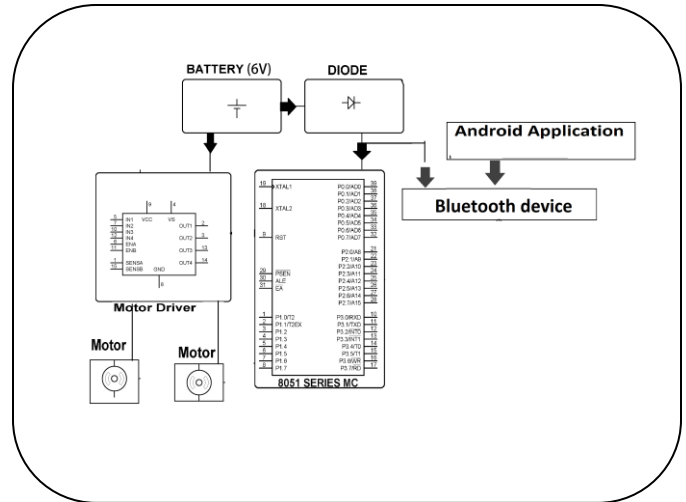
Abstract :

This project Voice Controlled Robotic Vehicle helps to control robot through voice commands received via android application. The integration of control unit with Bluetooth device is done to capture and read the voice commands. The robotic vehicle then operates as per the command received via android application. For this 8051 microcontroller is integrated in the system which makes it possible to operate the vehicle via android application. The controlling device may be any android based Smartphone/tab etc having an android OS. The android controlling system provides a good interactive GUI that makes it easy for the user to control the vehicle.The transmitter uses an android application required for transmitting the data.The receiver end reads these commands and interprets them into controlling the robotic vehicle.The android device sends commands to move the vehicle in forward, backward, right and left directions.After receiving the commands, the microcontroller then operates the motors I order to move the vehicle in four directions. The communication between android device and receiver is sent as serial communication data. The microcontroller program is designed to move the motor through a motor driver IC as per the commands sent by android device.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
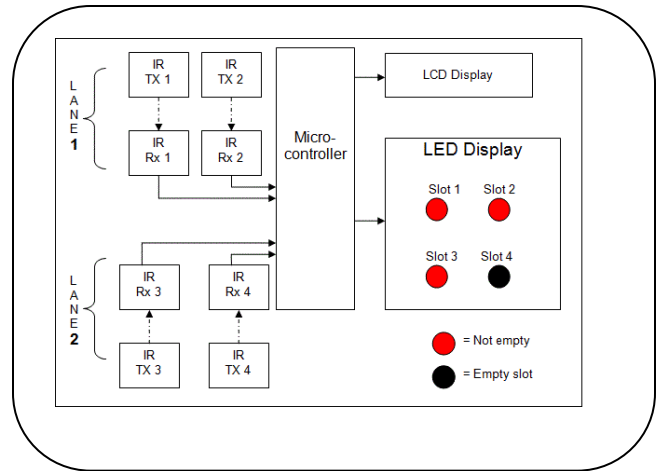
TEAM ID: ECE-III(A)-2017-46

TITLE OF THE PROJECT: Automated Parking System using IR sensors

FACULTY GUIDE: Ms.Sreeja Vijay

ARUNACHALAM M

BARATH D

BOLLINENI LAKSHMI YASWANTH

Abstract :

The objective of this project is to automate the vehicle parking system. It utilizes IR sensors to determine the exact location of the free space available for parking. LCD is provided to display the information about the total no of vehicles that can be parked and the place free for parking. When a vehicle arrives at the gate the doors are opened only if a parking slot is available else the relevant message is displayed on LCD and the gates are not opened. This , however, has a limitation in implementation if the parking area is large with large number of slots as IR sensors have to be placed for every slot. This could be overcome by making use of camera and determining free space using image processing.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(A)-2017-47

TITLE OF THE PROJECT: Digital Door Lock – Password based Electronic Code Lock using 8051

FACULTY GUIDE: Ms.P.Vadivu

B.VENKATA KALYAN

GUGGILLA YUGANDHAR

DEEPAK K V
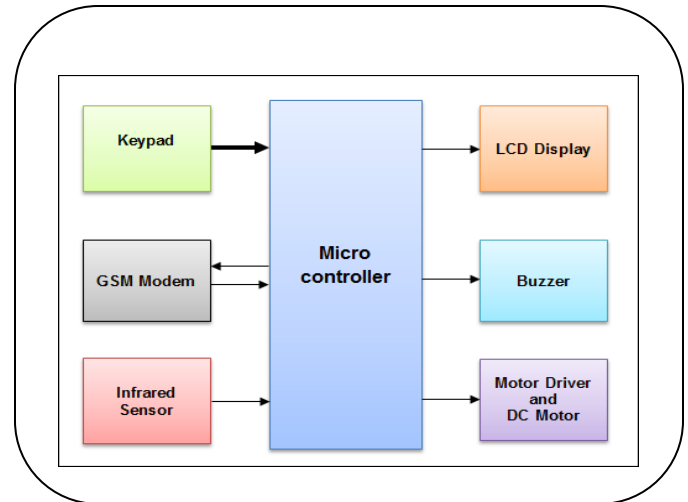
Abstract :

This Digital Door Lock – is simply a password based electronic code lock designed using 8051 micro controller, a keypad and a 12 volt dc relay. In this article, we have designed a simple digital door lock using 8051 -which can be used as a security checking system to limit access to an area/room only for certain individuals with the password. So our digital door lock project can be called with a very wide range of names like a digital combination lock using 8051 or a digital security code lock using 8051 microcontroller or a password security system using 8051 or an electronic code lock or a digital code lock using 8051. People call this kind of a "security system" with different names, though all of them mean to build a basic password based security system using a micro controller like 8051 or AVR or PIC or Arduino (a controller of choice) with extra features like automatic door lock/opening facility, sound alarm, GSM based SMS alert etc.

Achievements:

Project Design Contests: Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
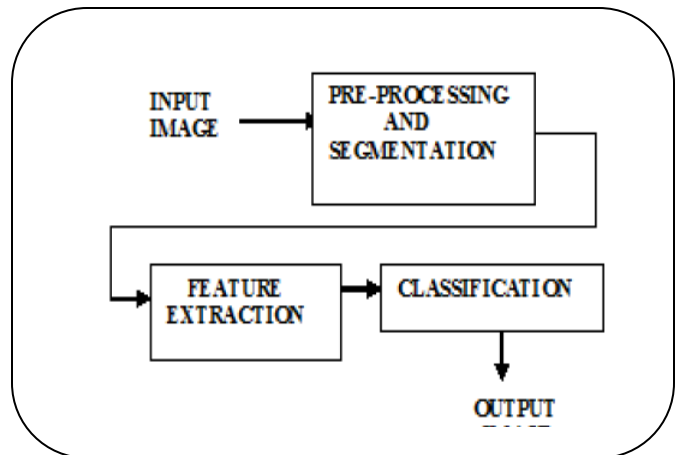
TEAM ID: ECE-III(A)-2017-49

TITLE OF THE PROJECT: Down syndrome detection using chromosome analysis

FACULTY GUIDE: Ms. L. Vanitha

KISHORE T   JAYAMANI R   JAIVIGNESH R

Abstract :

The main objective of this system is to categorize the human chromosomes and determines the chromosomal disorders automatically without human intervention. Microscopic chromosome image is acquired, processed and features are extracted and k-means algorithm is used for categorization. A human cell has 23 pairs of chromosomes, accounting to a total of 46 per cell. 50 images for each pair chromosomes are considered from standard database and the features length, width, area, entropy, standard deviation are extracted from the image. For each pair 30 chromosomes are used for training the Support Vector Machine (SVM) and 20 chromosomes are used for testing. Karyotyping is the identification, classification and presentation of 24 classes (Chromosome labelled from 1-22, X chromosome and Y chromosome) into a solitary picture. Any deviation from the normal karyotype, in terms of chromosome number or structure is known as chromosomal abnormality. The presence of 3 numbers in chromosome 21 is called as Trisomy 21 or Down Syndrome.

Achievements:

Publications: Selected for International Conference in Aurora's Scientific Technological & Research Academy, Hyderabad, ICRIEAT, 21st & 22nd December 2017

Social Media Reach:

Youtube :Nil

Facebook :Nil

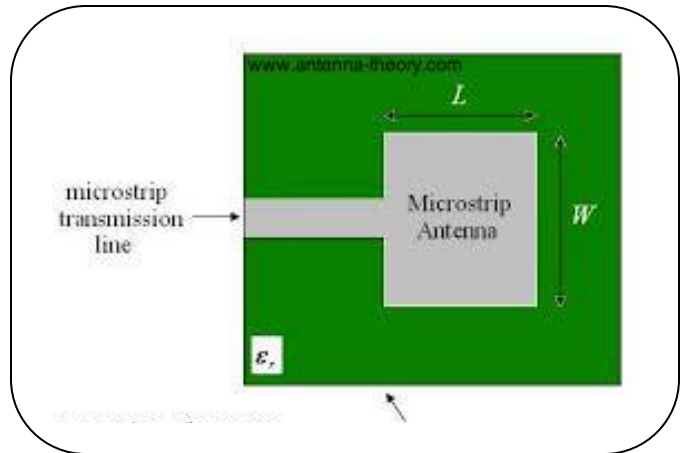**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID: ECE-III(A)-2017-51

TITLE OF THE PROJECT: Compact microstrip antenna for WIFI applications

FACULTY GUIDE: Mr.T.Rubeshkumar

ELSIN R

GANDAMANENI KAMESH

Abstract:

This paper presents the design and analysis of the microstrip antenna appropriate for wireless fidelity (Wi-Fi) application. The antenna comprises of two elements which are driven and parasitic that consists of reflector and directors. The analysis has been carried out to identify the effects of each element to the performance of antenna that will achieve a high gain. A gain enhancement method using Yagi antenna concept is designed with array application. Two branches of microstrip antenna have been connected in a composite array format using corporate-feed network. The designed antenna with microstrip line feeding based on quarter wave impedance matching technique is simulated using Computer Simulation Tool (CST) Microwave Studio. The simulation result of return loss shown that the operating bandwidth at frequency range of 5.47-5.57 GHz coverage standard of IEEE 802.11 in 5 GHz Wi-Fi band between 5.15-5.875 GHz. The antenna is fabricated on the low cost FR-4 substrate with dielectric constant of 4.7 and thickness of 1.6 mm. Simple fabrication techniques can be utilized to the proposed antenna design due to the placing feeding network is on the same layer with the antenna patch elements.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(B)-2017-54

TITLE OF THE PROJECT: Simualtion of earthquakes and Tsunami through GSM network

FACULTY GUIDE: Ms.Sreeja Vijay

KOUSALYA .M

MONISHA .A.V
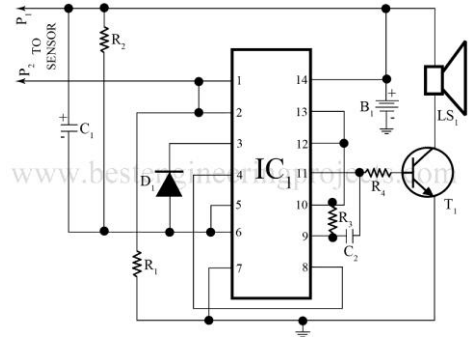
KONDRAJU LIKHITHA GAYATHRI

Figure 1: Circuit Diagram of Earth Quake Alarm

Abstract :

Here is an ultra sensitive earthquake detector circuit that can sense seismic vibrations. It can be used to detect vibrations in the Earth. So it is an ideal device to monitor entry passages. The circuit exploits the direct piezo electric property of the piezo element used in buzzers. The Lead Zirconate crystals present in the piezoelement can readily store current and can release the current when the orientations of the crystals are disturbed through mechanical vibrations. IC1 amplifies the signals from the piezo element and the high output from IC1 switches on T1. When T1 conducts, trigger pin 2 of the monostable (IC2) will grounded to give 3 minutes high output. This high output is used to sound alarm and to light LED. VR adjusts the sensitivity of piezo element. Glue the fine side of the piezo element on the floor (if used as an entry alarm) or inside a metal box (if used to bury in soil to detect earth borne vibrations).

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
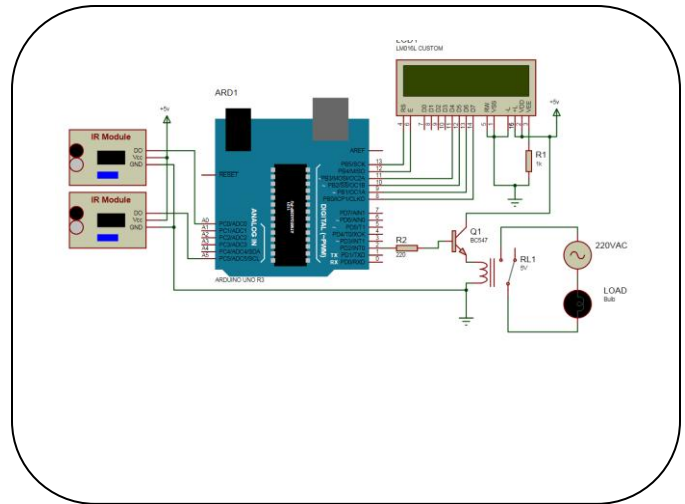
TEAM ID: ECE-III(B)-2017-56

TITLE OF THE PROJECT: Automatic room light controller with bidirectional visitor counter

FACULTY GUIDE: Ms.C.Adachrista

KOTAPATI SWATHI

KOTHURI VYSHNAVI

MANDEM VENKATA SIVA VARSHITA

Abstract :

The main concept behind this project is known as "Visitor counter" which measures the number of persons entering in any room like seminar hall, conference room, classroom. This function is implemented using a pair of Infrared sensors. LCD display placed outside the room displays this value of person count. This person count will be incremented if somebody enters in the room and at that time lights are turned on. And in a reverse way, person count will be decremented if somebody leaves the room. When the number of persons inside the room is zero, lights inside the room are turned off using a relay interface.ule is known as **"Automatic room light controller"**.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

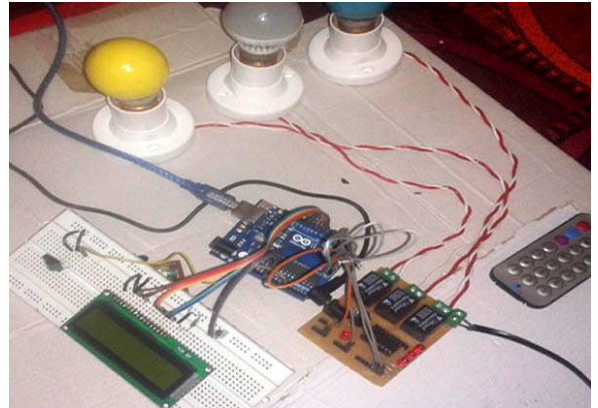TEAM ID: ECE-III(B)-2017-57

TITLE OF THE PROJECT: IR remote controlled home appliances using Arduino

FACULTY GUIDE: Mr.V.Yokesh

KUSHMITHA .P   MERLIN .P   MONIKA .M

Abstract :

In this project, we are using IR based wireless communication for controlling home appliances. In this project, Arduino is used for controlling whole the process. We send some commands to the controlling system by using IR TV/DVD/MP3 remote for controlling AC home appliances. After receiving signal from IR remote, Arduino sends related signal to relays which are responsible for switching ON or OFF of the home appliances through a relay driver.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(B)-2017-58

TITLE OF THE PROJECT: Breath analyzer circuit using 8051
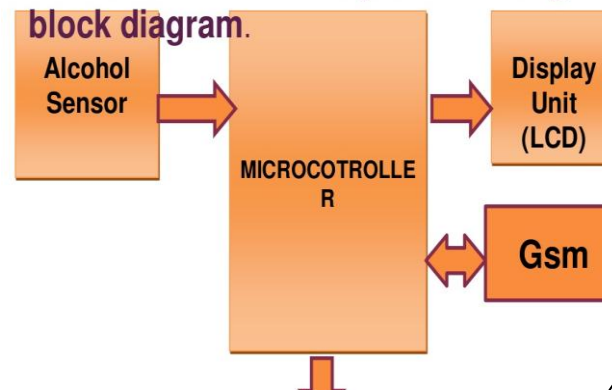
FACULTY GUIDE: Ms.P.Vadivu

POORNIMA .S
(1997)

.PRIYADHARSHINI . .R.L

NANDHINI .R

Block Diagram

Abstract :(10 lines)

      This article is about a breathalyzer circuit using 8051 microcontroller which outputs the blood alcohol content (BAC) from the breath. The BAC is displayed in percentage on a 3 digit seven segment display. The microcontroller used if AT89S51 which belongs to the 8051 family and the alcohol sensor is MQ135 gas sensor. MQ135 is a stable and sensitive gas sensor which can detect ammonia, carbon dioxide, alcohol, smoke, nitrogen dioxide etc. The sensor consists of a tin dioxide sensitive layer inside aluminium oxide micro tubes, measuring electrode and a heating element inside a tubular aluminium casing. The front end of the sensor is covered using a stainless steel net and the rear side holds the connection terminals. The ethyl alcohol present in the breath is oxidized into acetic acid while passing over the heating element. This ethyl alcohol falls on the tin dioxide sensing layer and as a result its resistance decreases. This resistance variation is converted into a suitable voltage variation using an external load resistor.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube :Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
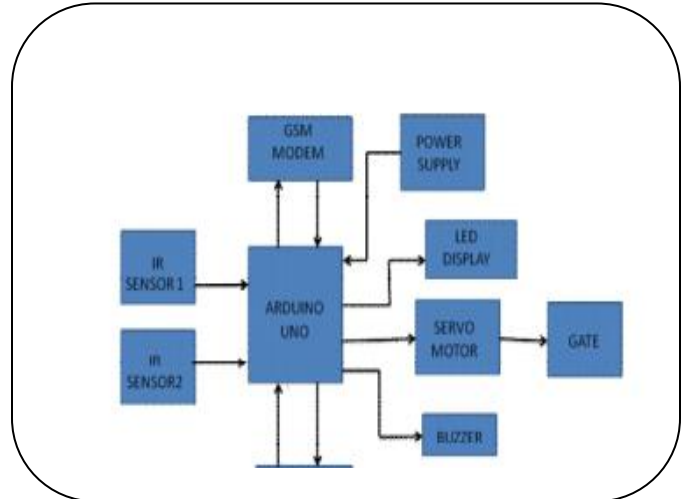
TEAM ID: ECE-III(B)-2017-59

TITLE OF THE PROJECT: Automatic Railwaygate Control

FACULTY GUIDE: Ms.M.Priya

MONIKA .J

NANDHINI .R
[03.11.1997]

PREETHI .P

Abstract :

A number of people die due to human error while crossing the railway gate. The major errors include no proper control flow of traffic, manual operation of traffic gates. If mechanism is automatic, the margin of error becomes less. Hence, can save lives of people through this concept. The Automatic Railway Gate Control System using IR Sensor & Arduino focuses on systematic traffic control of railway gates that are both manned and unmanned. The proposed system uses infra red sensors to detect the arrival and departure of trains at the railway level crossing, Arduino to control the opening/closing of gates and to convey the obstacle message.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
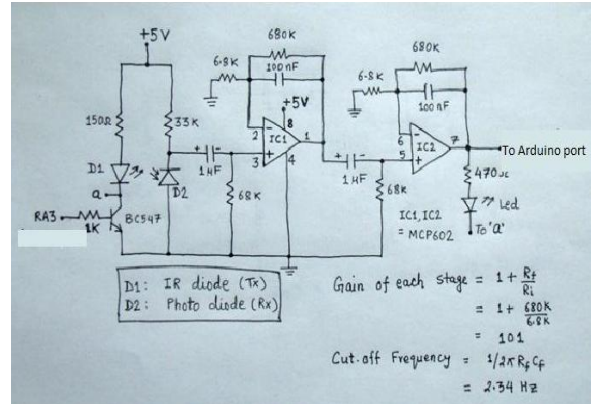
TEAM ID: ECE-III(B)-2017-61

TITLE OF THE PROJECT: Pulse rate monitoring using IR sensor.

FACULTY GUIDE: Mr.Padmanaban

MALARVIZHI .R

NANDHINI .S
[04.06.1995]

NIVETHITHA .A

Abstract :

Presence of doctor is essential for proper patient care. But he cannot be present on each and every place to provide medication or treatment. So remote monitoring of a patient is the right solution. But the problem is availability of internet connection in a rural area. So this inspired us to use GSM module for this project since the telecom network is widely spread within rural & urban area of the India. This system is used to monitor physical parameter like heart beat and send the measured data directly to a doctor through SMS. System consists of an IR base heart beat sensor, Arduino Uno & GSM module. This device will be able to measure heart beat from an infant to elder person. The low cost of the device will help to provide appropriate home base effective monitoring system.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
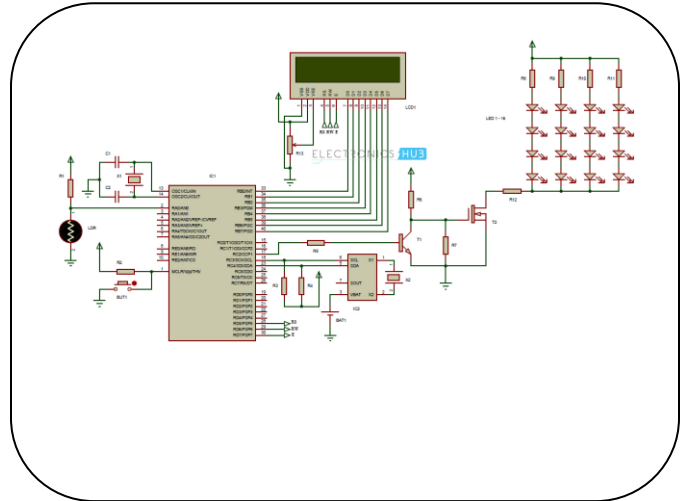
TEAM ID: ECE-III(B)-2017-62

TITLE OF THE PROJECT: Auto intensity control of street lights

FACULTY GUIDE: Ms.C.Adachrista

Poornima .S

Misma

Pooja Shree

Abstract :

This project aims at designing and executing the advanced development in embedded systems for energy saving of street lights. Nowadays, human has become too busy, and is unable to find time even to switch the lights wherever not necessary. The present system is like, the street lights will be switched on in the evening before the sun sets and they are switched off the next day morning after there is sufficient light on the roads. This project gives the best solution for electrical power wastage. Also the manual operation of the lighting system is completely eliminated. In this project the two sensors are used which are light sensor used to indicate the presence of ON and OFF switch ,photoelectric sensor used to detect movements to activate the street light then comes the Light Dependent Resistor LDR sensor to indicate a day/night time and the photoelectric sensors to detect the movement on the street.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications: Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
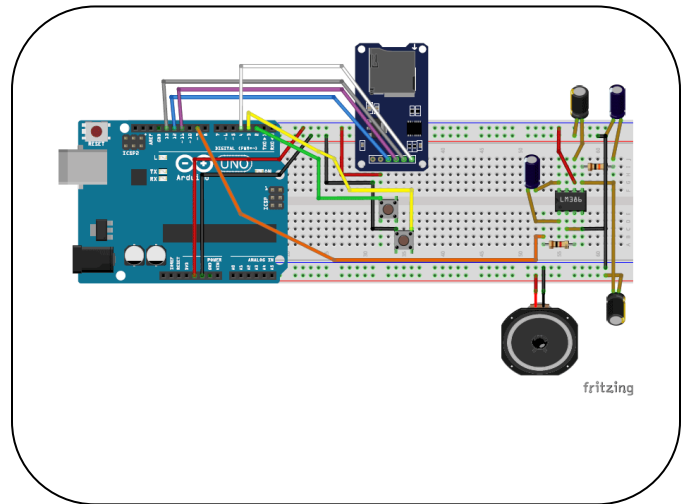
TEAM ID: ECE-III(B)-2017-63

TITLE OF THE PROJECT: Arduino time and sensor based android music player

FACULTY GUIDE: N. Darwin

V.MOHAN

V.MOHAN KUMAR

M. MANIKANDAN

Abstract :

The aim of this project is to design a audio player with LM38. Adding sounds or music to our project will always make it looks cool and sounds much more attractive. Especially if you are using an Arduino and you have lots of pins free, you can easily add sound effects to your project by just investing in an extra SD card module and a normal speaker. In this project I will show you how easy it is to Play music/add sound effects using your Arduino Board. For playing sounds from SD Card using Arduino, we need audio files in .wav format because Arduino Board can play an audio file in a specific format that is wav format. To make an arduino mp3 player, there are a lot of mp3 shields are available which you can use with arduino. Or else to play mp3 files in arduino, there are websites which you can be used to convert any audio file on your computer into that specific WAV file.

Achievements:

Project Design Contests:Nil

Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
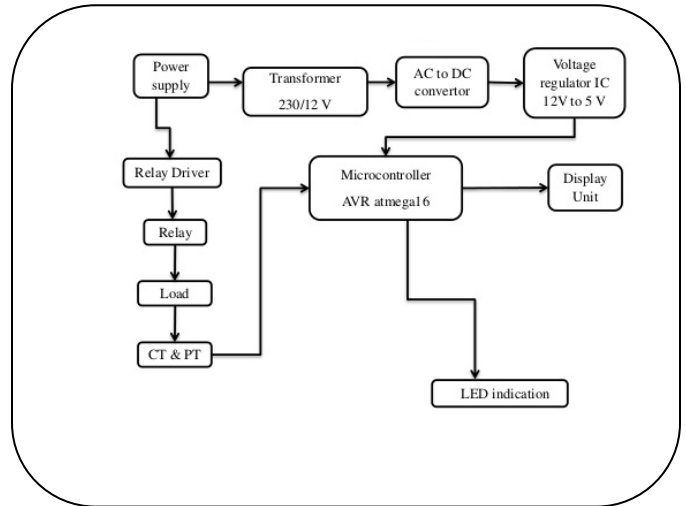
TEAM ID: ECE-III(B)-2017-66

TITLE OF THE PROJECT: Simple calculator based on AVR microcontroller

FACULTY GUIDE: Ms.G. Premalatha

| MALATHY .R | NANDHINI .S [21.04.1997] | PAVITHRA .C |

Abstract :

In this project we will make a simple calculator using calculator keypad and 16x2 alphanumeric Liquid Crystal Display. This calculator can calculate simple floating numbers with addition, subtraction, multiplication and division operation. This calculator is only for conceptual project and it cannot calculate some operation like minus multiplication and other complex scientific operation. The input is taken from calculator keypad.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(B)-2017-67

TITLE OF THE PROJECT: Microstrip Patch Antenna at 8 GHz for Satellite Communication
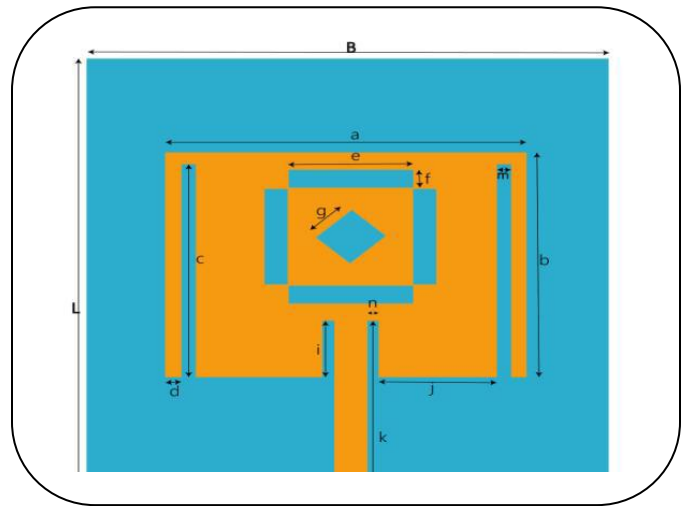
FACULTY GUIDE: Mr.J.Arunprasath

Name   Name   Name   Name

Abstract :

Microstrip patch antenna for satellite application is proposed in the paper. The antenna has a frequency bandwidth of 0.3 GHz (6.8500 GHz - 8.1500 GHz) centered at 8 GHz with a return loss of -27.533 dB.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(B)-2017-69

TITLE OF THE PROJECT: Speech recognition system through MATLAB

FACULTY GUIDE: Mr.J.Yuvaraj

Nivesh.C

Prashanth.K

Mahesh.V

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :

Speech Recognition is the process in which certain words of a particular speaker will automatically recognized that are based on the information included in individual speech waves. This paper enlightens upon the invention as well as technological advancement in the field of voice recognition and also focuses upon different steps involved for speaker identification using MATLAB Programming. In this project firstly we will going to perform speech editing as well as degradation of signals by the application of Gaussian Noise. This background noise then will success fully removed by the application of Butterworth Filter. Moreover, the technique applied here is to develop a code using MATLAB Programming which will compare the pitch and formant vectors of a known speech signal which will then compare with the bunch of other unknown speech signals and prior to it choose the appropriate matches.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(C)-2017-70

TITLE OF THE PROJECT: Design of high speed logical adder using modified 4:2 & 5:2 compressor

FACULTY GUIDE: Dr.N.Suresh

RAMYA .A

ROOPAVATHI .R

SARANYA .P

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :

Compressor Adder being the most area and power consuming elements of a design of high Speed Multiplier, area-efficient low-power multiplier architectures are in demand. In this project Design the Modified 5:2 compressor for performing the partial product addition in Advanced multiplier. Multipliers are the integral components in the design of many high performance FIR filters, image and digital signal processors. In comparison with the regular compressor based adder, the proposed design has reduced number of LUT tables, reduced area and increase in speed.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
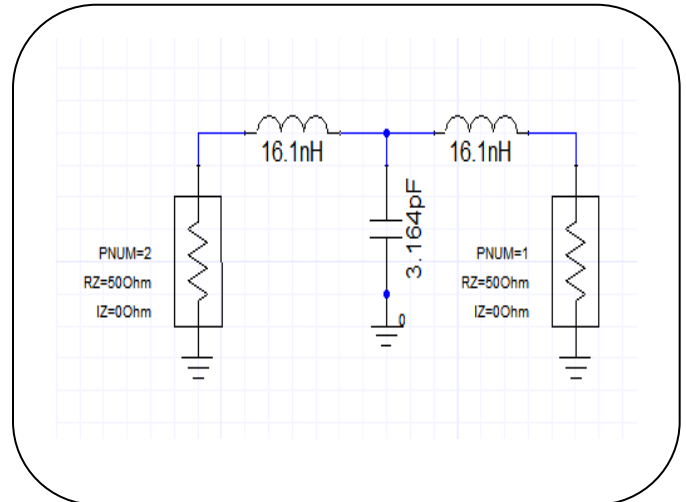
TEAM ID: ECE-III(C)-2017-71

TITLE OF THE PROJECT: Design of microstrip low pass filter

FACULTY GUIDE: Mr.J.Arunprasath

RANJANI .R

SREE PREETHI .L

THULASI DEVI .A

Abstract :

▪ Chebyshev low pass filter presented based on lumped-network and microstrip line structure suitable for wireless communication purpose. In this paper chebyshev microstrip lowpass filter of order 3 and 1dB pass band ripple is designed on duroid substrate using step-impedance method for 1GHz cut-off frequency using ADS.

