Estd. 2001

PRATHYUSHA

ENGINEERING COLLEGE

Poonamallee to Thiruvallur High Road,
Chennai – 602025

PROJECTS

2018-19

EVEN SEMESTER

28.02.2019

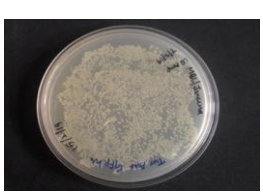
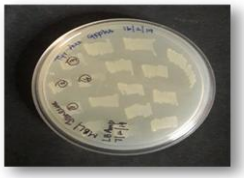
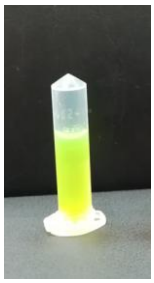
LIST OF PROJECTS

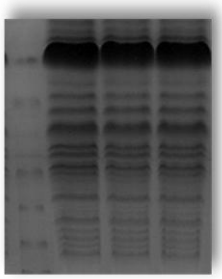
S.No.	Department	Coordinator	No. of Projects
1.	BioTech	Mr. Cholapandian	20
2.	Civil	Ms. Vallabhy	21
3.	CSE	Ms. Revathy	42
4.	ECE	Mr. Padmanabhan	45
5.	EEE	Mr. Anand	11
6.	IT	Ms. Kamatchi	12
7.	Mechanical	Mr. Balachander	28
Total No. of Projects			179

PROJECT EXPO 2018-19
EVENSEMESTER

Department	Project/ Miniproject Coordinator	Domain	No. of Projects/ Miniprojects	Total
BIOTECH	Dr.P.Dhasarathan	Microbiology	8	8
BIOTECH	Dr.A.J.A.RanjitSingh	Plant Biotechnology/Nanotechnology	2	10
BIOTECH	Mr.K.Cholapandian	Bio fuels	4	14
BIOTECH	Dr.M.Thenmozhi	ndustrial biotechnology	1	15
BIOTECH	Dr.A.Praveena	Bioinformatics	5	20

TEAM ID: BT-1V-01
TITLE OF THE PROJECT:
CLONING AND OVEREXPRESSION OF GREEN FLUORESCENT PROTEIN



FACULTY GUIDE:
Dr.P.Dhasarathan

A.Ayeshathul Jahana

R.Swathi

Green fluorescent protein from the jellyfish Aequorea Victoria is more explored protein in biochemistry and recombinant DNA technology. The gene encoding Green Fluorescent Protein highly stable (GFPhs) is cloned into the pQE80L vector and is transformed into E.coli strains of DH5α and Tyrosine auxotroph. The plasmid has been isolated from the respective colonies of DH5 α containing pQE80L vector. The isolated plasmid is double digested using BamHI and HindIII and the digested plasmid was confirmed with the Agarose gel electrophoresis. The expression profile of GFP has been confirmed by SDS-PAGE. The purification of GFP protein is through Nickel His-tag affinity chromatography using akta purifier. The purified protein is further characterized using UV-Visible spectroscopy and fluorescence spectroscopy. The secondary structure of the purified GFP is confirmed by CD spectroscopy.

Achievements:

Project Design Contests:

Symposium/ Conference: 1

Publications:On process

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID: BT-1V-02

TITLE OF THE PROJECT:

BIOSYNTHESIS OF SILVER NANOPARTICLE BY USING EXTRACTS OF GANODERMA LUCIDUM AND TO EVALUATE ITS ANTIBACTERIAL EFFICACY AGAINST CAUTI CAUSING ESCHERICHIA COLI

FACULTY GUIDE:

Dr.P.Dhasarathan

S.S. Aswini

P. Deepika

Catheter associated urinary tract infection (CAUTI) are one of the most common nosocomical infections which is acquired by the usage of medical devices called catheter. The prevalence of catheter seems to be caused by combination of internal micro flora and external introduced device. Within human anatomy, Escherichia coli is primarily present in gastro-intestinal tract. With proximity of urethra to the anus, E. coli is the largest contributor or initiator of CAUTI. The use of natural products has been extremely successful in the discovery of new medicine and mushroom could be a source of natural antibiotics. Ganoderma Lucidum is considered one of the richest sources of natural antibiotics. The present study is to examine the activity of silver nanoparticle containing G. Lucidum extract against CAUTI causing E. coli. Dried mushroom powder was extracted with ethanol using soxhelet apparatus. The silver nanoparticles were synthesized using the ethanolic extract and 1 mM of silver nitrate solution. The antibacterial susceptibility was estimated by agar well diffusion and disc diffusion methods. The silver nanoparticle synthesized from the extract of G. lucidum could have increased antibacterial efficacy against the CAUTI causing E.coli.

Achievements:

Project Design Contests:

Symposium/Conference: 1

Publications: On process

Social Media Reach:

Youtube :

Facebook :

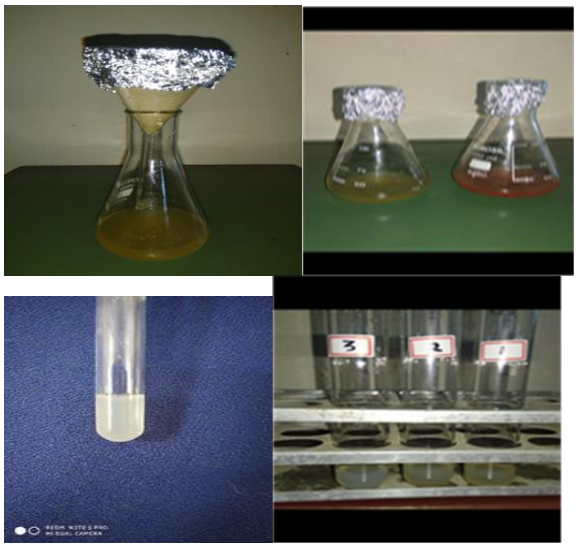
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID: BT-1V-03
TITLE OF THE PROJECT:
DEVELOPMENT OF AN INNOVATIVE NUTRACEUTICAL FERMENTED BEVERAGE FROM ASHWAGANDHA EXTRACT

FACULTY GUIDE:
Dr.P.Dhasarathan

R.Bhavadharini

G.Dharshini



Ashwagandha (withaniasomnifera) is an important medicinal plant that has been used in Ayurvedic and indigenous medicine since ancient time. This herb is used for various kinds of diseases and especially as a nervine tonic. The aim of this work is to develop Annutraceutical and fermented beverage using Ashwagandha extract as a natural source. Lactobacillus acidophilus strain was selected as best source of fermentation, which is positively affected by the addition of sugarcane molasses and yeast extract as carbohydrate substrate. From the fermented product, the pH was found to be 4.84 with the acidity of 2.01% and the colour of 3.25 EBC (European Brewery Convention), bitterness of 16.8 IBU (International Bitterness Units) were analysed. Thus, the Ashwagandha have 55% of antioxidant activity which was analysed by the method; FRAP (Ferric Reducing Antioxidant Power Assay). Atlast the fermented beverage was attained.

Achievements:

Project Design Contests:

Symposium:

Publications: On process

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED28TH FEBRUARY2019

TEAM ID: BT-1V-04
TITLE OF THE PROJECT:
MICROBIAL SPOILAGE OF DAIRY PRODUCTS AND ITS PREVENTION

FACULTY GUIDE:
Dr.P.Dhasarathan

R.Naavarasi

B.Keerthika

Dairy products are important for building healthy bones and for maintaining healthy body. The work deals with the 'Identification of the microbe and a bio-preservative responsible to increase the shelf life of dairy products and its prevention of spoilage'. The Dairy products are manufactured from the milk obtained from Cow, Buffalo, Goat and Sheep and to the rare cases from Reindeer and Camel in some regions of the world. The various dairy products available for consumption include Milk, Yogurt, Curd, Butter, Ghee, Fresh cream, Ice Cream etc. The dairy products though manufactured and marketed more, there occurs demand because of their shorter shelf life period. The aim of the work is to isolate the beneficial microbe (Brevibacillus brevis and Lactobacillus acidophilus) and identification of the bio-preservative (Plant extracts of the Moringa oleifera and Piper betel) for the shelf life enhancement of the curd and milk respectively. The Bacillus brevis and Lactobacillus acidophilus mixture of 1:1 was found to enhance the shelf life of curd from raw milk up to 5 days with the acidity of 0.57% and curd from pasteurized milk up to 7 days with the acidity of 0.64% and reduced microbial load respectively. The plant extract ratio of 2:1 was found to be effective against the milk spoilage microbes such as Bacillus spp. and Fungi and the shelf life was found to be extended for 3 days for raw milk and 21 days for pasteurized milk under refrigeration condition. This paper elaborates the Microbial spoilage of milk and curd, Inhibitory activity of bio-preservatives and their mechanism of action of the spoilage microbes.

Achievements:

Project Design Contests:

Symposium/Conference: 1

Publications: On process

Social Media Reach:

Youtube :

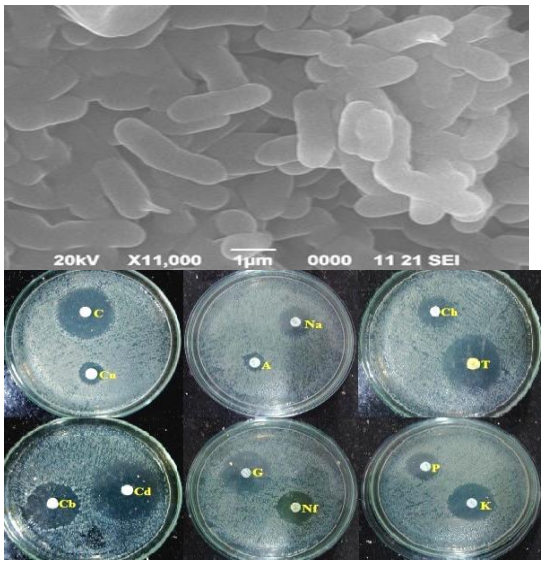
Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID: BT-1V-05

TITLE OF THE PROJECT:

MOLECULAR TYPING AND VIRULENCE DETERMINATION OF *SALMONELLAENTERIC SEROVARTYPHI*FROM CLINICAL SAMPLES



FACULTY GUIDE:

Dr.A.J.A.Ranjit Singh

Y.ArpithaAnbu Deborah

T.Lakshmi

Present research work was carried out for detection and molecular characterization of Salmonella enterica serovar Typhi isolated from humans with Typhoidial fever by biochemical, phenotypical and virulence gene based polymerase chain reaction (PCR) techniques. The isolated strains were also investigated for antibiotic susceptibility patterns as a control measure. A total of 16 clinical samples were collected from the same numbers of patients (7 males and 9 females) from Coimbatore, Erode and Salem districts of Tamil Nadu and were processed via broth enrichment methods for isolation and identification of the causative agent S. enterica serovar Typhi. Microbiological and biochemical investigations revealed the presence of S. Typhi from 16 samples. The biotyping of the isolates showed that all the isolates belonged to biotype IV. The PCR analysis confirmed the presence of invA (Invasion gene, 244bp), tyv (Tyvelose epimerase gene, 615 bp), fliC-d (Phage-1 flagellin gene for d-antigen, 750 bp) and viaB (Vi antigen gene, 439bp) in all 16 clinical samples. The antibiotic susceptibility test that was carried out among the isolates against 12 antimicrobial agents, showed 100 % resistance to only ampicillin and 100 % sensitivity to carbenicillin, chloramphenicol, clindamycin, gentamycin, kanamycin and tetracycline. This study confirmed the association of virulent strains of S. enteric serovar Typhi from Typhoidial fever among human population and suggested that PCR based diagnostic could be very useful for the rapid detection of S. Typhi isolates. Other methods such as SDS – PAGE could be used for protein profiling. Present study emphasized the use of antibiotic like chloramphenicol or in combination with other antibiotics for the effective control of S. Typhi.

Achievements:

Project Design Contests:

Symposium/Conference: 1

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED28TH FEBRUARY2019

TEAM ID: BT-1V-06
TITLE OF THE PROJECT:
FUNGAL LACASSES: PRODUCTION, OPTIMISATION AND PURIFICATION

FACULTY GUIDE:
Dr.A.J.A.Ranjit Singh

C.S.Ramya

D.Pavithra

Laccases are multicopper oxidases that are widely used for dye degradation, bioremediation, waste detoxification and delignification. This enzyme is majorly found in the wood degrading white rot fungi, which is known for its oxidative activity and low substrate specificity. In this dissertation, the extracellular laccase was produced by a fungal species obtained from a marine sample. The growth media was optimised for the value of pH, CuSO4, inducers, carbon and nitrogen and it was found out that the enzyme production can be stimulated by the addition of 1.0 mM Cu(II). The growth media was filtered, concentrated and purified to establish its role in this industry.

Achievements:

Project Design Contests:

Symposium/Conference: 1

Publications: On process

Social Media Reach:

Youtube :

Facebook :

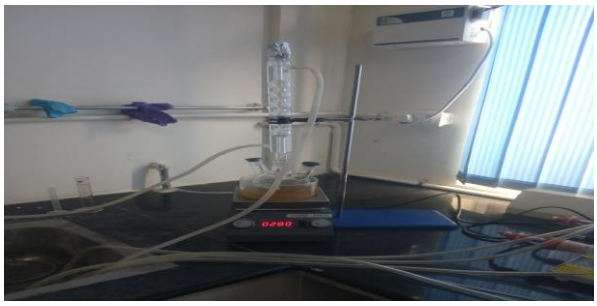
PROJECT EXHIBITION DATED28TH FEBRUARY2019

TEAM ID: BT-1V-07
TITLE OF THE PROJECT:
OPTIMIZATION AND KINETICS OF BIODIESEL PRODUCED FROM NEEM OIL

FACULTY GUIDE:
Mr.K.Cholapandian

R.Rajeshwar

K. Naveen



The biodiesel produced from the neem oil can be optimized by selecting any of the catalyst (NaOH,KOH, CZO nanocatalyst, Calcium Methoxide etc.,). The reaction parameters such as catalyst concentration, methanol to oil ratio, reaction rate and temperature. The transesterification reaction and the conversion rate are studied. The kinetic studies in which the triglycerides converted to methyl esters is first order mechanism. The expected result is found to be the conversion percentage more than 95% and the reaction kinetics model with the suitable activation energy is found.

Achievements:

Project Design Contests:

Symposium/Conference: 1

Publications: On process

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED28TH FEBRUARY2019

TEAM ID: BT-1V-08
TITLE OF THE PROJECT:
MINIMIZATION OF COST AND TIME IN BIODIESEL PRODUCTION USING IN-SITU TRANSESTERIFICATION WITH MADHUCA LONGIFOLIA

FACULTY GUIDE:
Mr.K.Cholapandian

S.Dharini

D.Divya

Biodiesel is becoming more important as an alternative fuel source due to depleting fossil fuel resources. It is a renewable source of energy, and it is conventionally produced by transesterification from various sources using alcohol as a solvent. Though its demand is very high in current scenario, it is used rarely due to its production cost and time. Hence, our project deals with the reduction of both cost and time by in situ transesterification. In situ transesterification is a method which involves direct conversion of seed into biodiesel by eliminating the need for pre-extracted oil. There is growing interest in using non-edible seeds as a feedstock for biodiesel production, so there is no need to compromise the edible seed source. We have chosen Mathuca longifolia as a non-edible feedstock for biodiesel production because it contains 35% oil in its seeds. In our process heterogeneous catalyst – KOH and H2SO4 used. It is found that size of the seed and reaction period effects the yield of FAME. Comparing the seed.

Achievements:

Project Design Contests:

Symposium:1

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

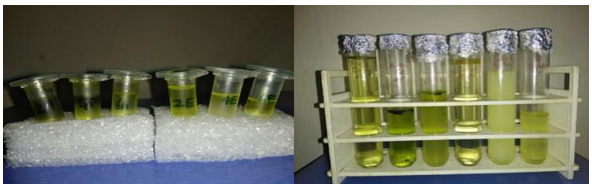
TEAM ID: BT-1V-09

TITLE OF THE PROJECT:

COMPRISON OF CaO NANO PARTICLES FROM *Acalypha indica* AND CaO CATALYSTS FROM HEN EGG SHELLS IN CATALYSING THE BIODIESEL PRODUCTION

FACULTY GUIDE:

Mr.K.Cholapandian



M.Sabarilakshmi

R.Aishwarya

Green synthesis of Calcium oxide Nano particles (NP) was carried out using the plant extracts of Acalypha indica (Kuppaimeni) for catalysing the biodiesel production and compared with biodiesel produced using hen egg shell CaO. This study aims to investigate the production of biodiesel from used cooking oils with acid value 3.016 mg of NaOH/g sample, using CaO from two different sources and comparing its efficiency. The Acalypha indica CaO (NP) particle size, particle number, morphology, vibrational frequencies were studied using UV-Diffused Reflectance Spectroscopy, Fourier Transform Infrared Spectroscopy, Powder X-Ray Diffraction Studies, Scanning Electron Microscopy and Particle counter (Zeta sizer). The CaO (NP) from Acalypha indica and CaO powder from hen egg shells as catalysts were used to produce biodiesel by trans esterification process using ethanol with 1:4 - Oil:Alcohol ratio. The biodiesel yield was studied at different concentrations of CaO catalyst – 2%, 4%, 6%, produced by wet chemical method from Acalypha indica plant extract and hen egg shells. The mixture of methyl esters, glycerol, unreacted substrates and CaO catalysts was separated and purified by double washing methods using distilled water. The biodiesel produced using Acalypha indica CaO NPs had high yield compared to biodiesel produced using CaO from hen egg shells. The obtained biodiesel was tested for its efficiency using Gas Chromatography-Flame Ionization Detection Test, Flame Test, Wash Test and 3-27 biodiesel conversion test. The maximum yield was obtained from 2% Acalypha indica CaO (NP) catalysts and the effect of catalysts concentration in biodiesel production was studied.

Achievements:

Project Design Contests:

Symposium:1

Publications: On Process

Social Media Reach:

Youtube :

Facebook :

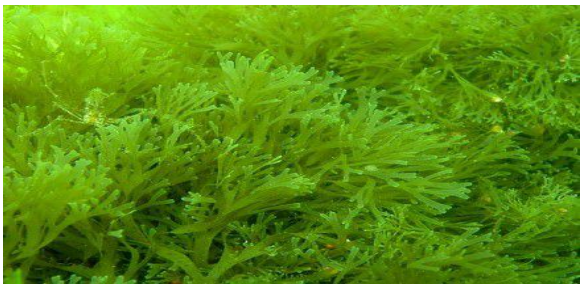
PROJECT EXHIBITION DATED28TH FEBRUARY2019

TEAM ID: BT-1V-10
TITLE OF THE PROJECT:
COMPARISON OF LIPID EXTRACTION METHODS FROM MACROALGAE FOR BIODIESEL

FACULTY GUIDE:
Mr.K.Cholapandian

K.Murfath Yasin

R.Sruthi



Biodiesel is a sustainable fuel produced from the transesterification of essential oils obtained from the variety of natural resources. This biodiesel serves as an alternate instead of petroleum fuel which is produced from non-renewable sources. In this work, the yield of biodiesel depends on the different lipid extraction methods from algae. Thus the three lipid extraction methods- Soxhlet, Maceration, Blending processes are being compared for different yields of efficiency. Algae is the third generation source of Biodiesel. Macroalgae is used as the source due to its high photosynthetic efficiency and they are also rich in carbohydrate and the high content of TAGs. Azolla is a Macroalgae which is used as the source for the production of biodiesel due to the high lipid content which is around 15%. The catalyst used in transesterification of algal oil is H_2SO_4.. The yield obtained from the transesterification of oil obtained from the three different extraction processes is compared and the highly efficient extraction is determined.

Achievements:

Project Design Contests:

Symposium:1

Publications: On process

Social Media Reach:

Youtube :

Facebook :

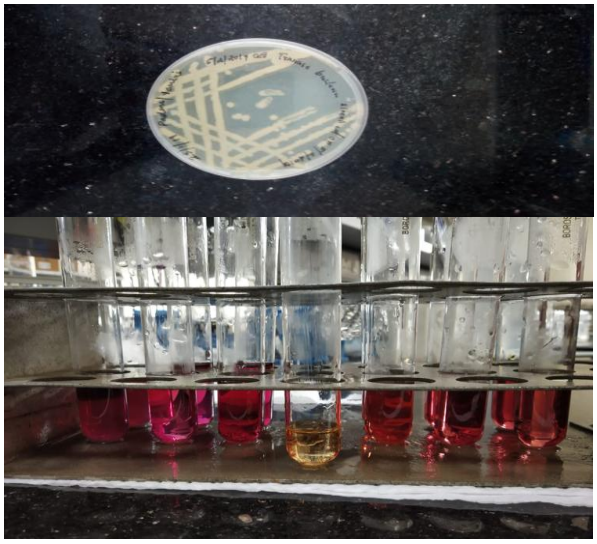
MINIPROJECT EXHIBITION DATED28TH FEBRUARY2019

TEAM ID:BT-1V-11
TITLE OF THE PROJECT:
BACTERIAL TANNASES: PRODUCTION, OPTIMIZATION AND PURIFICATION

FACULTY GUIDE:
Dr. M. Thenmozhi

G.Padma

C.Yamini



Tannin acyl hydrolase commonly known as Tannase has been subject for lot of studies due to its commercial importance and complexity as a catalytic molecule. The ability of bacterial tannase to degrade or hydrolyse tannin-protein complexes like methylgallate was determined by the bacterial method. In this article, we have emphasized critically on bacterial tannase that has gained worldwide research interest for their diverse properties. Four variables namely PH, Temperature, Incubation Period, and Agitation speed were used to optimize significant correlation between the effects of these variables on tannase production. After a brief description of different substrates of tannase, fundamental biotechnological and catalytic aspects are reviewed and discussed to illustrate the pivotal role of tannase in the food and leather industries.

Achievements:

Project Design Contests:

Symposium/Conference:1

Publications: On process

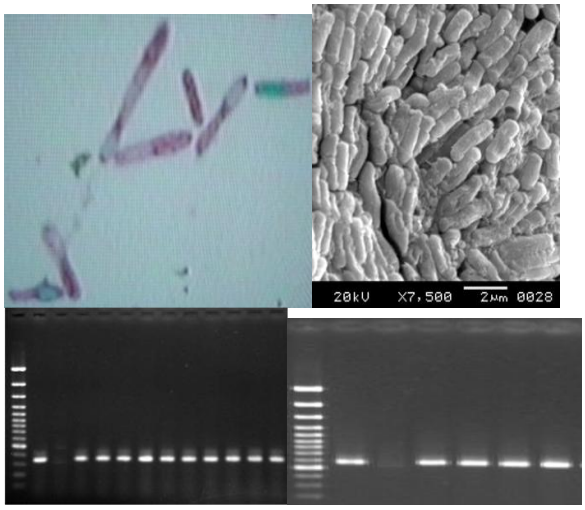
Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID: BT-1V-12
TITLE OF THE PROJECT:
MOLECULAR TYPING OF CLOSTRIDIUM PERFRINGENS FROM NECROTIC ENTERITIS AFFECTED



FACULTY GUIDE:
Dr. A. Praveena

J.Shameli

V.Srividya

This paper reports the investigation of necrotic enteritis (NE) in six broiler chicken of age two to three weeks old, died in a poultry farm, in Erode, Tamil Nadu, India. Initially, scanning electron microscopy (SEM) was performed to observe the morphological changes within the intestine. Intestinal contents and liver samples from dead chicken were investigated for isolation of bacteria and their virulence determinant. The SEM analysis of infected intestine revealed massive necrosis and complete destruction of the intestinal villi within the intestinal mucosa. Bacterial isolation confirmed the causative agent as *C. perfringens* in NE . In polymerase chain reaction (PCR) assay all 10 clinical isolates harboured alpha toxin gene (*cpa*) of *C. perfringens*, however, four isolates also carried additional beta2 toxin gene (*cpb*2). None of the isolates were positive for beta, epsilon, iota and enterotoxin genes. PCR analysis revealed that all isolates derived from NE belonged to *C. perfringens* type A. The partial *cpa* gene sequence analysis showed 97.6 to 100% homology among the *C. perfringens* isolates. Also other studies using SDS - PAGE, MLEE, RAPD could be performed for in depth analysis.

Achievements:

Project Design Contests:

Symposium/Conference:

Publications: On process

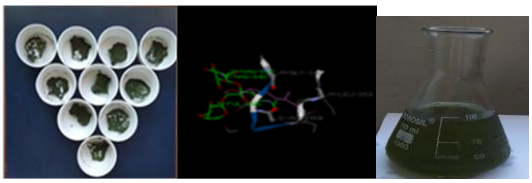
Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED28TH FEBRUARY2019

TEAM ID: BT-1V-13
TITLE OF THE PROJECT:
PLANT GROWTH REGULATORY EFFECTS AND INSECTICIDAL ACTIVITY OF PLANT EXTRACT



FACULTY GUIDE:
Dr. A. Praveena

A.Suriya Daisy

R.Mahalakshmi

This study aims to analyse the insecticidal activity of compounds present in the extract of *citrus aurantium*peel. The solvent extraction method was used to get the extract and the compounds were identified from GC-MS. The insecticidal activity of the extract was studied by diet incorporation method. The feed deterrence index, consumption rate and their metabolic rate were assessed. The highest percentage of feed deterrence index was 46.6% and the lowest percentage of consumption rate was 0.04g/day (24 hours) and 0.02g/day (48 hours) in 40% concentration. The growth rate was 0.21g/day (24 hours) and 0.10g/day (48 hours) in 40% concentration. The efficiency of ingested food was observed to be 31.1%(24 hours) and 10.7%(48 hours),the approximate digestibility was 86.60%(24 hours)and 61.36%(48 hours), the efficiency of conversion of digested food was 17.40%(24 hours) and 12.36%(48 hours) in 40% concentration. The insecticidal likeliness property ofthe compounds were evaluatedusing Tice rule and further the binding efficiency were studied using molecular docking against acetylcholinesterase of *Spodopteralitura.* Fromthe docking studies the compound 2, 3, 5, 6-Tetrafluroanisole from the ethanolic extract have the best interaction with Acetylcholinesterase with the least energy value of -79.6 and the results could be used as the novel insecticide against the *Spodopteralitura*.

Achievements:

Project Design Contests:

Symposium/Conference:1

Publications: On process

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID: BT-1V-14

TITLE OF THE PROJECT:

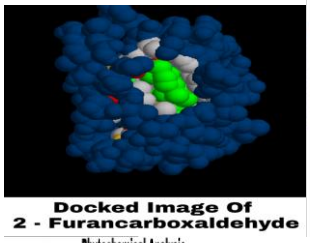
IN-VITRO AND IN-SILICO ANALYSIS TO IDENTIFY NOVEL LEAD COMPOUND FROM Carissa carandas AGAINST BREAST

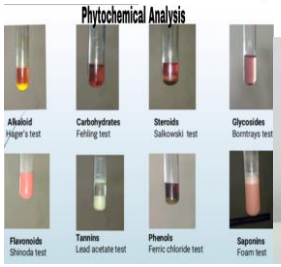
FACULTY GUIDE:

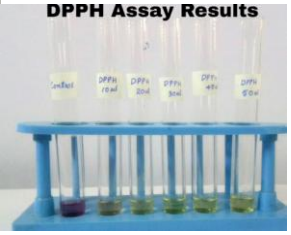
Dr. A. Praveena

P.Sangeetha Lakshmi

S.Kiruthika







This work aimed at determining the active compound from *Carissa carandas* fruit ,which proved to control the growth of cancer cells and this fruit is abundantly found in TamilNadu. The ethanolic fruit extract was subjected to phytochemical and GC-MS analysis.Free radical scavenger and anticancer activity of fruitwas analysed by DPPH(1, 1-Diphenyl-2- picrylhydrazyl) and MTT (3-[4, 5-dimethylthiazol-2-yl]-2,5-diphenyl tetrazolium bromide) assays respectively. Thus the inhibition activity i.e IC 50 value was found to be 12.5µg/ml with MCF - 7 cell lines. Drug likeliness was analysed based on Lipinski's rule of five,where 11 out of 24 compounds were selected as ligands.IDC(Invasive Ductal carcinoma) breast cancer protein- Aromatase was selected as target which is a estrogen synthesising enzyme (estrogen- responsible for cell proliferation).It was docked with ligands and the efficient lead molecule against this target was selected based on lowest binding energy value which was found to be 2-Furancarboxaldehyde (114.56 kcal/mol). This showed that unripe fruits of *Carissa carandas* could be exploited to get promising lead molecules against IDC breast cancer.