▪ Microstrip filter has advantages like low cost, higher selectivity and uncomplicated structure. This microstrip lines are much cheaper and lighter but gives higher losses

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
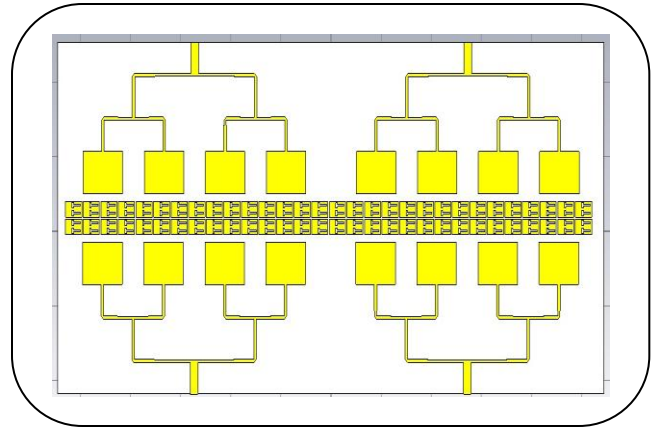
TEAM ID: ECE-III(C)-2017-72

TITLE OF THE PROJECT: Miniaturization of Mutual Coupling for Four Arrays Antennas

FACULTY GUIDE: Mr.V.Yokesh

Ramya V

M Thillainayaki

P Yuvasri

Abstract :

The design of more than one antenna system called antenna arrays. Patch antenna arrays are used extensively due to their high directivity and gain, also light weight and low cost. In antenna arrays energy is wasted in backward radiation as well as losses due to mutual coupling. Placing of elements close to each other can minimize the overall size of an array. On the other hand, a major drawback of this type of antenna arrays is mutual coupling; that depends on the separation between the elements, causes unfavourable effects on antenna characteristics. The use of Electromagnetic Band Gap structures, also called photonic band gap (PBG) structures in the antenna arrays can limit the coupling by suppressing the surface waves. In this paper, a novel electromagnetic band gap (EBG) surface has been introduced by some modifications in conventional mushroom-like EBG structure which has more compact electrical dimensions. This structure is proposed to be placed in between four patch arrays antennas to reduce the mutual coupling loss. The investigation included E coupling direction, and antennas array system is analyzed using CST MWS. A significant value of -27.036 dB mutual coupling reduction is reached at 5.8

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(C)-2017-73

TITLE OF THE PROJECT: Modified compressor based vedic multiplier design

FACULTY GUIDE: Dr.N.Suresh

RUDHRA .R

SINDU PRIYA .N.R

SOMINENI SRI LAKSHMI

Abstract :

Multipliers are the integral components in the design of many high performance FIR filters, digital image and digital signal processors. Multipliers being the most area and power consuming elements of a design, area-efficient low-power multiplier architectures are in demand. In this paper, multiplier based on ancient Vedic mathematics technique has been proposed which employs modified compressors for addition of partial products. Combining the Vedic Sutra- UrdhwaTiryakbhyam and efficient compressors, a robust area and power efficient multiplier architecture has been achieved. In comparison with the regular compressor based multiplier, the proposed design has reduced number of LUT tables, and area and also increase the computational speed.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

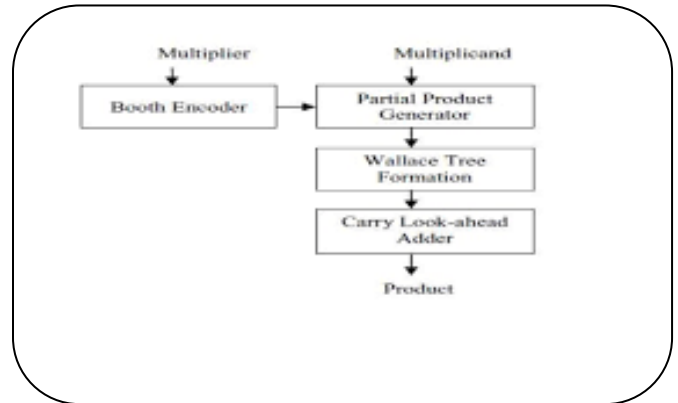TEAM ID: ECE-III(C)-2017-74

TITLE OF THE PROJECT: FPGA based implementation of wallace tree multiplier

FACULTY GUIDE: Mr.R.Rajesh

RAMYA .V
[16.03.1998]

RUKMANI .P

SRAVANI .J

Abstract :

In this project, Wallace tree multiplier is designed and implemented using SPARTAN-3 FPGA. Wallace tree is an efficient hardware implementation of a digital circuit that multiplies two integers, devised by Australian Computer Scientist Chris Wallace in 1964. The Wallace tree has three steps: 1)Multiply (that is – AND) each bit of one of the arguments, by each bit of the others. Depending on position of the multiplied bits, the wires carry different weights. 2) Reduce the number of partial products to two by layers of full and half adders.3) Group the wires in two numbers, and add them with a conventional adder. Two 8-bit multiplier is designed and implemented using SPARTAN-3 FPGA.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017
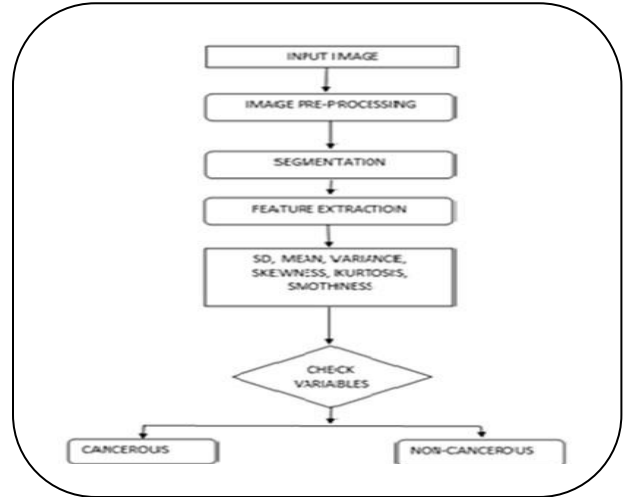
TEAM ID: ECE-III(C)-2017-75

TITLE OF THE PROJECT: Breast cancer detection using image processing

FACULTY GUIDE: Mr.J.Yuvaraj

Sandhya.S   Shaik.Asifa   Vinodhini.B

INPUT IMAGE

IMAGE PRE-PROCESSING

SEGMENTATION

FEATURE EXTRACTION

SD, MEAN, VARIANCE, SKEWNESS, KURTOSIS, SMOTHNESS

CHECK VARIABLES

CANCEROUS   NON-CANCEROUS

Abstract :

Breast Cancer is one of the significant reasons for death among ladies. Many research has been done on the diagnosis and detection of breast cancer using various image processing and classification techniques. Nonetheless, the disease remains as one of the deadliest disease. Having conceive one out of six women in her lifetime. Since the cause of breast cancer stays obscure, prevention becomes impossible. Thus, early detection of tumour in breast is the only way to cure breast cancer. Using CAD (Computer Aided Diagnosis) on mammographic image is the most efficient and easiest way to diagnosis for breast cancer. Accurate discovery can effectively reduce the mortality rate brought about by using mamma cancer. Masses and micro-calcifications clusters are an important early symptoms of possible breast cancers. They can help predict breast cancer at it's infant state. The image for this work is being used from the DDSM Database (Digital Database for Screening Mammography) which contains approximately 3000 cases and is being used worldwide for cancer research. This paper quantitatively depicts the analysis methods used for texture features for detection of cancer. These texture features are extracted from the ROI of the mammogram to characterize the micro-calcifications into harmless, ordinary or threatening. These features are further decreased using Principle Component Analysis(PCA) for better identification of Masses. These features are further compared and passed through Back Propagation algorithm (Neural Network) for better understanding of the cancer pattern in the mammography image.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(C)-2017-76

TITLE OF THE PROJECT: Two way e-menu ordering system for restaurant

FACULTY GUIDE:Dr.M.Moorthi

SHIVANI .B

REKHA .S

VEDHAVALLI .A

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :

   This project deals two way e Menu Ordering systems for Restaurant. Touch screen panel will placed on every table. Whenever customers come to their table then they will select the desired order menus from the touch screen. For example: suppose users have selected menu no 1,5,3 so on and once he/she is done then he/she can press enter/confirm key. At this time information will be sent to the kitchen of the hotel. All this information will be displayed on a computer display. For this purpose we have used a wireless RF transmitter at the customer table side. And wireless RF receiver at the kitchen side. So orders will be directly sent to the kitchen and users don't have to wait for the waiter. And at the same time LCD will display the total billed amount directly to the user.

Achievements:

Project Design Contests: ICTACT

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

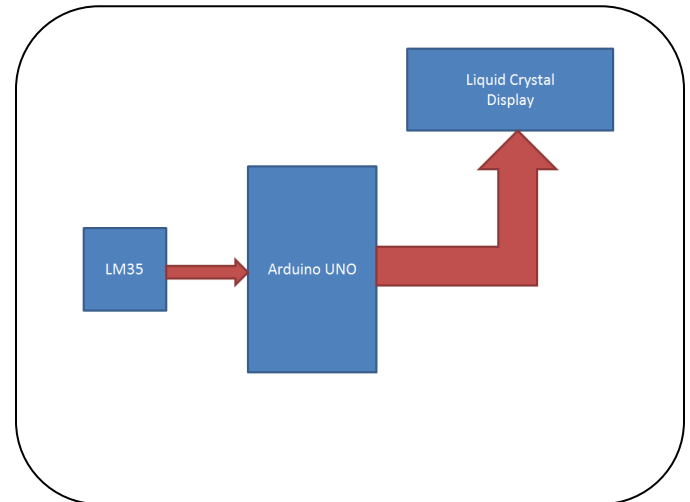TEAM ID: ECE-III(C)-2017-80

TITLE OF THE PROJECT: Digital thermometer using Arduino

FACULTY GUIDE: Ms.C.Adachrista

Vignesh K

Sivakarthikeyan

Suriya

Abstract :

Thermometers are useful apparatus being used since long time for temperature measurement. In this project we have made an Arduino based digital thermometer to display the current ambient temperature and temperature changes on a LCD unit in real time . It can be deployed in houses, offices, industries etc. to measure the temperature. This project is based on Arduino which communicates here with LM35 temperature sensor and a 16x2 display unit. We can divide this arduino based thermometer into three sections - one senses the temperature by using temperature sensor LM 35, second section converts the temperature value into a suitable numbers in Celsius scale which is done by Arduino, and last part of system displays temperature on LCD.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: ECE-III(C)-2017-81

TITLE OF THE PROJECT: FM Bugger circuit
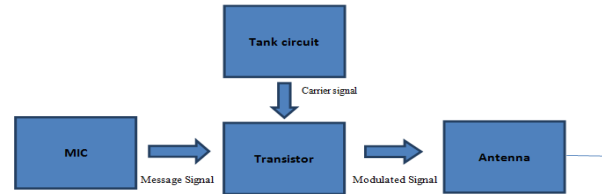
FACULTY GUIDE: Ms.P.Vadivu

SIGHAKOLLI SAI KRISHNA

SIRIGIRI HARSHA VARDHAN

THULASI RAMAN .N

Block Diagram

Transmitter Section:

Tank circuit

Carrier signal

MIC → Message Signal → Transistor → Modulated Signal → Antenna

Receiver Section:

Signal → Antenna → Normal FM Radio

Abstract :

We know that bugger is a device which gives the information of one person to other person in the remote location. Normally bugger is used for finding out the status of the person like where he is going, what he is talking etc. This is illegal but most of spy agencies use this bugger. Here is small circuit with which you can listen to another people conversation from long distance using the normal FM radio set. This FM bugger circuit is kept in room where you want listen the conversation. You can listen to this conversation using the normal FM radio set. The circuit uses analogue modulation in which the carrier signal is applied continuously to the message signal. Here, in our circuit, the conversation of people is received by the MIC and give to the circuit is modulated to the carrier signal and transmitted. MIC is placed in the room in which you want to listen to the conversation of the people and MIC will decode the conversation in to the signal.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach:

Youtube : Nil

Facebook : Nil

TEAM ID: ECE-III(C)-2017-101

TITLE OF THE PROJECT: Alpha numeric Character display using LED Cube

FACULTY GUIDE: Mr.L.Padmanaban

T.KarthikRaj

Jayakumar. K

O.Vamsikrishna

Abstract :

A monochrome (single colour) LED dot matrix display is used for displaying the Characters and Symbols which is interface with a microcontroller. This project will deliberate on displaying a scrolling text message on a 4×4 LED dot matrix display. The microcontroller used is Arduino Uno which is open source prototype Electronic platform. The 4 columns of the LED matrix are driven individually by two shift registers (74HC595), whereas the four combined rows are also driven by the Shift register. Here we will be scanning across the rows and feed the column lines with appropriate logic levels. The program in the microcontroller is to determine the speed of the scrolling message as well as Message what we are going to display. The technique will be demonstrated for right to left scroll, but can be easily implemented for scrolling in other directions. The Sketch program for Arduino Uno is developed with Arduino Software.

Achievements:

Project Design Contests:Nil
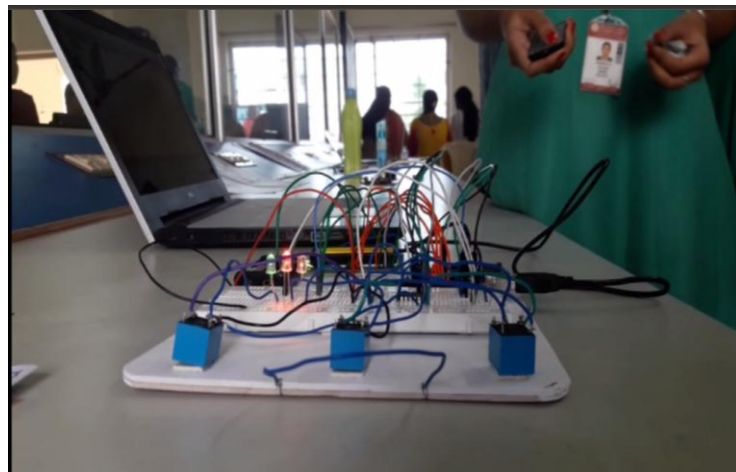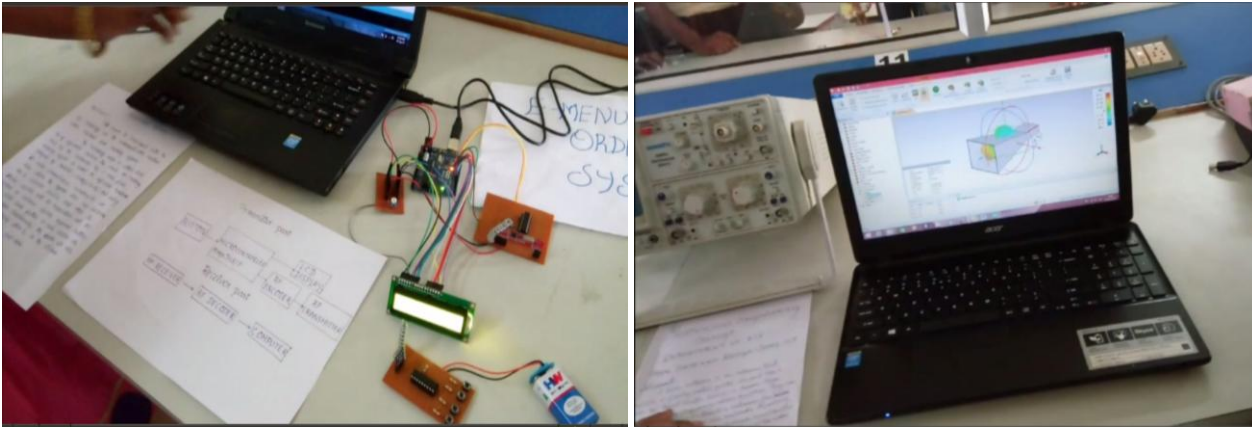
Symposium:Nil

Publications:Nil

Social Media Reach:

Youtube :Nil

Facebook :Nil

MINIPROJECTS 2017-18

ODD SEMESTER

16.09.2017

Department	Miniproject Coordinator	Domain	No. of Miniprojects	Total
EEE	Ms.S.Shobana	Instrumentation & Control	24	37
		Green Energy	5	
		Power Electronics	5	
		Power Simulation	1	
		Professional Lighting	2	

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-PEC/EEE/17-18/ODD/II/01

TITLE OF THE PROJECT-   SOLAR IRRIGATION SYSTEM

FACULTY GUIDE:J.RAJESH

| ARUN MUTHU | S V SUGAN | SUDHAKAR B |

Mini

project Photo/ **Block Diagram or**

Abstract :(10 lines)

Cost effective solar power can be the answer for all our energy needs. Solar powered smart irrigation systems are the answer to the Indian farmer. This system consists of solar powered water pump along with an automatic water flow control using a moisture sensor. It is the Proposed solution for the present energy crisis for the Indian farmers. This system conserves electricity by reducing the usage of grid power and conserves water by reducing water losses.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:
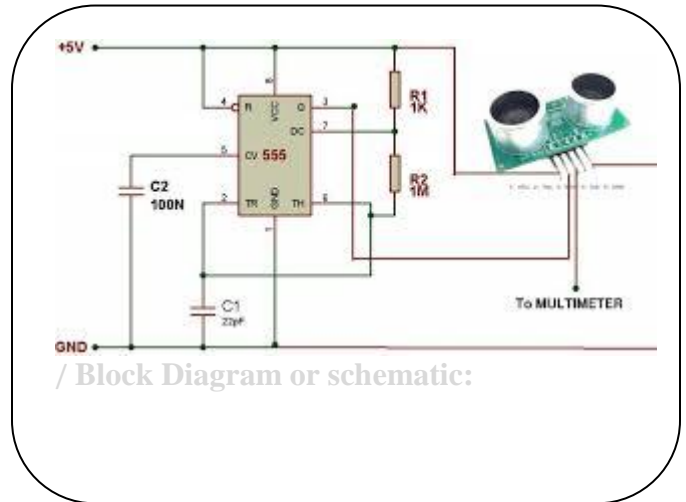
Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/02

TITLE OF THE PROJECT-   ULTRASONIC RANGE FINDER

FACULTY GUIDE: MR.VIDYAPATHY

BALA MURALI M

BHARATH KUMAR

SENTHIL KUMAR

/ Block Diagram or schematic:

Abstract :(10 lines)

In this project, we have built an Ultrasonic Rangefinder using Ultrasonic Sensor and Aurdino . We have different ways to measure the distance. One way is to use Ultra Sonic Sensor or Module for distance measurement. This project explains you how to measure the distance using Audrino. This Ultrasonic Range Finder system measures the distance up to 4 meters with high accuracy. The distance can be measured using pulse echo and phase measurement method. Here, the distance can be measured using pulse echo method. The ultrasonic module transmits a signal to the object, then receives echo signal from the object and produces output signal whose time period is proportional to the distance of the object. The mechanism of the ultrasonic sensor is similar to the RADAR (Radio Detection and Ranging). This is a technology for automobiles to sense an imminent forward collision with another vehicle or an obstacle, and to brake the car accordingly.

Achievements:

Project Design Contests: BITFUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/03

TITLE OF THE PROJECT-   RAIN WATER HARVESTING

FACULTY GUIDE: K.UMA

PREETHA V

RAJPRIYA D

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :(10 lines)

Rainwater harvesting is a technique of collection and storage of rainwater into natural reservoirs or tanks, or the infiltration of surface water into subsurface aquifers (before it is lost as surface runoff). One method of rainwater harvesting is roof top harvesting. This method is used to improve the ground water level and to reduce water starvation.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

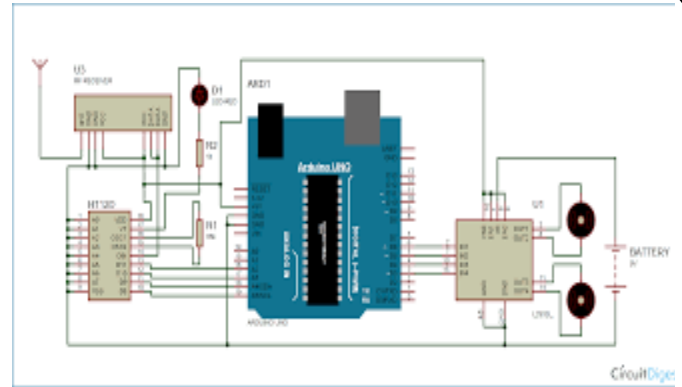TEAM ID-PEC/EEE/17-18/ODD/II/05
TITLE OF THE PROJECT-   ROBOT USING ARDUINO WITH G-SENSOR VIA BLUETOOTH

FACULTY GUIDE: MR.SOMASEKAR

RAHUL SAI
II EEE

PRAVIN K
II EEE

PREM
KUMAR R
II EEE

Abstract :(10 lines)

In this project **,**we are controlling **the Robot using arduinowith the G sensor** of our mobile phone and you will be able to move the Robot just by tilting the Phone. We will also use **Arduino and RemoteXY app** for this G-Sensor Controlled Robot. RemoteXY app is used to create the interface in the Smart Phone for controlling the Robot. We will add the joystick in the interface so that Robot can also be controlled by Joystick as well as by tilting the phone. We can control the same thing with the Bluetooth also .

Achievements:

Project Design Contests: Bit Futura, TEXAS

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/04

TITLE OF THE PROJECT- ELECTRONIC EYE SECURITY

FACULTY GUIDE: J.DOLLY IRENE AP/ECE

Ms.Monica

II EEE

Ms.Leena Sai

II EEE

Miniproject Photo/ **Block Diagram or**

schematic:

Abstract :(10 lines)

The project is designed as a security system based on photo sensing arrangement . It uses a 14-stage ripple carry binary counter to sense the light intensity through LDR(light dependent resistor).The output drives a buzzer and a relay for necessary action. This concept is very useful to deter burglars from branks, malls, jewellery stores and also in homes. The system is based on an electronic eye: it is an LDR sensor, called light resistor. when light falls on the sensor ,its resistance drastically decreases which lead to triggering an alarm to alert the user. This system best suits in the application of providing security for cash boxes or lockers, which can be found in malls, jewellery shops and banks. The circuit is placed inside the cash box or locker in such a way that, when the burglar opens the locker and uses a torch light to find the valuables ,the light falls on the circuit which contains an electronic eye(LDR) and gives a signals to the ripple counter. This activates the alarm, and indicates a burglary attempt .Also a lamp falls on the LDR.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/06

TITLE OF THE PROJECT- SMART RESCUE SYSTEM

FACULTY GUIDE: MR.VIDYAPATHY

BALAJI M

CHAITANYA KUMAR REDDY Y

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :(10 lines)

Human Detection Robot is a robot that can detect the presence of human ; it sends the signal from the transmitter side to the receiver side and notifies it to the user by continuous buzz. Robot can move in all direction to increase the space of detection. The robot is automated to move in left, right, forward and backward directions based on the obstacles it encounters.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/07

TITLE OF THE PROJECT- SOLAR STREET LIGHT

FACULTY GUIDE: MR.VIDYAPATHY

KURRI.HAREESH KUMAR

KV.SUNIL KUMAR

ANNAPALLI.

BHANUCHAND

Abstract :(10 lines)

A solar lighting system which can make a 18x3 w lamp glow continuously for about (7) hours if the battery is fully charged has been constructed. Here, solar energy is collected with the aid of a solar panel and thus, a battery is charged during day time with the help of a simple charging circuit. During night time, this stored energy is used to light. The device can be used for small-scale lighting applications in remote areas that are far away from the power grid. The system has a panel to collect the sun's energy, a battery to store that energy and a light source to use the energy. The system operates like a bank account. Withdrawals from the battery to power the light source must be compensated for by commensurate deposits of energy form the solar panels.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/08

TITLE OF THE PROJECT- SOLAR POWER CHARGE TROLLER SAVER LIGHTING SYSTEM

FACULTY GUIDE: MR.VIDYAPATHY

Ullipayala arun kumar

Thulasiraman.B

Sudhakar.S

Abstract :(10 lines)

Precise Charge Controller for Solar Photo Voltaic Panel used Embedded based Micro controller concept.The main scope of project is, the photovoltaic cells are converting the sunlight in to electricity a charge controller is used. PV cells are bundled together in modules or panels to produce higher voltages and increased power.As the sunlight varies in intensity the electricity so generated usually charges through the charge a set of batteries for storing the energy.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/09

TITLE OF THE PROJECT- AUTOMATIC WATERLEVEL IDENTIFICATION AND SWITCHING OF LOAD

FACULTY GUIDE: MS.PREETHA

NARESH

II EEE

GOKULNATH

II EEE

MUTHU SABHARI

II EEE

MiniprojectPhoto

Abstract :(10 lines)

In this Arduino based automatic water level indicator and controller project we are going to measure the water level by using ultrasonic sensors. Basic principal of ultrasonic distance measurement is based on ECHO. When sound waves are transmitted in environment then they return back to the origin as ECHO after striking on any obstacle. So we have to only calculate its traveling time of both sounds means outgoing time and returning time to origin after striking on any obstacle. And after some calculation we can get a result that is the distance. This concept is used in our water controller project where the water motor pump is automatically turned on when water level in the tank becomes low. You can also check this simple water level indicator circuit for a simpler version of this project.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/10

TITLE OF THE PROJECT-   SOLAR PANEL USING INVERTER

FACULTY GUIDE: MALLIGA

R.M.RUBESH

II EEE

R.RAKESH

II EEE

K.SANTHOSH

II EEE

Abstract :(10 lines)

This project consists of solar panel, level indicator circuit, solar charger circuit and inverter circuit. The importance of level indicator to characterize the advances in inverter technology which shows the amount of charge left in the battery. For charging the battery both AC mains and solar energy can be used. Solar charger used to store DC power which was generated by photovoltaic effect of solar panel. Inverter circuit is used to convert DC power into AC power which is used to drive the loads. Level indicator circuit helps to determine the amount of charge left in the circuit. This project can easily be implemented in real life to increase the efficiency of solar inverter. By using relays the working of the circuit can be further enhanced as it would then become completely automatic.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/11

TITLE OF THE PROJECT:-FIRE ALARM USING THERMISTOR

FACULTY GUIDE: S.SHANTHINI MERLIN

MIDHUN KUMAR

II EEE

MOHAN RAM

II EEE

MONISH BALAJI

II EEE

Miniproject Photo:

Abstract :(10 lines)

A thermistor is a temperature sensor constructed of semiconductor material that exhibits a large modification in resistance in proportion to a tiny low modification in temperature. Thermistors are inexpensive, rugged, and reliable and responds quickly. Because of these qualities thermistors are used to measure simple temperature measurements, but not for high temperatures. Thermistor is easy to use, cheap, durable and respond predictably to a change in temperature. Thermistors are mostly used in digital thermometers and home appliances such as refrigerator, ovens, and so on.Stability.This project gives an overview of thermistor working principle and applications.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/12

TITLE OF THE PROJECT- AUTOMATIC SWITCHING OF LIGHT
                      USING REMOTE SENSORS

FACULTY GUIDE: Ms.MATHUMATHI.T

BHUVANESH R
II EEE

THULASIRAM K R
II EEE

MiniprojectPhoto

Abstract :(10 lines)

The objective of this design project is to build a system for controlling light intensity of an electrical bulb or speed of fan using a TV remote or using serial port interface. The system provides regulation against input power supply. Intensity/speed of the load is controlled by changing the RMS voltage across the load using TRIAC circuitry that is by changing the corresponding firing angle at the gate of the triac. An ADC circuit monitors the unregulated input voltage, followed by software to check for voltage variation and provide regulation.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/II/13

TITLE OF THE PROJECT- TEMPERATURE CONTROLLED DC FAN
                      BY USING 8051 MICROCONTROLLER

FACULTY GUIDE: Ms.MATHUMATHI.T

SRIRAMA
KRISHNAN.K
II EEE

DILLIBABU
II EEE

BUGGA MUNNI
KAYAN
 II EEE

MiniprojectPhoto

Abstract :(10 lines)

The objective of this design project is to build a circuit for controlling a DC fan using 8051 microcontroller to replace the manual operations. One of the basic requirements of the people during hot weather is a cooling fan. But, the speed of the fan can be controlled by manual operation using a manual switch namely fan regulator or dimmer. By turning the dimmer, the fan speed can be altered. It can be watch in some places like where the temperature is high during the morning though the temperature falls down radically at night time. The users do not understand the difference in temperature. So to overcome the speed of the fan here is a solution to vary according to temperature. This concept is particularly applicable for the areas like where temperature changes radically during day and night time. This project will convert the manual fan into automatic fans. The automatic fans will change its speed according to the temperature in the room.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/02

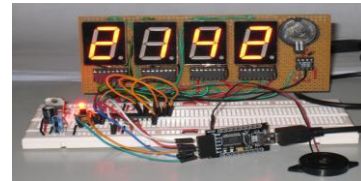TITLE OF THE PROJECT-DIGITAL CLOCK USING ARDUINO

FACULTY GUIDE: MS.DOLLY

D Arun III EEE

Arun Selvan III EEE

Miniproject Photo/ **Block Diagram or schematic:**

Diagram

Abstract :(10 lines)

This project is being developed for the implementation of the digital clock to the users with a cheaper and affordable cost . The main components that involve in the design and development of the project are the Arduino UNO board which acts as the microcontroller, common anode seven segment displays , SPDT switches and some jumper wires to connect the terminals. First the arduino that is connected to the supply produces pulses based on the program that is burnt and dumped in the controller. Then the segment display displays the time.Basically , the time being set using the SPDT switch and the accurate time is being displayed through the seven segment displays. The main advantage of this project is that the old fashioned bulky displays are being replaced by the small and compact seven segment displays. Then the accuracy in measuring time is increased . And it is cost efficient for the users.

Achievements:

Project Design Contests: Bit Futura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/03

TITLE OF THE PROJECT- FLOOD SECURITY SYSTEM

FACULTY GUIDE: MS.PREETHA

ARUN PANDIYAN

III EEE

Arun Praveen

III EEE

Abstract :(10 lines)

The most important thing immediately before, during and after a disaster occurs is the dissemination of information, a deployment of devices enabled by IoT (Internet of Things) could bring benefits in terms of giving to people information opportunely for making decisions in face of this disaster. In this paper, we present a sensor to measure water level in rivers, lakes, lagoons and streams. For such purpose and to prove our concept, we designed a pilot project through a micro-model that is constructed with a water level measurement sensor based on a simple open circuit that closes when in contact with water and experimentally tested into a water container under a controlled environment. This micro-model is performed on the basis of a programmable electronic board (Netduino Plus 2), an electronic circuit connected to electrical resistances that are located at a specific height, within a water container; when the water level rises and reaches the resistors, varies the impedance, this shows the actual water level and so on for different heights. The information from water level sensor is transmitted via WiFi to a laptop, then this information is also seen in smart phones, where users can see the water level in rivers. Finally, the micro-model is tested by experimental tests under a controlled environment and satisfactory results are obtained.

Achievements:

Project Design
Contests:ICTACT,BITFUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/04

TITLE OF THE PROJECT-PORTABLE SOLAR INVERTER

FACULTY GUIDE: DR.JAYASANKAR

LOKESH

III EEE

KARTHIKEYAN

III EEE

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :(10 lines)

The aim of this work is to design and simulate low cost, portable efficient solar power inverter for standalone applications using MATLAB SIMULINK and MSP430 Micro controller. The designed expected output is 300 W, 230 V pure sine wave signal. The incremental conductance based Maximum Power Point Technique (MPPT) algorithm has been implemented using synchronous buck converter at the first stage. Since this project is designed for standalone applications, lead acid battery is selected, Half bridge dc-dc converter is designed to boost the battery voltage from 14.5 V to 400 V DC. The final stage of the project is single phase full bridge inverter which produces the distorted quasi sine wave signal as output, which is later filtered to remove unwanted harmonics using designed LC low pass filter. Since this project is designed for low power applications, MOSFET is used as the switch in all the power circuit stages. The control strategy here is designed and accomplished by employing MSP-430F5132 micro controller which is user friendly and cost effective solution.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/05

TITLE OF THE PROJECT- SMART MEASUREMENT SYSTEM

FACULTY GUIDE: MS.S.SHOBANA

DILIP KUMAR
III EEE

IBRAHIM BASHA
III EEE

BALAJI
III EEE

Miniproject Photo/ **Block Diagram or**

sche **ma**

Abstract :(10 lines)

This project deals with the measurement of energy using Aurdino and the data can be retrieved through internet from any place. The demand for power has increased exponentially over the last century. One avenue through which today's energy problems can be addressed is through the reduction of energy usage in households .This has increased the emphasis on the need for accurate andeconomic methods of power measurement. The goal of providing such data is to optimize and reduce their power consumption. This project explains the process of a condensed design explanation and implementation of a laboratory –scale prototype which includes the energy measurement of the given DC load and its advantages are Automation, Internet, Wireless, RF Communication.

Achievements:

Project Design Contests: ICTACT,TEXAS

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/06

TITLE OF THE PROJECT- HOME AUTOMATION USING

MOTION SENSOR

FACULTY GUIDE: MR.SOMASEKAR

SOUNDARAJAN

III EEE

AH. KARTHIK

III EEE

GOWTHAM

III EEE

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :(10 lines)

The popularity of home automation has been increasing vastly in recent years due to much higher affordability and simplicity. Being able to control aspects of our houses, and for having the feature to respond automatically to events, it is becoming more and more popular and necessary due to security and cost purposes. We propose to implement an integrated home automation and security system. Our project proposes a low cost solution using off the shelf components to reduce cost and open source software to get around licensing requirements of software. An Arduino controls sensors and actuators that monitor a defined location and take action based on specified parameters like ambient light, temperature etc. The Arduino can also send alerts if it detects an abnormality. The voice recognition schema allows the user to use voice commands to control his house.

Achievements:

Project Design Contests: Bit Futura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/09

TITLE OF THE PROJECT- HOME AUTOMATION

FACULTY GUIDE:J.RAJESH

Name

Name

Name

Name

Minipr

Abstract :(10 lines)

This paper presents a low cost and flexible home control and environmental monitoring system. It employs an embedded micro – web server in Arduino microcontroller and controlling devices and appliances remotely. These devices can be controlled through via Bluetooth Android based Smart phone app.. To demonstrate the feasibility and effectiveness of this system, devices such as light switches, power plug, temperature sensor, gas sensor and motion sensors have been integrated with the proposed home control system.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/10

TITLE OF THE PROJECT-AUTOMATIC WATER LEVEL INDICATOR

FACULTY GUIDE:Mr.P.MANIKANDAN

DINESHKUMAR

III EEE

ANANDA KRISHNAN

III EEE

AJA .S

Abstract :(10 lines)

Most water level indicators are equipped to indicate and detect only a single level. The Water Level Indicator implemented here can indicate up to nine such levels and the microcontroller displays the level number on a seven segment display. So, not only is the circuit capable of cautioning a person that the water tank has been filled up to a certain level, it also indicates that the water level has fallen below the minimum detectable level. This circuit is important in appliances such as the watercooler where there is a danger of motor-burnout when there is no water in the radiator used up alsoit can be used in fuel level indication. In this project we show the water level indicator using eight transistors which conducts as level rises, a buzzer is also added which will automatically start as the water level becomes full, auto buzzer start with the help of microcontroller. With the helpo f this project we not only show the level of water with the help of seven segment display but also a buzzer

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/11

TITLE OF THE PROJECT- FREE ENERGY GENERATOR.

FACULTY GUIDE: S.SHANTHINI MERLIN

DINESH.R

III EEE

INIYAVAN

III EEE

Miniproject Photo/ **Block Diagram or sch**

Abstract:

More than 90% world's power is being generated using electromagnets based on the faraday's law of electro-magnetic induction. Many new technologies were discovered with time which led a drastic change in the perception of electric energy. But at the same time there is misconception of FREE ENERGY. Energy becomes free only at a point after which we don't have to pay for power generation after commissioning the unit. By using the magnetic force of magnets continuous motion (Energy) is generated. . Few positive results are motivating us to create a better model to store the energy and use for different necessary applications by using this free energy.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/12

TITLE OF THE PROJECT- ARDUINO BASED HOME AUTOMATION USING BLUETOOTH ANDROID SMARTPHONE

FACULTY GUIDE : Ms.T.MATHUMATHI

S.SWETHA
III EEE

M.PAVITHRA
III EEE

BLOCK DIAGRAM:
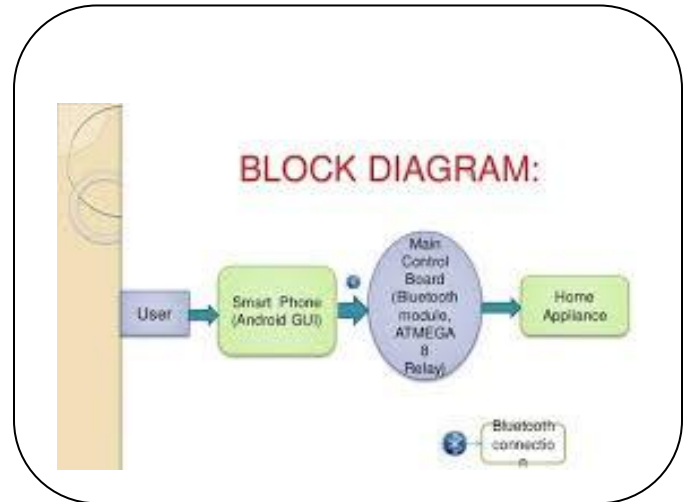
Abstract :(10 lines)

Google Android operating system is one of the leading and most popularly preferred system is smart phone. Smart phone affordability increases day by day due to their size and portability android GUT installed to smart phone. The operator has to touch on the screen of the phone to control the home appliances. This project is an android application which possesses the capability to control any sort of electrical appliances providing remote access from Smartphone using blue tooth. Bluetooth technology is wireless radio transmission in a short distance providing a necessary technology to create convenience, intelligence and controllability. This generates personal area network in home environment, where this entire appliance can be interconnected and monitored using a single controller. Home automation involves a degree of computerized or automatic control to certain electrical and electronic system in a building. Busy families, individuals with physical limitations represent very attractive market for such networking. This system will also assist and provide support in order to fulfill the needs of elderly and disabled in home.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/13

TITLE OF THE PROJECT- SOLAR BASED EFFICIENT IRRIGATION SYSTEM

FACULTY GUIDE: S.SHOBANA

CHITRA

III EEE

ANUSYASRI

III EEE

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :(10 lines)

Solar power is absolutely perfect for use with irrigation systems. Using Solar Panel, the sun energy will converted to electrical power and saves in to batteries. Light Detecting Resistors (LDR's) are placed on the solar panel which helps in tracking maximum intensity of sunlight. For generation of maximum energy, it is important to maintain solar panels face always perpendicular to the sun. This tracking movement of the panel is achieved by mounting the solar panel on the stepped motor. The microcontroller used in this project is from AVR family. Soil moisture sensor is placed inside soil to sense the moisture conditions of the soil. When moisture level of the soil is reaches to low, the soil moisture sensor is sending the signal to microcontroller to start the pump by using stored solar energy. Same time, using GSM technique microcontroller is sending message on farmers mobile about pump status. The microcontroller completes the above job as it receives signals from the soil moisture sensors, and these signals functions as per program stored in ROM of the microcontroller. The LDR's values, soil moisture values, condition of the pump i.e., on/off are displayed on a 16x2 LCD which is interfaced to the microcontroller.

Achievements:

Project Design Contests: ICTACT,TEXAS

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID-PEC/EEE/17-18/ODD/III/14

TITLE OF THE PROJECT- SIMPLE TOUCH ALARM USING IC 555

FACULTY GUIDE: MS.DOLLY

Geethanjali.

III EEE

Viji.R

III EEE

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :(10 lines)

IC 555 used in many simple and useful circuits, every electronics hobbyist may surely tried IC 555 at least once while they learn electronics circuit making. Here the circuit is senses human touch and gives louder alert through buzzer.

This touch alarm circuit uses 9volt bias supply hence we can use general purpose 9volt battery for portable applications. Here Resistors R3,R4 and Capacitor C3 reacts as a Timing components, by varying R4 value we can obtain different timing output at the output pin 3. The SL100 transistor is reacts as a switch to connect buzzer with bias. Resistor R1 and capacitor C1 changes output wave shape as ramp depends on R1 resistor value the buzzer will produce different type of alarm sounds when the touch plate sense.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/III/15

TITLE OF THE PROJECT- TOUCH DIMMER SWICTH

FACULTY GUIDE: MS.MALLIGA

V.NANDHINI

III EEE

A.KAVIYA

III EEE
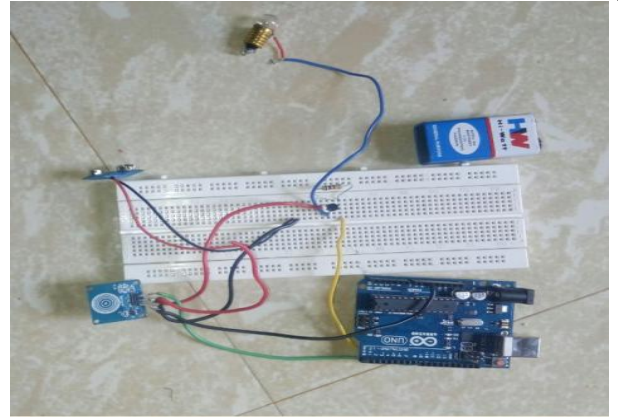
Abstract :(10 lines)

A Touch Dimmer Switch Circuit is a simple project, where the dimmer action is achieved with the help of a Touch Sensor. While a regular switch is used to simply turn ON or OFF a light, a Dimmer (or Dimmer Switch) will allow us to control the brightness of the light. Without a Dimmer Switch, the light bulbs tend to glow at full brightness consuming maximum power. If full brightness is not required, then Dimmer Switches can be used and save some energy. With the help of a Dimmer Switch, we can vary the brightness from fully off to fully on.
Different light bulbs need different dimmer switches and there are different types of Dimmer Switches available in the market. Some of the commonly found Dimmer Switches are Slider type and rotary type. In this project, we have designed a Touch Dimmer Switch using Arduino. The Touch Dimmer Switch Circuit is implemented using a Touch sensor.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/01

TITLE OF THE PROJECT- LOAD FLOW ANALYSIS OF 66 KV
SUBSTATION

FACULTY GUIDE: MS.MATHUMATHI

R.PREETHI

M.VISHAL
AKSHI

B.SHALU
ZAREEN

Miniproject Photo/ **Block Diagram or
schematic:**

Abstract :(10 lines)

Load flow study is also known as power flow study, constitutes an important part of power system design and analysis of any power system network. The main objective is to design, simulate and analyze the 66 kV substation. The simulation and analysis will give the information about the real, reactive power flow, voltage magnitude and phase angle of the substation. The power flow analysis is done in electrical transient analyzer program (ETAP) for the detailed load flow analysis and also to overcome the problem of an under voltage. By selecting optimum size and location of capacitors the problem of an under voltage can be solved. The results are based on actual data received from 66 kVsubstation.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/02

TITLE OF THE PROJECT- ANALYSIS OF INSUFFICENT

FACULTY GUIDE: MS.MALLIGA

K.PAVITHRA

IV - EEE

PARIMALA

IV EEE

A.B.PRIYA

IV EEE
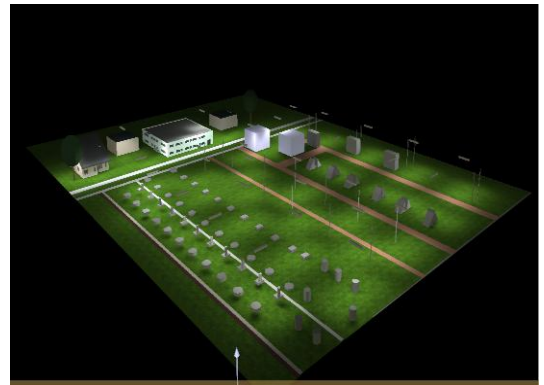
Abstract :(10 lines)

The floodlighting in the Substation where the conventional lights were placed at different points. The project deals with a case study of flood lighting used in the Switchyard where lighting was not sufficient the substation chosen was of 220/132/66 KV. Flood lighting of the substation which was installed with conventional lights. Designing of the flood lights lighting scheme used in substation by using DIALux software. This software gives the layered structure of the whole system then it will help in selecting the no of lights required for the project will help in selecting the types, height, angle, development of LUX required for the project.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/04

TITLE OF THE PROJECT- SMART SAFETY SYSTEM FOR WOMEN

FACULTY GUIDE: S.SHOBANA

REVATHI

IV - EEE

VAISHALI

SASIREKHA

IV - EEE

Abstract :(10 lines)

The usage of smart phones equipped with GPS navigation unit have increased rapidly from 3% to more than 20% in the past five years.Hence, a smart phone can be used efficiently for personal safety or various other protection purposes especially for women. This paper presents Sauver, a personal safety application developed for smart phones of android platform. This app can be activated by a single click when the user feels she is in danger .This application communiqués the user's location to the registered contacts for every few seconds in the form of message. Thus, it acts like a sentinel following behind the person till the user feels she is safe. The key features of this application are along with the user's location, one of the registered contacts gets a call. Also, the registered contacts and GPS location are saved from time to time in a database.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/07

TITLE OF THE PROJECT- MODELLING AND SIMULATION OF PV BASED MICROGRID

FACULTY GUIDE: MS.SHANTHINI MERLIN

SIMON ROCK KING

IV - EEE

PRAVEEN

IV -EEE

TARUN RAJ

IV - EEE

Abstract :(10 lines)

Solar energy domain is one which is undergoing a drastic increase in popularity. The renewable and clean energy thus obtained is long sought by all and is only kept at bay due to its high initial prices. This project offers an insight into the designing procedure and necessary specifications for installing solar panels in a micro-grid system design and on sending the excess generated power to a larger grid. The simulation is done by using PVsyst software. A grid tie inverter is used to hook up the excess power to the grid. The total power generated is intended to be higher than the required amount to prevent undervoltage. This power is sent to the grid when the power needs are duly satisfied.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/11

TITLE OF THE PROJECT-   DESIGN OF ELECTROSTATIC WIND ENERGY CONVERTER WITH SOLAR ENERGY

FACULTY GUIDE: MS.SHANTHINI MERLIN

PADMESH

IV EEE

SHRRE VISHNU

IV EEE

NAVEEN KUMAR

IV EEE

Abstract :(10 lines)

This Project presents a procedural approach in the conversion of Electrostatic Wind energy to Electrical Energy without any moving parts i.e. Mechanical processes are not involved. And also Solar energy is the prime source of renewable energy. The increasing global demand for energy has the interest for various forms of renewable energy production, including wind energy. The electrostatic wind energy converter in which wind energy is converted to electrical energy, by letting the wind to move against charged particles with direction of an electric field merged with solar panel design. With the help of PVsyst software, analysis of solar power output from the proposed model will be carried out. Thus to escalate solar and wind energy to a vast range of existence level discarding its limitation.

Achievements:

Project Design Contests:NDRF

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/16
TITLE OF THE PROJECT- OPTIMUM SELECTION OF A SUSTAINABLE LIGHTING SYSTEM FOR A CLASSROOM

Miniproject Photo/ **Block Diagram or schema**

FACULTY GUIDE: MS.MALLIGA

JESUDOSS SAMEUL
IV EEE

R.JAINESH
IV EEE

S.HARI KRISHNA
IV EEE

Abstract :(10 lines)

In the view of the issue that present illumination facilities in classrooms can cause the waste of electric energy, this project tried to solve the problem by designing the automatic light illumination control by DIALUX software..DIALUX software has been implemented for simulation of illumination test. We found the problem that the light distribution is uneven under the traditional configuration mode and put forward the relatively efficient way to arrange the distribution of lamps. Meeting the BIS standards, the configuration mode of lamps increased the effective lighting area of the classroom and increased the efficiency of electricity used for illumination. It can help to build a conservation-minded campus and achieve the goal of energy conservation and emission reduction.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/18

TITLE OF THE PROJECT- GAS DETECTION USING SENSOR

FACULTY GUIDE: MR.ANAND

DHEENADHAYALAN
IV EEE

DILLI BABU .G
IV EEE

ELANGO.T
IV EEE

Miniproject Photo/ **Block Diagram or schematic:**
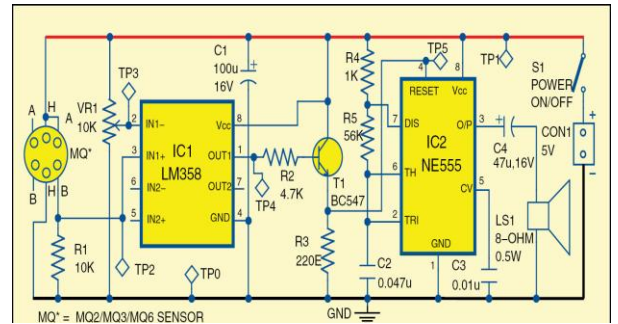
Abstract :(10 lines)

This project uses a circuit for raising an alarm on detecting LPG cooking gas leakage, or even. This is achieved by using a basic unit with sensors for LPG. So, alarms can be given by sensor signal

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/21

TITLE OF THE PROJECT-   SIMULATION ON SOLAR POWERED ELECTRIC VEHICLE

FACULTY GUIDE: MR.RAJESH

BALAJI

GOWTHAM

JAGADISH

Abstract :(10 lines)

In the present situation energy crisis is an important unsolvable problem so we must find some other ways to trust all sources such as solar energy, hydro power, tidal power, wind power, etc. so we are stepping with the solar energy, and we have planned to built a smart solar powered electric vehicle in saving these non-renewable sources of energy. The basic principle of smart solar powered electric vehicle is to use energy that is stored in a battery during day time and after charging it from a solar panel. The charged batteries were used to drive the motor and move the vehicle in reverse or forward direction. This smart solar powered electric vehicle consists of Photo Voltaic (PV) Panel, DC-DC converter, Brushless DC Motor, Electric Vehicle. The Photo Voltaic (PV) panel covert the sun's energy directly to electrical energy and they may be connected either in parallel or series, and it charges the solar power to the batteries. The DC voltage from the PV panel is then boosted up using a boost DC-DC converter, and then an inverter, where DC power is converted to AC power, ultimately runs the Brushless DC motor .In the smart solar power electric vehicle includes anti-lock braking systems,360degree rotating solar panel, battery level voice indicators, solar data storage, GPS. During this conversion many losses take place and hence the net output is very less and lasts for shorter duration .The vehicle designed is controlled by ELECTRICAL means and not by ELECTRONICS. This idea, in future, may help protect our fuels from getting extinguished.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/22

TITLE OF THE PROJECT- AVANT GRADE E BIKE

FACULTY GUIDE: MR.RAJESH

BALACHANDAR .K

BALACHANDAR .S

BALU ASHOK

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :(10 lines)

Automotive industries are consistent & pioneer contributors for air pollution by causing decline in quality of natural fossil fuels and quality of other existing natural resources. In this project we are going to run the bike by using few of the natural resources (solar,wind)in the front wheel of the bike we are going to couple the generator .The charge produced by the generator,solar panel,windmill continuously used to charge the battery in addition to these we are going to implement biometric(finger print sensor) used for locking purpose and Tyre pressure monitoring system by using this we are going to measure the air pressure of Tyre which will indicate on our smartphone and ultrasonic sensor used for obstacle detection to avoid damage and accidents it also reduces accidents and improve the optimum usage of power obtained from the batteries .This stands for advanced version of E-BIKE

Achievements:

Project Design Contests: NDRF (BRONZE MEDAL)

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/26

TITLE OF THE PROJECT- WIRELESS LOAD CONTROL

FACULTY GUIDE: MR.ANAND

ISHWARIYA.K

IV EEE

BHUVANESWARI .

IV EEE
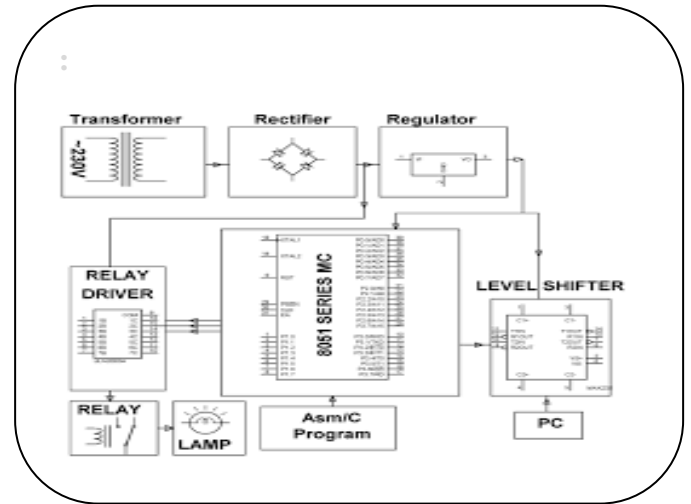
Abstract :(10 lines)

Windows-based equipment controller project that can control up to eight electrical devices using a personal computer. To communicate to a device we need a common communication protocol such as a serial COM port, USB or wireless connectivity. Here we have used the serial communication protocol to control the devices.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID- PEC/EEE/17-18/ODD/IV/08

TITLE OF THE PROJECT: HYBRID VEHICLE

FACULTY GUIDE: Dr.KRISHNA KUMAR

SRIRAM JAYARAMAN .J

IV EEE

PREM KUMAR .

IV EEE

YUVARAJ

IV EEE

Miniproject Photo/ **Block Diagram or schematic:**
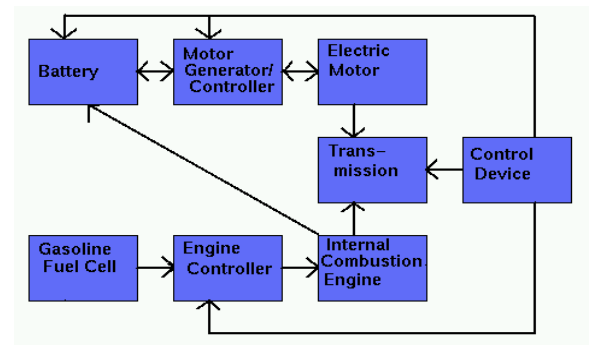
Abstract :(10 lines)

The rise in the price of oil and pollution issues has increased the interest on the development of electric vehicles. This project deals about the application of electric energy to power up the vehicle. The basic principle of electrical based electric vehicle is to use energy that is stored in a battery to drive the motor and it moves the vehicle in forward or reverse direction. The battery source is connected. The DC voltage from the Battery is then boosted up using a boost DC-DC converter, and then an inverter, where DC power is converted to AC power, ultimately runs the Brushless DC motor which is used as the drive motor for the vehicle application. This paper focuses on the design, simulation and implementation of the various components, namely: charge controller, battery, DC-DC boost converter, DC-AC power converter (inverter circuit) and BLDC motor for the vehicle application. All these components are modelled in MATLAB/SIMULINK and in real-time, the hardware integration of the system is being developing to validating the simulation results.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM IDPEC/EEE/17-18/ODD/IV/15
TITLE OF THE PROJECT- A DUAL-BUCK–BOOST AC/DC
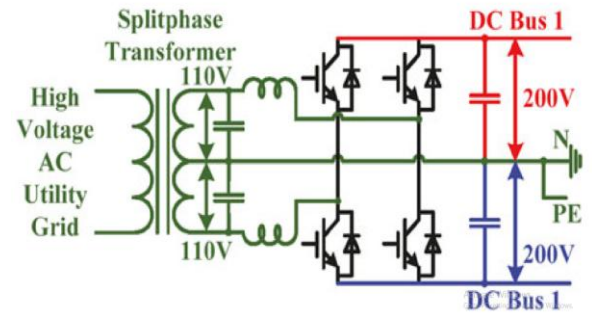CONVERTER FOR DC NANOGRID WITH THREE TERMINAL OUTPUTS

FACULTY GUIDE: MR.P.MANIKANDAN

YUVARAJ

IV EEE

SOMESH

IV EEE

Abstract :(10 lines)

Due to the widely used dc characterized loads and more distributed power generation sources, the dc nanogrid becomes more and more popular, and it is seen as an alternative to the ac grid. For safety considerations, the dc nano grid should provide reliable grounding for the residential loads such as the low-voltage ac power system.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECTS 2017-18

ODD SEMESTER
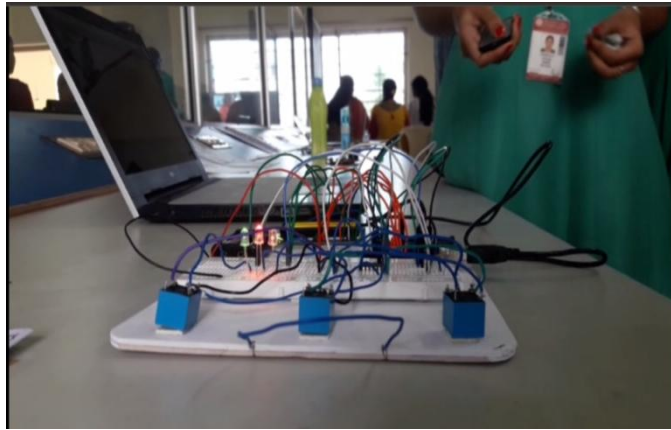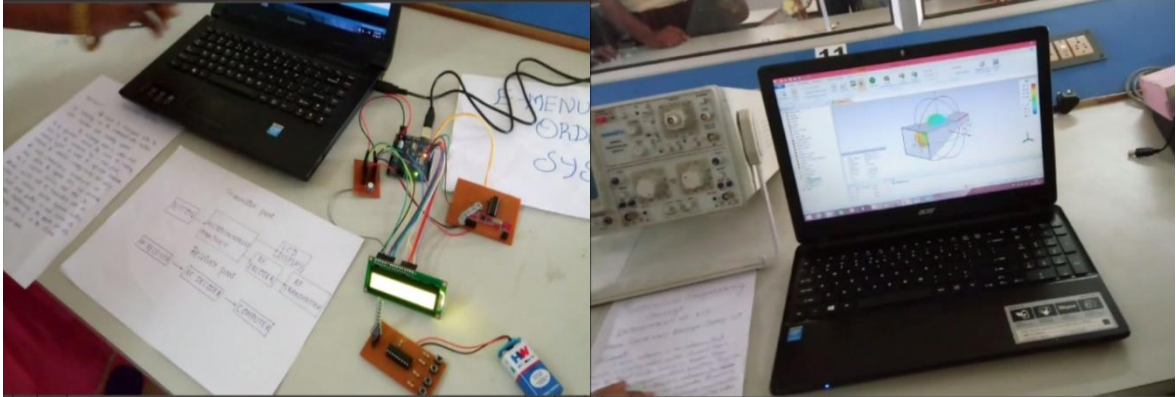
16.09.2017

Department	Miniproject Coordinator	Domain	No. of Miniprojects	Total
Mechanical	V.BALAJI	COMPOSITE MATERIALS & CNC MACHINING	9	84
		MANUFACTURING/ MACHINING	12	
		THERMAL	8	
		DESIGN / FABRICATION	32	
		MECHTRONICS	6	
		DESIGN & ANALYSIS	17	

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME 201701

TITLE OF THE PROJECT: Comparative study and characterization of Al/SiC & Al/Al2O3 MMC

FACULTY GUIDE: Dr. P. JAYARAMAN

Niranjan

Sathish kumare

Yogeshwaran

Miniproject Photo/ Block Diagram or schematic:
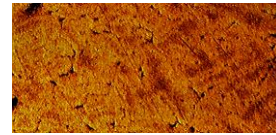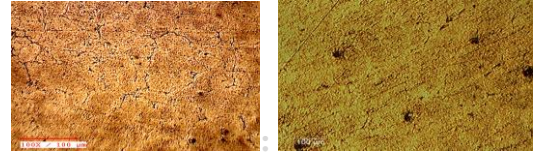
Abstract:

In this Project work an effort is made to fabricate and compare the properties of Aluminium Metal Matrix Composites. Two specimens were fabricated by adding 5% (wt) of SiC and 5 % (wt) of Al2O3 to AA6351. Morphology of the cast composites were studied in detail by optical microscopy to analyse particle distribution in the aluminium metal phase. The hardness test is carried out to find out the hardness of the cast composites and parent metal using Vickers micro hardness testing machine. Mechanical testing is carried out on the tensile samples prepared from the two cast composite specimens and parent metal specimen. The hardness and tensile strength of the two MMCs are compared with the parent metal specimen and the better MMC is determined based on the comparison of test results. It has been concluded from hardness test that hardness value of Al/SiC is higher than Al/Al2O3 composites. The replacement of Al2O3 with SiC or the effect of Sic exhibits 38.18 % increase in hardness of the composite. The replacement of Al2O3 with SiC or the effect of SiC exhibits 5.1% increase in tensile strength of the composite.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201702

TITLE OF THE PROJECT: Comparative study and characterization of Al/Al2O3 & Al/SiC/Gr MMC
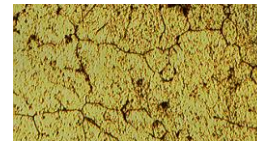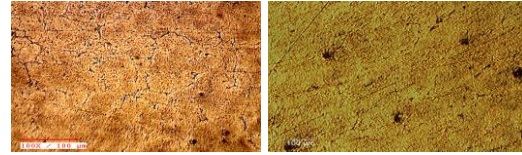
FACULTY GUIDE: Dr. P. JAYARAMAN

D.RAGHUL

RAGHUL

Miniproject Photo/ Block Diagram or schematic:

Abstract:

In this Project work an effort is made to fabricate and compare the properties of Aluminium Metal Matrix Composites. Two specimens were fabricated by adding 5% (wt) of Al2O3 and 5 % (wt) of SiC+ 1% (wt) of Gr to AA6351. Morphology of the cast composites were studied in detail by optical microscopy to analyse particle distribution in the aluminium metal phase. The hardness test is carried out to find out the hardness of the cast composites and parent metal using Vickers micro hardness testing machine. Mechanical testing is carried out on the tensile samples prepared from the two cast composite specimens and parent metal specimen. The hardness and tensile strength of the two MMCs are compared with the parent metal specimen and the better MMC is determined based on the comparison of test results. It has been concluded from hardness test that hardness value of Al/SiC/Gr is higher than Al/Al2O3 composites. The replacement of Al2O3 with SiC/Gr or the effect of SiC/Gr exhibits 20 % increase in hardness of the composite. The replacement of Al2O3 with SiC/Gr or the effect of SiC/Gr exhibits 1.86% increase in tensile strength of the composite.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201703

TITLE OF THE PROJECT: Comparative study and characterization of Al/SiC/Gr & Al/Al2O3/Gr MMC

FACULTY GUIDE: Dr. P. JAYARAMAN
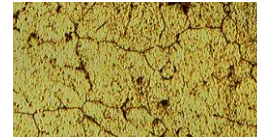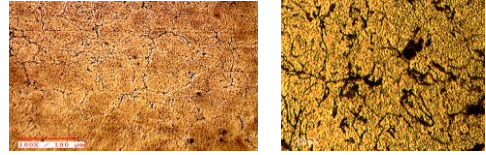
RAHAMAT OLLAH

RAJKUMAR

E RAMESH .G

Miniproject Photo/ Block Diagram or schematic:

Abstract :

In this Project work an effort is made to fabricate and compare the properties of Aluminium Metal Matrix Composites. Two specimens were fabricated by adding 5 % (wt) of SiC+ 1% (wt) of Gr and 5% (wt) of Al2O3+ 1 % (wt) of Gr to AA6351. Morphology of the cast composites were studied in detail by optical microscopy to analyse particle distribution in the aluminium metal phase. The hardness test is carried out to find out the hardness of the cast composites and parent metal using Vickers micro hardness testing machine. Mechanical testing is carried out on the tensile samples prepared from the two cast composite specimens and parent metal specimen. The hardness and tensile strength of the two MMCs are compared with the parent metal specimen and the better MMC is determined based on the comparison of test results. It has been concluded from hardness test that hardness value of Al/SiC/Gr is higher than Al/Al2O3 composites. The replacement of Al2O3/Gr with SiC/Gr or the effect of SiC/Gr exhibits 53.4 % increase in hardness of the composite. The replacement of Al2O3/Gr with SiC/Gr or the effect of SiC/Gr exhibits 8.89% increase in tensile strength of the composite.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME20170 4

TITLE OF THE PROJECT: Comparative study and characterization of Al/Al2O3/Gr & Al/SiC MMC

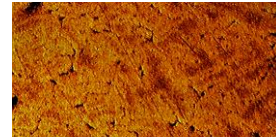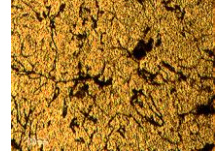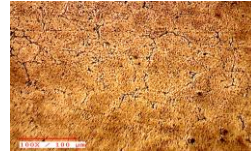FACULTY GUIDE: Dr. P. JAYARAMAN

ROOP KUMAR

RUFUS.G

VADIVAZHAGAN

Miniproject Photo/ Block Diagram or schematic:

Abstract:

In this Project work an effort is made to fabricate and compare the properties of Aluminium Metal Matrix Composites. Two specimens were fabricated by adding 5 % (wt) of SiC and 5% (wt) of Al2O3 + 1 % (wt) of Gr to AA6351. Morphology of the cast composites were studied in detail by optical microscopy to analyse particle distribution in the aluminium metal phase. The hardness test is carried out to find out the hardness of the cast composites and parent metal using Vickers micro hardness testing machine. Mechanical testing is carried out on the tensile samples prepared from the two cast composite specimens and parent metal specimen. The hardness and tensile strength of the two MMCs are compared with the parent metal specimen and the better MMC is determined based on the comparison of test results. It has been concluded from hardness test that hardness value of Al/SiC/Gr is higher than Al/Al2O3 composites. The replacement of Al2O3/Gr with SiC or the effect of SiC/Gr exhibits   76.7 % increase in hardness of the composite. The replacement of Al2O3/Gr with SiC or the effect of SiC/Gr exhibits 4.26% increase in tensile strength of the composite.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME20170 5

TITLE OF THE PROJECT: Optimization of Machining Parameters in Turning of Aluminium Alloy 6351 Using Taguchi Method

FACULTY GUIDE: Dr. P. JAYARAMAN

SANJU SHANKAR

SARATHKU MAR

SATHISH KUMARe

Miniproject Photo/ Block Diagram or schematic:

Abstract :

This report presents an optimization research of machining parameters in turning process of Aluminium Alloy 6351 T6. MTAB horizontal CNC turning machines have been used to perform the experiments on Aluminium Alloy 6351 T6. In this research, Taguchi's method with L9 orthogonal array construction was used to design the experiment and nine trials were conducted. This project also aims at studying the effect of varying machining parameters in turning on Surface Roughness (R_a, R_z),Material Removal Rate (MRR) for AA 6351 T6 using coated carbide insert under dry cutting conditions. The cutting parameters considered are feed rate, cutting speed and depth of cut. Using MINITAB-16 software the optimal cutting conditions for Surface Roughness (R_a,R_z) Material Removal Rate (MRR) are determined. The results are validated by analysis of variance (ANOVA) and the percentage contribution of machining parameters on the Surface Roughness (R_a,R_z),Material Removal Rate (MRR) for AA 6063 T6 is determined. The second phase of our project deals with the multi-response optimization of the turning process for an optimal parametric combination to yield the minimum Surface Roughness(R_a,R_z), with the

Achievements:

Project Design Contests:

Symposium:

Publications: Writing paper for publication

Social Media Reach:

Youtube :

Facebook : Uploaded and viewed

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201706

TITLE OF THE PROJECT **DESIGN OPTIMIZATION OF A TWO-STAGE COMPOUND GEAR TRAIN**

Miniproject Photo/ Block Diagram or schematic:

FACULTY GUIDE: Dr.V.Jayaseelan

N.Venkatesan

R.Saravanan Name

B.Santhosh kumar

Abstract:

Gear train is pertinent part of the majority of mechanical power transmission system. It has to be robust enough to sustain the transmitted power over the prolong period of time and also light enough to reduce the overall weight of the system and wastage of material. But since to increase the power to be transmitted by the gear train also causes increase in weight and vice versa, these two objectives rather generates contradicting solutions. Thus, the optimization of gear becomes very significant in order to have a good trade -off between these two entities.