Achievements:

Project Design Contests:

Symposium/Conference:1

Publications: On process

Social Media Reach:

Youtube :

Facebook :

MINIPROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID: BT-II-15
TITLE OF THE PROJECT:
SCREENING OF PLANT EXTRACT'S ANTIBACTERIAL ACTIVITY AGAINST FISH BACTERIAL PATHOGEN

FACULTY GUIDE:
Dr.P.Dhasarathan

C.Sakthi Rajeshwari

S.Sinthiya

In general any substance exposed to aquatic system it impact on living system either beneficial or harmful. In the present investigation the total heterotrophic bacterial population (THBP) was estimated from the wound sample of fish ***Cyprinus carpio*** . It was found **$4*10^4$ CFU/sq.mm** of sample fish. From total THBP morphologically different colonies eight was isolated by streaking method and differentiated using differential stains. From eight isolates gram positive organisms were 2 and gram negative organisms were 6. **In this result indicates gram negative organisms were predominant to cause the diseases.** The isolated strains were named as PEC 01 to PEC 08. Isolated srains antibiotic sensitivity screened against *Ocimum tenuiflorum* – Tulsi and *Hibiscus rosa- sinensis* – Hibiscus flower (5 and 10 µl) and stranded antibiotics Ampicillin (5µl). Higher concentration of *Ocimum tenuiflorum (*Tulsi) showed remarkable inhibition against all isolates compared to lower concentration similar to standard antibiotics. **From this study *Ocimum tenuiflorum* extract may be used to prepare a drug to control fish**

Achievements:

Project Design Contests:

Symposium:2

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID: BT-II-16
TITLE OF THE PROJECT:
ISOLATION AND SCREENING OF LITER WASTE DECOMPOSTING BACTERIAL

FACULTY GUIDE:
Dr.P.Dhasarathan

S.Anitha

S.S.Anitha

The litre waste decomposing bacterial isolates were isolated from soil samples collected at manure pit constructed at the agricultural fields of Prathyusha Engineering College, Thiruvallur. The bacterial isolates from soil samples were identified as decomposer using Microscopic, Biochemical and Screening tests. The total bacterial population was found to be 2x10^7 cfu/gm. From the total population the bacterial species were found to be gram negative rod. The litre waste decomposing bacterial isolates enzyme specific activities were screened out using various substrates (carbon and nitrogen sources) at different pH and temperature. A comparative study about the enzyme activity of the two bacterial isolates from soil sample was carried out. Litre waste decomposing bacterial isolates is of biotechnological interest since it is used for the preparation of organic manure. The present investigation , confirmed decomposition of litre waste and production of organic manure to safe pollution free environment.

Achievements:

Project Design Contests:

Symposium: 2

Publications:

Social Media Reach:

Youtube :

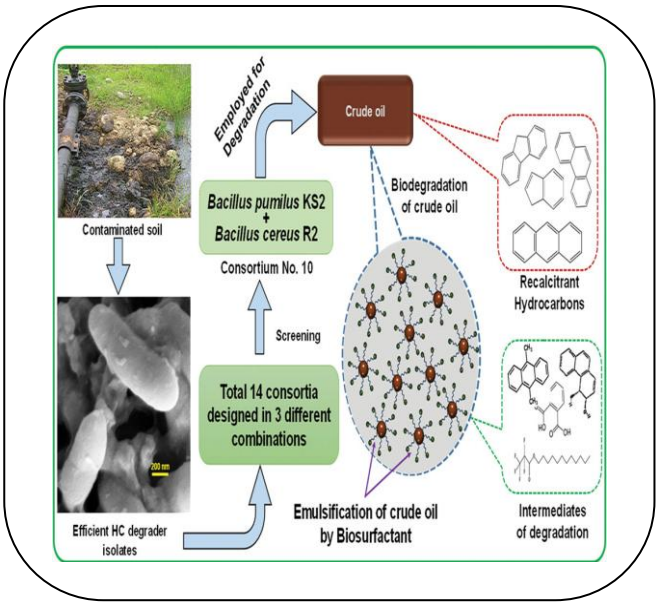
Facebook :

TEAM ID: BT-II-17
TITLE OF THE PROJECT:
Isolation and characterization of marine bacteria for crude oil degradation

FACULTY GUIDE:
Dr.P.Dhasarathan

K.Akash

R.Richard Paul



The current study was done in order to isolate and characterize crude oil degrading microbes from crude oil contaminated marine water. The samples were collected from Ennore, Tamil Nadu, India. Gravimetric analysis of degradation was done in which, two isolates formed maximum clearing zone on mineral salt medium. Bacteria were the most dominant microbiota and were therefore characterized with several biochemical tests. Two bacterial isolates CDB1 and CDB2 were isolated. Several biochemical characterization tests show that both bacterial species respond positive to tests such as catalase, methyl red, citrate utilization and nitrate reduction and negative to urease test. The medium was analysed and crude oil was degraded at varying rates. Maximum crude oil degradation was found to be 71.9% by using CDB2 with 1% crude oil after 7 days.

Achievements:

Project Design Contests:

Symposium: 1

Publications:

Achievements:

Project Design Contests:

Symposium:

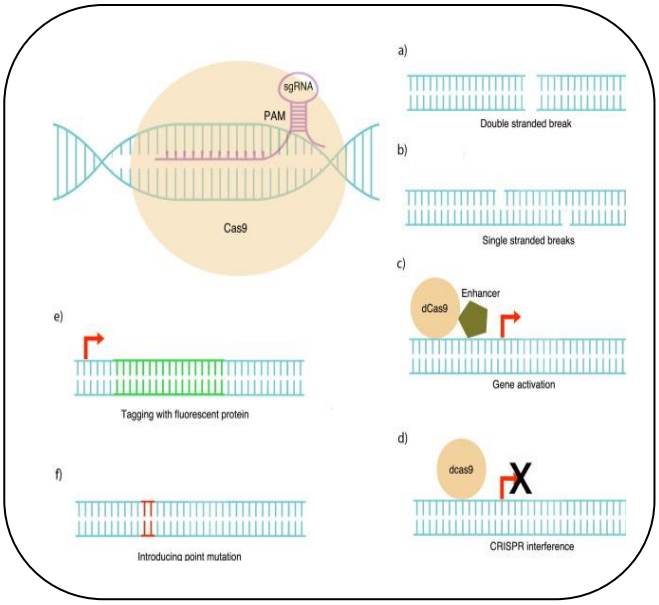
Publications:

TEAM ID: BT-II-18
TITLE OF THE PROJECT:
PRECISE GENE DELETION AND REPLACEMENT USING THE CRISPR/CAS9

FACULTY GUIDE:
Dr.A.Praveena

R.Karthikeyan

S.Bharath Kumar



The prokaryotic type II CRISPR/Cas9 system has been adapted to perform targeted genome editing in cells and model organisms. Here, we describe targeted gene deletion and replacement in human cells via the CRISPR/Cas9 system using two guide RNAs. The system effectively generated targeted deletions of varied length, regardless of the transcriptional status of the target gene. It is notable that targeted gene deletions generated via CRISPR/Cas9 and two guide RNAs resulted in the formation of correct junctions at high efficiency. Moreover, in the presence of a homology repair donor, the CRISPR/Cas9 system could guide precise gene replacement. Our results illustrate that the CRISPR/Cas9 system can be used to precisely and effectively generate targeted deletions or gene replacement in human cells, which will facilitate characterization of functional domains in protein-coding genes as well as non-coding regulatory sequences in animal genomes.

Achievements:

Project Design Contests:

Symposium:1

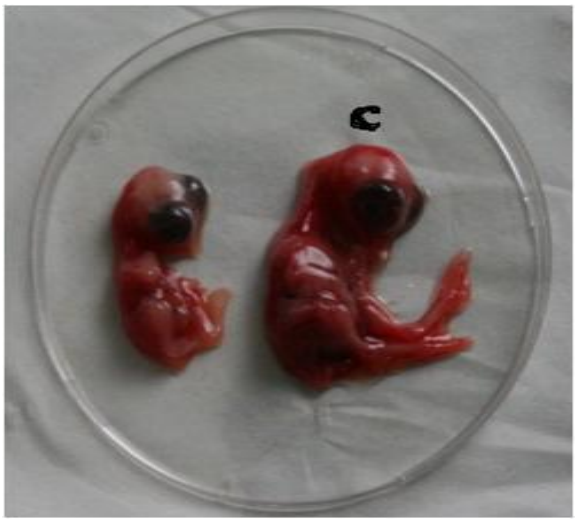
Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID: BT-II-19
TITLE OF THE PROJECT:
DIAGNOSIS OF INFECTIOUS BRONCHITIS VIRUS (CORONA VIRUS) BY HEMAGGLUTINATION USING TRYPSIN



FACULTY GUIDE:
Dr.P.Dhasarathan

S.Sinthiya

S.Nikhila

Avian infectious bronchitis virus (IBV) is a corona virus which infects chicken, causing the associated disease, infectious bronchitis (IB).The main purpose of this study is to diagnose the IBV by inducing hemmagglutination. A trypsin - induced hemmagglutination (THA) assay was standardized to diagnose IBV in Allatonic fluid of embryonated eggs. Hemmaglutination of trypsinized AF was reported to be efficient,specific, sensitive and economical to perform in our routine diagonistic practices. Trypsinized AF could be stored at -65^{o}C for more than 3 weeks without any lose of hemmagglutinating activity of virus HA inducing capacity of trypsin on infectious bronchitis virus was found to be effective and very specific in its ability to elicit HA activity of IBV. Hence the presence study will be advantageous over other methods and quite useful for protein serological assay.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

TEAM ID: BT-II-20

TITLE OF THE PROJECT:

ISOLATION AND IDENTIFICATION OF ENDOPHYTIC FUNGI FROM PIPER BETLE (PIPERACEAE) PLANT ROOT AND ITS SECONDARY METABOLITES APPLICABLE FOR HUMAN BREAST CANCER CELL LINE

FACULTY GUIDE:

Dr.A.Praveena

S.Monica

K.Yuvarani

Medicinal plant Endophytic fungi are abundant producers of bioactive secondary metabolites. The present study to evaluate the antioxidant and anticancer activities of Piper betle produce Colletotrichum species endophyte. The antioxidant activities of ethyl acetate extract were determined via different antioxidant models namely free radical scavenging capacity 2,2-dipheny l-1 picrylhydrazyl (DPPH) and FRAP assay and Lipid peroxidation activity. The antitumor activity was determined by MTT assay. The endophytic bioactive metabolites extract (20µg/ml) was active against MCF-7 breast cancer cell lines with 70% growth inhibition. The extracts and antioxidant activities tested via different DPPH (80.82%), FRAP assay (73.77%) and Lipid peroxidation activity (72%). The endophytic Colletotrichum species may have the potential to become source of natural antioxidant and anticancer agents.

Achievements:

Project Design Contests:

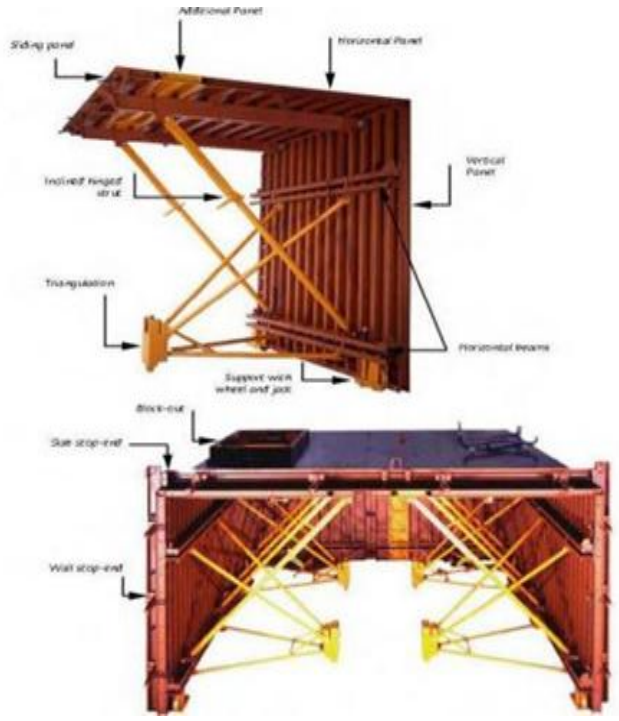
Symposium:

Publications:

Social Media Reach:

Youtube :

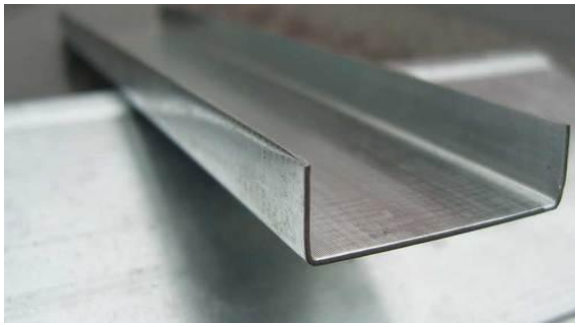
Facebook :


Additional Panel
Sliding panel
Horizontal Panel
Vertical Panel
Triangulation
Block-out
Slab stop-end
Wall stop-end

Department	Main project Coordinator	Domain	No. of projects	Total
CIVIL	Dr.K.Deepa	Engg	3	3
	Mrs.S.Vallabhy	Structural Engg	3	6
	Mrs.M.Monitha	Environmental Engg	3	9
	Ms.P.Sarala	Structural Engg	3	12
	Ms.K.Brundha	Environmental Engg	2	14
	Mr.S.Karuppasamy	Structural Engg	2	16
	Mr.M.S.Dineshkumar	Structural Engg	1	17
	Mr. P.Muthaiyan	Structural Engg	3	20
	Ms.N.Shifujahan	Structural Engg	1	21

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAURY 2019

TEAM ID-4CEB1
TITLE OF THE PROJECT: **FLEXURAL BEHAVIOUR OF COLD FORMED STEEL SECTIONS**



FACULTY GUIDE: **Mrs. S Vallabhy**

M RAHUL GOND

S RANJITH

K R SARAVANAN

R VAIRAPRAKASH

Abstract:

Cold-formed steel (CFS) members are made from structural quality sheet steel that are formed into C-sections and other shapes by roll forming the steel through a series of dies. No heat is required to form the shapes (unlike hot-rolled steel), hence the name cold-formed steel. A variety of steel thicknesses are available to meet a wide range of structural and non-structural applications.CFS as a construction material has many advantages. For example, CFS doesn't shrink or split, won't absorb moisture, and resists warping, termites, and fire.As a uniformly manufactured product, the quality of CFS is very consistent.This project deals with the comparison of different steel sections by comparing their cross sections and their flexural behaviour under loading conditions

Key words: Steel section, cold formed steel, flexural behaviour, CUFSM, ANSYS.

Achievements:

Project Design Contests:

Symposium:

Publications:

Media Reach:

You tube: -

Face book: -

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAURY 2019

TEAM ID-4CEB2
TITLE OF THE PROJECT:**EXPERIMENTAL INVESTIGATION ON THE BEHAVIOUR OF COMPOSITE COLUMN** UNDER AXIAL LOAD

FACULTY GUIDE: **Mrs. N Shifu Jahan**

R NAGARAJAN

V PRAKASH

S SANJAY

S SATHISH

Abstract:

The composite construction exists when two different materials bound together so strongly that they act together as a single unit. The behaviour of composite steel concrete elements in various loading stage is quite well analyse by theoretical investigation and experiments. Concrete filled steel tube(CFST) one of the many composite elements used at present in civil engineering. The hollow CFST element in more effective than ordinary CFST. The hollow composite CFST elements when a particular level of stress exit in loading stage an intersection between the stem tube and concrete core appears and therefore a complex stress state of elements take place, which increase the load bearing capacity of whole composite elements.