Achievements:

Project Design Contests: --

Symposium: presented

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201707

TITLE OF THE PROJECT **Design and fabrication of Epicyclic Gear Box**

Miniproject Photo/ Block Diagram or schematic:

FACULTY GUIDE: Dr.V.Jayaseelan

Jagan g

Jagan N

Hemath

Abstract:

Gear train is pertinent part of the majority of mechanical power transmission system. It has to be robust enough to sustain the transmitted power over the prolong period of time and also light enough to reduce the overall weight of the system and wastage of material. But since to increase the power to be transmitted by the gear train also causes increase in weight and vice versa, these two objectives rather generates contradicting solutions. Thus, the optimization of gear becomes very significant in order to have a good trade -off between these two entities.

Achievements:

Project Design Contests: --

Symposium: Presented

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201708

TITLE OF THE PROJECT **COMPUTER AIDED MODELLING AND POSITION ANALYSIS OF CRANK AND SLOTTED LEVER**
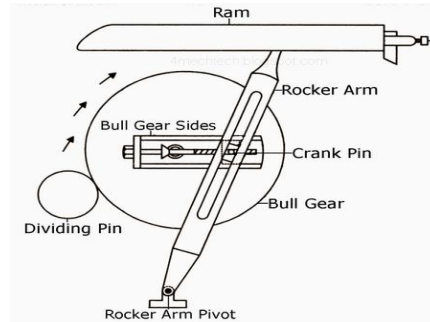
FACULTY GUIDE: Dr.V.Jayaseelan

THARUN

Ullasa ananda babu

T.R.Priyanka

Miniproject Photo/ Block Diagram or schematic:

Abstract:

The project is discussed about crank and slotted mechanism that converts rotary motion into reciprocating motion at different rate for its two strokes i.e., working stroke and return stroke. Time ratio has been calculated for constant length of stroke with specified dimensions. A CAD model has been prepared to simulate the mechanism and to specify the accurate path of the mechanism. Also the analytical method which can be used to define the various position of crank and respective position of slider in quick return mechanism is discussed.

Achievements:

Project Design Contests: presented

Symposium: presented

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201709

TITLE OF THE PROJECT **DESIGN AND ANALYSIS OF COMPOSITE DRIVE SHAFT**
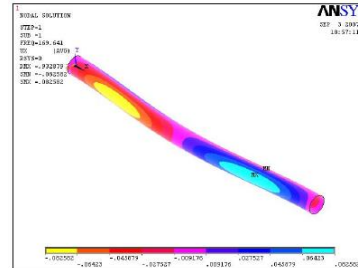
FACULTY GUIDE: Dr.V.Jayaseelan

B Chandrasekar

Dhanvanth kumar.S e

Harish.L e

Miniproject Photo/ Block Diagram or schematic:

Abstract:

This work presents the analysis and design optimization of various parameters in the design of hollow shafts, such as; speed, length, inner diameter, outer diameter, etc. The work basically has been intended to develop a methodology for performance study and analysis of different influential parameters for design optimization of hollow shafts. The optimization gives suitable dimensions of the hollow shaft and ensures higher torsion and bending stiffness when compared to the solid shaft, and hence reduction in weight as well as size of machines is possible with increase in machine efficiency.

Achievements:

Project Design Contests: --

Symposium: presented

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201710

TITLE OF THE PROJECT **DESIGN AND MANUFACTURING OF KINEMATIC PAIR**
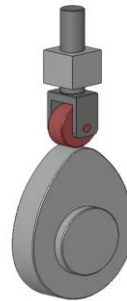
FACULTY GUIDE: Dr.V.Jayaseelan

Harieshwaran

J.Ismail

M.Jaison

Miniproject Photo/ Block Diagram or schematic:

Abstract:

A kinematic pair is a connection between two bodies that imposes constraints on their relative movement. the kinematic pair as a new approach to the study of machines that provided an advance over the motion of elements consisting of simple machines. When the relative motion between these two links is completely or partially constrained, then the links are said to form a kinematic pair.

Achievements:

Project Design Contests: --

Symposium: --

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201711

TITLE OF THE PROJECT **Design and Manufacturing of different types of load in Beam**
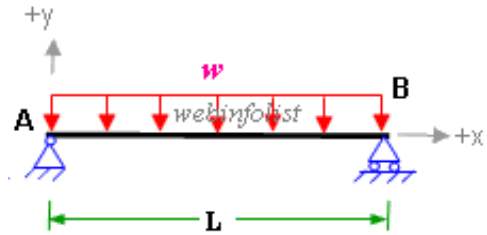
FACULTY GUIDE: Dr.V.Jayaseelan

S.Mohan Prabhu

J.Murali Muruganantham

N.Mukhil Mohan

Miniproject Photo/ Block Diagram or schematic:

Abstract :

A structural member which is acted upon by a system of external loads at right angles to its axis is known as beam. It is a type of weight put on the beam which causes the beam to deflect or bend in shape.

Achievements:

Project Design Contests: --

Symposium: presented

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201712

1. TITLE OF THE PROJECT: EXPERIMENTAL INVESTIGATION OF EXHAUST GAS NOZZLE IN FOUR WHEELER
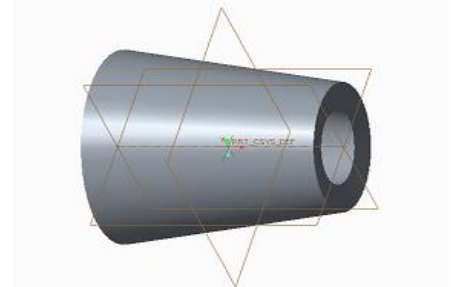
FACULTY GUIDE:V.Balaji

DeerajjBalaj

LOGESWARAN .K

JAYAVEL .R

Miniproject Photo/ **Block Diagram or schematic:** EXHAUST GAS NOZZLE

Abstract:

Nowadays ,Many alternative sources of energy are invented but none of them has been implemented effeectively also the temperature are increasing dramatically due to global warming and air pollution .Hence this project work is focused on using an alternative method for propelling the car. It has immense potential to reduce the fuel consumption and emission there by reducing air pollution and global warming to larger extent .Project is to develop an exhaust nozzle which provides the necessary thrust for the car to move .It produces less emission and has better fuel economy than an ordinary car.

Achievements:

Project Design Contests:NDRF,TEXAS,

Symposium:nil

Publications:01

Social Media Reach:

Youtube :   -

Facebook :   -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201713

TITLE OF THE PROJECT: FABRICATION OF PERPETUAL MOTION MACHINE

FACULTY GUIDE:V.BALAJI

yokesh

Ragul

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

Ever since the first century A.D. there have been relative descriptions of known devices as well as manufactures for the creation of perpetual motion machines. Although physics has led, with two thermodynamic laws, to the opinion that a perpetual motion machine is impossible to be manufactured, inventors of every age and educational level appear to claim that they have invented something or they have improved somebody else's invention, which «will function henceforth perpetually. However the fact of the failure in manufacturing a perpetual motion machine till now, it does not mean that countless historical elements for these fictional machines become indifferent. The discussion on every version of a perpetual motion machine on the one hand gives the chance to comprehend the inventor's of each period level of knowledge and his way of thinking, and on the other hand, to locate the points where this «perpetual motion machine» clashes with the laws of nature and that's why it is impossible to have been manufactured or have functioned. The presentation of a new «perpetual motion machine» has excited our interest to locate its weak points. According to the designer of it the machine functions with the work produced by the buoyant force

Achievements:

Project Design Contests:nil

Symposium: 01

Publications:nil

Social Media Reach:

Youtube :-

Facebook :-

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201714

2.   TITLE OF THE PROJECT: Fabrication of air cooler by natural convection
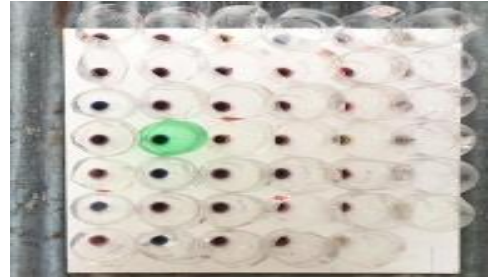
FACULTY GUIDE:V.Balaji

Yamini

HiImiyasri

Kavipriya

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

We are a flood-prone nation, so in rural , most people build their homes out of tin, instead of mud. About 70% of population lives in these homes. But the problem with these tin huts is that they get unbearably hot in the summer, especially in northern and central region. so started thinking about ways to bring relief to these people this project is experimented.The idea of making an air-conditioner out of plastic bottles. The simplicity of the Eco-Cooler is incredible.The change in pressure that occurs when air enters the wider part of the bottle and comes out through the bottleneck cools the air. The Eco-Cooler doesn't require any electricity to function! Repurposed plastic bottles are cut in half and mounted on a board or a grid in accordance with the window size with the bottlenecks facing the inside of the house. The board is then installed on the window. The science behind it is this: hot air enters the open end of the bottle and is compressed at the neck of the bottle, turning the air cooler before it is released inside the house. Based on the direction of the wind and pressure generated by airflow, the Eco-Cooler can reduce the temperature by as much as five degrees Celsius which is the same as an electric air conditioner.

Achievements:

Project Design Contests:cii,TEXAS,

Symposium:nil

Publications:01

Social Media Reach:

Youtube :   -

Facebook :   -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201715

3. TITLE OF THE PROJECT: FABRICATION OF AIR COOLER USING COPPER TUBES

FACULTY GUIDE:V.Balaji

B.UDinesh kumar

Bharani

Dilli Babu

Miniproject Photo/ **Block Diagram or schematic:** AIR COOLER

Abstract:

World is always trying to invent new one. In practice air conditioner and air cooler are widely used in the world. These electrical devices consumed more electrical power and it is not benefit for the poor people. In practice power shortage is also occurred. These problems are rectified by modification of ordinary table fan. In this project the cooling of air by using cold water or any other refrigerant which is circulated in the copper tube for the purpose of reducing the heat in the surrounding environment is of great importance in widely distributed villages with little or no rural electrification and also in the urban areas where power shortage is often in practice.In this project the ice cooler chamber for storing the cold water or cold ice bars or ice cubes which whose temperature decrease as time passes. This cold water or refrigerant is circulated through the copper tube with help aquarium pump which kept water cold for long times. The fan blowing against the copper tube which gives more cooling air in the surroundings. To achieve 6°C to 8°C of temperature drop by using simple mechanism. To achieve optimum design with minimum capital investment .To utilize various resources from home and surrounding effective manner.

Achievements:

Project Design Contests:cii,TEXAS,

Symposium:nil

Publications:01

Social Media Reach:

Youtube :   -

Facebook :   -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201716

TITLE OF THE PROJECT: .Experimental investigation Heat transfer through fins

FACULTY GUIDE:V.Balaji

Tamil mani

Tamilarasan

Mageswaran

Miniproject Photo/ **Block Diagram or schematic**: Heat transfer through fins

Abstract:

Extended surfaces, commonly known as fins, often offer an economical and trouble free solution many situations demanding natural convection heat transfer. Heat sinks in the form of fin arrays on horizontal and vertical surfaces used in variety of engineering applications, studies of heat transfer and fluid flow associated with such arrays are of considerable engineering significance. The main controlling variable generally available to designer is geometry of fin arrays. Considering the above fact, natural convection heat transfer from vertical rectangular fin arrays with and without notch at the centre have been investigated experimentally and theoretically. Moreover notches of different geometrical shapes have also been analyzed for the purpose of comparison and optimization. In a lengthwise short array where the single chimney flow pattern is present, the central portion of fin flat becomes ineffective due to the fact that, already heated air comes in its contact. In the present study, the fin flats are modified by removing the central fin portion by cutting a notch. This paper presents an experimental analysis of the results obtained over arrange of, fin heights and heat dissipation rate. Attempts are made to establish a comparison between the experimental results.

Achievements:

Project Design Contests:cii,TEXAS,

Symposium:nil

Publications:01

Social Media Reach:

Youtube :   -

Facebook :   -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201717

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF PNEUMATIC CONVEYOR**
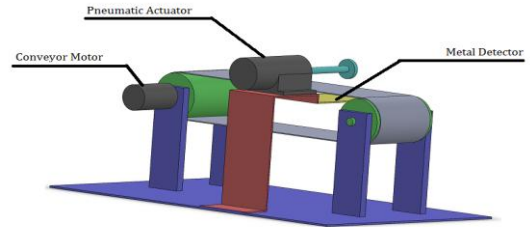
FACULTY GUIDE: **R.RAGAVENDIRAN**

KISHORE

MAGESH KUMAR

LITHISH KUMAR .R

Miniproject Photo/ Block Diagram or schematic:

Abstract :

To increase the productivity and to overcome skilled labour shortage, most of the manufacturing industries are going for automation. The main aim for us to select the project work is to acquire practical knowledge in the field of automation using Pneumatic system. We selected " MATERIAL CONVEYING SYSTEM USING PNEUMATIC CYLINDER " as our project work and we used principles of converting linear reciprocating motion into rotary motion in eveloping this project work, the material handling mechanism is achieved by reciprocating the double acting cylinder which is controlled by solenoid operated 5/2 way DC valve which is actuated by ON/OFF control relay. Here the linear motion of the piston rod is converted to rotary motion of the belt conveyor through the chain and sprocket wheel mechanism.

Achievements:

Project Design Contests: BIT FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201718

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF SAND RAMMING MACHINE**
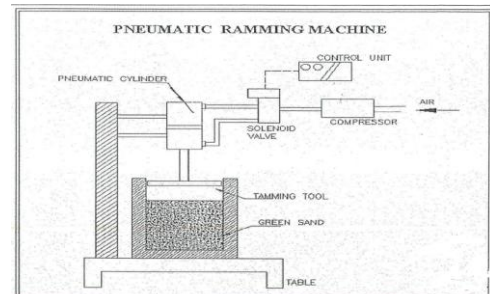
FACULTY GUIDE: **R.RAGAVENDIRAN**

NNAVIN KUMAR

NIKHIL .

MURALID HARAN

Miniproject Photo/ Block Diagram or schematic:

Abstract :

Moulding is one of the important metals forming process in manufacturing components for various applications in industry. Casting of any size and shape can be made accurately. Automation in this field helps to improve the foundry environment and accuracy of the cast parts. The defects occur in sand castings post a great problem in foundry. On account of defects more than 10% castings are rejected. Even though skilled labour is employed for ramming operation, the packing of moulding sand will not be even throughout the moulding box. So we have selected the idea of fabricating "PNEUMATIC RAMMER". This rammer is operated pneumatically. By using this rammer moulding sand will be packed evenly throughout the box.

Achievements:

Project Design Contests: BIT FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201719

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF AUTOMATIC COOLING FOR GRAINDING MACHINE**
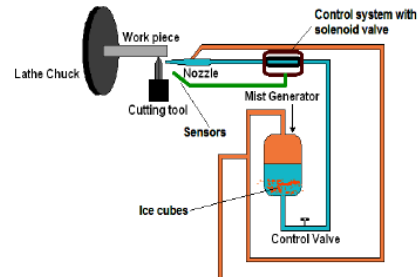
FACULTY GUIDE: **R.RAGAVENDIRAN**

MOHAMED MYTHIN	MAYAKKANNAN .M	MANIKANDAN

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Automatic cooling unit is a system typically delivers a controlled amount of coolant to specific locations on a machine while the machine is operating, at specific times from a central location. when the temperature at the work piece is increased above the reference temperature, the automatic coolant unit will activate and automatically pumps coolant and will reduce the temperature. The temperature sensor or thermistor is placed near to the tool or work piece, as a result the thermistor senses the temperature from the tool -work piece interface and sends an electrical signal to the amplifier. The electrical signal is amplified by using amplifier, then this signal is send to the comparator then the comparator compares both input and reference signal. If the input signal is greater than the reference signal then the relay gets activated automatically to control the temperature to a certain level. So the coolant is pumped from the reservoir to the tool- work piece interface. Similarly when the temperature decreases below the reference value the control unit deactivates the pump by using the relay.

Achievements:

Project Design Contests: BIT FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201720

E OF THE PROJECT: **DESIGN AND FABRICATION OF
RIFUGAL PUMP WITH CHAIN & SPROCKET SET UP**

FACULTY GUIDE: **R.RAGAVENDIRAN**

AMRITH

ABINASH

DINESHA
KUMAR

Miniproject Photo/ Block Diagram or schematic:

Abstract:

This project is based on the working of Centrifugal pump with chain & crank set up arrangement. The centrifugal pump is mainly used in Oil refineries, petroleum industries, irrigation purpose in agricultural field and domestic applications for pumping different types of fluids, liquid, oil. The centrifugal pump is usually provided with main parts such as casing, impeller, suction pipe, delivery pipe, sump, strainer, suction and delivery valves. In general, the impeller of centrifugal is powered by an electric motor. The rotation of the impeller creates vacuum in side of the casing which sucks the liquid from the sump through suction pipe & valve. In our project the impeller is rotated by chain and sprocket drive arrangements which are manually rotated by crank .Since the impeller shaft is connected by chain drive with sprocket wheel, the impeller is rotated whenever the crank is manually rotated which creates vacuum at the inner side of casing to suck & discharge of water from sump to required datum level.

Achievements:

Project Design Contests: BIT FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201721

TITLE OF THE PROJECT: DESIGN ANDFABRICATION
FABRICATION OF SQUARE DIE OF SIDE 40 MM
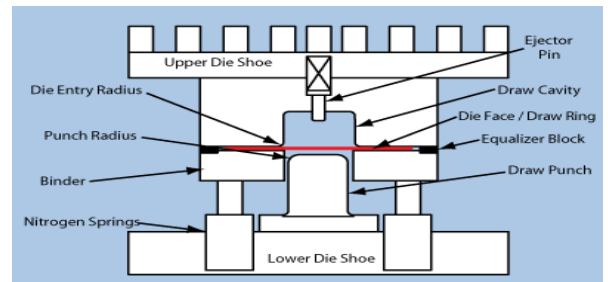
FACULTY GUIDE: **R.RAGAVENDIRAN**

PRAKASH KUMAR

NIRMAL RAJ .K

NIRANJAN

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Forming diesare typically made by tool and die makers and put into production after mounting into a press. The die is a metal block that is used for forming materials like sheet metal and plastic. For the vacuum forming of plastic sheet only a single form is used, typically to form transparent plastic containers (called blister packs) for merchandise. Vacuum forming isconsidered a simple molding thermoforming process but uses the same principles as die forming. For the forming of sheet metal, such as automobile body parts, two parts may be used, one, called the punch, performs the stretching, bending, and/or blanking operation, while another part, called thedie block, securely clamps the workpiece and provides similar, stretching, bending, and/or blanking operation. The workpiece may pass through several stages using different tools or operations to obtain the final form. In the case of an automotive component there will usually be a shearing operation after the main forming is done and then additional crimping or rolling operations to ensure that all sharp edges are hidden and to add rigidity to the panel.

Achievements:

Project Design Contests: BIT FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201722

TITLE OF THE PROJECT: DESIGN AND FABRICATION OF AUTOMATED PUNCHING MACHINE
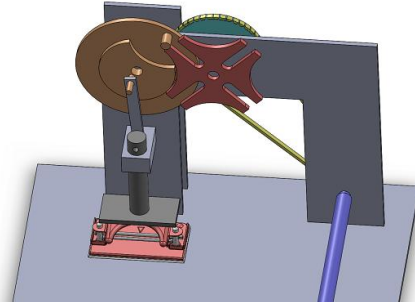
FACULTY GUIDE: K.BALACHANDAR

Miniproject Photo/ Block Diagram or schematic:

ARJUN

Arunkumar

ARAVIND

Abstract:

Paper punching is a tedious task and requires a lot of human effort. Punching multiple papers at a time requires a lot of energy as well as time when done manually. But it has to be done anyways because a lot of organizations run their tasks on paperwork that needs to be arranged in files. So here we propose an automated paper punching system that uses motorized paper punching system for fast and perfect punching with minimum manual efforts. Our system makes use of motor assembled with a shaft and attachment frame that connects to a mechanism used to drive 2 punching machines. The motorized shaft is connected to a driving rod connected to upper frame with a pulley mechanism. The other end of pulley mechanism consists of a small screw attachment that is connected to a rod which is connected to puncher mechanism for hole punching. Thus we save a lot of time and efforts by automating a punching machine.

Achievements:

Project Design Contests:

 Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook:

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME2017 23

TITLE OF THE PROJECT: DESIGN AND ANALYSIS OF A PAINT SPRAYING ROBOT
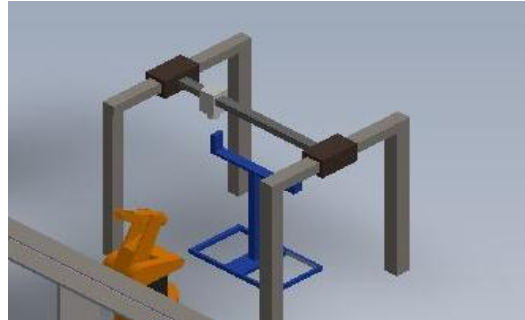
FACULTY GUIDE: K.BALACHANDAR

CHENGAIYAN

CHANDRASEKA R R

GOKUL

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Industrial automation is the recent scenario in manufacturing industries. By implementing automation in the assembly line the productivity can be increased. The latest automation process are implementing robots in the assembly line to make the process faster and eliminating the manual errors. Moving or handling the components from one place to other needs automation. Robots can be mainly used for material handling and working in hazardous areas where human cannot work. Here the paint spraying robot is proposed for the armrest assembly where manual process can be eliminated

Achievements:

Project Design Contests: Participated in BIT FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201724

TITLE OF THE PROJECT: DESIGN AND FABRICATION OF ROBOTIC ARM
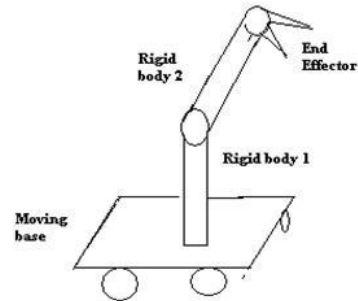
FACULTY GUIDE: K.BALACHANDAR

PONRAJ

PRAKASH

RAKESH SUNDAR

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Robotic arms are widely used in industries, manufacturing lines and other industrial purposes. Robotic arms are used to implement complex industrial automation functionality which only humans can achieve. These functionalities include picking up a part and placing it horizontally into another machine or picking parts and placing it in packing boxes and more. So here we propose the design and fabrication of a fully automated robotic arm that can automate various industrial tasks. Our system consists of an assembly of mounts and parts designed to hold motors in place in order to achieve desired movement. Also it consists of a gripper designed with gear teeth in order to achieve gripping function as per motor rotation. This mechanism helps in understanding the working and control flow of industrial robotic arms design and fabrication processes.

Achievements:

Project Design Contests: Applied for BITFURURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201725

TITLE OF THE PROJECT: TWO WHEEL DRIVE
FORKLIFT FOR INDUSTRY WAREHOUSES
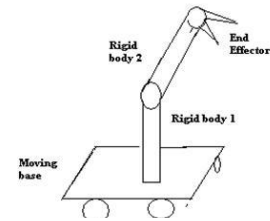
FACULTY GUIDE: K.BALACHANDAR

AVINASH

LAKSHMAN

BALAJI

**Miniproject Photo/ Block Diagram
or**

Rigid
body 2

End
Effector

Rigid body 1

Moving
base

schematic:

Abstract :

Factories, industries and storage go downs need forklifts and cranes for storage and moving large goods. Also there are a number of goods weighing around 40 – 60 kgs that are comparatively lighter but cannot be moved around easily by human labor. To fill this need we here propose a 2 wheel drive forklift to lift and transport such medium weight goods across factories & industrial warehouses. The 2 wheel drive is a fast, efficient and low power consumption vehicle that does not require much space to move around. The mini forklift will run on 2 dc motors and can drive small weight with pickup arrangement across small distances easily. For this we use a mini 2 wheel vehicle body frame designed with a platform with 2 motorized wheel mounts. It has a perpendicular handle ahead to hold on as well as take turns. Also we design a forklift type mechanism on the front handle of vehicle using 2 bent metal strips and lifting mechanism. The lift mechanism comprises of large rotating chain mechanism. This mechanism is connected to a high power motor. We now mount the control circuitry on the vehicle with wireless controllers that allow the vehicle to be controlled by person on it as well as by operating it remotely from 5-6 meters range. Thus we provide a remote controlled forklift for small goods transportation in industrial sector. The demonstration version can lift 10 – 20 kgs to demonstrate the concept.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook:

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201726

TITLE OF THE PROJECT: DESIGN AND FABRICATION OF PNEUMATIC BENDING MACHINE

FACULTY GUIDE: K.BALACHANDAR

Bhuvaneshwar

Bhuvaneshwar

Chandra Anil

Miniproject Photo/ Block Diagram or schematic:

Abstract:

The bending machine is one of the most important machine tool in sheet metal work shop. It is primarily designed for bending. The bend has been made with the help of punch which exerts large force on the work clamped on the die. The bending machine is designed in such a way that, it works automatically. The automation strategy, when implemented is believed to result in reduced cycle time, costs and improved product quality. Other possible advantages are repeatability, increased productivity, reduced labor and integration of business systems. Automation is achieved with the help of Electro pneumatic system.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook:

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201727

TITLE OF THE PROJECT: FABRICATION OF PEDALING DRESS WASHING MACHINE

FACULTY GUIDE: K.BALACHANDAR

GOODWILL

me

GOWTHAVARAMAN

HARISH

Miniproject Photo/ Block Diagram or schematic:

Abstract:

The pedaling dress washing machine is a new innovative concept is mainly used to save power. In this concept we have designed a pedal washing machine. It is used to washing the cloth without using electric power. Now days washing the cloths are very easy by using the electric power systems like washing machine but these machines are very costly which is only using by the rich people. Instead of that we have design the pedal dress washing machine for the poor people to make their work easy

Achievements:

Project Design Contests: Awarded first prize in Mini Project Expo 2017-18 and telecasted in Vasanth TV 'Sigaram Thodu"
Symposium:

Publications:

Social Media Reach:

Youtube : 65 views, 8 likes

Facebook: 314 likes, 63 shares, 82 comments and 4514 people reached

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201728

TITLE OF THE PROJECT: DESIGN AND THERMAL ANALYSIS OF SMALL SCALE IC ENGINE FINS

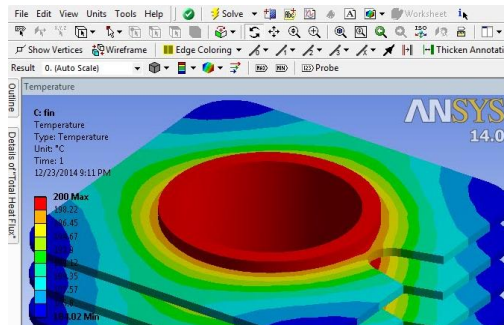FACULTY GUIDE: D MEGANATHAN

Sarath chandra

Prasad Krishna

E MAGESH

Miniproject Photo/ Block Diagram or schematic:

Abstract:

A small single cylinder engine becomes very hot during continuous full load operation in summer season, resulting in piston seizing. The environmental factors considered in the design of the engine are limited, since the ambient temperature considered is below the peak temperatures encountered in summer (35-500C). Hence during summer the engine gets overheated than its endurance of the cylinder and liner material.

Hence to avoid the overheating, the cylinder and liner temperature are required to be reduced by improved heat transfer. A cooling fan blows air over the liner with fins. Constraints are that no additional cooling can be provided. Eventually only the geometry of the fin can be varied

Achievements:

Project Design Contests: ICT

Symposium:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201729

TITLE OF THE PROJECT:AERODYNAMIC BRAKING SYSTEM IN CAR

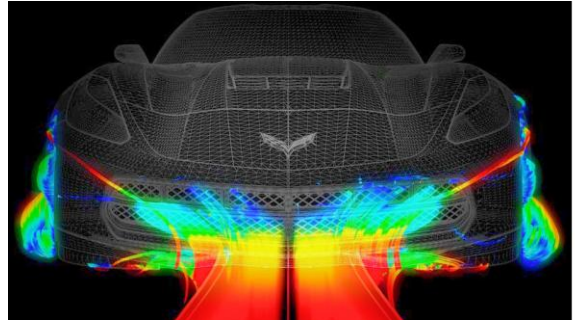FACULTY GUIDE: D MEGANATHAN

YASIN

FAHIM

Vishnu E

Miniproject Photo/ Block Diagram or schematic:

Abstract:

The aerodynamic had reached an ever more important stance as a performance parameter. In the last four seasons, Red Bull Racing Technical Officer had designed their Formula 1 car with the specific aim to generate the optimal downforce, in relation to the car instantaneous setup. However, this extreme research of higher downforce brings some negative effects when a car is within the wake of another car; indeed, it is well known that under these condition the aerodynamic is disturbed, and it makes difficult to overtake the leading car. To partially remedy this problem, Formula 1 regulations introduced the Drag Reduction System (DRS) in 2011, which was an adjustable flap located on the rear wing; if it is flattened, allowing to reduce the downforce, increasing significantly the velocity and, therefore, the chances to overtake the leading car. Vice versa, when the flap is closed, it ensures a higher grip, which is very useful especially in medium-slow speed turn.

Achievements:

Project Design Contests: BIG FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201730

TITLE OF THE PROJECT: PNEUAMATIC BENDING MACHINE

FACULTY GUIDE: D MEGANATHAN

SELVA PRAKASH

TAMIL SELVAN

BALAJI P

Miniproject Photo/ Block Diagram or schematic:

Abstract :

The bending machine is one of the most important machine tool in sheet metal work shop. It is primarily designed for bending. The bend has been made with the help of punch which exerts large force on the work clamped on the die. The bending machine is designed in such a way that, it works automatically. The automation strategy, when implemented is believed to result in reduced cycle time, costs and improved product quality. Other possible advantages are repeatability, increased productivity, reduced labor and integration of business systems. Automation is achieved with the help of Electro pneumatic system.

Achievements:

Project Design Contests: BIG FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201731
TITLE OF THE PROJECT: AUTOMATIC PICK AND PLACE ROBOTAIC ARM SYSTEM
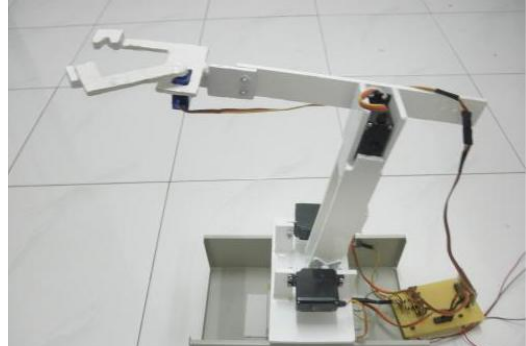
FACULTY GUIDE: D MEGANATHAN

RAJESH

RAJA SEKAR

PRAVEEN KUMAR

Name

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Main idea is to develop a application which can reach places where humans cannot reach like space, hidden places, small tunnels. This Robot runs with human guidance.

In this Robot pick and place application two servers motors are used to control the robot. Micro controller user's kinematics algorithms to maintain position control on the motors. PWM channels of micro controller and based power amplifiers and power transistors are used to control motors.

This robot is developed with two motors which make it more generic about hardware. All the logic is implemented in the software. That means by changing the software you can change almost everything as you like.

Achievements:

Project Design Contests: BIG FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201732
TITLE OF THE PROJECT: MONO SUSPENSION SYSTEM OF SPRING IN CAR

Miniproject Photo/ Block Diagram or schematic:

FACULTY GUIDE: D MEGANATHAN

Jaya Prathap

MOUNI KUMAR

M LOKESH
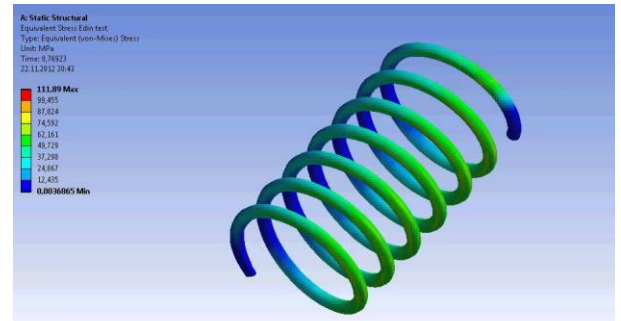
Abstract:

The main part for a vehicle suspension is the shock absorber, which is manufactured for reducing shock impulse. Shock absorber work on the principle of fluid displacement on compression and expansion cycle. They are used in motorcycles for providing better handling, prompt braking, safety and comfort by keeping the passengers isolated from road noise, bumps and vibration. The common type of the front suspension in motorcycle is Telescopic forks which are replaced by the Mono Shocks that gives a superior vehicle handling and provides safety while braking. Mono shock also allows the rider to fine tune the machine to give better control over the machine when riding. The springs in Mono Shock have been designed by taking considerations of many practical conditions like dynamic resistances, road tracks and aerodynamic properties. In this design the uneven vibrations in the telescopic forks have a downgraded dynamics when it returns to the immobility state posterior to humps and bumps. This design of front suspension using mass centralization concept may antiquate the present telescopic forks.

Achievements:

Project Design Contests: BIG FUTURA

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201733

TITLE OF THE PROJECT: Hydraulic bending machine

FACULTY GUIDE: D MEGANATHAN

Srivathsan

Somaligam

Miniproject Photo/ Block Diagram or schematic:

Abstract:

When considering industrial machinery, the hydraulic pipe bending machine is the perfect machine shop tool for the pipe bender. Our bending machine consists of a hydraulic cylinder, hydraulic pump, die holder, ram and die. This is a hand operated one. The hydraulic pump is supplying pressurized oil to the hydraulic cylinder. The hydraulic cylinder consists of piston, and piston rod. The ram is fixed at the end of the hydraulic cylinder. The pressurized oil pusses the hydraulic cylinder piston forward due to oil pressure. Already the pipe is fixed at the die holder. The ram is striking the pipe forcely, due to the movement of the hydraulic piston.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201734

TITLE OF THE PROJECT DESIGN AND ANALYSIS OF CAMSHAFT

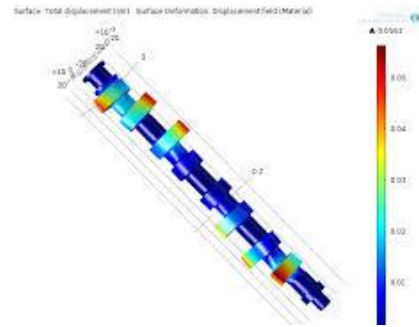FACULTY GUIDE: K.SIVARAMAKRISHNAN

VIJAYA BASKAR

Ramakrishn a

SALEEM

Miniproject Photo/ Block Diagram or schematic:

Abstract:

The camshaft is driven by the engine's crankshaft through a series of gears called idler gears and timing gears. The gears allow the rotation of the camshaft to correspond or be in time with, the rotation of the crankshaft and thereby allows the valve opening, valve closing, and injection of fuel to be timed to occur at precise intervals in the piston's travel. To increase the flexibility in timing the valve opening, valve closing, and injection of fuel, and to increase power or to reduce cost, an engine may have one or more camshafts. Typically, in a medium to large V-type engine, each bank will have one or more camshafts per head. In the larger engines, the intake valves, exhaust valves, and fuel injectors may share a common camshaft or have independent camshafts. Depending on the type and make of the engine, the location of the camshaft or shafts varies. The camshaft(s) in an in-line engine is usually found either in the head of the engine or in the top of the block running down one side of the cylinder bank.

Achievements:

Project Design Contests: CII,NDRF

Symposium:NIL

Publications:NIL

Social Media Reach:

Youtube :NIL

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201735

TITLE OF THE PROJECT PERFORMANCE TESTING OF MINI STEAM POWER PLANT

Miniproject Photo/ Block Diagram or schematic:

FACULTY GUIDE: K.SIVARAMAKRISHNAN

Jeffreymelvin

janarthanan

jai kumar
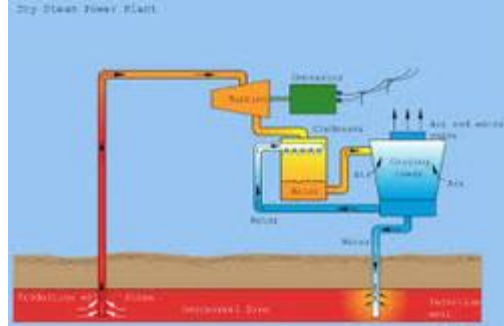
Abstract:

The project involving the construction of a new plant or the installation of a new machine, reaches the final stages, the verification of guaranteed performances is indeed the ultimate goal before turning the plant over to commercial operation A performance test consists in more than accurate measurements. We supervise the following activities: Meeting with final the customer and with the Parties. involved in test coordination (Suppliers, Commissioning teams, Owners) Site personnel management for testin.Plant/machine inspection for testing readiness. Third-party supervision of Suppliers testing.

Achievements:

Project Design Contests: CII,NDRF

Symposium:NIL

Publications:NIL

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201736

TITLE OF THE PROJECT: **DESIGN analysis of TWO WHEELER engine PISTON**
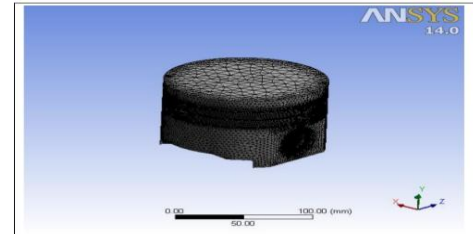
FACULTY GUIDE: K.SIVARAMAKRISHNAN

Rajesh

somalingam

venkateshash h

Miniproject Photo/ Block Diagram or schematic:

5.1.4 MESHING USING ANSYS
In preparing the model for analysis, Ansys subdivides the model into many small tetrahedral pieces called elements that share common points called nodes.

Abstract :

A piston is a component of reciprocating IC-engines. It is the moving component that is contained by a cylinder and is made gas-tight by piston rings. In an engine, its purpose is to transfer force from expanding gas in the cylinder to the crankshaft via a piston rod. Piston endures the cyclic gas pressure and the inertial forces at work, and this working condition may cause the fatigue damage of piston, such as piston side wear, piston head cracks and so on. So there is a need to optimize the design of piston by considering various parameters in this project the parameters selected are analysis of piston by applying pressure force acting at the top of the piston and thermal analysis of piston at various temperature in various stroke.

Achievements:

Project Design Contests:

Symposium:NIL

Publications:NIL

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201737

TITLE OF THE PROJECT **fabrication and performance testing of SMAW SS304 MATERIAL**

FACULTY GUIDE: K.SIVARAMAKRISHNAN

V.Manoj

MohanKumar

Anil Kumar

Miniproject Photo/ Block Diagram or schematic:

Abstract :

The Shielded Metal Arc Welding (SMAW) is the most widely used welding process in the small scale industries, because of its low cost, flexibility, portability and versatility. The SMAW welding parameters are the most important factors affecting the quality, productivity and cost of welding. The objective of this study is to develop the parameters for Shielded Metal Arc Welding (SMAW) to provide continuous and leak proof joints in 48mm diameter steel pipe with 3mm thickness during the process. The selected important welding parameter like welding current, welding speed, root gap and position of electrode based on field expert suggestion available literature and on scientific reasons. On the selected parameter sufficient number of trail runs is conducted as per Taguchi method because experimental optimization of any welding process is often very costly and time consuming. For each factor optimum range is fixed, further the range is split into 5 levels. So that the experiment have become 4 parameters (factors) each with 5 levels. Based on this, L31 (54) Orthogonal Array (OA) is selected. Experiments are conducted according to OA and results are obtained. The leak proof joints can be identified by these results under few specific operating conditions. Under these condition effect of noise are nullified and the contribution of each parameter towards the leak is also estimated by ANOVA.

Achievements:

Project Design Contests: CII,NDRF

Symposium:NIL

Publications:NIL

Social Media Reach:

Youtube :NIL

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017`

TEAM ID- ME201738

TITLE OF THE PROJECT **Design AND fabrication of solar water heater**

FACULTY GUIDE: K.SIVARAMAKRISHNAN

Bhuvanesh

Vijaya
kumar

Jithendra

Miniproject Photo/ Block Diagram or schematic:

Abstract:

We designed two types of very low cost solar water heaters which do not need a water supply connection. The first one consisted of two plastic bowls, one inside the other with 5 cm thickness of insulation in between. A transparent plastic cover was tied around the smaller vessel. It was found that water placed inside the smaller vessel had its temperature raised by 18°C from the ambient temperature within four hours when the average insolation was about 600 kWh/m2. The second one consisted of two earthen vessels in place of plastic bowls. The water temperature rise was 20°C under the same radiation. If either of the heaters was covered with cotton-wool insulation in the afternoon, the temperature remains 13°C above the ambient early next morning. The cost of the material was around for the plastic bowl heater while this is around for the earthen vessel water heater.

Achievements:

Project Design Contests: CII,NDRF

Symposium:NIL

Publications:NIL

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201739

PNEUMATIC QUICK RETURN MECHANISM FOR SHAPING MACHINE

FACULTY GUIDE: R.KARTHICK

N.SARAVANAN

YUVARAJ

SIVARANJAN

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

It is a reciprocating type of machine tool used for producing flat surfaces by means of a cutting tool which is moved backwards & forwards in a straight line by means of a ram. Surfaces may be horizontal, vertical or inclined. Modern shapers can produce contoured surfaces. It uses reciprocating straight line motion of the tool and a perpendicular feed of the job or the tool. By moving the work piece across the path of the reciprocating tool, a flat surface is generated regardless of the shape of the tool.

Achievements:

Project Design Contests: BITFUTURA, ICTACT

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201740

DESIGN AND ANALYSIS OF DIFFRENTIAL GEAR BOX
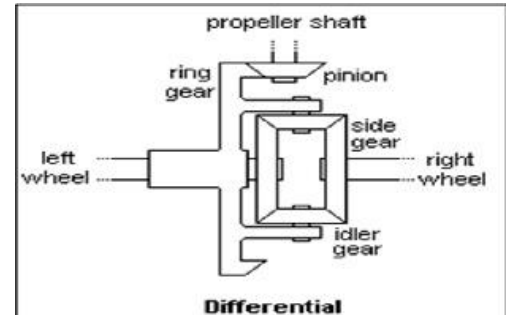
FACULTY GUIDE: R.KARTHICK

Vimlesh

P Raghul

P Vignesh

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

My project "DESIGN AND ANALYSIS OF DIFFERENTIAL GEAR BOX" mainly focuses on the mechanical design and analysis of gearbox as transmit the power .I had developed this work as my semester project with a view to get familiar with the technologies as well as application of theories into practical work done by industries. My project contains the design and material selection of the gearbox for different type of vehicles also. For better efficiency, improvement of power transmit rate is important phenomenon. Hence the dimensions of the differential gearbox are altered and analyzed for maximum efficiency using CATIA and ANSYS software.

Achievements:

Project Design Contests: BITFUTURA, ICTACT

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201741

1. AUTOMATIC MECHANICAL GARAGE DOOR OPENER

FACULTY GUIDE: R.KARTHICK

Kiran P Nair

Akash

Miniproject Photo/ **Block Diagram or schematic:** COMPONENT CIRCUIT DIAGRAM

BLOCK DIAGRAM
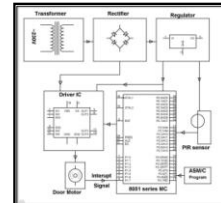
Abstract:

The main objective of this mini project is to develop a automatic garage opening door which works by the detecting the change of heat or temperature in its surrounding using a PIR sensor (passive infrared sensor).This system uses the movement of anybody within its range and functions automatically without any manual control over it. The automatic door opening systems are used in commercial buildings, shopping malls, theatres, etc. These systems are used to open the door when a person comes near to the entrance of the door and close it after he moves away from the door or after entered into the door.

Achievements:

Project Design Contests: CII, TEXAS,

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201742

1. VACCUM BRAKING SYSTEM

FACULTY GUIDE: R.KARTHICK

Venkata rajulu

Sanjai kumar

Tharanath
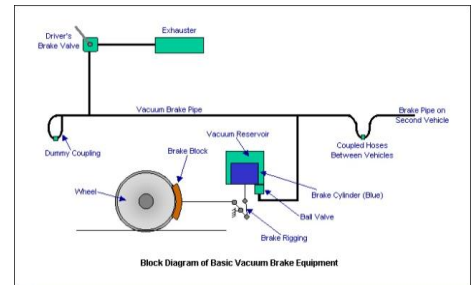
Miniproject Photo/ **Block Diagram or schematic:** COMPONENT CIRCUIT DIAGRAM

Block Diagram of Basic Vacuum Brake Equipment

Abstract:

The aim of this project is to develop a control system based on braking system Of an air/pneumatic controlled safe Wheel braking system. This project directs air into double acting cylinders for braking system. These braking actions are implemented in our project by taking single wheel as a model. The vacuum brake system is controlled through a brake pipe connecting a brake valve in the driver's cab with braking equipment on every vehicle. A vacuum is created in the pipe by an ejector or exhauster. The ejector removes atmospheric pressure from the brake pipe to create the vacuum using steam on a steam locomotive, or an exhauster, using electric power on other types of train. With no vacuum the brake is fully applied. The vacuum in the brake pipe is created and maintained by a motor-driven exhauster. The exhauster has two speeds, high speed and low speed. The high speed is switched in to create a vacuum and thus release the brakes. Slow speed is used to keep the vacuum at the required level to maintain brake release. Vacuum against small leaks in the brake pipe is maintained by it.

Achievements:

Project Design Contests: BITFUTURA, TEXAS,

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201743

DESIGN AND ANALYSIS OF TURBINE BLADES WITH DIFFERENT MATERIALS

FACULTY GUIDE: R.KARTHICK

N RAGHUL

NIRMAL RAJ

KV PRADHEEP

Miniproject Photo/ **Block Diagram or schematic:**
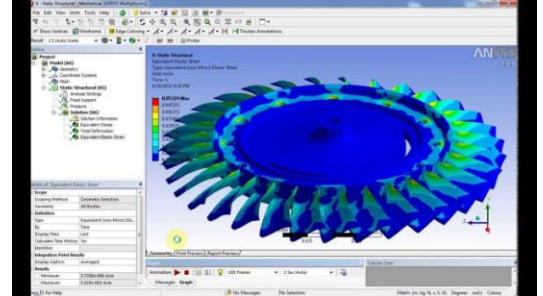
Abstract:

A thermal power plant is a power station in which the prime mover is a steam driven turbine. The steam is produced by heating the water in high pressure boilers. This steam is made to hit on the Blades of the turbine and rotate it. The turbine shaft is directly coupled to an electric generator, from which the electricity is generated. The blades play a major role in the efficiency of the turbine, so the blades of the turbine are consciously designed and analysed for its mechanical and flow properties. Hence the dimensions of the turbine blades are altered and analysed for maximum efficiency using Catia and Ansys software.

Achievements:

Project Design Contests: BITFUTURA, ICTACT

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MINIP ROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201744

TITLE OF THE PROJECT: DESIGN ANDFABRICATION OF
COMPOSITE MUDGUARDS FOR BICYCLE USING JUTE FIBER
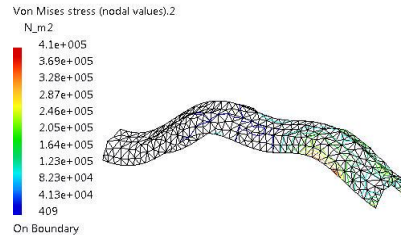
FACULTY GUIDE:S.P.MOHAN MITHRA

.MURALI
PRASATH

V.KARTHIK
KUMAR

S.KAUSHIK

Miniproject Photo/ **Block Diagram or schematic:**

Von Mises stress (nodal values).2
N_m2
4.1e+005
3.69e+005
3.28e+005
2.87e+005
2.46e+005
2.05e+005
1.64e+005
1.23e+005
8.23e+004
4.13e+004
409
On Boundary

Abstract :

Our project is aimed to investigate the suitability of natural and synthetic fiber reinforced composite material in bi cycle mudguard application. By using natural fiber have been made to reduce the cost and weight of mudguard without reducing the quality. The composite mudguard had been modeled and analyzed using CATIA. The experimental analysis is carried out by modeling and testing samples as per the ASTM Standards. Expanding the use of natural fibers in thermosetting resins would be desirable. If the proposed advantages of natural fibers can be realized. Further research and development will be needed to successfully combine with thermosetting resins to produce commercially. Here Jute fiber and epoxy resins are used to make composite materials by HANDS LAY UP Process. The mechanical properties of epoxy resin with jute fiber characterized by tensile Flexural Impact and compression test. The result indicate an enhancement in the epoxy composite material properties due to addition of jute fiber. The Highest tensile Stress and flexural properties values where found maximum at fiber composite.

Achievements:

Project Design Contests:Bitfutura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIP ROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201745

PROCESS PARAMETER OPTIMIZATION IN FACING OPERATION USING MCDM TECHNIOUE

FACULTY GUIDE:S.P.MOHAN MITHRA

G.RAMAKRISHNA

R.SIVARAJAN

SUNIL KUMAR GIRI.A

Miniproject Photo/ **Block Diagram or schematic:**
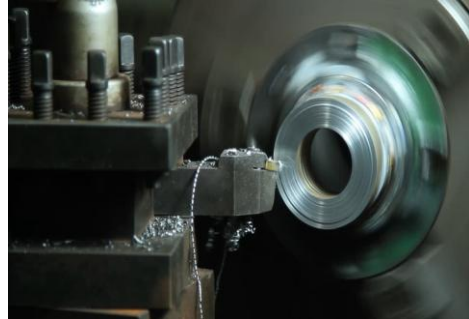
Abstract:

In this experimental study, optimum machining parameters are determined in facing operation of aluminium with coated carbide tools using MCDM Technique Analytic Hierarchy Process (AHP) method. This technique is a multi-objective optimization method which has been adopted to simultaneously minimize micro hardness, surface roughness and maximize material removal rate (MRR). The result indicates the effectiveness of this approach. This method is applicable to all machining operations with greater number of objectives simultaneously.

Achievements:

Project Design Contests:Bitfutura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIP ROJECT EXHIBITION DATED 16ᵀᴴ SEPTEMBER 2017

TEAM ID-ME201746

PROCESS PARAMETER OPTIMIZATION IN MILLING OPERATION USING MCDM TECHNIOUE

FACULTY GUIDE:S.P.MOHAN MITHRA

R. Rudhresh

V.RAMESH

B.VASUDEVAN

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

In this experimental study, optimum machining parameters are determined in milling operation of aluminum with coated carbide tools using MCDM Technique Analytic Hierarchy Process (AHP) method.This technique is a multi-objective optimization method which has been adopted to simultaneously minimize micro hardness, surface roughness and maximize material removal rate (MRR). The result indicates the effectiveness of this approach. This method is applicable to all machining operations with greater number of objectives simultaneously.

Achievements:

Project Design Contests:Bitfutura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIP ROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201747
DESIGN AND FABRICATION OF COMPOSITE SINGLE LAP JOINT FOR STATIC ANALYSIS

FACULTY GUIDE:S.P.MOHAN MITHRA

GANGADHARAN.J

GANESH.S

ELAYAKUMAR.B

Miniproject Photo/ **Block Diagram or schematic:**

Abstract :

Mechanically fastened joints are critical parts in composite aircraft structures The composite structural members are highly used in the following applications such as aerospace, automobiles, marine, architecture etc., In the past decades, Adhesive bonding is a practical joint method for joining composite materials which provide low shear and Tensile strength .To improve the strength joint is to be used in the work.

A Glass fibre/Bi- Directional Fly Epoxy composite is to be fabricated by hand lay-up method. And experimentally results are to be obtained. The Experimental results are to be compared with Analytical and Numerical results.

Achievements:

Project Design Contests:Bitfutura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIP ROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201748
INCREASING THE VOLUMENTRIC EFFICIENCY OF IC ENGINE
USING THERMO ELECTRIC INTER-COOLER
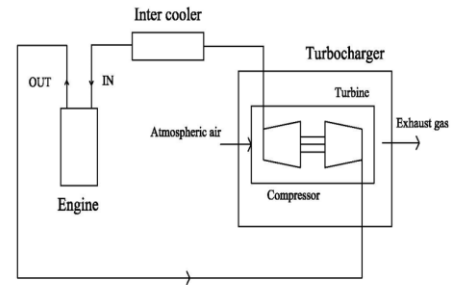
FACULTY GUIDE: S.P.MOHAN MITHRA

DHANUSH

DHILIP.E

CHARANKUMAR

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

The objective of the project is to increase the volumetric efficiency of the I.C engine. For this we should reduce the temperature of inlet air so that the density of the air is increased. This is achieved by using the thermo-electric intercooler that works under peltier effect. The prototype of the project is made by connecting the ceramic plate of the intercooler to the terminals of the battery of 12V and fitting it in a wooden block such that the face of the cooler that emits hot air is faced towards the wooden block and the face that emits the cool air would be faced on the other side. This wooden block along with the fitted cooler is then placed inside a sheet metal tube. The suction is made by turbocharge compressor and thus when the air crosses the pipe will be cooled i.e., its temperature will be reduced by the peltier plate placed inside.

Achievements:

Project Design Contests:Bitfutura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIP ROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201749
PROCESS PARAMETER OPTIMIZATION IN GROOVING OPERATION
USING MCDM TECHNIQUE

FACULTY GUIDE:S.P.MOHAN MITHRA

ELAMUGIL.R

DOBSON MELVIN

ELAVUJANARTHA NAN

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

In this experimental study, optimum machining parameters are determined in turning operation of mild steel with coated carbide tools using MCDM Technique Analytic Hierarchy Process (AHP) method. This technique is a multi-objective optimization method which has been adopted to simultaneously minimize micro hardness, surface roughness and maximize material removal rate (MRR). The result indicates the effectiveness of this approach. This method is applicable to all machining operations with greater number of objectives simultaneously.

Achievements:

Project Design Contests:Bitfutura

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201750

TITLE OF THE PROJECT: MECHANICAL CHARACTERIZATION OF FIBER METAL LAMINATE BASED ON ARAMID FIBER REINFORCED EPOXY

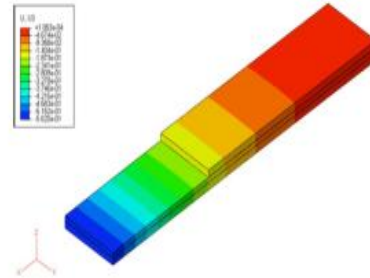FACULTY GUIDE: N.RAMASAMY

Chinnarasu .M

Dayanidhi .A

Gokulakannan .M

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

In this paper, the tensile properties of fiber-metal laminates (FMLs) made of a low-ductility aluminum alloy and hybrid fabric/ epoxy matrix composite are evaluated. The tensile testing results show that the FMLs exhibit a more ductile behavior than that of their constituents, indicated by the increased strain to failure. The excellent adhesion between FML constituents, as confirmed by single lap joint shear test and optical microscopy, enabled a more globalized plastic deformation in the aluminum sheet of the FML leading to an increase of strain to failure, which offers an advantage in engineering structural applications where large deformations are present and strain to failure is more important than strength. The findings in this study are important from a design viewpoint of FMLs because the results show that FMLs properties, such as toughness and strain to failure, can potentially be tailored to absorb energy at different rates

Achievements:

Project Design Contests: NDRF

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201751

TITLE OF THE PROJECT: INVESTIGATION OF STRENGTH OF HYBRID NATURAL LAMINATES

FACULTY GUIDE: N.RAMASAMY

BALAJI .R

BALAJI.T

CHANDRASEKARAN .S

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

Hybridization of natural/glass fiber reinforced polymer composites has been developing to build their applications in the field of engineering and technology. Present study deals with recent developments of natural fiber reinforced polymer hybrid composites made by hand lay-up and compression molding techniques. This investigation is to understand an outline of the results presented on the incorporation of natural fiber with glass fiber reinforced polymer composites. It focuses the attention in terms of physical and mechanical characteristics of hybrid composites and related studies have cited. Hybrid composites made of two different natural fibers with glass fiber are less widespread comparable to natural/glass fiber, yet it prompts grow the applications.

Achievements:

Project Design Contests: CII

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201752

TITLE OF THE PROJECT : INFLUENCE OF INTERLAYER AND INTRALAYER IN PMC COMPOSITES

FACULTY GUIDE: N.RAMASAMY

VIJAY KUMAR .G

VIJAY RASWANTH

VINOTH .V

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

The performance of Glass and Kevlar hybrid layer with epoxy matrix is strongly dependent on interlayers .Here, we investigate hybrid interlayers regarding the performance and stability of polymer/epoxy matrix .The inter layers were prepared via hand lay method .The inter layers turned out to be much more stable and showed high strength compared to conventional hybrid laminates. The impact behaviour of both intraply and interply hybrid composites, with particular regard to the effects of the plies stacking sequence and the loading direction. With a proper choice of composition and stacking sequence, E-glass/kevlar hybrid composites were proved to achieve a property profile superior to those of homogeneous E-glass laminates in terms of specific properties. Resistance to impact crack propagation was higher for intraply with respect to interply hybrid composites, as evidenced by their ductility index values.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201753

TITLE OF THE PROJECT: EFFECT OF POST PROCESS TEMPERATURE ON KEVLAR COMPOSITE

FACULTY GUIDE: N.RAMASAMY

SYED ISHAQ AHAMAD

VASANTH .N

VENUGOPAL .S

Miniproject Photo/ **Block Diagram or schematic:**
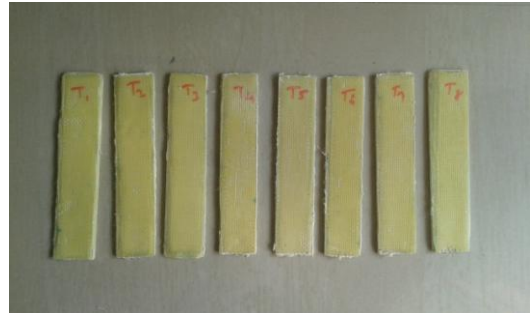
Abstract:

Kevlar/epoxy composite laminates are subjected to temperature and the energy absorbing capacity of the laminates is studied. In the present study, laminates with three different fiber treatments and influence of temperature in fabricated laminates are considered with uniform period of time. Tensile properties have been measured for these aramid fibers that have been conditioned at 40 °C, 70°C, and 100°C. It is found that heating of laminates are most efficient in heat treated when compared with the laminates of non heat treated laminates. It is also noticed that the energy absorbing capacity is the key factor for laminates.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201754

TITLE OF THE PROJECT : DESIGN AND FABRICATE THE PATCH FOR REPAIRED GLASS FIBER LAMINATE

FACULTY GUIDE: N.RAMASAMY

Somasundaram .P

Somnath Gupta .T

Suriya Prakash

Miniproject Photo/ **Block Diagram or schematic:**

Abstract:

The increasing demand for products made of glass fiber reinforced plastics raises the risk of damages occurring during their use in a large variety and number. Depending on the type of damage, the product cannot be used any longer. From an economic and ecological point of view, several repair methods especially in the aerospace industry have been developed in the last years. The decision, which of these repair techniques has to be applied, depends on the extent of damage and different requirements of the product. Parts made of glass reinforced epoxy composites can often be repaired by manual removing of the damaged area followed by a re-lamination. This paper shows an actual approach to the GFRP-repair by Kevlar fiber which has been high tensile strength. Thereby influencing factors like the patch angle, surface pretreatment and no of patch layer will be discussed. By comparing the major factors, which lead to an increase of mechanical properties, suitable repair techniques could be defined. The optimum was found by experimental methods.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-ME201755

TITLE OF THE PROJECT : EFFECT OF ENVORNMENTAL PARAMETER ON COMPOSITE

FACULTY GUIDE:N.RAMASAMY

Miniproject Photo/ **Block Diagram or schematic:**

GERANISH .B

GOKULAN .B

GOPI .P

Abstract:

Aramid-fibre/epoxy laminates are subjected to water immersion ageing followed by instrumented compression after indentation. The indented plates are retested statically in compression to determine residual strength for assessment of damage tolerance. The maximum water absorption and water diffusion coefficients were found to be only slightly dependent on reinforcement configuration and fiber surface treatment. The delamination threshold load and impact energy absorption were not significantly affected by the absorbed water. Due to low fibre–matrix adhesion, the prevailing failure modes produced at fibre/matrix debonding and interfacial cracking. The least sensitive to impact damage were wet samples of interlaminated composite. The experimental results of residual compression strength have been compared with predictions based on a simple model

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201756

2. TITLE OF THE PROJECT **DESIGN AND FABRICATION OF BELT GRINDING WHEEL**

FACULTY GUIDE: T.THIRUMALAI

K.Arumuga Harish

P.BERLIN

S.BHUVANESH

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Machining processing industries have continuously developed and improved technologies and processes to transform finished product to obtain better super finished product quality and thus increase products.Abrasive machining is one of the most important of these processes and therefore merits special attention and study.Belt grinding is an abrasive machining process used on metals and other materials.It is typically used as a finishing process in industry.

The main objective of this project is design and fabricate an abrasive abrasive belt grinding which can be used as a grinding machine,the work area can be rotated from 0 degree to 180 degree.The 0 degree work area can be used for bottom grinding of the component,the 90 degree work area can be used for vertical grinding of the component and the 180 degree work area can be used for top grinding of component.

Achievements:

Project Design Contests: --

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201757

3. TITLE OF THE PROJECT **FABRICATION OF JIG AND FIXTURE**
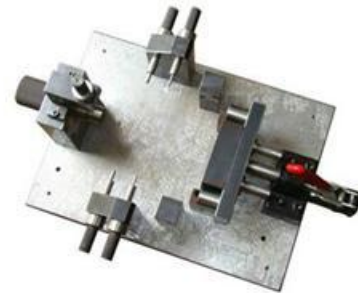
FACULTY GUIDE: T.THIRUMALAI

S.Poovarasan

S.Sakthivel

K.Ranjith Kumar

Miniproject Photo/ Block Diagram or schematic:

Abstract:

This proposed method has to design and fabricate the Multipurpose Jig and Fixture, for that component which has been to reduce the manufacturing cycle time. When the component produced on a small size previously this is to produces the large quantities of requirements. The selective components requires for machining Creations such as step milling, angle milling & boring and reaming.

The few predations where been done in CNC and rest operations are carried out in Conventional machine tool. The proposed method has to be design and fabricated the multi -operational Fixture for the complete machining operation s in a single machining centre. The Fixture design has will serve for the economic production for the component.

Achievements:

Project Design Contests: --

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201758

4. TITLE OF THE PROJECT **FABRICATION OF MULTI NUT TIGHTNER**
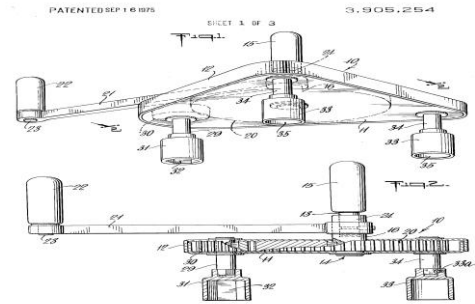
FACULTY GUIDE: T.THIRUMALAI

C.D.SIVAR AMAN

R.MANIVA NNA

C.MAGES H KUMAR

Miniproject Photo/ Block Diagram or schematic:

Abstract:

This project aim is to design and fabrication of four wheel nut removing tool for tightening and removing of four nuts in one stroke. With the increment of number of car on the road, the number of cars problem due to tyre failure has increased. Often, the car is provided with tyre wheel nuts remover and jack for instance spare tyre replacement. Nevertheless, due to difficulty in applying torque to remove nut and to save a time. We develop tool having a gear planetary mechanism. In our project we are tried to focus on the minimization of human effort for fixing all for nuts of 100mm PCD wheel in one time.

The main objective of work is to develop a single tool, which can be made use during assembling and disassembling of wheels in automobiles. It can be successfully used as standard tool irrespective of the model of the vehicle. Also it can be used garages, workshops and service stations. The remover is designed to be ergonomic to be used, easy maintenance, easy storage, easy to handled and able to remove all nuts at once.

Achievements:

Project Design Contests: CII,BITFUTURA

Symposium

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201759

TITLE OF THE PROJECT **FABRICATION OF MULTI DRILL HOLDER**
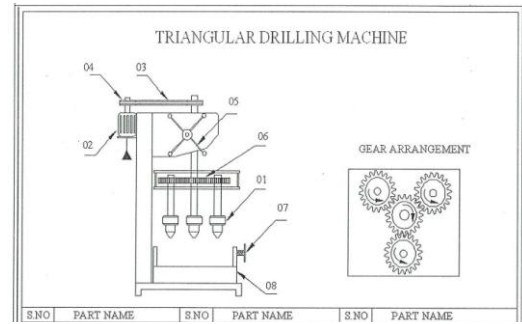
FACULTY GUIDE: T.THIRUMALAI

RAJAPAN DI.S

VAITHEES WARAN.R

N.KARTHI CK

Miniproject Photo/ Block Diagram or schematic:

Abstract:

The ADJUSTABLE MULTI SPINDLE HAND DRILL is one which can be used to drill a number of holes at various positions either symmetric or even unsymmetrical layouts according to our requirements, where the conventional Multi spindle Drill Heads cannot be used. This is an improvement over geared drill heads and drill heads adopted with universal joints.

The drill head is mounted to the drilling machine rotating shaft. The drill head spindle is inserted in to the machine spindle. It is used to drill a number of holes in different layouts according deals with a proper idea of usage of eccentrics in the field of drilling. Here position of the drill bit is adjusted based upon our requirement through the slots provided in the stationary disc. The report furnishes a cost estimation of all the components of the equipment by careful considerations of all factors such as cost of material, labour, machining and purchased components.

Achievements:

Project Design Contests: --

Symposium: presented

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201760

TITLE OF THE PROJECT **FABRICATION OF PEDAL POWERED HACKSAW**

FACULTY GUIDE: T.THIRUMALAI

SANTHOSH KUMAR.S

MONESH RAJ.P.J

NARESH KUMAR.V

Miniproject Photo/ Block Diagram or schematic:

Abstract:

This project work deals with the design and fabrication of a pedal powered hacksaw cutting machine. The aim of this work is to develop a modernized and less stressful operation for cutting wood, metals and plastic materials. It is very useful for cutting PVC materials (pipes) and can be used widely in lather and in furniture making industries. This work can also serve as an exercising machine for fitness while cutting; it uses the principle of a slider crank mechanism which converts the rotary motion of the flywheel to the reciprocating motion of the hacksaw during pedaling.

The machine was tested and continued to be very efficient with an ideal mechanical Advantage of 0.5 (less than 1), velocity ratio of 0.65 (less than 1),a power output of 5.72KW and an efficiency of 76.9% ,which makes it very adequate and capable for cutting.