Keywords: Composite column, concrete, steel.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAUARY 2019

TEAM ID-4CEB3
TITLE OF THE PROJECT:**IMPLEMENTATION OF ULTRA HIGH PERFORMANCE CONCRETE ON BRIDGES**

FACULTY GUIDE: **Mr.S.Karuppasamy**

S NAGARAJ

C SRINIVASAN

D VIGNESH

K YOKESH

Abstract:

Bridge construction today has achieved a worldwide level of importance. One of the most commonly used forms of superstructure in concrete bridges is precast girders with cast-in-situ slab. Ultra-high-performance concrete (UHPC) is a promising new class of concrete material that is likely to make a significant contribution to addressing the challenges associated with the load capacity, durability, sustainability, economy, and environmental impact of concrete bridge infrastructures. It was developed in Europe in the 1980s for specialized applications that demand superior strength and corrosion resistance – marine anchors, piers and seismic structures. UHPC mixture proportions were developed using local materials such as cement ,silica fumes, steel fibres, super plasticizers, water. Experimental investigation was carried out for four different UHPC mixes. Casting is done and testing is made for 7^{th} day and 28^{th} day.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAUARY 2019

TEAM ID- 4CEB4
TITLE OF THE PROJECT:
CHARACTERISATION,STABILIZATIONAND UTILIZATION OF SLUDGE

FACULTY GUIDE: **Mrs. M Monitha**

NOMALESWARI . JK

RAJESWARI. A

SAI GAYATHRI . R

YAMINI. B

Abstract:

The industrial sludge may pose serious threat to human health and surrounding environment without safe treatment. The effluent treatment plant of the industries produces a huge quantity of sludge, which basically comprises of metal precipitates. Since these metals being hazardous in nature, their disposal is a big problem. Technologies being widely used to solve these problems of disposal of hazardous wastes are stabilization and solidification. In stabilization some supporting media/binder or other modifier are added to the waste, so that the contaminated particles are fully or partially replaced with each other. The physical nature of waste is altered by employing additives. Finally the possibility of using this stabilized and solidified sludge as a construction material is being explored. This project investigates the feasibility of using the industrial sludge as a construction materials.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAUARY 2019

TEAM ID-4CEB5

TITLE OF THE PROJECT: **STUDY OF STILT PLUS 4 RESIDENTIAL APARTMENT**

FACULTY GUIDE: **Mr. P Muthaiyan**

T. NITHYA

M.B.H. PRABANDHA

N SANDHYA

S SIVARANJANI

Abstract:

Stilt houses are houses raised on piles over the surface of the soil or a body of water . Stilt houses are built primarily as a protection against flooding . This project deals with study of ongoing stilt plus 4 residential apartment at OMR. The building is constructed in such a waythat it provides the occupants a great pleasure and no inconvenience. The space provided can be used for parking cars.

Finally, **the cracks will be repaired** using suitable methods and the **effectiveness of the repairing process** will also be checked.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAUARY 2019

TEAM ID-4CEB6
TITLE OF THE PROJECT :**CRUMB RUBBER CONCRETE BLOCKS**

FACULTY GUIDE: **Ms. P Sarala**

E PAVITHRA

S SUJITHA

E VANATHI

Abstract:

Crumb rubber concrete made out of tire chips , piece elastic and mix of tire chips and scrap elastic where utilized to supplant mineral total in cement. Rubber concrete can help to prevent pollution and to overcome the problem of storing used tyres. This reduces crack formation and widening which can withstand much larger tensile loads.These concrete gains importance rapidly due to the increasing demand of superior structural properties . This has the advantage of saving natural aggregate used in production of concrete which are becoming increasingly scares . This research investigated a wide range of mechanical properties of concrete contain recycled tire aggregates to asses its suitability as construction materials . This type of concrete shows promise for becoming an additional solution for tire rubber waste management.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAUARY 2019

TEAM ID-4CEB7

TITLE OF THE PROJECT:**ENERGY ANALYSIS OF BUILDING**

FACULTY GUIDE: **Dr. K Deepa**

V.NAGARAJ

K.SRINATH

B.SURYARAJAN

K.VASANTH

Abstract:

Energy analysis is becoming an important factor to be considered in the Architectural, Engineering and Construction (AEC) industry these days because of the worsening global warming and energy crisis. Buildings demand energy in their life cycle right from its construction to demolition phase. One of the recent method to evaluate energy consumption of buildings is Energy analysis using Building Information Modeling(BIM) tools, BIM is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure. BIM assist designersassess different design alternatives at the conceptual stage of a building life so that effective energy strategies are attained within the building constraints. This project seeks to study the various methods of energy simulation and integrate the use of BIM based energy analysis in predicting the energy consumption of the building.

Achievements:

Project Design Contests:

Symposium:

Publications: PUBLISHED

Social Media Reach:

You tube: -

Face book: -

MAIN PROJECT EXHIBITION DATED 28 TH FEBRAUARY 2019

TEAM ID-4CEB8
TITLE OF THE PROJECT: **EXPERIMENTAL STUDY OF PARTIAL REPLACEMENT OF CEMENT BY PROSOPIS JULIFLORA IN CONCRETE**

FACULTY GUIDE: **Ms.P.SARALA**

S BHANU SAI KRISHNA REDDY

TV RAVI TEJA

T REVANTH KUMAR

Y MASTHAN

Abstract:

The experimental investigations are carried out to study the effect of prosopis juliflora in RCC structure by partial replacement. At the moment, prosopis juliflora provides approximately 75% of fuel wood needs and become naturalized, adapted to many soil types under a wide range of moisture conditions. It is fast

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MINIPROJECT EXHIBITION DATED 28 TH FEBRAUARY 2019

2017

TEAM ID-4CEB9
TITLE OF THE PROJECT: **EFFECT OF JAGGERY ON STRENGTH PROPERTIES OF CONCRETE**

FACULTY GUIDE: **MS. K.BRUNDHA**

SATHEESH S R

SHYAM SUNDAR G S

Abstract:

Concrete is an inevitable material in the human being life, because of its superior characteristics like strength and durability, but in certain situations it can't be used in all places because setting time of concrete. Retarders are used in concrete composition to improve the setting time and also to increase the temperature of the composition with different type of admixtures. It is observed that an old monuments gandikota at Kadapa district, where bonding between the stones achieved by motar combination of lime sand and jaggery juice. Concrete made with admixtures jaggery can be utilized in particular situation. Usage of these admixtures will decreases the segregation and bleeding. Jaggery is made from the product of sugarcane. So, both are useful to add as an admixtures in the concrete composition. Cement was

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MINIPROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEB10
TITLE OF THE PROJECT: **RETROFITTING OF REINFORCED CONCRETE STRUCTURES**

FACULTY GUIDE: **Mr. S. Karuppasamy**

S.PRADEEPKUMAR

D ROHITH BABU

K.SHRIRAM

K VIJAYAKUMAR

Abstract:

Pre-disaster preparedness strategies lead to repair/retrofitting of reinforced concrete structures for ensuring satisfactory performance during earthquakes. Repair can lead to increased stiffness, strength, and failure deformation. There is a need to quantify the performance of the structure after repair has been carried out. Performance factors using wrapping technique have been suggested for such quantification. The guidelines prepared with performance-based concept provide flow chart for retrofitting process, inspection and verification of performances of existing structures, selection of retrofitting methods, specification of retrofitting materials, verification of performances of retrofitted structures, and detailing and execution for retrofitting. Although only external cable method, bonding and jacketing method and overlaying and jacketing method are covered in the guidelines, the main concept is applicable to any retrofitting method. The laboratory tests will be done to find their strengths by retrofitting reinforced structures using various materials.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Face book: -

MINIPROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEB11
TITLE OF THE PROJECT: **DESIGN OF 300 YEARS DURABLE CONCRETE FOR NUCLEAR CONFINEMENT ZONE AND CASTING OF TUNNEL FORM WITH SELF COMPACTING CONCRETE**

FACULTY GUIDE: **Mr.P MUTHAIYAN**

T K RAJAGURU

J SARATH KUMAR

P VENKATESH

Abstract:

In this modern era, civil engineers and architectures build many innovative monumental structures. As these structures are constructed by using conventional concrete, the durability of the structure could not be more. Even though the structural works are stunning at the time, their durability will be very low when compared to the efforts put on those structures. Hence a technical revolution has to be made to overcome the durability problem. Self-Compacting Concrete is a flowable concrete which can compact under its own weight throughout the formwork and need not any vibrator. SCC is used in the reinforcement congested area where the manual compaction can not be adopted. Adopting these properties of a concrete, we moved further to produce a high durable concrete which can last for nearly 300 years. In SCC, displacement of aggregates and water due to external compaction is avoided. Hence chances of air-entrapment and honey-combing will be reduced. By reducing water cement ratio and using ultra-fine materials, we are producing a concrete which can last for 300 years and durability can be of that concrete can be checked as a prediction by using Life-365 software.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

You tube: -

Facebook: -

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA01
TITLE OF THE PROJECT: **MUTLI-LAYERED SOIL COLUMN ANALYSIS FOR WASTE WATER**

FACULTY GUIDE: **Dr. K Deepa**

AJAY VARGHESE

R. BALAJI

M. JAYAKEERTI

MANU VARIER

Abstract:

Large portions of domestic wastewater in several communities are discharged into the environment without treatment. In several areas, wastewater system strategies are needed which are environmentally, socially, and economically sustainable. A full-scale land based approach developed from the most recent efforts in this emerging field is described. A brief description of the mechanisms in the treatment process within the multi layered soil column system as well as the design and operation are provided. The experiment was conducted using various layers of soil placed in different arrangements and the most effective arrangement shall be chosen. The effective wastewater quality improvement of primarily treated wastewater quality was studied.

Key words: wastewater, soil treatment, lithology, soil column, water quality.

Achievements:

Project Design Contests:

Symposium:

Publications: ON PROCESS

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA02
TITLE OF THE PROJECT: **DESIGN OF UPVC WINDOWS FOR LATERAL WIND LOADS SANDWICH WITH HURRICANE BARS FOR MULTISTOREY STRUCTURES**

FACULTY GUIDE: **Ms. S. Vallabhy**

M. ARUN KUMAR

V. BHARATH

E. DHAKSHINA MOORTHY

HITESH KUMAR JAIN

Abstract:

Old windows were not built to face high velocity winds; they're just not strong enough. That's why old windows bend or deform. When that happens, narrow air gaps form between frames leading to whistling and rattling sounds. Part of these innovations includes fusion-welded steel reinforced UPVC frames and toughened glass which lends to the exceptional strength of our windows and doors. In coastal areas or high rise buildings where wind speeds are higher, we use the 'Hurricane Bar' as additional support to give further rigidity to the frames.

Keywords: UPVC windows, Hurricane bars, Toughened glass.

Achievements:

Project Design Contests: --

Symposium: ---

Publications: ---

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA03
TITLE OF THE PROJECT**: EXPERIMENTAL STUDY ON FLOATING CONCRETE**

FACULTY GUIDE:Mr. **M.S.DINESH KUMAR**

AMRUTHA.S

GAYATHRI.M

GEETHA.L

Abstract:

The project is titled as " EXPERIMENTAL STUDY ON FLOATING CONCRETE " , followed by Archimedes Principle (Law of Buyoncy) to support the structure at a moderate and convenient depth. Floating concrete structure is a solid body made of lightweight materials. This project deals about the preparation of mix design and various tests namely compressive strength, tensile strength, slump test, flow properties of concrete etc., because of its low density and moderate range of compressive strength , it can be used in non-structural application.In this study, floating concrete was developed for different proportions using the ingredients with less specific gravity than the conventional concrete.Casting is done and the testing is made for 7th day and 28th day.

Achievements:

Project Design Contests:

Symposium: ----

Publications:

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA04
TITLE OF THE PROJECT: **ANALYSIS PURIFICATION AND TESTING OF INDUSTRIAL WASTE WATER**

FACULTY GUIDE: **Mrs. M.Monitha**

S.BAWANI

K.KAVISREE

M.MENAGA

Abstract:

Increase in industrialization and human activities have serious impact on the environment thorough discharge of waste water into natural streams and colour is one of the parameters by which one can identify whether the water is normal water or it is a textile effluent. The presence of colour and other contaminants in aqueous streams, arising from the discharge of untreated wastewater into water bodies is one of the most important environmental issues. The process of bio sorption as many attractive features compared to the conventional methods. Hence, bioadorbent filter bed is prepared by purification of waste water.

Key words: textile effluent, untreated wastewater, biosorption, bioadorbent filter bed.

Achievements:

Project Design Contests:

Symposium: ----

Publications: ON PROCESS

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA05

TITLE OF THE PROJECT: **TREATMENT OF INDUSTRIAL EFFLUENT USING MICROORGANISM**

FACULTY GUIDE: **Mrs.M.Monitha**

R.DHANALAKSHMI

M.KOMAL OJHA

MRITHULA SURESH

Abstract:

Wastewater released from various industries is the major concern for environmentalists nowadays. Industrial effluents contains various toxic metals, harmful gases , and several organic and inorganic compounds . Due to the discharge of these toxic effluents , there has been a major loss in the ecological , social and economic perspective .These problems can be overcome by the use of biological treatment methods which are eco-friendly as well as economic .The study includes indigenous microbes which has to be identified and effectively utilised on treatment process .

KEYWORDS : industrial effluent, indigenous organisms, treatment, eco-friendly

Achievements:

Project Design Contests: Yes

Symposium: ----

Publications: ON PROCESS

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA06

TITLE OF THE PROJECT : **Experimental study on lime based mortar using natural additives**

S Deepak

E Gnana Ezhilan

S. Karthikeyan

S Magarish

Abstract: Lime is arguably the world first true green and versatile building material. With the introduction of Portland cement during the nineteenth century the use of lime mortar in new constructions gradually declined, largely due to Portland's ease of use, quick setting and compressive strength. Lime posses' greater qualities such as stickiness, ease of applications, breathability moisture resistance, natural antiseptic, self -healing, durability, low thermal conductivity, incombustible, solar production, harmonious balance. The traditional lime binder offers greater durability but less strong compared to cement. Now-a-days various chemicals are used as admixture to improve the strength and performance of concrete. It also helps to retrieve the traditional concept of additional of admixture to concrete. By shifting ourselves to use such eco-friendly (natural) admixtures(kadukkai powder, jaggery water) in mortar will lead the construction industry towards sustainable development.