Achievements:

Project Design Contests: CII,BITFUTURA

Symposium: --

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201761

TITLE OF THE PROJECT : DESIGN AND FABRICATION OF FOOT STEP POWER GENERATOR

Miniproject Photo/ Block Diagram or schematic:

FACULTY GUIDE: Mr.A.SELVAKUMAR

KATTAMR EDDYCHA ITHANYA

BALAMUR UGAN.S

ABISHEK PANDEY.P
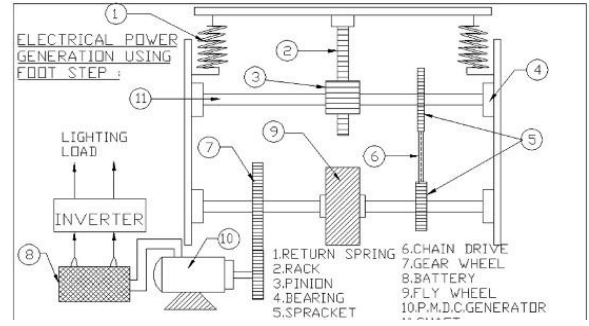
Abstract:

Regenerative braking system is the way of slowing vehicle by using the motors as brakes .Instead of the surplus energy of the vehicle being wasted as unwanted heat, the motor act as the generator and return same of it to the overhead wires as electricity. The vehicle is primarily powered from the generator which burns gasoline. This energy is stored in a large battery ,and used electric motor that provide motive force to the wheels. The regenerative braking take place on the vehicle is a way to obtain more efficiency ,Instead of converting MECHANICALENERGY into ELECTRICALENERGY through frictional braking the vehicle can convert a good fraction of its kinetic energy back in to charge in the battery , using the same principle as a alternator.

Achievements:

Project Design Contests: --BITFUTURA

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201762

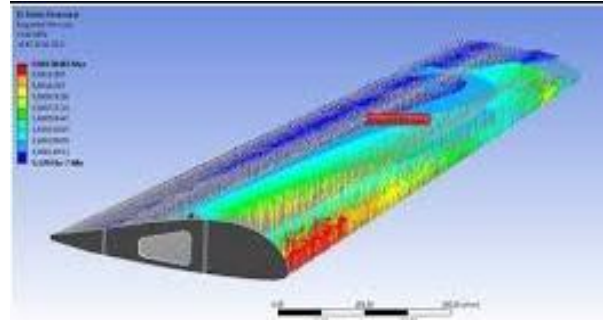TITLE OF THE PROJECT : STATIC ANALYSIS OF COMPOSITE WING

Miniproject Photo/ Block Diagram or schematic:

FACULTY GUIDE: Mr.A.SELVAKUMAR

AKASH

ARUN K

ARUN KUMAR .T

Abstract:

Wing of an aircraft is one of the crucial components which determine the performance of the aircraft. The main group of materials used in aircraft construction has been wood, steel, Aluminium alloys and more recently, titanium alloys and fibre reinforced composites. Several factors influence the selection of material of which strength allied to lightness is the most important. Composite materials are well known for their excellent combination of high structural stiffness and low weight. Composite material consists of glass (GFRP) or carbon (CFRP) set in a matrix of plastic or epoxy resin, which is mechanically or chemically protective. CFRP is seen to have a modulus twice & strength three times that of Aluminium alloy, the conventional material used in aircraft construction. In the present work the aircraft wing components like ribs, spars and panels are analysed considering both isotropic and composite materials. Since each laminate in the composite material can have distinct fibre orientations which may vary from the adjoining laminates, the optimum ply orientation is also obtained as a result of the parametric study conducted using NASTRAN AND PATRAN finite element package by varying the orientation sequence in the composite material.

Achievements:

Project Design Contests: --Applied in TEXAS,TNSCE

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201763

DESIGN AND ANALYSIS OF DISC BRAKE AND ITS STRUCTURAL COMPONENTS.
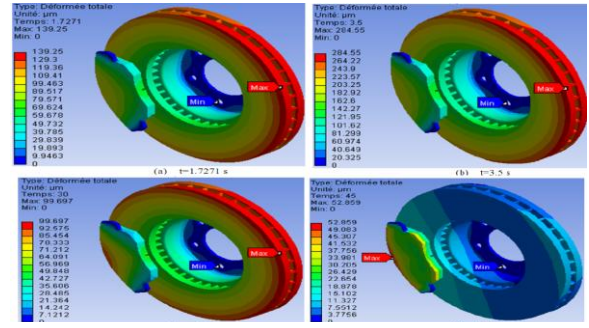
FACULTY GUIDE: Mr.A.SELVAKUMAR

VIGNESH. R

VIJAYABALAJI.

NIVESH .G.D

Miniproject Photo/ Block Diagram or schematic:

Abstract:

  A brake is a device by means of which artificial frictional resistance is applied to member, in order to stop the motion of a machine. In the process of performing this function, the brakes absorb either kinetic energy of the moving member or the potential energy given up by objects being lowered by hoists, elevators etc. The energy absorbed by brakes is dissipated in the form of heat. Disc brake is familiar automotive application where they are used extensively for car and motorcycle wheels. This is sandwiched between two pads actuated by pistons supported in a caliper mounted on the stud shaft. When the brake lever is pressed hydraulically pressurized fluid is forced into the cylinders pushing the opposing pistons and brake pads into frictional contact with the disc .Friction brakes act by generating frictional forces as two or more surfaces rub against each other. The stopping power or capacity of a friction brake depends on the area in contact and coefficient of friction of the working surfaces as well as on the actuation pressure applied.

Achievements:

Project Design Contests: --Applied in TEXAS,TNSCE

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201764

DESIGN AND FABRICATION OF SEMI AUTOMATIC WEEDER

FACULTY GUIDE: Mr.A.SELVAKUMAR

GUDIKIRA NKU

HARIHAR AN .M

HARIS

Miniproject Photo/ Block Diagram or schematic:

Figure 3.1: Details of Semi Automatic weeder

Abstract:

Weeds in the wet paddy field were plucked by manually with use of hand tools and collectively taken away during some years ago. Now-a-days weeds are being utilized as fertilizer. Manual weeder is a device which is having two cylindrical rollers is mounted on the metallic frame structure with handle. It's a push and pull type of operation where a person pushes the device in forward direction for about 3 feet and then pulls back for the same distance and the operation repeats accordingly. While pushing action, weeds are uprooted. While pulling action, those uprooted weeds are buried there itself.

Achievements:

Project Design Contests: --

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201765

FABRICATION OF REGENERATIVE BRAKING SYSTEM PROJECT

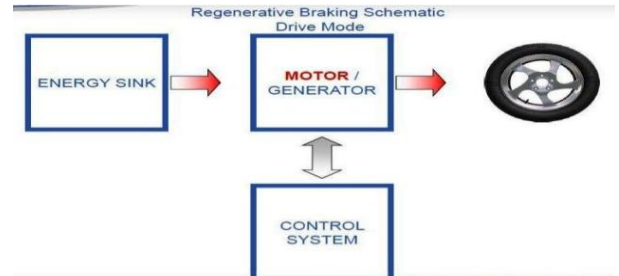FACULTY GUIDE: Mr.A.SELVAKUMAR

ABILESH. M.J

AKASH.M

DILLI BABU.N

Miniproject Photo/ Block Diagram or schematic:

❖ WORKING OF REGENERATIVE BRAKING SYS.

Abstract:

We are slowly reaching the age of electric vehicles. The major issue behind the mass use of electric vehicles is the battery charging time and lack of charging stations. So here we propose a regenerative breaking system. This system allows a vehicle to generate energy each time brakes are applied. The stronger the brakes, the more power is generated. We use friction lining arrangement in a brake drum. As a drum rotates the friction lining does not tough the drum As soon as brakes are applied, the friction lining touches the drum from inside and moves the motors connected to lining in same direction, thus generating electricity using motors as dynamo. Thus this system allows for charging car battery each time brakes are applied, thus providing a regenerative braking system. It moves us another step ahead towards a pollution free transportation system.

Achievements:

Project Design Contests: --Bitfutura selected

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201766

FABRICATION OF 3 DOF HYDRAULIC EXTRACTOR MINI JCB

FACULTY GUIDE: Mr.A.SELVAKUMAR

ARAVIND. D

LOGES H.V

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Hydraulic extractors are of great use in various construction as well mining industries. Due to heavy duty use, these mechanisms need hydraulic pistons to work. This mechanism allows these heavy duty machines to lift heavy weights and work in rough environments with ease. Here proposed project provides a working hydraulic excavator mechanism used for digging, mining, construction industry. We here demonstrate hydraulic piston mechanism by using syringes with liquid to achieve required hydraulic pressure for operating the excavator. We use 3 syringes to operate the excavator in 3 degrees of freedom. One for operating the bucket, one for operating the excavator in vertical direction and one for the base forward and backward. This also system consists of a base where additional mechanism can be integrated with it to achieve 4th degree of freedom, to move it in horizontal directions.

Achievements:

Project Design Contests: --Bitfutura selected

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201767

TITLE OF THE PROJECT: PEDAL POWERED ELECTRICITY GENERATOR PROJECT

FACULTY GUIDE: D.PREMKUMAR

Karthickraja

Karthick.V

Kiranganesh

Miniproject Photo/ Block Diagram or schematic:

Abstract :

Here we propose the design and fabrication of a pedal powered electricity generator system. Solar and wind energy are the most widely recognized source of renewable energy. But these energy sources depend on sun and wind to generate power which are very unreliable and change as per seasons. So here we propose a pedal powered electricity generator system that has the ability to generate power on demand. Our proposed system consists of a chain sprocket arrangement. We attach pedals to one part of the sprocket. This allows for pedal powered circular motion. Now we attach a generator motor at fixed length with a strong support.

Achievements:

Project Design Contests: BITFUTURA

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201768

TITLE OF THE PROJECT: MINI CONVEYOR BELT MECHANISM

FACULTY GUIDE: D.PREMKUMAR

Abishek

Lokeshwaran

Deepak.V.N

Miniproject Photo/ Block Diagram or schematic:

Abstract :

Here we study designing and fabrication of a smart conveyer belt system. Now the main parts of a conveyer belts are belt, frame, rollers, motor and supporting rods and shafts. There are a variety of conveyer belts, so we will be concentrating on a small products conveyer belt system that requires less power and works efficiently. For this we here use a small motor, with rollers and frame made to support rollers. We first use metallic frame made using metal strips and joints with small rods in between. We now drill holes through the frame sides to support rollers. Now the rollers are fitted through the frame using bearings. The mechanism is now fitted with frame end rollers made to run the belt. After this we mount the belt on the roller arrangement. The belt is fitted with appropriate intensity on the frame. Now we connect a motor to one of the rollers. The motor nor moves the roller which in turn moves the belt. This in turn moves the other rollers in order to move objects over it at desired speed. Thus we demonstrate the design and fabrication of a mini conveyer belt system.

Achievements:

Project Design Contests: BITFUTURA

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201769

TITLE OF THE PROJECT: PNEMATIC MATERIAL HANDLING SYSTEM

FACULTY GUIDE: D.PREMKUMAR

Dilipkumar

Harishkumar

Mohanrao

Miniproject Photo/ Block Diagram or schematic:
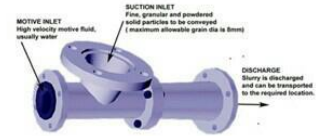
Figure 1 Pneumatic Material Handling System

Abstract :

Pneumatic conveying system is a conventional material handling system like belt conveyor or chain conveyor. The main advantage of pneumatic conveying system is that material is transferred in close loop, thereby preventing the environmental effect on the material and vice versa. In these topic different parameters like air velocity, pressure, particle size and shape, distance to be conveyed, which govern the design of the system, are described. The research work carried out on the pneumatic conveying system in the last decade considering these parameters are also presented.

Achievements:

Project Design Contests: BITFUTURA

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201770

TITLE OF THE PROJECT: PEDAL OPERATED HACKSAW

FACULTY GUIDE: D.PREMKUMAR

Shanmugam.V   Siva.J   Y.Saiharish

Miniproject Photo/ Block Diagram or schematic:
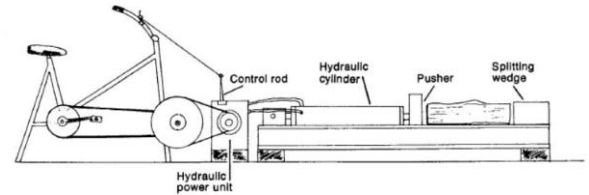
Abstract:

Operating a hacksaw manually is a very tiring and time consuming task. It requires a lot of manual effort and delivers uneven cutting. Operating a electrical hacksaw does deliver good results but consumes a lot of energy. So here we propose a semi automated hacksaw using pedal power. Here we design and fabricate a hacksaw that is run by pedal power and achieves even cutting with very less efforts. Here we use a chain sprocket arrangement to transfer power from pedals to hacksaw. A strong and firm base frame allows for efficient power transfer between the system. We use bearings and mounts to mount and setup the entire system and ensure a smooth circular motion of pedals. Now we attach a hub to the other sprocket. This hub is connected with a connecting rod which moves with the hub in order to produce a lateral motion. We now develop a supporting frame and connect a saw to the other end in order to achieve desired cutting movement of saw. We also attach some weight to the upper saw frame in order to have some load on the hacksaw for a cut through movement system.

Achievements:

Project Design Contests: BITFUTURA

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201771

TITLE OF THE PROJECT: ELECTROMAGNETIC BRAKING SYSTEM

FACULTY GUIDE: D.PREMKUMAR

Prakash.M.S

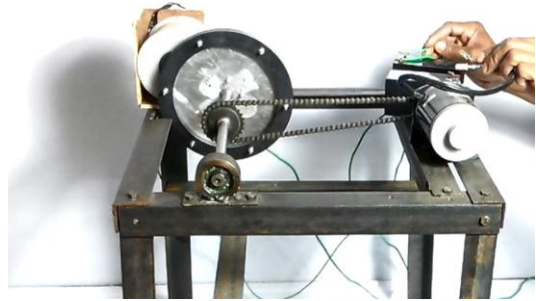Umashankar.S

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Electromagnetic braking means applying brakes using electronic and magnetic power. Here we use the principle of electromagnetism to achieve friction less braking. This tends to increase the life span and reliability of brakes since no friction leads to less wearing out of brakes. Also it requires less maintenance and oiling. This is an upcoming technological replacement for traditional braking systems. The main purpose behind the proposed use of these brakes in vehicles is that it is frictionless. This leads to a sizably less maintenance cost due to no friction and no oiling. Also traditional braking systems are prone to slipping while this one is guaranteed to apply brakes to the vehicle. So without friction or need of lubrication this technology is a preferred replacement for traditional braking. Also it is quite smaller in size compared to the traditional braking systems.To make electromagnetic brakes work, a magnetic flux when passed in a direction perpendicular to the rotating direction of the wheel, we see eddy current flowing in a direction opposite to the rotation of the wheel. This creates an opposing force to the wheel rotation and in turn slows down the wheel. Thus we achieve electromagnetic braking as a better braking system for future automobiles.

Achievements:

Project Design Contests: BITFUTURA

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201772

TITLE OF THE PROJECT: DETERMINATION OF THERMAL STRESS OF FUNCTIONAL GRAD COATED PISTON
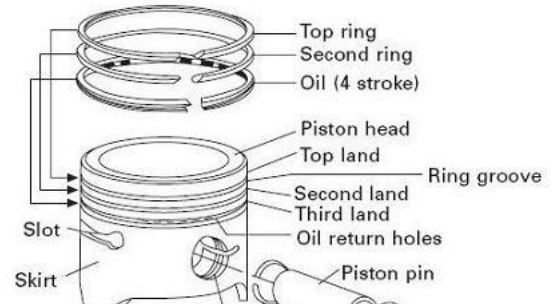
FACULTY GUIDE: D.PREMKUMAR

Nareshkumar

Sheik Mohamed tameem

P D.venkatesh

Miniproject Photo/ Block Diagram or schematic:

Abstract:

This project is aimed at improving the performance of diesel engine. Diesel engines burn fuel oils, which require less refining and are cheaper than higher-grade fuels such as petrol. During the combustion process, the stored chemical energy in the fuel is converted to the thermal, or heat, energy. The pressure in each cylinder is about 230 psi and creates engine power of about 55 BHP.During combustion the top surface of the piston faces the maximum temperature. Due to conduction, this heat is transferred throughout the piston. As heat is generated continuously in the piston surface, conduction takes place rapidly allowing more heat to be conducted to the piston. Due to this, some amount of heat which is to be combusted is lost to the piston. Also the piston tends to get expanded due to the high temperature of heat which is transferred to piston. In this study, a coating is done on the top surface of the piston to reduce the heat which is being transferred throughout the piston. Functionally graded materials which have a low thermal conductivity is been applied as coating to the top surface of the piston. Nano coating technology is obtained for the coating process. Thermal analysis is done on both the uncoated and coated piston and the stress results are compared. The thermal stresses obtained are compared with the numerically obtained values. The thermal stress of coated piston is found less than the uncoated piston which results in reduced heat transfer in the piston.rotation and in turn slows down the wheel. Thus we achieve electromagnetic braking as a better braking system for future automobiles.

Achievements:

Project Design Contests: BITFUTURA

Symposium: -

Publications: -

Social Media Reach:

Youtube : -

Facebook : -

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201773

TITLE OF THE PROJECT: **FEA ANALYSIS OF BICYCLE FRAME**

FACULTY GUIDE: MR.G VENKATKUMAR

Miniproject Photo/ Block Diagram or schematic:

Chandra sekar

Divakar

MADESH
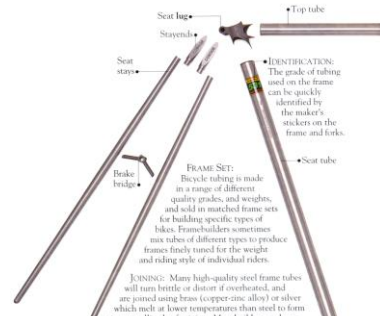
Abstract:

The main aim of the project is to analysis the bicycle frame. A bicycle is the most primitive forms of transportation and it consists of a frame attached to two tyres. A bicycle is still the main method of transportation in various parts of the world and cycle seems to be 'perfect' form of transportation for short to medium distances and being environmental friendly since it produces no toxic gases while working, a cycle can be termed as the cleanest means of transportation. However, there are certain sectors where the cycle can be improved further, for instance the material used in bicycle frame though a bicycle weighs between 19-15 pounds still we believe there is a room for weight reduction and also at the same time the traditional materials used (hot rolled steel or aluminum rods) are harmful to the environment as they are not easily bio-degradable. Therefore, there is a need to counter these two shortcomings the traditionally used hot rolled steel/aluminum rods

Achievements:

Project Design Contests

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201774

TITLE OF THE PROJECT: **ANALYSIS OF HELICAL COMPRESSION SPRING FOR TWO WHEELER**

FACULTY GUIDE: MR.G VENKATKUMAR

SASI KUMAR

SRIDHARAN

SELVAPRA KASH

Miniproject Photo/ Block Diagram or schematic:

Abstract:

The present work is carried out on modeling, analysis of suspension spring is to replace the existed steel helical spring used in popular two wheeler vehicle. The stress and deflections of the helical spring is going to be reduced by using the new material. The comparative study is carried out between existed spring and new material spring. Static analysis determines the stress and deflections of the helical compression spring in analytical as well as finite element analysis. The structural reliability of the spring must therefore be ensured. So for this purpose the static stress analysis using finite element method has been done in order to find out the detailed stress distribution of the spring. The analytical & finite element analysis carried out by changing cross sectional area of helical spring from circular to rectangular to check its feasibility. Finite element analysis methods (FEA) are the methods of finding approximate solutions to a physical problem defined in a finite region or domain. FEA is a mathematical tool for solving engineering problems. In this the finite element analysis values are compared to the analytical values. A typical two wheeler suspension spring is chosen for study. The modeling of spring is developed on pro/E 5.0 analysis is carried out on Ansys 14.

Achievements:

Project Design Contests

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201775

TITLE OF THE PROJECT: **ANALYSIS OF HELICAL COMPRESSION SPRING FOR TWO WHEELER**
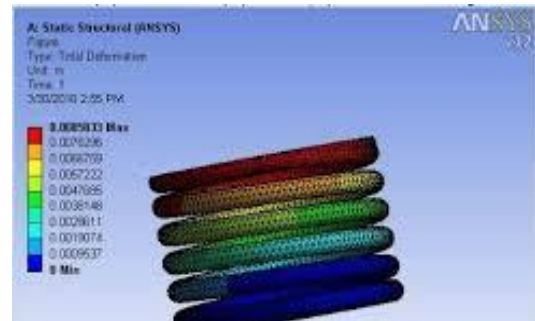
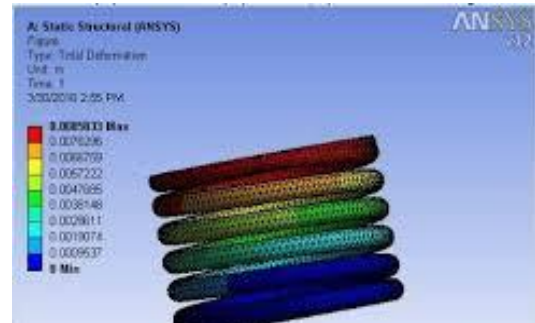FACULTY GUIDE: MR.G VENKATKUMAR

SASI KUMAR

SRIDHARAN

SELVAPRA KASH

Miniproject Photo/ Block Diagram or schematic:

Abstract :

The present work is carried out on modeling, analysis of suspension spring is to replace the existed steel helical spring used in popular two wheeler vehicle. The stress and deflections of the helical spring is going to be reduced by using the new material. The comparative study is carried out between existed spring and new material spring. Static analysis determines the stress and deflections of the helical compression spring in analytical as well as finite element analysis. The structural reliability of the spring must therefore be ensured. So for this purpose the static stress analysis using finite element method has been done in order to find out the detailed stress distribution of the spring. The analytical & finite element analysis carried out by changing cross sectional area of helical spring from circular to rectangular to check its feasibility. Finite element analysis methods (FEA) are the methods of finding approximate solutions to a physical problem defined in a finite region or domain. FEA is a mathematical tool for solving engineering problems. In this the finite element analysis values are compared to the analytical values. A typical two wheeler suspension spring is chosen for study. The modeling of spring is developed on pro/E 5.0 analysis is carried out on Ansys 14.

Achievements:

Project Design Contests

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201776

TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF SUSPENSION STEERING**

FACULTY GUIDE: MR.G VENKATKUMAR

HEMA KUMAR

KARTHIK T

HARTHIK

Miniproject Photo/ Block Diagram or schematic:
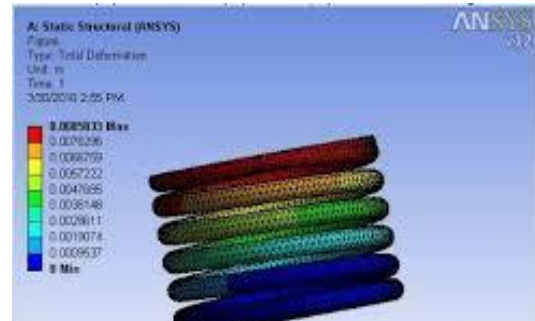
Abstract:

Suspension is the term given to the system of shock absorbers and linkages that connect a car to its wheels. The suspension system has two basic functions: 1) to keep the car's wheels in firm contact with the road to provide traction and 2) to provide a comfortable ride for the passengers and isolate them from road noise, bumps and vibrations.

These goals are generally at odds, so the tuning of modern suspensions is often finding the right compromise. A lot of the system's work is done by the springs. Under normal conditions, the springs support the body of the car evenly by compressing and rebounding with every up-and-down movement. This up-and-down movement, however, causes bouncing and swaying after each bump and is very uncomfortable to the passenger. These undesirable effects are reduced by the shock absorbers.

Achievements:

Project Design Contests

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201777

TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF COMPOSITE DRIVE**

FACULTY GUIDE: MR.G VENKATKUMAR

Miniproject Photo/ Block Diagram or schematic:

ARVINDKUMAR

ASHWINKUMAR

MATHEW

Abstract:

This paper is design and analysis of composite drive shaft. Substituting composite structures for conventional metallic structures has many advantages because of higher specific stiffness and strength of composite materials. This work deals with the replacement of conventional steel drive shafts with a composite drive shaft. The design parameters were optimized with the objective of minimizing the weight of composite drive shaft. Advanced composite materials can be defined as combination of materials appropriately arranged using reinforcing fibers, carefully chosen matrixes, and sometimes auxiliary materials like adhesive core and other inserts. These combinations after proper manipulation and processing result in finished structure/item with synergistic properties i.e. properties achieved after fabrication cannot be obtained by individual components acting alone. FEM methods play a significant role in analyzing of Composite materials. Present work is conducted to analyze the composite drive shaft by the FEM software ANSYS 14.5.Results and graphs will be recorded and presented in the documentation.

Achievements:

Project Design Contests

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- ME201778

TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF HELICAL SPRING WITH DIFFERENT MATERIAL**

FACULTY GUIDE: MR.G VENKATKUMAR

MOHAMMED SHERIEF

CHINNARAS

HARIHARAN

Miniproject Photo/ Block Diagram or schematic:

HELICAL COMPRESSION

Conical

Constant Pitch

Barrel
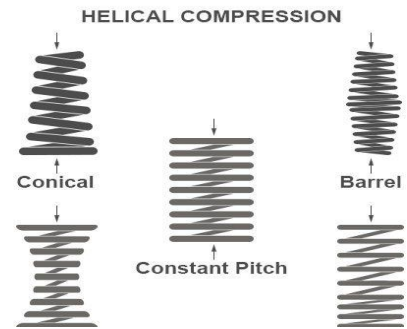
Abstract:

Automotive chassis is the important component of an automobile. The chassis works as a frame work for supporting the body and different parts of the automobile. Also, it should be stiff and rigid to withstand the shock, twist, vibration and stresses. Along with strength, an important consideration in chassis design is to have adequate bending stiffness for better handling characteristics. So, maximum equivalent stress, equivalent strain, deformation, safety factor & etc are important criteria for the design of the chassis. The Modeling and Analysis of automobile chassis is done.

Achievements:

Project Design Contests

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- MECH 59

TITLE OF THE PROJECT: Automatic Mechanical
Garage Door Opener

FACULTY GUIDE: SARMAJI KUMAR P

R SANTHOSH
KUMAR

M SANTHOSH

VARTHA RAJAN

Miniproject Photo/ Block Diagram or schematic:
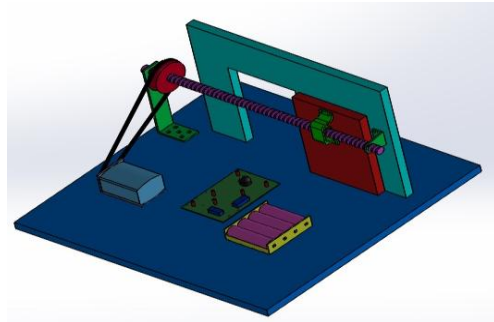
Abstract:

Here we propose a fully automatic garage door opener project system. To achieve the design and fabrication of an automated garage door opener system we use a large screw with fabricated door belt, pulley, connecting rods, fixtures, mounts, motor and supporting frame. Proposed system will use a fabricate mini door mounted on the threaded screw to efficiently transfer motor power for achieving radial motion of the door. We use a pulley and belt arrangement in order to drive the screw by transferring motor power to the screw. The screw rotation moves the door in desired direction using threading. We use a switch to run the motor in desired direction for both way motion.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- MECH 59

TITLE OF THE PROJECT: Design and fabrication of mechanical hydraulic jack

FACULTY GUIDE: SARMAJI KUMAR P

AUSTIN

GANESH MOORTHY

VARTHA RAJAN

Miniproject Photo/ Block Diagram or schematic:

Abstract:

A jack is a device that uses force to lift heavy loads. The primary mechanism with which force is applied varies, depending on the specific type of jack, but is typically a screw thread or a hydraulic cylinder. Jacks can be categorized based on the type of force they employ

Mechanical or hydraulic. HYDRAULIC JACKS depend on force generated by pressure. Essentially, if two cylinders (a large and a small.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- MECH 59

TITLE OF THE PROJECT: Design & Fabrication of Pedal Operated Hack Saw

FACULTY GUIDE: SARMAJI KUMAR P

Miniproject Photo/ Block Diagram or schematic:

SOORAJ

PRATHIP

SARATH

Abstract :

Operating a hacksaw manually is a very tiring and time consuming task. It requires a lot of manual effort and delivers uneven cutting. Operating a electrical hacksaw does deliver good results but consumes a lot of energy. So here we propose a semi automated hacksaw using pedal power. Here we design and fabricate a hacksaw that is run by pedal power and achieves even cutting with very less efforts.

Here we use a chain sprocket arrangement to transfer power from pedals to hacksaw. A strong and firm base frame allows for efficient power transfer between the system.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- MECH 59

TITLE OF THE PROJECT: Design & Fabrication of Pedal Operated Jick saw

FACULTY GUIDE: SARMAJI KUMAR P

IMTHIYAZ

PRASANTH

HARISH

Miniproject Photo/ Block Diagram or schematic:

Abstract:

Operating a hacksaw manually is a very tiring and time consuming task. It requires a lot of manual effort and delivers uneven cutting. Operating a electrical hacksaw does deliver good results but consumes a lot of energy. So here we propose a semi automated hacksaw using pedal power. Here we design and fabricate a hacksaw that is run by pedal power and achieves even cutting with very less efforts. Here we use a chain sprocket arrangement to transfer power from pedals to hacksaw. A strong and firm base frame allows for efficient power transfer between the system.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- MECH 59

TITLE OF THE PROJECT: Design & Fabrication of Pneumatic Auto feed Drilling Machine

FACULTY GUIDE: SARMAJI KUMAR P

Miniproject Photo/ Block Diagram or schematic:

BALACHANDAR

JEEVA

KANNAN

Abstract:

Insmallscaleindustriesandautomobilemaintenanceshops,therearefrequentneedsoftighteningandlooseningofscrews,drilling,boring,grindingmachine.Hugeandcomplicateddesignedpartscannotbemachinedwiththehelpofanordinarymachineandfurtherforeveryoperationseparatemachineisrequiredthereforeincreasingthenumberofmachinesrequiredandincreasingthearearequiredforthemtobeaccommodatedandhenceoverallinitialcostrequiredisincreased.