Key words : lime , plaster of Parris , kadukkai powder , jaggery water

Achievements:

Project Design Contests: Symposium: ---

Publications: ON PROCESS

Social Media Reach:

YouTube: --

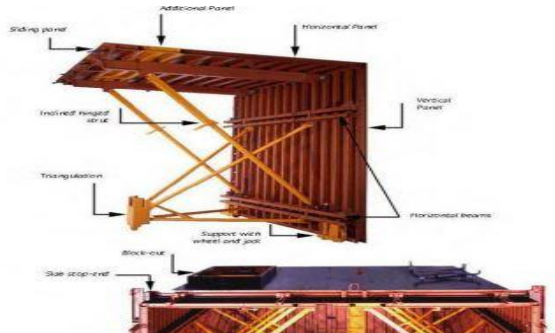
Face book: --

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA07

TITLE OF THE PROJECT:**DESIGN OF STRUCTURAL FORM WORK OF INDIANMODEL TUNNEL FORM AND PROTOTYPE SAMPLE**

FACULTY GUIDE: **Ms.P. Sarala**



P.AJITH KUMAR

A.ALAVUDEEN

DASAPRAKASH.P

MOHANRAM

Abstract:

Now a day construction industry is becoming very time conscious. Time (i.e project completion time) or duration of the project is very important factor in construction industries these days. The quote " Time is money" is becoming truth, because time loss is ultimately money loss. Also as current situation of labour availability is very less, so industry should move from labour oriented to machine oriented. And formwork is best factor where we can move from labour to machine. Formwork perform key role in construction, in time as well as costs. Only formwork costs nearly 25% of total project cost. As we discussed time factor, by using systems like mivan, aluminum off course there is time saving but not up to that extent. So there is new emerging technology named TUNNEL formwork. Which is much beneficial than that of aluminum or mivan formwork. This paper describes the introduction to advanced TUNNEL formwork.

Key Words: TUNNEL formwork, slab cycle, economy, time saving.

Achievements:

Project Design Contests:

Symposium: ---

Publications: ON PROCESS

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA08
TITLE OF THE PROJECT: **TRAFFIC MANAGEMENT STUDIES IN AVADI**

FACULTY GUIDE:Mr . **P. MUTHAIYAN**

S.B.Gayathri


U.Kavinilavu


R.Monisha


Abstract: Vehicular traffic increases with increase in population, industrial growth, growing commercial activities etc. Avadi in a Chennai city, which is a education hub and has a big industrial area, which attracts students and people seeking employment. Hence, traffic congestion is obvious problem during peak hours. Our project work revolves around this problem. Our objectives are to find reasons for congestion and solutions for the same. For these, we will do surveys and will analyze it and will try to give best possible solutions which will improve vehicle efficiency, user convenience, and intersection capacity and will decrease risk of accidents. The rapid development in machine learning and in the availability of sources makes it possible to examine and predict traffic conditions more accurately than ever. This can help to optimize the design and management of transport services in a future automated city. In this paper, we provide a detailed presentation of the traffic prediction methods for the place Avadi, also giving an overview of the existing data sources and prediction models.

KEY WORDS: Traffic flow prediction ,Prediction models, vehicle volume count

Achievements:

Project Design Contests: --

Symposium: ---

Publications: ON PROCESS

Social Media Reach:

YouTube: --

Face book: --

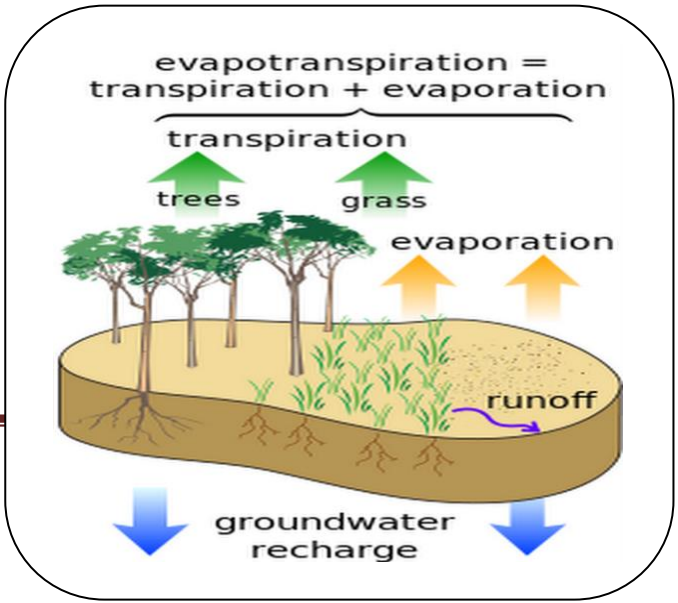
MAIN PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-4CEA09
TITLE OF THE PROJECT: **ARTIFICIAL RECHARGE STRUCTURE OF WATER BODIES – THIRUVALLUR REGION**

FACULTY GUIDE: **Dr. K Deepa**

S. ABISHEK


V. ARUN

Abstract :

Artificial recharge of aquifer is the process of adding water top an aquifer through human effort. The main purpose of artificial aquifers recharge is to store water for later use while improving upon the quality of water. This study will review the existing methods of artificial recharge aquifers such as infiltration basins and canals, water traps, cut waters, surface runoff drainage wells, and diversion of excess flow irrigation canals with the help of various case studies conducted in the recent past at various places.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: ON PROCESS

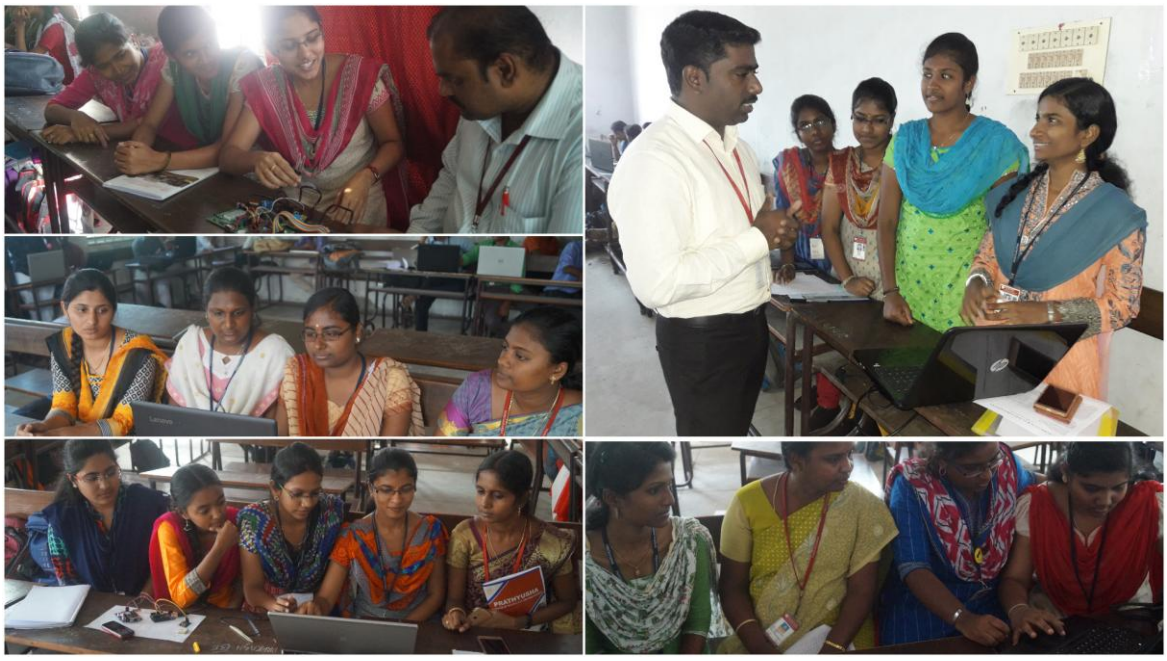
Social Media Reach:

Youtube :

Facebook :

PROJECTS 2018-19

EVEN SEMESTER



28.02.2019

Department	Project Coordinator	Domain	No. of projects	Total
CSE	Ms.K.P.Revathi	IOT	6	42
		MOBILE APP	14	
		WEB APP	8	
		CYBER SECURITY	3	
		IMAGEPROCESSING	2	
		MACHINE LEARNING	3	
		SAP	4	
		DATA ANALYTICS	2	

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID- **4CSE07**

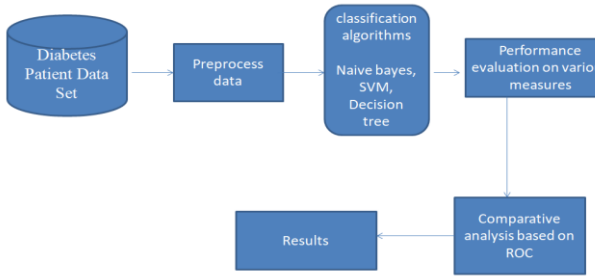
TITLE OF THE PROJECT: **Prediction of diabetes using datamining**

FACULTY GUIDE:Ms.Meena

Sindhu priya B

Sowmya G

BLOCK DIAGRAM



Abstract :(7 lines)

Diabetes is considered as one of the deadliest disease and causes many complications. Machine learning and effective use of data mining algorithms can be used to identify the disease.The project aims to develop a model which can diagonise the disease with maximum accuracy. Machine learning classifications algorithms were used to identify the diesease at early stage. Performance comparision of SVM, Decision Tree and Naïve Bayes algorithms has been done on Pima Indians Diabetes Data base. The highest accuracy measure was calculated using the instances.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-**4CSE13**

TITLE OF THE PROJECT: **On the spot road accident information and insurance dispute resolution**

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

Divya bharathi R

Ellakiya S

Abstract :(14 lines)

In earlier days it took long time to claim insurance so there is a portal to resolve insurance claiming problem and updating the information of accident. The accident data's will be collected from the different organization by the police department. The information can include a photos of the site where accident has been occurred, interviews with the eyewitnesses the person who was physically present at the place and also the information about the injuries and fatalities, reason for accident .The doctor will update the accident medical report such as movement of client on impact, immediate symptoms, current symptoms and treatment, loss consequential to injury and at last the reviews of the medical. The victims or user can also view the medical report which is updated from the doctor. The police and hospital records from the road accident causalities were collected to determine their matching and reporting records of the particular victim. The police department will update the road accident information and also along with the vehicle information. The police department also updates the location based death updates, it all maintain and stored in the secured database. The claim is the first step toward being compensated for medical expenses, lost wages, or other damages resulting from the accident. The insurance company will then open an investigation of claim and victims may be asked to submit the accident report. This will reduce the delays and quick action for the investigation.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

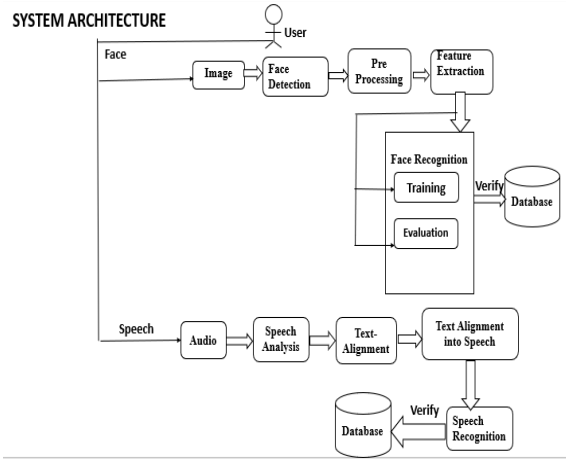
TEAM ID-**4CSE11**

TITLE OF THE PROJECT:**ATM security machine using digital signal processing**

FACULTY GUIDE: **Ms.s.Famitha**

Divya K

Premika



Abstract :(10 lines)

Automated Teller Machine (ATM) has been convenient approach than ever before for accessing bank's account from anywhere anytime. Being an electronic telecommunication device, it helps customer to perform transactions/withdraw cash, make deposits & transfer funds by simply touching few buttons on screen without need for a cashier or bank teller. A survey showed that there is no proper security in withdrawing cash from ATM's. There are no proper authentication methods applied for security during ATM transactions.In ATM there is no proper security in withdrawing and deposit cash of it . There are no proper authentication methods are applied for security during ATM transactions. So we are introducing digital signal processing technique to made secured transaction into ATM of it.Digital Signal processing technique which means face and speech recognition system of both capturing image and voice input has been provided by the user . By this technique we can make a secured and safety transactions in ATM.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

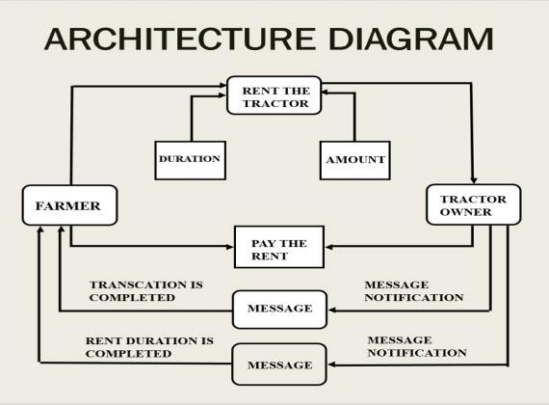
TEAM ID-**4CSE20**

TITLE OF THE PROJECT: **Efficient Farming**

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

Jothi jahnavi

Monica R



Abstract :

In order to improve the economy of India, agricultural growth needs to levitate. This demands small and marginal scale agriculture to become efficient and self-sustaining. A mobile application that the farmers can use to hire tractors as well as other mechanizations at a nominal amount all using their mobile phones. This would not only help them avoid manual labour but can be also be considered as an important step to encourage this profession. Using kiosk software for farmers to hire farming equipment like tractors and other machines. We proposed a system to make the farmers aware of the current market rate of the product. This type of system is much beneficial for the young generation to adopt to the traditional farming technique. It will increase the easy access to farm mechanization solutions through rental of tractors and farm equipment for small and marginal farmers.We proposed a system to make the farmers aware of the current market rate of the product. The farmers were allowed to use his mobile to pay for the rental . SMS support for payment transactions also has to be supported. SMS/Notification will be send once the transaction is complete.This type of system is much beneficial for the young generation to adopt to the traditional farming technique. The benefits of our project is Avoid bidding problem and Cost is not the issue because of the mobile based application.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

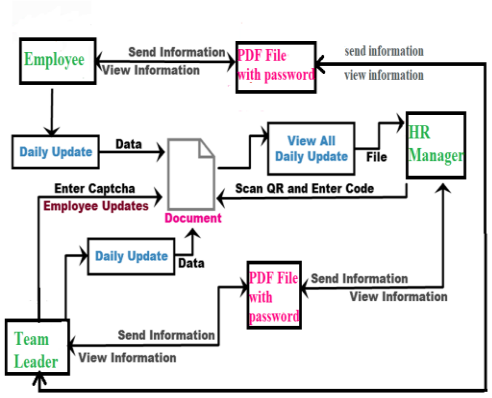
TEAM ID-**4CSE09**

TITLE OF THE PROJECT: **Secure Intra-Communication Information Authority in**

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

Kavitha R

Chithradevi P



Abstract :

Group data sharing in cloud environments has become a hot topic in recent decades. An organization is an entity comprising multiple people, such as an institution or an association, that has a particular purpose and grouping related functions into manageable units to achieve the objectives of the enterprise in the most efficient and effective manner. Daily report which is stored in cloud enables the team manager to have an overview how the team's project is progressing in terms of each team member's individual tasks without having to talk to each one on a daily basis. In Proposed work, whatever the employee work as a task is automatically create as a PDF file and it will not be rewrite by anyone and daily updating has been updated to the particular file. For accessing the pdf file by team leader, the captcha has been generated to mostly avoid the automatically harvesting the details. If HR Manager wants to see the daily update of the Team Leader, then the QR code has been generated and scanned by them to get access to the file.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

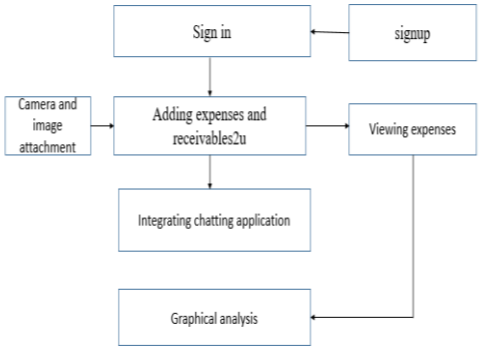
TEAM ID-**4CSE05**

TITLE OF THE PROJECT: **Expenses management system**

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

Alekhya K

Sai gowthami A



Abstract :

People do not have track on their monthly expenses and receivables and they do not have any control on what they spend.Developing an application which will be able to keep track on expenses and receivables can solve this problem.To manage our monthly expenses we are going to design an application. Whatever we spend monthly or daily will be recorded in this application. And it is used to manage our monthly expenses.OAuth for authentication via social logins and firebase authentication for respective accounts and firebase, firestore for storing and retrieving respective users data is implemented and Chabot is also included.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

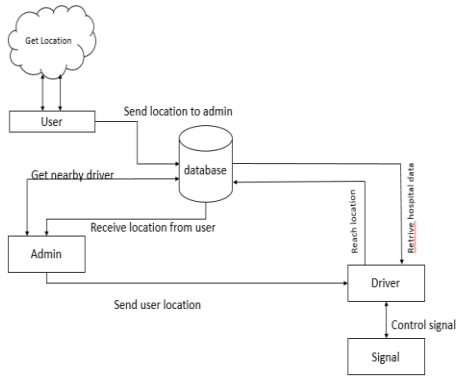
TEAM ID-4**CSE21**

TITLE OF THE PROJECT: **Ambulance Service**

FACULTY GUIDE: **Ms.B.Gunasundari**

Jothi jenifer

Gayathri shanmugam



Abstract :

Initially the ambulance driver did not know the exact location of the accident spot because of the heavy traffic due to this we cannot save many people's life. By current technology era everything runs on smart phones and applications so we created an mobile application by live tracking of ambulance service . This app will have ambulance driver's register their availability and location . Either executive emergency helpline or user's on client will book an ambulance then user location will be pin pointed on the Google map and even the ambulance which is nearby the user will be pin pointed on the map , once the patient is on board the ambulance location is pointed and it will send to the admin this location will be shared to ambulance driver and then the list of hospitals are pointed out on the map which helps the admin to choose the nearby hospital to take the patient on time . The ambulance location is tracked by the navigator geolocation method based on Rest FUL Web Services . This technique will help the ambulance location to be updated in the database . Moreover the ambulance driver can control the traffic signals by the upcoming ambulance route by changing red to green signal

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

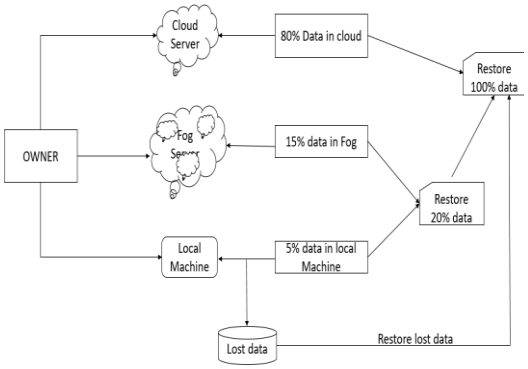
TEAM ID-4**CSE23**

TITLE OF THE PROJECT: **3 layer privacy preserving using fog computing**

FACULTY GUIDE: **Mr.K.Shankar**

Gayathri T K

Manasa R



Abstract :

Fog computing is an architecture that uses edge devices to carry out a substantial amount of computation, storage, communication locally and routed over the internet backbone. The development of cloud computing technology with the explosive growth of unstructured data, cloud storage technology gets more attention and better development.The cloud provider does not have suggestions regarding the information and the cloud data stored and maintained globally anywhere in the cloud. The privacy protection schemes are usually based on encryption technology. A three-layer storage framework based on fog computing. The proposed framework can both take full advantage of cloud storage and protect the privacy of data. Here we are using hash- solomon code algorithm is designed to divide data into different parts. In this framework we are using bucket concept based algorithms to secure the data information and using BCH code algorithm for error-correcting cyclic problem.Based on computational intelligence, this algorithm can compute the distribution proportion stored in cloud, fog, and local machine, respectively.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

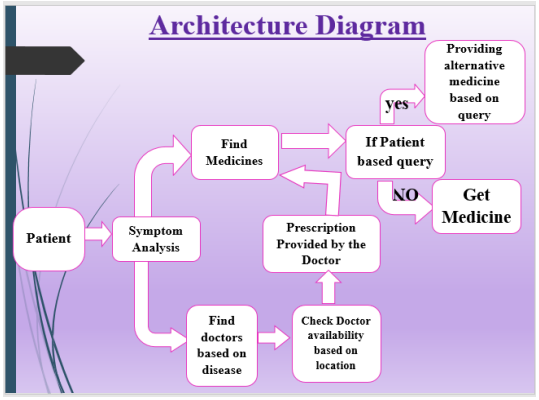
TEAM ID-4**CSE17**

TITLE OF THE PROJECT: **Prediction Analysis Of Doctor And Medicine In Hospitals**

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

Gayathri S

Monisha R



Abstract :

Health is one of the most important assets of our life which directly reflects in any form of progress or development. Many times patients do not find the required doctor during the peak of a disease or shortage of doctor in hospital. Development of a Healthcare Information system to provide predictive analysis on Medicines availability in hospitals & Predictive analysis on increasing the efficiency of the hospital by managing availability of doctors and specialists. Naive Bayes classifiers are highly scalable, requiring a number of parameters linear in the number of variables. Naive Bayes is a simple technique for constructing classifiers. Increase the efficiency of treatment / prescription to save the life of people.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

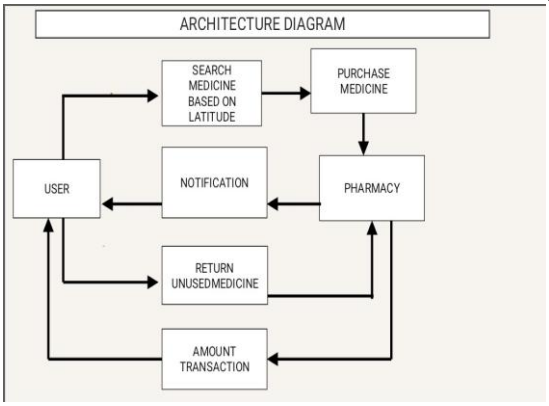
TEAM ID-4**CSE16**

TITLE OF THE PROJECT: **Medicine tracking using android App**

FACULTY GUIDE: **Ms.Anitha lakshmi**

Janani P

Gayathri.D



Abstract:

One of prestigious services is medical services to serve human preserve their health but unfortunately because of some corrupted money minded professionals in the medical industry degrades its reputation. When a person suffering from chronic condition and forgets to carry his medicine, it is difficult to get the medicine in other places. In order to overcome this type of difficulty we propose an android application to locate the pharmacy with the specified drug in their location using GPS by Dynamic Routing algorithm and additionally provides daily tips for the pregnant ladies. To utilize these medicine back into circulation which would help the people with efficient resource usage. Here the medicines are first checked for their dates which is given by user and then it is registered and the it is used further by depositing it in the medical shop.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

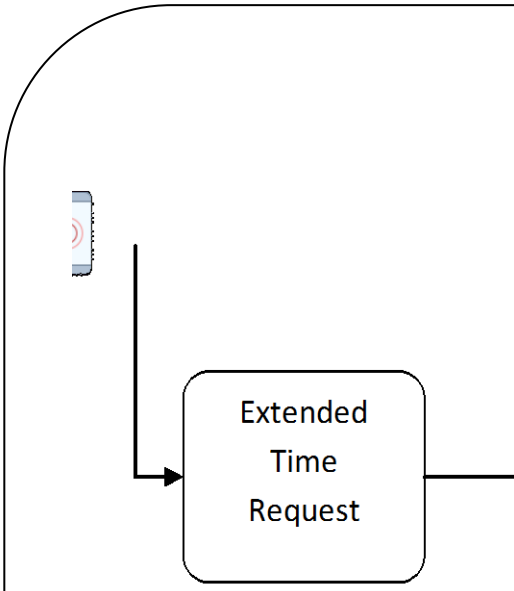
TEAM ID- **4CSE22**

TITLE OF THE PROJECT: **Stopage of work**

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

Likitha CH

Mohana priya T



Abstract :

One of the significant risks in the delivery of a construction
the effect on delivery time of delays in critical activities. So
such as those caused by weather conditions, are b
contractor's control, could not have been reasonably anticip
time of bidding for the contract. These delays make it d
impossible to meet the project completion date .Any proje
delays and disruptions especially the mega/complex projects of to
with many interfaces. Proving delay or disruption is not an easy task
and it is a time consuming process especially in the complex projects
with thousands of activities. We create an application in which day-to-

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID- 4**CSE04**

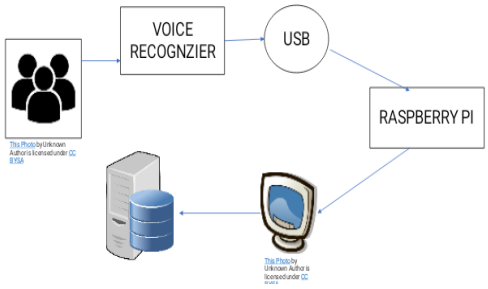
TITLE OF THE PROJECT: **Stock Updates using voice recognition**

FACULTY GUIDE: **Mr.Thamba meshach**

Akshya B

Mohana P

ARCHITECTURE DIAGRAM



Abstract:

Generally Stock management is done using text updation in the existing system. There is no advanced techniques in updating the stock. In this system common errors may occur. Here we are developing a stock management system using voice recognition. In this system we use voice commands to update the stocks.Also there is an login page to recognize the authorised person. This will protect the system from malpractices. The voice will be converted into text and this will be updated in database

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

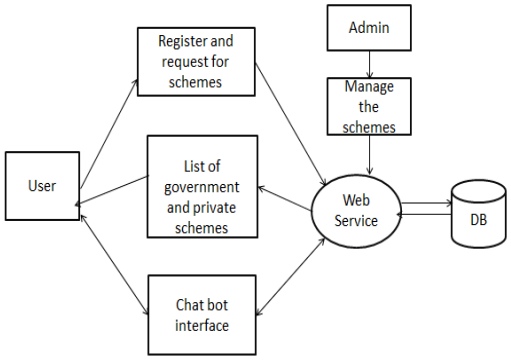
TEAM ID-4**CSE02**

TITLE OF THE PROJECT**: E-Friend For Government Schemes**

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

Ajith Kumar.P

K U Akash



ABSTRACT:

Mega bot (chat bot) which provides information related to all government sponsored loans/insurance schemes at single place. This interactive chat bot should be able to pull information from various sources like nabard, rbi,etc and should be able to assist the users with the relevant information. We developed a interactive web application for all available state government and central government schemes in a single web site. we also create a mega bot(chat bot) using (aws) which provides information related to all government sponsored loans/insurance/scholarships schemes in a single window. User can search all the government schems in a single web page instead of searching all the web pages in one by one manner. It an easy way to convey the available schemes in government, this web pages is to create awareness to public.user can register and they may use this web page at any time if they needed. while register this web page user can choose the particular schemes whatever user needed to be updated schemes by the state government and central government.the message are deliverd to the users using their email id.user can save their time by using this web page.we provide a special web site to show all government schemes and there is no web page like this. People are not aware of all those schemes coming from the state government and central government. chat bot plays a vital role in this page,so user can easily interact with us.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

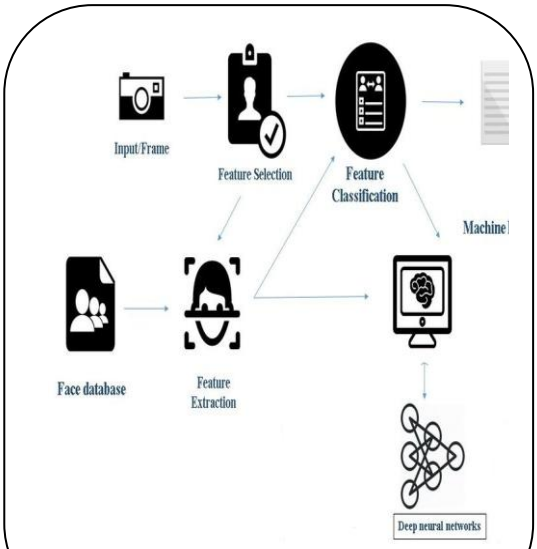
TEAM ID-4**CSE06**

TITLE OF THE PROJECT: **Emotion Detection On Live Video Using Deep Learning**

FACULTY GUIDE: **Mr. W.Thamba Meshach**

Vekata sathish A

Balu manoj reddy M



Abstract:

Detecting emotions from live video is a challenge in many fields and it would be use as a emotion recognition system in many real time applications.In this project, we have implementing a model, which detects a emotion of person in live video by using CNN (convolutional neural network).The emotions that the model can recognize are happy, sad, neutral etc. By using RNN (recurrent neural network).This model can be various real time applications such as patient emotion, monitoring kids, lie detection tests etc.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

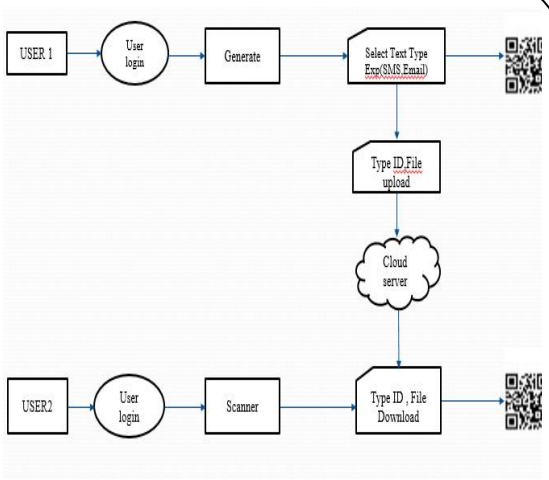
TEAM ID- 4**CSE10**

TITLE OF THE PROJECT: **Enabling Auditing And Data Sharing For Secure Cloud Storage**

FACULTY GUIDE: **Ms.Sornalatha**

CH.Mounish

Deepak raj R



Abstract :