Inasinglemachinealltheabovespecifiedoperationcanbecarriedout,i.e.,afterdrilling,thedrillheadisremovedfromthebarrelkeyandtherequiredtoolslikegrindingwheels,boringtooletc.,canbeattached,andtheoperationcanbeperformed.Bytheapplicationofpneumatics,thepneumaticcylinderwithpistonwhichisoperatedbyanaircompressorwillgivethesuccessiveactiontooperatethismachine.Bythiswecanachieveourindustrialrequirements.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- MECH 59
TITLE OF THE PROJECT: Design & Fabrication of PneumaticJack

Miniproject Photo/ Block Diagram or schematic:

FACULTY GUIDE: SARMAJI KUMAR P

ANBARASAN

AJITH

GOKULNATH

Abstract:

A jack is a device that uses force to lift heavy loads. The primary mechanism with which force is applied varies, depending on the specific type of jack, but is typically a screw thread or a hydraulic cylinder. Jacks can be categorized based on the type of force they employ

Mechanical or hydraulic. PNEUMATIC JACKS depend on force generated by pressure. Essentially, if two cylinders (a large and a small)

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

MINIPROJECTS 2017-18
ODD SEMESTER

16.09.2017

Department	Mini project Coordinator	Domain	No. of Mini projects	Total
BIOTECH	Mr.K.Cholapandian	Microbiology	2	28
		Chemical Engineering/Environmental	5	
		Industrial biotechnology	3	
		Bioinformatics	4	
		Environmental Engineering	4	
		Biopharmaceutical technology/Bioprocess	3	
		Downstream processing	4	
		Bioprocess Engineering	3	

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID: BT-II-01
TITLE OF THE PROJECT:
Microbial production for enhancement of
plant growth

FACULTY GUIDE:
Dr.P.Dhasarathan

Aparna

Nithica
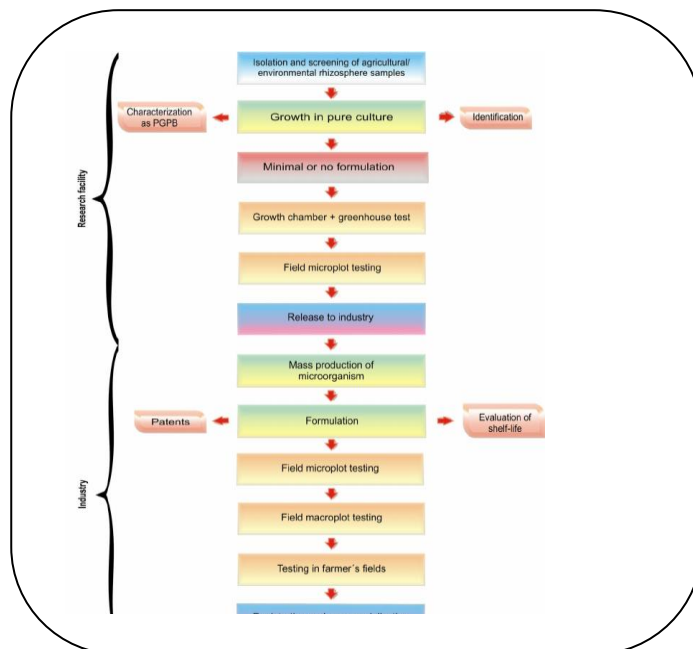
Bacteria that colonize plant roots and promote plant growth are referred to as Plant Growth- Promoting Rhizhobacteria (PGPR). Rhizhobacteria act as a plant growth promoter in soil. Rhizhobacteria have been related to pathogen control and indirect promotion of growth in many plants. Rhizhobacteria belonging to the genera Pseudomonas and Bacillus are well known for their antagonistic effects and their ability to trigger Induced Systemic Resistance (ISR). Rhizhobacteria are the important group of bacteria used in biofertilizers. Plant growth promoting Rhizhobacteria (PGPR) were first defined by Kloepper and Schroth. Rhizhobacteria are able to control diseases that are caused by other bacteria and fungi. The two major classes of relationships are Rhizospheric and Endophytic. Rhizospheric relationship consist of the PGPRs that colonize the surface of the root or superficial intracellular spaces of the host plant, forming root nodules. Endophytic relationship involves the PGPRs residing and growing within the host

Achievements:

Project Design Contests: Nil

Symposium: 1

Publications: On process

Social Media Reach:

Youtube: -

Facebook: 2780 reach

TEAM ID: BT-II-02
TITLE OF THE PROJECT:
Plant growth promotion using panchakavya

FACULTY GUIDE:
Dr.P.Dhasarathan

Charumathy. S

Nagavasutha. R

Ingredients of Panchakavya

Cow dung | Cow urine | Cow ghee | Milk
Water | Cow curd | Jaggery | Tender coconut | Well ripened

Panchagavya is a term used to describe five majour substances, obtained from cow, which include cow's urine, ghee, milk, curd and dung. All the five products possess medicinal properties against many disorders and are used for the medicinal purpose singly or in combination with some other herbs. This kind of treatment is called "*Panchagavya*" therapy or "*Cowpathy*". It is a system of medicine just like as homeopathy,allopahy or naturopathy. These substances are abundantly used in Ayurveda for treatment of several disorders such as leucoderma, hyperlipidemia, arthritis, renel disorders, dietary disorders, gastrointestinal track disorders, acidity, asthma etc. The panchagavya products have excellent agricultural applications in the form of biofertilizers, vermicompost, and biopesticides, which improves soil fertility and provide food grains free from the health hazards of using chemical fertilizers/pesticides. And the aim of the project is "Cellular Multiplication Using Panchagavya"

Achievements:

Project Design Contests: Nil

Symposium: 1

Publications: On process

Social Media Reach:

Youtube : -

Facebook : 2780 reach

TEAM ID: BT-II-03
TITLE OF THE PROJECT:
Extraction of lavender oil to cure Insomnia

FACULTY GUIDE:
Mr.K.Cholapandian

Priyadharshini

Gayethri. K

       This study is to examine the effects of lavender and rosemary essential oil aromatherapy on anxiety and depression. Mental disturbances, insomnia occur in people of all countries, societies and in all ethnic groups, regardless socio-economic order. Patients with chronic head ache, insomnia, depression and anxiety were high users of CAM-Complementary and alternative medicine. Aromatherapy is a holistic method of treatment, using essential oils. The lavender and rosemary essential oils help in reducing anxiety disorders and stress. The rosemary and lavender oils are collected by solvent extraction and readymade from markets respectively. The extract is first tested on live mice (Mus muculus). And then it is tested by the regular usage by humans and finally the extract is made into a product by using a dispenser

Achievements:

Project Design Contests: Nil

Symposium: 1

Publications: On process

Social Media Reach:

Youtube :

Facebook: 2780 reach

TEAM ID: BT-II-04
TITLE OF THE PROJECT:
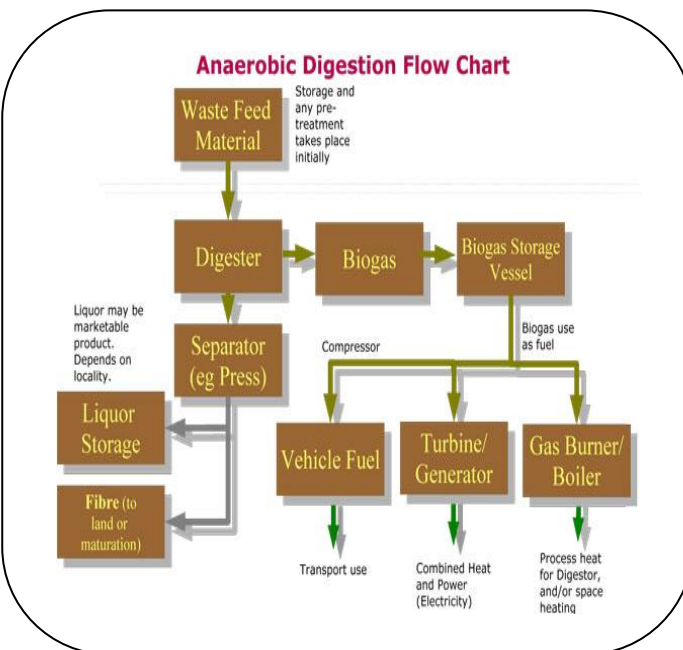Analysis of methanogens and extraction of methane biologically

FACULTY GUIDE:
Mr.K.Cholapandian

Yuktha. S

Hemamalini. S

Anaerobic Digestion Flow Chart

Methanogens are microorganisms that produce methane as a metabolic by product in anaerobic conditions. Based on this theory, for the collection of methanogen strains that are potent to grow under facultative anaerobic condition, we collected cow dung and prepared slury using water and allowed the methanogens of the ruminants to breed for 20 days. The strains isolated from this was inoculated into sewage sample . In the basis of surface fermentation, we bred the methanogens over the nutrients available in the sewage sample. It was seen that after 30 days the strains from the sample responded to be methanogens . This proved that methanogens could be utilized for treatment of sewage. Secondly we collected the gas that being emitted from the sewage sample treatment in air balloons. Our thesis is that the gas emitted during sewage treatment by the methanogens could be methane. From days we collected ppm of methane gas. Thus by this project we accomplished in the production of methane biologically.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-IV-01
TITLE OF THE PROJECT:
Bio-plastics from food waste

FACULTY GUIDE:
Mr.K.Cholapandian

Anitha.A. D

Arthi. S

Gayathri. S

Bio plastics using bio-based polymers (starch) can be used as a substitute for the normal conventional plastics. The conventional plastic provides functions that cannot be economically replaced by other materials. In order to minimize the use of conventional plastics, the bio plastics can be produced .This bio plastics production involves usage of food wastes as source. The food containing the bio molecules can be easily bio degraded, so that the bio plastics synthesized from the food wastes should also be bio degraded .According to BPI (Biodegradable products institute), a biodegradable material is one that can be broken down by microbes at environmental conditions. When the bio plastics are used and thrown away, they can be utilized by microbes and degraded. These degraded materials can also act as a bio manure and helps plants grow better. So this project deals with the synthetic method to produce bio plastics. In this project we have used banana peels and potato starch to produce bio plastic.

Achievements:

Project Design Contests: 1

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube : -

Facebook : 2780 reach

TEAM ID: BT-II-11
TITLE OF THE PROJECT:
Mosquite repellent activity of essential oil

FACULTY GUIDE:
Mr.K.Cholapandian

S.Abirami

T. Sindya

Classic recipe

Modified recipe

3 garlic bulbs

1 gallon of water

Peel garlic.
Wash peppers.
Place garlic (with pepper)
in a blender.
Cover with water 1/2
or 2/3 full.

1 gallon of water

2 tbsp of veg oil

2 hot peppers

Puree the ingredients.
Pour the water to form 1 gallon.
Keep a concentrate in cool
and dry place.
Dilute 1/4 cup of garlic
concentrate in 1 gallon of water.

2 garlic

The chemical composition of the essential oil can be obtained from the leaves of Plectranthus amboinicus, with the yield of 80%, which can be analyzed by GC and GC/MS. It holds a total of 16 constituents, representation of the oil. The major components of the oil are fenchone , piperitone oxide, piperitenone and piperitenone oxide . The repellent activity of the Volatile oil at different concentrations can be measured by the protection period against the bites of Anopheles stephensiand Culex fatigans. The tested oil would have a stronger repellent activity than citronella oil, which is originally used as a positive control. Thus, Plectranthus amboinicus can be regarded as a potential valuable source of chemicals that have strong mosquito repellent activity, and could be used for the preparation of mosquito repellent formulations.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :-

Facebook : 2780 reach

TEAM ID: BT-IV-03
TITLE OF THE PROJECT:
Kitchen waste digesters

FACULTY GUIDE:
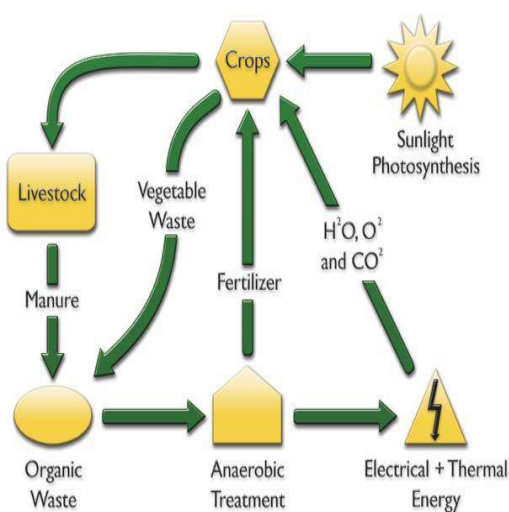Mr.K.Cholapandian

Balaji. S. S

Priyanka. R

Vinoth. P

Food consumption increases day by day and so does the edible waste. Around 7-10 kg of edible waste per family is being dumped over a period of 5-7 days, of which vegetables and fruit wastes accumulate up to 70%. Large amount of kitchen waste (Vegetables and Fruits) are being dumped in bins and wastelands. These kitchen wastes can be converted into nutrient rich manure and can be used in Farmlands, Rooftop Gardening & Organic Farming practices. Prolonged usage of chemical fertilizers such as N, P and K has resulted in acidification of the top soil and has also contaminated the ground water which in turn affects the environment. Involved in the interest of Agriculture and its practices, a reactor has been fabricated to produce dry manure from kitchen waste. This manure is purely eco-friendly, completely biodegradable and is economically attractive.

Achievements:

Project Design Contests:2

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :-

Facebook : 2780 reach

TEAM ID: BT-II-05
TITLE OF THE PROJECT:
Bio ethanol from vegetable peels

FACULTY GUIDE:
Dr. M. Thenmozhi

Pavithra. Y

Suganya. S
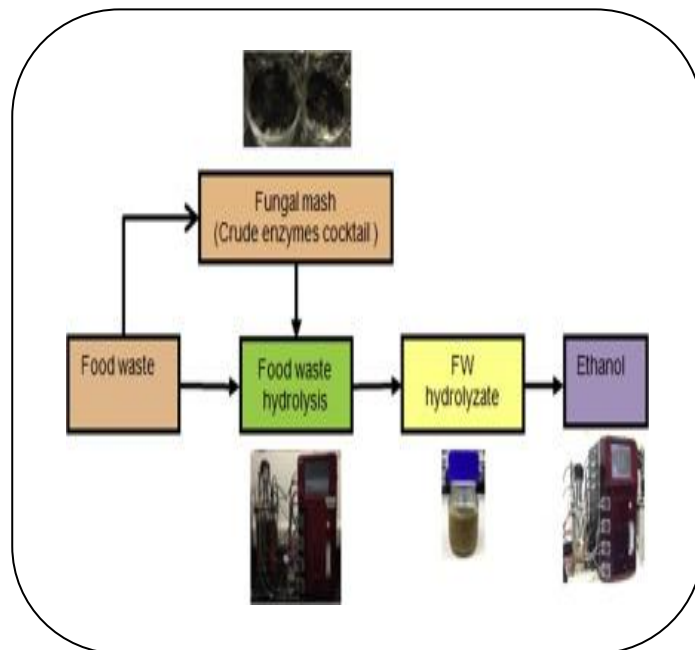
Bioethanol is one of the energy sources with high efficiency and low environmental impact. Vegetable peels (potato, carrot, beetroot, yam is a zero value waste produced by processing plants. Bioethanol produced from the vegetable peels has a large value potential market. Vegetable peels contain sufficient quantities of starch, cellulose, hemicellulose and fermented sugars to warrant use as an ethanol feedstock. In the present day studies vegetable peels are fermented by *Saccharomyces cerevisae* to determine the fermentation and ethanol production. *S. cerevisae* is an interesting microorganism with good prospects in the future of yeast bioethanol production. The results demonstrate that vegetable peels contain high potential for ethanol production. This study concludes with some suggestions for future work in an attempt to reach commercial production of bioethanol at the lowest possible costs.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-07
TITLE OF THE PROJECT:
Analysis of various extracts for controlling air borne bacteria

FACULTY GUIDE:
Dr. M. Thenmozhi

Hooreen. D

Subashini. S

The air has various micro organisms including various pathogens. When the microbial load of the air is severely increased, it may affect the human health and the whole ecosystem. It may develop air borne diseases. Hence the micro organisms in air must be treated periodically for the safe existence of life. In the present investigation, the air sample is collected from the storage cupboards of bioprocess laboratory at PEC, Tiruvallur. Before the treatment of air, the bacterial population is determined by open plate technique. Then the cupboards are treated with various aqueous extracts of Pomogranate peel (Punica granatum), curry leaves (Murraya koenigii), dry ginger (Zingiber official roscoe), lemon peel (Citrus lemon.L). The effectiveness of pomogranate peel extract was found to be 90.66%. Finally the extracts are formulated into product by using polyacrylate beads with extract. It can be exposed in various environments to treat pathogens naturally.

Achievements:

Project Design Contests: Nil

Symposium: 1

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-06
TITLE OF THE PROJECT:
Pigment extraction from microorganism

FACULTY GUIDE:
Dr. M. Thenmozhi

Keerthana.S
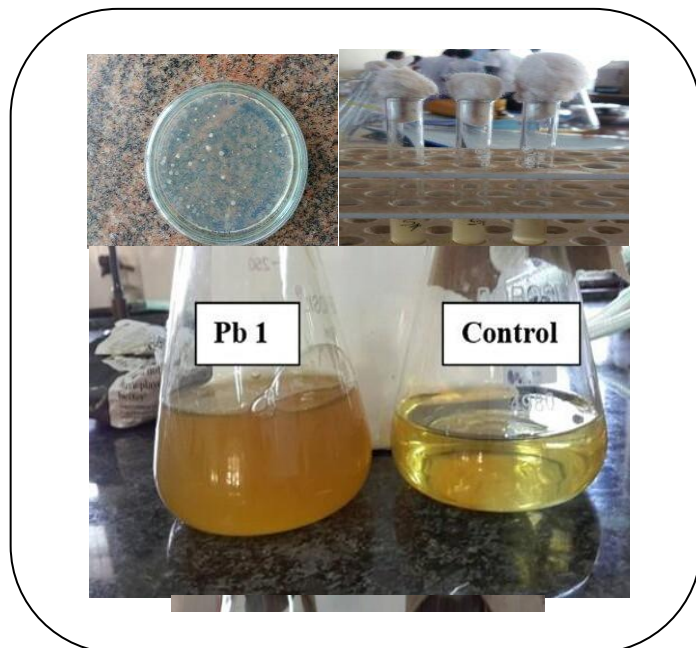
The microorganisms which are isolated was known to be pseudomonas.sp. It is a genus of gram negative, aerobic gammaproteobacteria. Then the formed pigment was extracted through the liquid liquid extraction,under various conditions for the growth of the microorganism in the nutrient broth. The main objective of the study is to analyse the pigmented microorganism which is isolated from the air for better additives in the food

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-IV-06
TITLE OF THE PROJECT:
Rhabdovirus carpio inhibition by
molecular docking

FACULTY GUIDE:
Dr. A. Praveena

G. Subashini

B. Sudarmathi

C. Sindhudevi

Spring viraemia of carp is also known as the swim bladder inflammation which is commonly caused by the group of viruses called Rhabdovirus (*Rhabdovirus carpio*). These groups of viruses are common threat to the aquatic organisms which causes hemorrhaging, pale gills, and ascites to various groups of carps. These are zoonotic disease causing virus, which has the ability to spread from animals to humans. These viruses infects the major fish groups like silver carp, grass carp, crucian carp, and others like guppies and zebra fish. The infections are majorly found in the liver and kidney region that even lead to the mortality of the aquatics, may lead to decrease in the aquatic population. Aim of this project is to inhibit the *Rhabdovirus carpio* by the active compound oleuropein extracted from olive leaf using molecular docking studies. Thus, the inhibition of virus reduces the mortality rate of common fish that helps in the human food chain.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-IV-07
TITLE OF THE PROJECT:
A plant based drug for amoebic
liver abscess

FACULTY GUIDE:
Dr. A. Praveena

Trupti Omkar

Dharanyaa

Bhagyashree

Myocardium receptor-alangicine complex
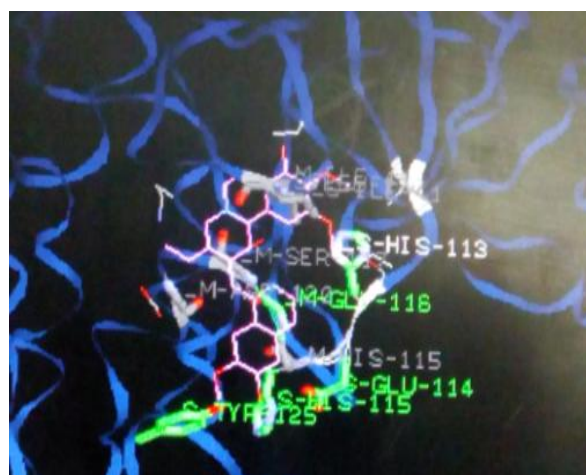
The aim is to find the alternative plant based drug for Amoebic Liver Abscess using Molecular Docking. Amoebic Liver Abscess is caused by the organism *Entamoeba histolytica*. Emetine is the alkaloid remains one of the best drug for treating amoebic Liver Abscess. It has direct action on Trophozoites. Even though it has the potential to eliminate *Entamoeba histolytica*, it can cause severe side effects like cardiac toxicity, bloody diarrhoea, damage to myocardium and even death. To eliminate such side effects, herbal alternative to emetine was chosen and Molecular Docking was done to predict the molecular similarity between herbal alternative from Alangium *salviifolium Thwaites* (source) and emetine in binding with myocardium receptors. The structure of myocardium receptor was modelled using GENO3D tool and iGEMDOCK tool was used for docking alangicine (herbal alternative) with myocardium receptor. Using molecular docking, a herbal antagonist of emetine was predicted.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-IV-06
TITLE OF THE PROJECT:
Molecular docking for the inhibition of
Rhado virus carpio

FACULTY GUIDE:
Dr. A. Praveena

Anitha A.D

Arthi S

Gayethri S

The Ebola virus is a negative stranded, membrane enveloped filovirus. The onset of Ebola viral disease occurs between 4 to 10 days of incubation due to uncontrolled viral replication. There is no approved therapeutics or vaccines for this disease. The RNA linear genome is 18-19kb in size and encodes for a total of 10 proteins seven structural proteins and three non structural proteins. The non structural protein includes -peptide , ssGP, SGP. The structural proteins include VP24, VP30, VP35, VP40, Glycoprotein, RNA POL L. This project deals with the docking of specific protein VP24 of Ebola virus with the ligand molecule derived from plant sources.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-IV-05
TITLE OF THE PROJECT: Designing of lead molecule for the treatment of Tay sach's disease

FACULTY GUIDE:
Dr. A. Praveena

Reena. S

Vimala

a) Normal pathway
b) Pathway in individuals with Tay–Sachs disease

Ceramide
GalNAc — Gal — Glc
NAN
Ganglioside G_{M2}

Enzyme N-acetylhexos-aminidase A (Hex-A)

Ceramide
Gal — Glc + GalNAc
NAN
Ganglioside G_{M3}

Ceramide
GalNAc — Gal — Glc
NAN
Ganglioside G_{M2}

Enzyme Hex-A nonfunctional

Ganglioside G_{M2} accumulate and causes Tay–Sachs disea

GalNAc = N-acetyl-D-galactosamine
Gal = Galactose
Glc = Glucose
NAN = N-acetylneuraminic acid
Ceramide = An amino alcohol linked to a fatty acid

Docking is a method which is used to bind one molecule to another to form a complex. This is also used to predict the binding affinity between two molecules using scoring function. The main target we choose is N-acetyl hexosaminidase which causes Tay sach's disease due to its inactive function. It causes blindness, nerve problem etc in infants because it is an inborn disease. The main objective of the project is to make the enzyme function by making changes in the active site so that it helps in breakdown of the ganglioside using in-silico methods.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-05
TITLE OF THE PROJECT:
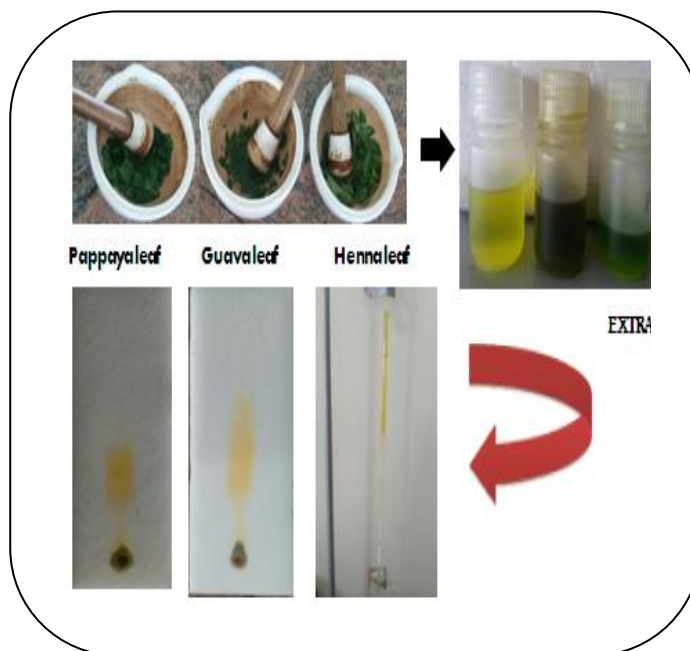Extraction and separation of pigments by
TLC and column chromatography

FACULTY GUIDE:
Dr. S. Sathya

Genesha

Prathinisha

Pappayaleaf   Guavaleaf   Hennaleaf

EXTRA

Increases in reports of health hazards and toxicity of synthetic colorants are driving the food industry towards applying natural colorants to an increasing number of processed food products. The attention that natural dyes and pigments are getting is due to the functional properties attributed to some of these colorants. Although synthetic dyes and/or pigments have lower production costs and greater stability, the number of synthetic additives permitted in developed countries is decreasing every year; this increases the usage of antioxidant colorants, such as carotenoids and anthocyanins by the food processing industries. The main objective of this work was to extract the pigments of leaves (papaya, guava, henna).It is followed by the separation techniques namely ThinLayer Chromatography and Column chromatography. Guava, papaya, henna leaves has many applications in the field of medicine. Use of these pigments as substitute in the food industry may serve as a boon to the consumers.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-07
TITLE OF THE PROJECT:
Extraction and hydrolysation of aloe vera gel for foot ulcer treatment.

FACULTY GUIDE:
Dr. S. Sathya

S. Gayathri

Manoritha. G

Aloe vera is one of the oldest known medicinal plants but it is now realized that many of its active constituent may be addressed in different ways by different formulations. There are many bioactive compounds present in Aloe but there is need of an appropriate and standard method to extract these active components from plant material. Along with conventional methods, numerous new methods have been established but till now no single method is regarded as standard for extracting bioactive compounds from Aloe vera. Aloe vera gel was extracted and hydrolysed at different concentration. Hydrolysed gel was brown in colour and very viscous in nature.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-08
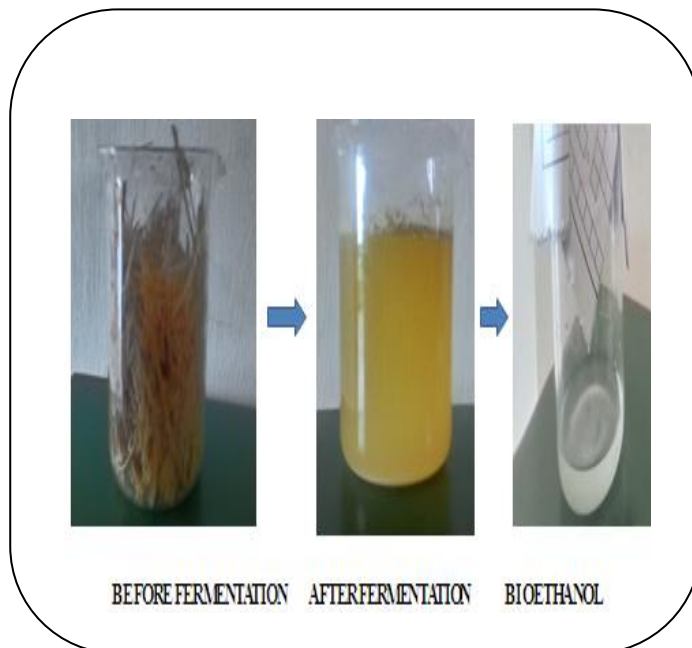TITLE OF THE PROJECT:
Bioethanol production from sugarcane waste

FACULTY GUIDE:
Dr. S. Sathya

M.Raghunath

K.M.Praveen

BEFORE FERMENTATION   AFTERFERMENTATION   BIOETHANOL

After the discovery of fossil fuels, we rely upon them for our day to day activities. But these fossil fuels won't last long as we expect it to last, scientists and geologists predict that fossil fuels would last for next 30 years. Due to the increased demand for fuel, there is a need to find an alternative source to meet the needs of people. Hence biofuel is a reliable source, bio fuel possess both fuel properties and does not pollute the environment. Fermentation process is employed for the ethanol synthesis. Enzymes and fungi *Saccharomyces cerevisiae*, *Aspergillus niger* plays a vital role in the fermentation process. The sugarcane baggase is initially pretreated with NaOH, KOH, $Ca(OH)_2$,among which NaOH is more effective on bagasse. Thus the obtained bioethanol can be used for sterilizing working space in laboratory. Large quantities of ethanol can be synthesized by this process. Hence this process is more efficient since the baggase can be obtained easily.

Achievements:

Project Design Contests: Nil

Symposium: 1

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-09
TITLE OF THE PROJECT:
Analysis of bioactive compound from
Colecus aromartics

FACULTY GUIDE:
Dr. S. Sathya

G.Navaraj

P.S.Padmanaban

Medicinal plants are a plant which contains medicinal properties.Bioactive compounds is respondible for most of medicinal properties. Bioactive compounds are compounds that have an effect on cells or tissues. Bioactive compounds can cause numerous effects; they can stimulate, cause anxiety, or intoxicate. Bioactive compounds in plants are compounds produced by plants having pharmacological or toxicological effects in man and animals. It has also antimicrobial property. The aim of our experiment is to extract bioactive compounds coleus aromaticus. Fresh Leaves of coleus aromaticus were collected. Crude extract was prepared using the leaves. The reqiured leaf extract was obtained using soxhlet apparatus. The extract was subjected to thin layer chromatography and bioactive compounds were seperated.

Achievements:

Project Design Contests: Nil

Symposium:1

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-III-04
TITLE OF THE PROJECT:
Soil analysis of paddy cultivation field
before and after cultivation

FACULTY GUIDE:
Ms.Divyalakshmi

Padma .G

Yamini .C

Naavarasi

Soil physicochemical properties, soil microbial biomass and bacterial community structures in a rice-wheat cropping system subjected to different fertilizer regimes were investigated in two seasons (June and October). Soil microorganisms respond quickly to environmental changes, resulting in dynamic changes in microbial biomass, activity, diversity, abundance and composition. Microbial biomass, activity and diversity are effective indicators of soil quality and health. The rice-wheat cropping system is one of the main cropping systems for cereal food production in India. Understanding the bacterial community in response to the different fertilizer treatments and seasonal variations will help us disclose the ''real'' effect of fertilizer regimes and guide us in selecting an appropriate management practice for more stable and sustainable agro-ecosystem for food production.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube:

Facebook: 2780 reach

TEAM ID: BT-III-01
TITLE OF THE PROJECT:
Antiseptic soap production (homemade)
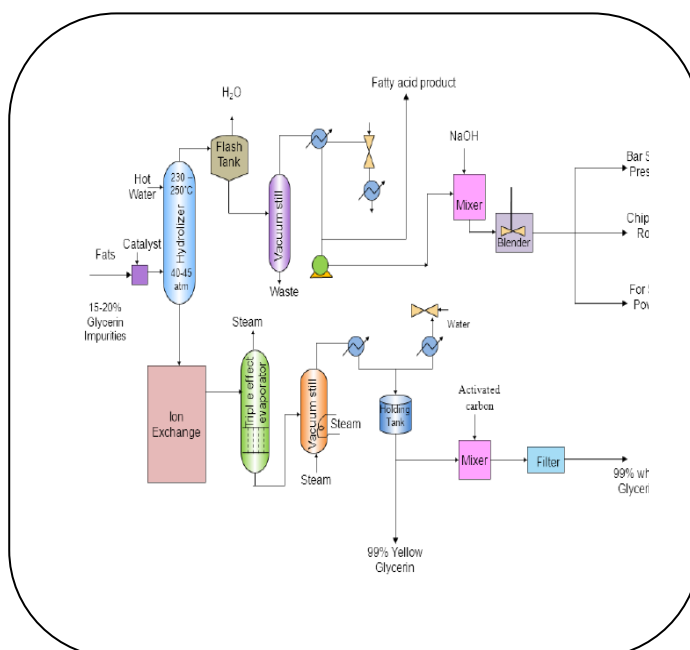
FACULTY GUIDE:
Ms.Divyalakshmi

Suriyadaisy

Sruthi .R

Dharshini

An antibacterial soap is designed to safely kill germs and cleanse the skin. We must therefore consider the types of organisms the product should be effective against and how much time is required for the product to work. We must also consider factors related to cleansing such as foam quality, speed of foaming, rinsability, and skin feels, to name a few. In addition, the product's aesthetic qualities must also be evaluated. Sweet potato (*Ipomoea batatas L.*) is a widely grown crop in tropical countries as food and feed, and a good source of energy, minerals and vitamins. It is a source of antioxidative polyphenols such as anthocyanins and phenolic acids Sweet potato, Almond oil, Tree essential oil, Thyme essential oil, and marigold flowers are the main ingredients we use. The "commercial" soaps that may be labeled as "natural" are actually chemicals and artificial fragrance but the home made antiseptics soap may contain the pure natural essential oil and the high rich beta carotene and the natural essence.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-III-02
TITLE OF THE PROJECT:
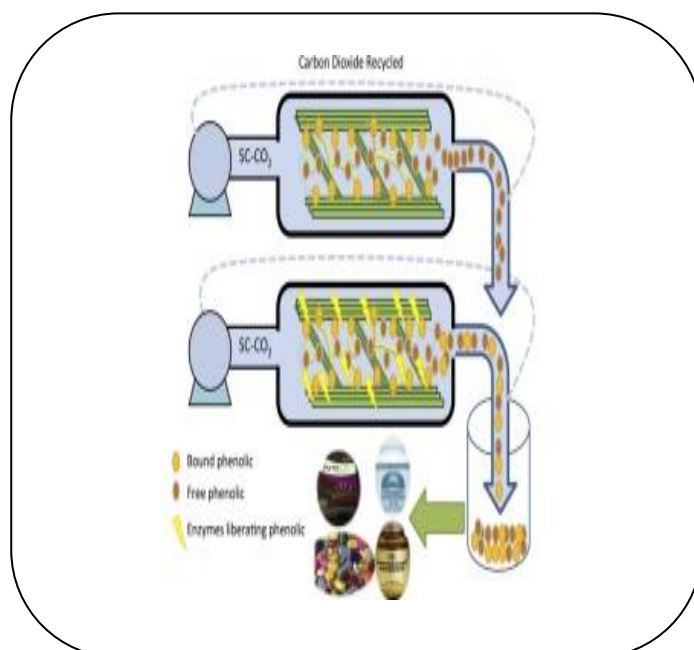Extraction of antioxidant from pomegranate peel.