The main goal of our project is to design a mobile application to Auditing and Data Sharing through cloud storage service, users can remotely store their data to the cloud and realize the data sharing with others. Remote data integrity auditing is proposed to guarantee the integrity of the data stored in the cloud. In some common cloud storage systems, cloud file might contain some sensitive information. Encrypting the whole shared file can realize the sensitive information hiding, but will make this shared file unable to be used by others. In this paper we propose a remote document reference id automatically convert to the QR code then just scan user module then download the particular document integrity that realizes data sharing with sensitive information hiding. Signatures are used to verify the file in the phase of integrity auditing.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

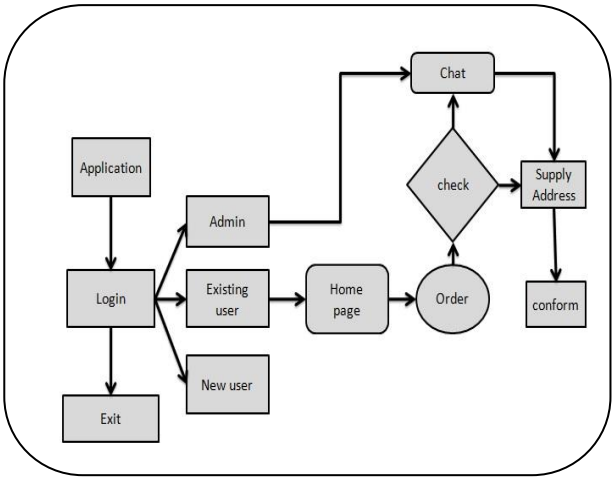
TEAM ID- **4CSE19**

TITLE OF THE PROJECT: **Rural Drinking Water Supply**

FACULTY GUIDE: **Dr.S . Padma Priya**

Haribabu R

Jayakumar E



Abstract :

Now a days in the developing environment, the requirement of water is the basic need. So in our project we connect the customer with the supplier using an Android application. It can make customer to order water for a period of monthly or for a particular day. Water is the basic element for human survival and development, and access to safe drinking water has been an important national goal in rural areas. Most of this rural drinking water projects are small-scale centralized works with wide coverage, dispersed water consumption points and lack of professional technical personnel, this made it supply water for the local residents inefficiently. So we provide the way by offering service providing and monitoring

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID- **4CSE14**

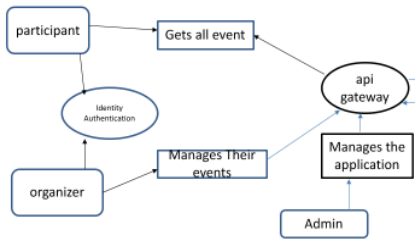
TITLE OF THE PROJECT: **Event finder**

FACULTY GUIDE: **Dr.S . Padma Priya**

Franklin David Paul

Mohan lal S

ARCHITECTURAL DIAGRAM



Abstract :

The main aim of this project is to build an Android application that helps the students to find a All kind of events in a specified location and according to the specified category.The main features provided by the Event Finder application are as follows:

- Basic Search where the student can search for a particular Event based on any keyword and
- Advanced Search where the user can specify the category and the distance range for the Event location .

The users can write a review, see the reviews and invite a friend/colleague to meet at a particular event. Students also not get the proper platform for finding events which helps to build their resume. Many of the students are not aware of the useful events organized around them.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

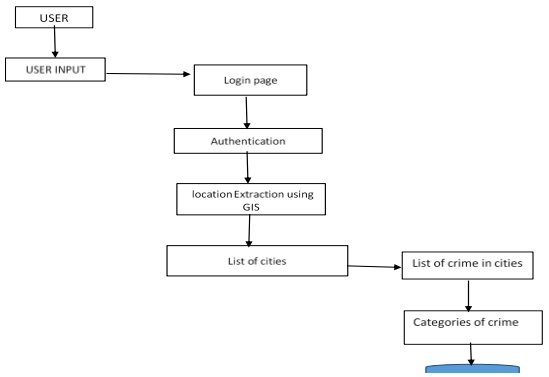
TEAM ID-**4CSE03**

TITLE OF THE PROJECT:**Geography of routes based on security and surveliance**

FACULTY GUIDE: **Ms.S.Famaitha**

Ajith shankrathi

Ganesh prasath



Abstract :

A link between human geography and criminology has been established as a result of the development of strong parallel that has existed in science for decades, similar to how criminology was predominantly put in the focus of sociology due to the series of paradigm shifts. Cognitive mapping, environmental perception and values and meanings attributed to "place", "space" and "environment" have constructed a framework for interaction between criminology and human geography and for development of geography of crime.In present economic conditions crime anaylsts are facing difficulties in analysing the hotspots of crimes and details of crime in particular viscinity. Geographic information system as an analytical instrument is also used for pattern analysis or for researching spatial relations between crime and other demographic and socio-economic factors by using visual representation of spatial data. Along with usual implementation of traditional methods, geographic information systems contribute in directing crime investigations to a certain area of probable locations of residence, other activities and the offender's itinerary. Due to its significant impact on the quality of police work, as well as policy and decision making on operational, tactical and strategic levels, modern police organizations use GIS in their daily work in order to prevent and reduce crime rates. Geographic profiling is the process of determining the most probable area of an offender's base of activities through an analysis of his or her crime locations . It is used most often in investigations of serial crimes.The transformation of existing mobile technology into tools that help deter these types of human interaction, proactively and reactively is not a new concept;

Achievements:-

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

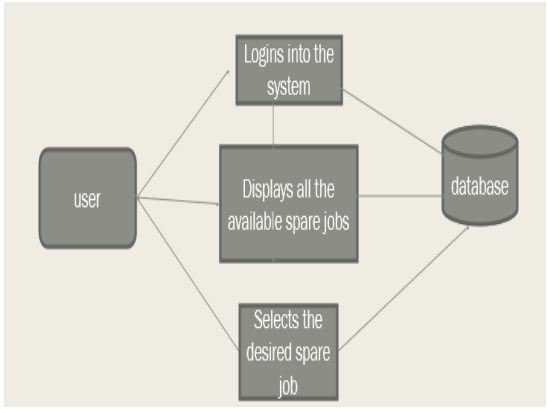
TEAM ID-**4CSE01**

TITLE OF THE PROJECT: **Spare Jobs**

FACULTY GUIDE: **Ms. Anitha Lakshmi**.

Abishek raja

M.Karthick



Abstract :

In the current economic scenario, finding the spare jobs has become a difficult task. In order to curb that disastreous condition in our society, we propose this application that will help the users to search and analyse ,what are the different kinds of spare job that will be available in our vicinity. Our application uses Xamarin tool for developing the particular module and for the database serving application, we use asp.net coupled with resources for the particular data.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

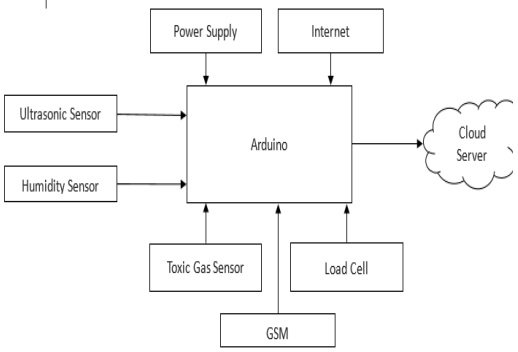
TEAM ID-**4CSE17**

TITLE OF THE PROJECT: **Smart Garbage System Using IoT**

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

Karthik M

Gnanavel



Abstract :

In our country, many public places are being filled with garbage and municipal wastes, which has become a major issue and remains uncontrollable. It creates many health issues and it is unhygienic for society.To solve this problem we are trying to find a solution in our project named Solid waste Management using IoT technology.In our project we are placing sensors in the dustbin. We also place an ultrasonic sensor , which helps to identify the level of garbage in the dustbin. If the garbage reaches the threshold level a notification message will be sent to the respective municipality authorities and also it will be alerted in their centralized server. We can also establish a facility to identify the toxic and non toxic waste and it will help us to segregate as well as disposable and recyclable waste.We also help to identify the moisture content of garbage by using humidity sensor. It has been tested in the laboratory environment as well as in the field environme

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

Youtube :

Facebook :

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

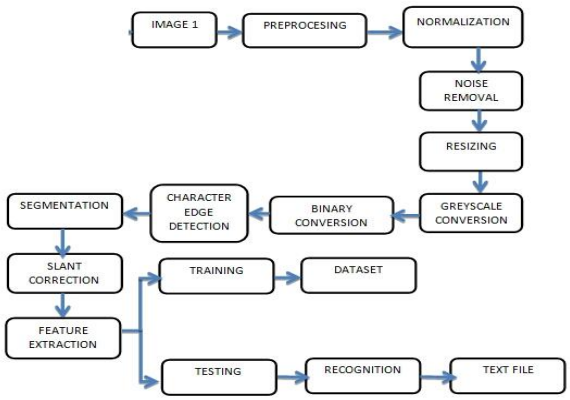
TEAM ID-**4CSE36**

TITLE OF THE PROJECT-**COMPUTER VISION BASED TEXT SCANNERS**

FACULTY GUIDE: **Mr. W.Thamba Meshach**

SAKTHI J

SONIYA G



Abstract: (10 lines)

Humans have unique handwriting styles which prove to be an obstacle for handwriting recognition algorithms. To date, multiple researches have been done to recognize these different handwriting styles, most notable using the deep convolutional artificial neural network (DCNN) with back propagation algorithms, which has also been proven to give adequately high accuracies. By using real time process image capturing, this system and algorithm can be implemented to apply multiple handwritten entry data for schools and universities, where the handwritten data of a standard score sheet from different individuals can be transferred to a spreadsheet.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

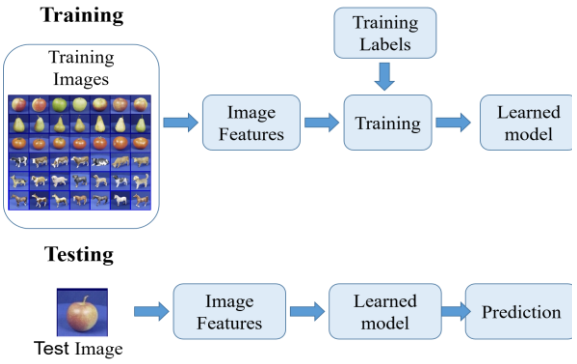
TEAM ID-**4CSE34**

TITLE OF THE PROJECT: **OBJECT DETECTION AND DISTANCE FINDING USING CONVOLUTIONAL**

FACULTY GUIDE: **Ms. K. SORNALATHA**

VEERAMANI G

PRABHU P



Abstract: (10 lines)

In the interest of recent accomplishments in the development of deep convolutional neural networks (CNNs) for object detection and recognition tasks, a new deep learning based object recognition is proposed. An Artificial Neural Network (ANN) is a technology which is used to process the information pattern and it is inspired by the way biological nervous systems, such as the brain, process information. The key element of this pattern is the novel structure of the information processing system. Using the technology of image-net, we collected a plethora of specific images and trained them in different context under the deep learning concept using Jupiter notebook framework. By having the Microsoft coco(common object in context), it is a large scale object detection, segmentation, and captioning dataset. In Microsoft coco, it presents a detailed statistical analysis of the dataset in comparison to PASCAL, Image Net, and SUN. One of the most popular types of deep neural networks is known as convolutional neural networks (CNN). Before preceding the images for recognition, each group is labelled with the unique name because here we are using the supervised learning. In order to determine the distance from our camera to a known object or marker, we are going to use the model of triangle similarity. Using the concept of triangle similarity we find the approximate distance from the object from the camera. GTTS (Google Text-to-Speech), it is a used as a python library and CLI interface with google translate.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

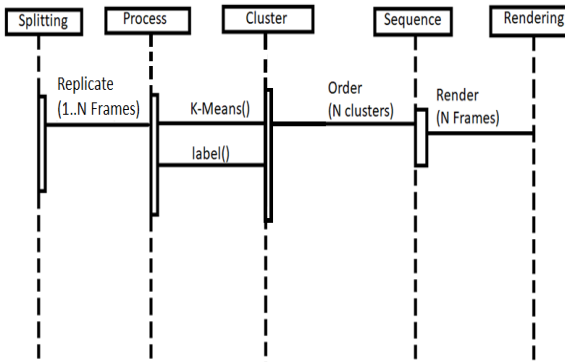
TEAM ID-**4CSE37**

TITLE OF THE PROJECT: **MOTION VIDEO PROCESSING**

FACULTY GUIDE: **Dr. M. Gopi Krishnan**

YUGESH E

SANTHOSH MM



Abstract: (10 lines)

In the film industry for motion picture processing, it requires different rate (fps) of motion capture. Utilizing single sequence compromises on quality. Different frames are required to be inputted to video editing tools as per motioning requirements. The goal of the project is to construct a model to utilize the captured frame sequence and generate slow motioning using clustering and Convolutional Neural Networks. Convolutional Neural Networks will help in recognizing the similarity of Patterns among the frames. Using Computer Vision the patterns and similarity among images are recognized. The captured sequence is first split into number of frames. The frames are then replicated based upon the motioning requirements. We use Deep Neural Networks to identify the duplicate frames based upon the color levels. The color data is visualized and then the frames are compared. After comparing, the frames which are identical are grouped together. The grouped or clustered set of frames which are identical are then labeled. The clustering is done by using k-means algorithm. This uses unsupervised learning mechanism that can used to automatically classify or group data together that has no preidentified structure. It applies an additional layer of processing which essentially allows extracting features from different pieces of the image. Then the frames are renamed and ordered.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

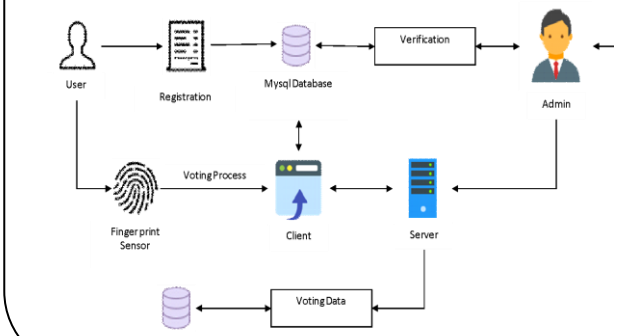
TEAM ID-**4CSE27**

TITLE OF THE PROJECT: **ONLINE VOTING SYSTEM USING FINGERPRINT SENSOR**

FACULTY GUIDE: **Ms. V. Anitha Lakshmi**

NISHANTHI R

PREETHI L



Abstract: (10 lines)

Election is a process of selecting the right candidate to rule our nation. The voting system in India is insecure, because voters need to stand in a queue for a long time and the only security check is voter ID verification, which are duplicate nowadays. To overcome this we are introducing Online voting system which provides security, authentication, accuracy, flexibility and convenience to voters. It is a web application supported by all browsers. The admin stores the voter's details and their finger prints into the database before election to avoid duplication.