FACULTY GUIDE:
Ms.Divyalakshmi

Aishwarya .R

Keerthika .B

Pomegranate (*Punka granatum*) is an important source of bioactive compounds and has been used for folk medicine for many centuries. In this study, we extracted antioxidants from pomegranate peel, using a mixture of ethanol, methanol and acetone, and the antioxidant properties of the extract were further investigated as compared with the pulp extract. The contents of total phenolics, flavonoids, proathocyanidins and ascorbic acid were also measured. The pomegranate peel extract have markedly higher antioxidant capacity than the pulp extract in preventive capacity against superoxide anion, hydroxyl and peroxyl radicals as well as inhibiting $CuSO_4$-induced LDL oxidation. The contents of total phenolics, flavonoids and proathocyanidins were also higher in peel extract than in pulp extract. The large amount of phenolics contained in peel extract may cause its strong antioxidant ability compared to the pulp.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-III-08
TITLE OF THE PROJECT:
Dehairing of leather by using plant extract (Kuppeimeni)

FACULTY GUIDE:
Mrs.Ponjayanthi

Arpitha

Aswini

Kiruthiga.S

Leather is made from animal skins or hides which have been chemically treated to preserve quality and natural beauty. The chemical procedure used to ready raw animal hides for use is called "tanning." A piece of hide or skin which has been tanned produces a strong, flexible leather which is able to resist decay and spoilage. Hair is removed by chemical digestion with Lime and sodium sulphide solution, Hairless hides are then neutralized with acids and treated with enzymes, Removes deposits, Increases softness.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-IV-09
TITLE OF THE PROJECT:
Enriched colour panner from fruits and vegetables

FACULTY GUIDE:
Mrs.Ponjayanthi

T.Murugeshwari

J.Naveena

Tharani

Paneer - obtained by heat treating the milk followed by acid coagulation using suitable acid viz. citric acid, lactic acid, tartaric acid, alum, sour whey soft varieties of cheese family and is used in culinary dishes/snacks. About 5% of milk produced in India is converted into *paneer*

Its body and texture must be sufficiently firm to hold its shape during cutting/slicing, yet it must be tender enough not to resist crushing during mastication, i.e. the texture must be compact and smooth. Its colour and appearance must be uniform, pleasing white, with a greenish tinge in the case of buffalo milk *paneer* and light yellow in the case of cow milk *paneer*

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-IV-08
TITLE OF THE PROJECT:
Single cellular protein production using
Aspergillus niger.

FACULTY GUIDE:
Mrs.Ponjayanthi

Manishkumar

Vinoth .P
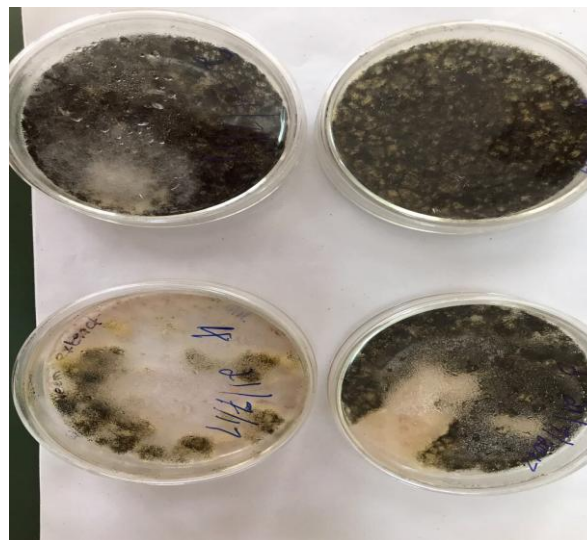
The isolation of Aspergilus niger is done by three series of serial dilution of potato dextrose agar medium along with chloramphenicol sterilized in autoclave at 121°c for 30 mins The first serial is about 10-6 and for the isolation of *Aspergilus niger* we took chloramphenicol. Chloramphenicol is an antibiotic which will help in the growth of fungus but inhibit the growth of other microorganisms.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-III-03
TITLE OF THE PROJECT:
Extraction and optimization of essential oil from Ixoracoccines and analysis.

FACULTY GUIDE:
Mrs.Ponjayanthi

Mahalakshmi   Sabarilakshmi   Bhavadharani
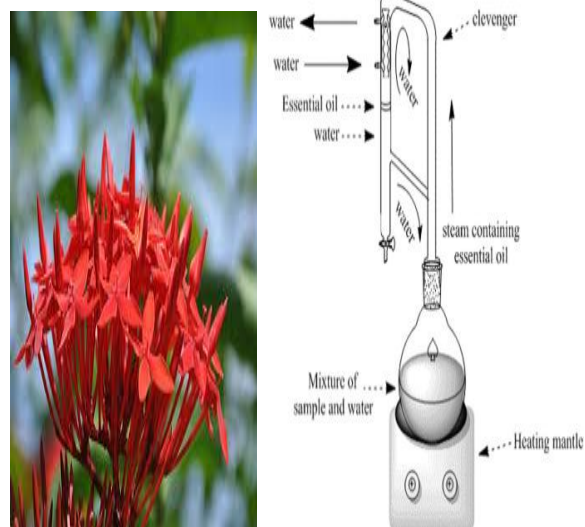
Ixora coccinea is regarded as flower of India. Its commonly available plant they differ in leaf size, plant height, flower size and flower color. This plant which blooms throughout the year is easy to grow And oil contents in this plant is of good grade. Volatile oil (or Essential oil) is a pure oil extracted from plants. It can extracted from the seeds, flowers,leaves, fruits, bark, wood, roots which is a liquid with a complex chemical composition and varies in each species. Essential oil is extracted by hydro distillation method. A miniplant was created in extracting the essential oil of *Ixora coccinea* using hydro-distillation method. The miniplant produce the essential oil till the end products will mix with water.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-III-5
TITLE OF THE PROJECT:
Extraction of fuel from plastics

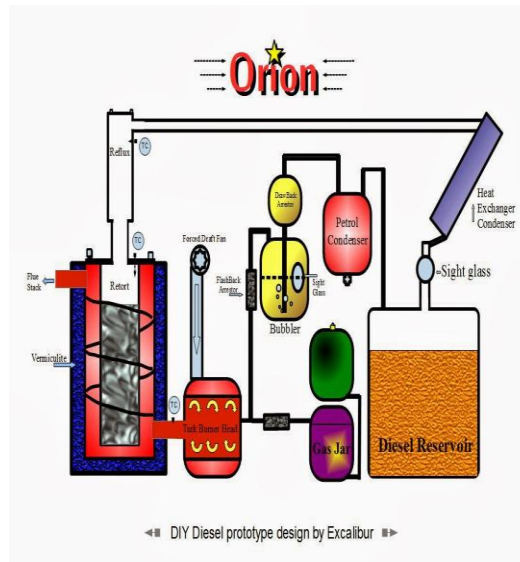**FACULTY GUIDE:**
Ms. Joyce Hellen Sathya

Dharani

Divya

Murfath yasin

DIY Diesel prototype design by Excalibur

Plastic recycling is the process of recovering scrap or waste plastic and reprocessing the material into useful products. Since the vast majority of plastic is non biodegradable, recycling is part of global efforts to reduce plastic in the waste stream, especially the approximately eight million metric tonnes of waste plastic that enters earth's ocean every year. This helps to reduce plastic pollution. Our project works on recycling plastic waste based on pyrolysis process in which plastic is being melted in the absence of oxygen and the vapours are condensed to form a liquid which may be a fuel. In our work the plastic was melting and simultaneously large amount of vapours were passing through condenser. But it failed to condense. Instead, it started to form a sludge settling in the condenser. And char of the plastic is also produced as a product. Thus we are trying to progress our work by taking sludge to be used as a concrete. And the char collected is to be purified and convert into activated charcoal.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-14
TITLE OF THE PROJECT: Suitabiliy of delonix regia and syzygium cumini seeds for the production of biodiesel

FACULTY GUIDE:
Ms. Joyce Hellen Sathya

Devisubha sree. S

Dharshini

Nandhini

The impact on fossil fuels of creating environmental pollution has necessitated the search for alternative energy source. The various researches have proved biodiesel was an suitable substitute for fossil fuels and can be used for transportation. The scientist was found that edible food crops and non edible crops used as an feedstock for the production of biodiesel. The Delonix regia (Gulmohar), Syzygium cumini (Jamun) was selected as a feedstock for the production of biodiesel. Here we comparatively analysis the edible and non edible feedstock for the biodiesel production. The oil was upgraded by trans-esterification process using sodium hydroxide as an catalyst. The biodiesel produced in non edible feedstock is high than edible feed stock by using the ratio of 6:1 molar ratio of propanol and extracted oil. The yield was around 78% in Delonix regia and 50% in *Syzygium cumini*.

Achievements:

Project Design Contests: Nil

Symposium:1

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

TEAM ID: BT-II-13
TITLE OF THE PROJECT:
Screening and isolation of pigment producing bacteria

FACULTY GUIDE:
Ms. Joyce Hellen Sathya

Anusuya. M

Banupriya

Jerin joshna.

INTRODUCTION

EXTRACTION OF PIGMENTS

ANTIBACTERIAL ASSAY

SAMPLE COLLECTION

PIGMENT PRODUCTION &GROWTH

RESULTS & DISCUSSIONS

MEDIA PREPARATION

ISOLATION AND IDENTIFICATION

CONCLUSION
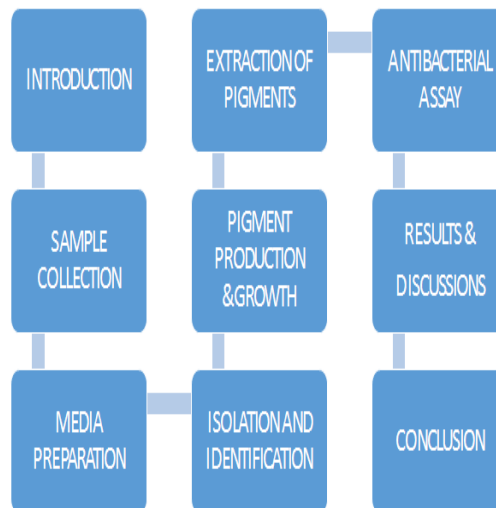
Bacterial pigments have many applications in current day to day life. Bacteria produce pigments for various reasons and it plays an important role. The pigments produced by chromobacteria can be used for applications in dairy, pharmaceutical, food etc. Some bacteria such as cyanobacteria have phycobilin pigments to carry out photosynthesis. Other example for pigment-producing bacterial strains includes Serratia marcescens that produces prodigiosin, Streptomyces coelicolor (prodigiosin and actinorhodin), Pseudomonas fluorescence (pyoverdine) and Thialkalivibrio versutus (natronochrome and chloronatronochrome).

Achievements:

Project Design Contests: Nil

Symposium: 1

Publications: On process

Social Media Reach:

Youtube :

Facebook : 2780 reach

MINIPROJECTS 2017-18

ODD SEMESTER

16.09.2017

Department	Miniproject Coordinator	Domain	No. of Mini projects	Total
CIVIL	Dr.S.Seetharaman	Structural Engg	12	**21**
	Mrs.S.Vallabhy	Structural Engg		
	Mrs.M.Monitha	Environmental Engg	8	
	Mr.G.Kumaresan	Construction Management	1	

CHIEF GUEST

Dr. K. Balasubramanian - Managing Director

Hi-tech Concrete Solutions Chennai Pvt. Ltd

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-S06
TITLE OF THE PROJECT: IDENTIFICATION OF CRACKS
AND PREVENTION IN BUILDINGS

FACULTY GUIDE: Dr.S.SEETHARAMAN

R.SAIPRIYA

K.UTHRA PRIYADHARSHINI

1. TO IDETIFY THE CRACKS IN THE EXSISTING BUILDING.

2. TO MEASURE THE CRACKS INTERMS OF GROWTH, DEPTH, WIDTH.

Abstract:

Concrete is a construction material consists of hard, chemically inert particulate substances known as aggregate, that is bonded together by cement and water which gives strength, rigidity and resilience to the structure. However, all the concrete building may undergo some type of cracks which can be either small or large depending upon the different criteria. The so formed cracks may be classified as structural and non structural cracks. Cracks are mainly formed due to volume changes in concrete, repeating load , soil characteristics. Thus, the clear knowledge of behaviour of the concrete in its different states (hardened and plastic) and the soil characteristics in the chosen site would enormously help us to have a crack-free structure.

In the present case study, mechanical engineering laboratory in "PRATHYUSHA ENGINEERING COLLEGE" is chosen. The building has two floors in which, the first floor serves as multi-purpose hall and the ground floor serves as lab. The chosen building, lab, has many structural and non-structural cracks. The genesis of this crack will be studied and probable measure to overcome these cracks will be suggested. And also, attempts will be made to measure the crack to see its propagation, information regarding its growth, depth and width may be found.

Achievements:

Project Design Contests:

Symposium:

Publications: On Process

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-EQ01
TITLE OF THE PROJECT: DESIGN AND DETAILED
ESTIMATION OF RETAINING WALL

FACULTY GUIDE: Mr.A.ADHAVAN

A.AADITHYAN

M.ARUNKUMAR

N.MANOHAR

1. TO DESIGN A COURSE RUBBLE RETAINING WALL.

2. TO DETAILED ESTIMATE OF COURSE RUBBLE RETAINING WALL.

Abstract:

An experimental and theoretical study was conducted to assess the maximum tensile forces mobilized in a reinforced earth retaining wall, subjected to a vertical surcharge strip load or the combined action of vertical and horizontal surcharge strip loads. A simple design method for determining the maximum magnitude of the tensile force and its distribution with depth of the reinforced earth backfill was developed. The design method takes into consideration the ability of the reinforced earth wall system to retain its internal equilibrium by stress transfer from overstressed regions to those regions where the reinforcing elements have not yet reached their full frictional or strength capacity. The effect of the magnitude and location of the strip load on this phenomenon of stress transfer is shown. Favorable comparisons were obtained between the results given by the proposed design method and those from model tests. Key words: reinforced earth, vertical and horizontal surcharge strip load, reinforcing elements, internal stability, and stress transfer.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-T01
TITLE OF THE PROJECT: A STUDY ON WATER
ABSORPTION ROAD

FACULTY GUIDE: K.BRUNDHA

L.ASHOK

GOKUL SRIRAM.T

HARSHA.D

1. TO STUDY ABOUT WATER ABSORBTION
ROAD

2. TO STUDY ABOUT THE MATERIALS USED
FOR THESE TYPES OF ROAD.

Abstract:

Could it be the end of flooded roads? It has discovered a potential solution to this problem. They have invented an innovative material that can soak up to 880 gallons of water a minute, which could either eliminate or reduce the threat of flash flooding. This new material, called Topmix Permeable allows the water to soak through to the ground below. Tarmac says its product could be used in everything from parking lots to tennis courts to residential roads as a viable solution to greater flooding as global warming takes hold. So, how does this concept work? The concrete has a permeable layer on the surface, made up of large pebbles so water can drain almost instantly. Under that layer is an 'attenuation layer', which pushes the water into a drainage system that connects with the city's groundwater reservoirs. So, the water is directed straight back into the system for irrigation, drinking water, swimming pools, and firefighting purposes.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-T03
TITLE OF THE PROJECT: A STUDY ON USES OF WASTE PLASTIC IN PAVEMENT CONSTRUCTION

FACULTY GUIDE: K.BRUNDHA

ROHIT BABU.D

SARATHKUMAR.J

SARAVANAN.K.R

SATHEESH.S.R

1. TO STUDY HOW TO USE WASTE PLASTIC IN PAVEMENT.

2. IDENTIFY THE MATERIALS AND PROPORTIONS.

Abstract:

The plastic wastes could be used in road construction and the field tests withstood the stress and proved that plastic wastes used after proper processing as an additive would enhance the life of the roads and also solve environmental problems. Plastic use in road construction is not new. It is already in use as PVC or HDPE pipe mat crossings built by cabling together PVC (polyvinyl chloride) or HDPE (high-density poly-ethylene) pipes to form plastic mats. Waste plastic is ground and made into powder; 3 to 4 % plastic is mixed with the bitumen. The durability of the roads laid out with shredded plastic waste is much more compared with roads with asphalt with the ordinary mix. The use of the innovative technology not only strengthened the road construction but also increased the road life as well as will help to improve the environment and also creating a source of income.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

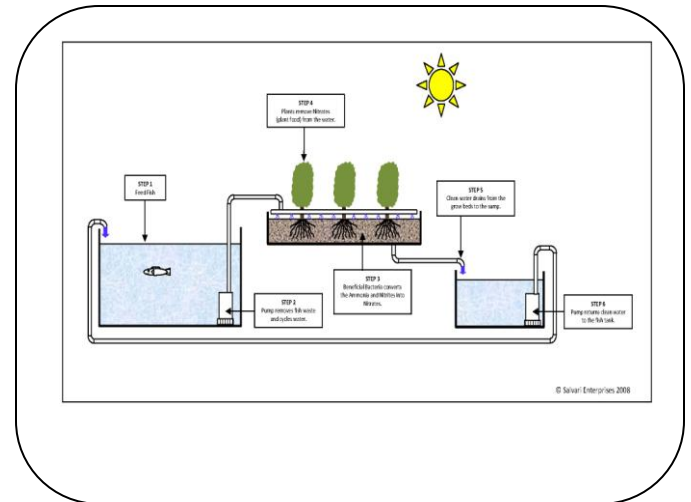**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID-E02

TITLE OF THE PROJECT: AQUAPONICS

FACULTY GUIDE: A.FAIZUNEESA

R.Gowtham

H.Dinesh Kumar

A.Dinesh

Abstract:

Aquaponics is the combination of Aquaculture and Hydroponics. Hydroponics requires expensive nutrients to feed the plants as well as periodic flushing of the systems which can lead to waste disposal issues. Re-circulating aquaculture needs to have excess nutrients removed from the system which can ordinarily means that a percentage of the water is removed on a daily basis. That nutrient rich water then needs to be disposed of and replaced with clean fresh water. Aquaponics allows you to produce fish and plants in the one system with a large reduction in water use.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-
TITLE OF THE PROJECT : Comparison of water quality analysis ground water and air conditioned water

FACULTY GUIDE: A.FAIZUNEESA

R.AADITHYAN

V.JAIKUMAR

S.MADHAN KUMAR

V.ALEX PANDIYAN

• TO ANALYSE THE AIR CONDITIONER WATER.

• TO ANALYSE THE GROUND WATER.

• COMPARISON OF GROUND WATER AND AIR CONDITIONER WATER.

Abstract:

Human life, as with all animal and plant life on the planet, is dependent upon water. Not only do we need water to grow our food, generate our power and run our industries, but we need it as a basic part of our daily lives - our bodies need to ingest water every day to continue functioning .so water is making the important role in human life. By this project we want to convey that extracted water from air conditioner is not waste water, we can use that also for the other domestic purposes. In this project we are comparing the ground water and extracted air conditioner water. The following water qualities like pH, dissolved oxygen, total dissolved solids, hardness, acidity, alkalinity etc. are compared and represented. Through which we should beware of such activities i.e air conditioner water can be used for domestic purpose also

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- S10

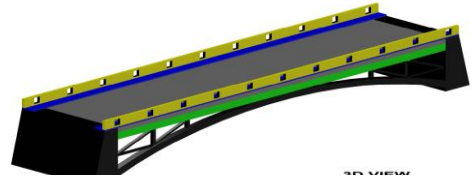TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF FIXED REINFORCED CONCRETE (RC) ARCH BRIDGE**

 FACULTY GUIDE: S.KARUPPASAMY

M.RAHUL GOND

S.RANJITH

K.VIJAY KUMAR

R.VAIRAP RAKASH

Abstract:

        At present paper the fixed reinforced concrete arch bridge with small section members which are designed with erection by staging. The analysis of the bridge is done by consistent deformation method.

        The present model of bridge is a semi circular arch bridge of length 140 m and width 25m, height of 45m, with arch span 124 m and arch rise 42.5m. The thickness of arch rib members is determined as 2 m and the thickness of the side trusses as 1m. The type of foundation provided is Caisson foundation the whole side view of the bridge is shown below.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-S04
TITLE OF THE PROJECT: DESIGN OF PRESTRESSED
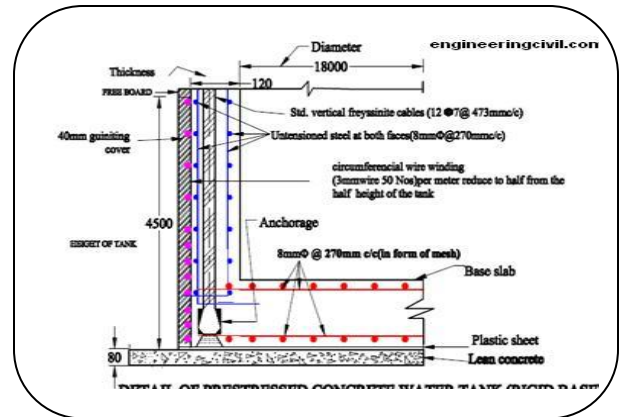CONCRETE STRUCTURAL MEMBER

FACULTY GUIDE: Mr.K.MUTHUKUMAR

SUMITHRA.K   VISHALINI.S   DIVYA.G   NETHRA.D

Abstract:

Prestressed concrete present work focus on different structural members (i.e. leakage, crack of member) and behavior of prestressed concrete structural members which can be used for storing the high temperature liquid.

In this project, the design of main components of prestressed concrete structural members is divided into 3 parts - beams, columns, Roof slab. This project presents advance research made on components of prestressed concrete structural members which helps for designing the structural members as it is not included in IS code 3370. This project also deals with seismic effect on prestressed concrete structural members.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-E03
TITLE OF THE PROJECT: SOLAR WATER
PURIFICATION SYSTEM

FACULTY GUIDE:Mrs.M.MONITHA

M.GAYATHRI   K.KAVISREE   M.MENAGA

Abstract:

The lack of clean drinking water is a problem that plunges many areas of the world today. Approximately 884 million people suffer each day from insufficient quantities of clean drinking of water. Most of the current technologies available to combat this problem are expensive and consume too much power. The system that do not consume an excess of power generally require expensive and time consuming filter maintenance.With an idea of low cost , we plan to develop a water purification system that will take advantage of natural energy. In order to save energy and decrease costs, water will enter system manually, eliminating the need for a pump. We plan to use photovoltaic technology. With the help of two container and a PVC pipe, we done this project. A container is filled with polluted water and connected with one end of a pipe. The other end of the pipe is connected to the empty container. The empty container is maintained in a low temperature. The polluted water gets heated and passes through pipe as vapour and gets cool and the purified water gets collected in the empty container.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

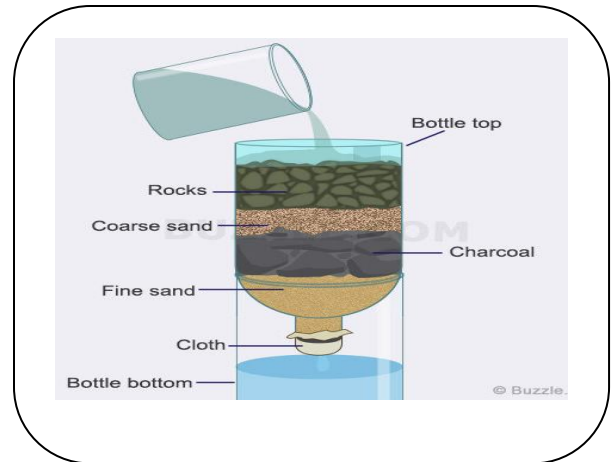**MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017**

TEAM ID-E05
TITLE OF THE PROJECT: WATER PURIFICATION SYSTEM

FACULTY GUIDE: Mrs.M.MONITHA

S.PRADEEPKUMAR

K.SHRIRAM

C.SRINIVASAN

Abstract:

Water purification is the process of removing undesirable chemicals, biological contaminants, suspended solids and gases from water. The goal is to produce water fit for a specific purpose. Most water is disinfected for human consumption (drinking water), but water purification may also be designed for a variety of other purposes, including fulfilling the requirements of medical, pharmacological, chemical and industrial applications. The methods used include physical processes such as filtration, sedimentation, and distillation; biological processes such as slow sand filters or biologically active carbon; chemical processes such as flocculation and chlorination and the use of electromagnetic radiation such as ultraviolet light.So in this project we are going to analyse the methods of purifying water and produce an effective purifying system that fulfills the objectives given below.The main objectives of the project are to produce filters that:Can effectively remove bacteria and other contaminants from drinking water, Are easy for people to use, Are easy for local potters to produce, Are of little or no cost to users,

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- E07
TITLE OF THE PROJECT: REPAIR, REROUTE AND REHABILITATION OF BUCKINGHAM CANAL

FACULTY GUIDE: Mr.P.RAJKUMAR

B.PRAVEENKUMAR

A.RAHULRAJ

S.SHANKAR

Abstract:

The Buckingham canal in Chennai had the capacity to carry up to 5,600 cubic feet per second (cusecs) of water when it was intact. Had the integrated water system linking the canal and other rivers/waterways across Chennai been kept alive, it would have spared Chennai the crisis the historic city is facing today. Many irrigation and drainage systems built over the last 100 years have suffered from a chronic lack of maintenance, resulting in canal networks that cannot deliver sufficient water. By this stage, deferred maintenance is not effective – comprehensive rehabilitation and modernisation is needed. This entails a hydraulic design review (possibly increasing capacity), improving water level control, water distribution and flow measurement by building new canal structures or modifying existing ones, lining canals as required and installing canal performance monitoring equipment. The objective of the study would be to ensure effective abatement of pollution and protection of Buckingham Canal, providing proposal for effective management of solid waste and sewerage management, to check the structural safety and hydraulic adequacy of all the drains in the project.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- E06
TITLE OF THE PROJECT: AN EXPERIMENTAL STUDY
ON CHARACTERIZATION OF CONTAMINATED
GROUND WATER BY LECHATE AROUND MUNICIPAL
LANDFILL-THIRUVERKADU, CHENNAI

FACULTY GUIDE: Mr.P.RAJKUMAR

M.AJITHKUMAR	R.DHANUSH	P.K.KARTHICK YADAVA	K.MANOJ LAL

Abstract:

Landfill leachate treatment is a major engineering challenge due to the high and variable concentrations of dissolved solids, dissolved and colloidal organics, heavy metals and xenobiotic organics. On-site leachate treatment systems are an attractive alternative to reduce the cost and environmental risk of hauling leachate to off-site treatment facilities. Proper characterization of leachate, backed by treatability studies (bench tests or pilot studies) is helpful to select a reliable leachate treatment facility that can effectively accommodate variable influent characteristics. Applicable technologies for on-site leachate treatment include a variety of physical/chemical processes as well as biological processes. This study will describe the suitability of biological processes for treatment of young and intermediate leachate

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-G03
TITLE OF THE PROJECT: IMPROVEMENT OF BEARING
CAPACITY OF SOIL BY GROUTING

FACULTY GUIDE: Ms.T.SARANYA

R.BALAJI

M.JAYAKEER
THI

MANUVARI
ER

1. TO DETERMINE THE NATURE OF THE SANDY SOIL PARTICLES.
2. TO DETERMINE THE DEGREE OF THE SANDY SOIL COMPATIBILITY.
3. TO CARRY OUT THE IMPROVEMENT OF SANDY SOIL THROUGH GROUTING.
4. TO CARRY OUT SOME LABORATORY TEST ON SANDY SOIL SUCH AS COMPACTION TEST CALIFORNIA BEARING RATION (CBR) TEST, ATTERBERG LIMIT TEST, LIQUID LIMIT TEST, PLASTIC LIMIT TEST, SIEVE ANALYSIS TEST IN COMPARING THE EFFECTIVENESS OF GROUTING SYSTEM.

Abstract:

The constructional activities in some particular areas often demand deep foundations because of the poor engineering properties and the related problems arising from weak soil at shallow depths. The very low bearing capacity of the foundation bed causes shear failure and excessive settlements. Further, the high water table and limited depth of the top sandy layer in these areas restrict the depth of foundation thereby further reducing the safe bearing capacity. This paper discusses grouting as one of the possible solutions to the foundation problems by improving the properties of soil at shallow depths by using sodium silicate.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-S03
TITLE OF THE PROJECT: EARTHQUAKE
RESISTANCE DESIGN OF RCC BUILDING

FACULTY GUIDE: A.FAIZUNEESA

V.NANDHINI

PARIMALAP
RIYA.U

POORNIMA.
V.S

VAISHALLI.G

Abstract:

The development of new codes for earthquake-resistant structures has made possible to guarantee a better performance of buildings when they are subjected to seismic actions. Therefore, it is convenient that current codes for design of building become conceptually transparent when defining the strength modification factors and assessing maximum lateral displacements, so that the design process can be clearly understood by structural engineers.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-S02
TITLE OF THE PROJECT: DAMPING IN STRUCTURES-
METHODS OF DETERMINATION

FACULTY GUIDE: MRS.S.VALLABY

THURIMELLA NAGA SRI CHANDANA

Abstract:

Damping is an energy absorbing mechanism in the structure which leads to failure in the structures. Estimating the damping in the structures comprising of various materials is a vast challenge. Because of safety and comfort concerns, the vibration analysis (also named modal analysis) is very important for many structures, such as cars, trucks, spacecrafts, and bridges. The main objective of the project is to find the damping ratio and natural frequencies of the beams in a structure using lab view software .this modal is analyzed using ETABs software. In this an external damping is introduced on a framed structure. Damping frequencies and vibrations and resonance frequencies are studied using lab VIEW software. Further the modal is analyzed by ETABs software.

Achievements:

Project Design Contests:

Symposium:

Publications: On Process

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-S01
TITLE OF THE PROJECT : DYNAMIC BEHAVIOUR OF HERITAGE STRUCTURES

FACULTY GUIDE: Mrs.S.Vallaby

N.PREMKUMAR | S.RAJASEKAR | S.ROKESH | R.P. SUKUMARAN

Abstract:

The conservation of archaeological heritage is of major importance for preserving the scientific, ethnographic and artistic values of past cultures. Once archaeological sites were exposed they were subjected to natural hazards, which should be studied with up-to-date techniques. This study evaluates the dynamic behavior of a heritage brick masonry building. For this purpose non linear time history analysis is done by using SAP2000. Different mode shapes with their corresponding natural frequencies and stresses are obtained. These stresses are compared with the permissible stresses given in code of practice for unreinforced masonry structures.

(IS1905-1987).

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID- TP01
TITLE OF THE PROJECT: SMART CITY DEVELOPMENT

FACULTY GUIDE: Mrs.K.S.DIVYA

R.TAMILSELVAN

PARAMESHWAR TUDU

J.RAJESH

Abstract:
Smart Cities Mission is the most ambitious project of the Central government in which, the government has targeted to develop 100 smart cities across the country. about 20 cities have been selected in the first batch of the Smart Cities Mission to set up Special Purpose Vehicles (SPVs) with municipal corporations. Full-time CEOs, CIOs and CFOs have been appointed for this.

After a delay of two years, the Chennai smart city project is finally going to start in year 2017. Main aim under Chennai smart city project will be in focussing on traffic issues in the state Under the project

In order to make Chennai as a smart city, the Greater Chennai Corporation has invited the applications for CEO & CFO posts in Chennai Smart City Limited (CSCL), the special purpose vehicle tasked with the project's implementation. This project will be implemented Rs. 518 crore worth solutions related to water management and information communication technology and Rs. 848 crore worth retrofitting solutions for T Nagar.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-S08
TITLE OF THE PROJECT: DESIGN OF TWO WAY SLAB

FACULTY GUIDE: MS.P.SARALA

S.ABISHEK

V.ARUNKUMAR

E.DAKSHINAMOORTHY

T.S.HEMANTH

Abstract:

Two-way slabs subjected mostly to uniformly distributed loads resist them primarily by bending about both the axis. However, as in the one-way slab, the depth of the two-way slabs should also be checked for the shear stresses to avoid any reinforcement for shear. Moreover, these slabs should have sufficient depth for the control deflection. Thus, strength and deflection are the requirements of design of two-way slabs.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube : - Yes

Facebook : -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-S09
TITLE OF THE PROJECT: A STUDY ON SANDWICH
PANEL

FACULTY GUIDE: Ms.P.SARALA

S.SANJAY

S.R.SATHEESH

G.S.SHYAM SUNDAR

K.VASANTH

Abstract:

Honeycomb sandwich structure combines high flexural rigidity and bending strength with low weight. Sandwich construction plays an increasing role in industry, and sandwich structural designing is an available method for sandwich structures..

The structure and mechanical properties of honeycomb sandwich panels are introduced. The weight ratio range of honeycomb core that is deduced on the basis of optimum mechanical properties offer a principle foundation for designing the structure of honeycomb sandwich panels. The satisfying weight condition of the honeycomb core weight is 50–66.7% of the weight of the whole honeycomb sandwich panels by theoretical analysis. Based on that conclusion, the honeycomb sandwich panels were designed and the results were verified by further experiments. Agreement between the theoretical values of the sample and experimental results is good.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes

MINIPROJECT EXHIBITION DATED 16TH SEPTEMBER 2017

TEAM ID-E12
TITLE OF THE PROJECT: INTERLINKING OF WATER BODIES IN CHENNAI

FACULTY GUIDE: Mr.G.KUMARESAN

| A.SHEKELAHI | N.VEERASEL VAM | S.VIGNESH KUMAR | V.YUVARAJ |

Abstract:

The interlinking of rivers is a major endeavor to create additional storage facilities and transfer water from water-surplus regions to more drought-prone areas through inter-basin transfers. Interlinking of major rivers in India, aims at modifying the acute spatial inequity in the availability of water resources in India. An integrated approach becomes necessary when dealing with resources such as water, which transcend state boundaries and form lifelines for entire communities. River deltas and drainage areas suffer from disequilibrium in water supplies that may necessitate the transfer of water from surplus to deficit areas. The concept of inter-basin transfer on a large scale has been under consideration for some time. The idea was mooted in as early as 1926 by Sir C.P. Ramaswamy Aiyarand then by K.L. Rao and Capt. Dastur in 1970 and 1980, respectively.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: - Yes

Face book: -Yes