Achievements:

Project Design

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

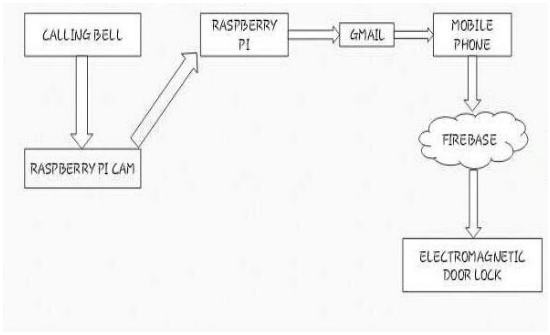
TEAM ID-**4CSE23**

TITLE OF THE PROJECT: **INTELLIGENT DOOR LOCK**

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

NANDHINI V S

UMADEVI K



Abstract: (10 lines)

Security is one of the important aspects of the home security system. Nowadays an unauthorized person accesses the door. To overcome this we are introducing intelligent door lock system which provides security authentication, flexibility to users. It is based on Internet of Things (IoT).It simply lock and unlock the door from anywhere using cloud. Web cam captures an image Raspberry-Pi sends an image to Gmail. Firebase database is used to access the door.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

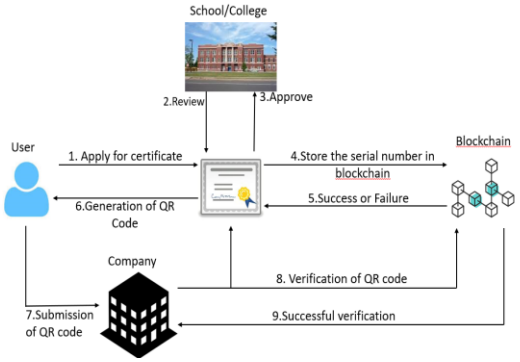
TEAM ID-**4CSE38**

TITLE OF THE PROJECT**: ONLINE CERTIFICATE VALIDATION USING BLOCKCHAIN**

FACULTY GUIDE: **Dr. M. Gopi Krishnan**

SHANMUGA PRIYA R

SWETHA N



Abstract: (10 lines)

Lakhs of people getting Degrees year after year, due to the lack of effective anti-forge mechanism, events that cause the graduation certificate to be forged often get noticed. In order to solve the problem of counterfeiting certificates, the digital certificate system based on block chain technology. All the illegal activities filled against a person and all the activities are updated in the Personal ID. Using the modification process we would monitor not only the degree cortication alone but also entire personality and behavioral activities of that person. We deploy Unique based monitoring using this system.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

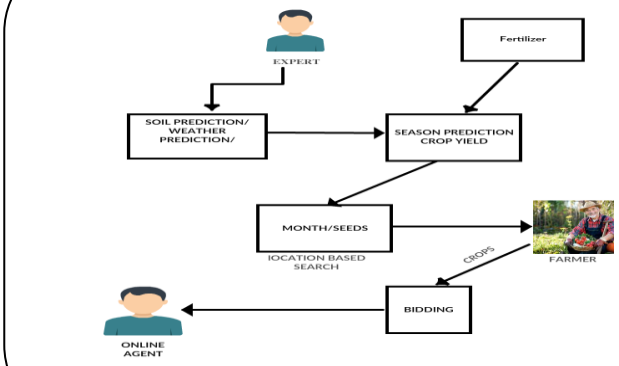
TEAM ID-**4CSE30**

TITLE OF THE PROJECT: **CROP MANAGEMENT AND IRRIGATION AUTOMATION USING DATA**

FACULTY GUIDE: **Dr. S. Padma Priya**

PREETHA P

PAVITHRA R



Abstract: (10 lines)

Our agricultural face: agricultural production is dispersed, agricultural consumption is diversified, and connection and docking are poor between small-scale production and market. We propose the agricultural marketing information recommendation system based on cloud computing in order to provide accurate recommendations for farmers. We propose a system to intimate farmers about the crops to be seeded in the specific season and also make the farmers aware of the current market rate of the product. This type of system is much beneficial for the young generation to adapt to the traditional farming technique.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

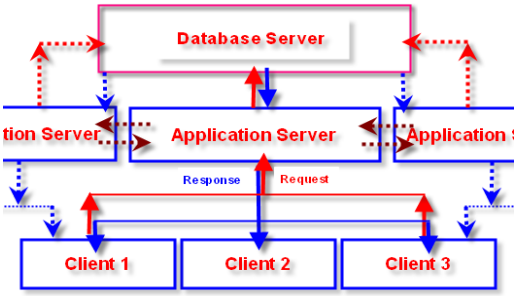
TEAM ID- **4CSE41**

TITLE OF THE PROJECT: **SAP HR PAYROLL**

FACULTY GUIDE: **Dr. S. Padma Priya**

SUGANYA U

SWETHA MR



Abstract: (10 lines)

Since mechanization business is increasing in the world, the HR module in Enterprise Resource Planning (ERP) has rich features which are static in nature and integrates seamlessly with assorted modules. ERP based HR module provides huge solutions for HR stream and making it feasible for different branches to get access to specific worker record. Common database is used in SAP R/3 because as you enter the information in the system and that is made available to the rest of the organization immediately.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

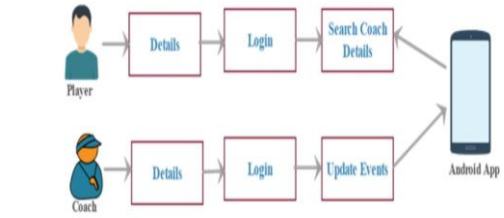
TEAM ID- **4CSE29**

TITLE OF THE PROJECT: **SHARING SPORTS EVENT USING ANDROID APPLICATION**

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

NIVEDHA P

ABINAYA S B



Abstract: (10 lines)

Sports are very important for one's life and participation in sports should always be encouraged. Participation in sports makes us active, healthy, fit, and also the development of our social and communication skills. In existing system, there was no direct exposure between the coaches and the sports person. The sports person even unaware of the coaches of their related field. So to overcome from this situation we proposed a application in which the sports person will get direct link with coaches and their events which is organized by the coaches. The sports equipment will be added to this application and player can view the equipment's.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

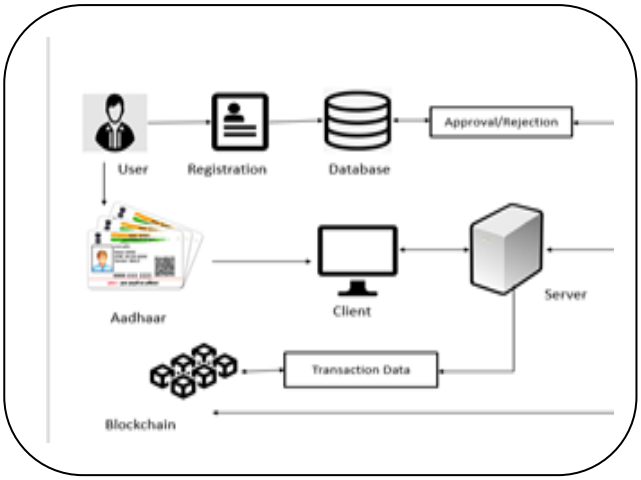
TEAM ID- **4CSE28**

TITLE OF THE PROJECT: **DIGITAL CASH: TRACKING OF ILLEGAL USERS IN BITCOIN USINGBLOCKCHAIN**

FACULTY GUIDE: **Ms. B. Gunasundari**

NITHYA SSREE V

PRITHICKA LAKSHMI SP



Abstract: (10 lines)

In today's world, amount transfer is happening through normal banking process. Banks are considered to be an easy and convenient option for most people, but they charge excessive fees. To overcome this, we introduce a Digital cash transfer that will happen through cryptocurrency called Bitcoin. Digital cash is a type of cash available in digital form. It exhibits properties similar to physical currencies, but can allow for instantaneous transactions and borderless transfer-of-ownership. The process of cryptocurrency transactions will be implemented by block chain technology. The admin creates a group to add the members. Group members can add other people as a group member, only after getting consent from the admin and the other group members. The new member has permission to add the other people. The mandatory prerequisite imposed to the group members is to link their Aaadhar number. So it is easy to extract the bank transaction details through their Aaadhar number. If any person needs fund, they have to give request to the group members for bitcoin transaction. Anyone can give the response to that requested member. Their transaction gets proceeded through an authentication like username, password. Group Admin monitors the entire activity of the group and all the transactions are tracked by the main Server.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

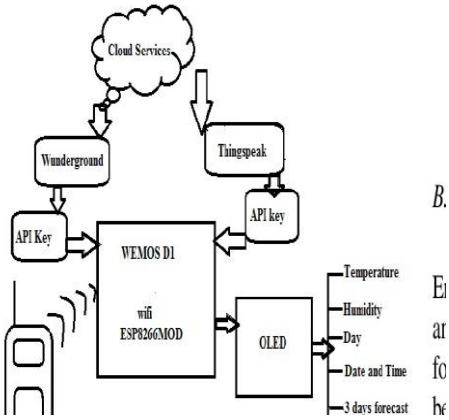
PROJECT EXHIBITION DATED 28.02.2019

TEAM ID-4CSE40

TITLE OF THE PROJECT: Weather Monitoring System

FACULTY GUIDE: Mr. Shankar K

SMURTHI



Abstract:

The system proposed in this paper is an advanced solution for monitoring the weather conditions at a particular place and make the information visible anywhere in the world. The technology behind this is Internet of Things (IoT), which is an advanced and efficient solution for connecting the things to the internet and to connect the entire world of things in a network. Here things might be whatever like electronic gadgets, sensors and automotive electronic equipment. The system deals with monitoring and controlling the environmental conditions like temperature, relative humidity, light intensity and CO level with sensors and sends the information to the web page and then plot the sensor data as graphical statistics. The data updated from the implemented system can be accessible in the internet from anywhere in the world.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

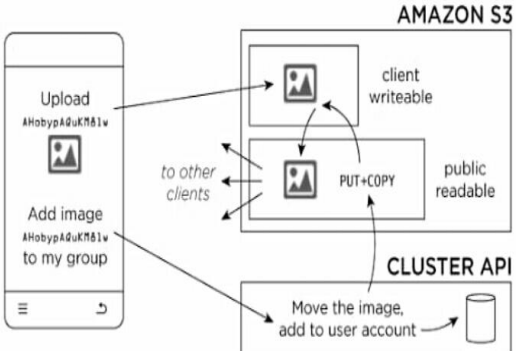
TEAM ID- 4CSE42

TITLE OF THE PROJECT: CITIZEN INFORMATION FEEDBACK ON MAINTENANCE OF ROAD

FACULTY GUIDE: **Ms. SRIPRIYA N**

SOORIYAN .P

VENKATESH A



Abstract :

During travelling on roads, the commuters come across potholes/accidents/landslides/ other hazards that may lead to accidents. Citizen feedback is a important feature that will enable Govt. authorities to take timely action on road not maintained. An application may hence be developed to capture GIS based images of accidents/landslides/ other hazards by the citizens. The road user will register on the application and can upload the captured image of the highway. The Govt. authority will be provided with an option to upload images informing of the action taken in response to the feedback provided. Thus, an extra option can be fitted as an attention seeker to increase the attention of the government by giving them likes for the uploaded pictures. Other registered users can also like the pictures of the other users. Thus, this application can fill the gap between the common citizen and the government. The government can take quick actions on the most affected area by the priority of likes and they can respond to the users in the comment section for the user to be notified that their problem has been viewed by the government officials. The Added advantage is that the government authority or the admin is provided with the privilege to notify their users regarding their issues that has been raised and its current status also we have provided a comment section to every particular post that has been posted by the user of this application and also a like button which is used to encourage the users in reporting the issues that they come across.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

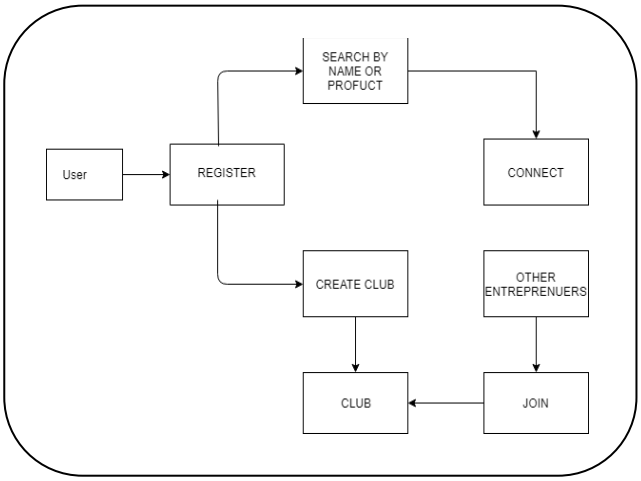
YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

TEAM ID- 4CSE24

TITLE OF THE PROJECT: ENTREPRENEUR HUB



FACULTY GUIDE: Mr.R.THIYAGARAJAN

SURRENDAR

NARENDRA KUMAR

Abstract:

With the advancements in technology, entrepreneurs can now start, grow, and monitor their businesses through their mobile devices. Entrepreneurs have hundreds of tasks on your to-do list and have to solve problems every single day. Entrepreneurs need to do extensive research, gather and manage their resources, maintain a communication level, build their brand presence, reach new clients, keep a track of all the accounts, and much more. This application requires an entrepreneur to upload a short video tagged with the name of the entrepreneur, his business and his USP (Unique Selling Proportion) will be available for people to watch and stay in touch with them for cracking better business deals and craft a brighter future. This application have a search and index mechanism, so people can search other entrepreneurs based on the sectors of their interest. They can also add them to their friend list which will help them to communicate with them easily. This application also provides entrepreneurs to create a club to form a network of people with similar interest so that they can partner which may help them to grow their business and they can also organize club meetings to share their knowledge with each other which help others especially beginners to enhance their knowledge.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

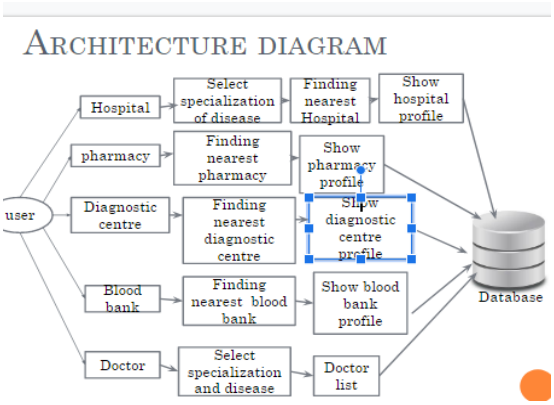
TEAM ID-**4CSE25**

TITLE OF THE PROJECT: HOSPITAL SEEKER

FACULTY GUIDE: Dr. S. Padmapriya

PREMKUMAR

NAVEEN KUMAR



Abstract:

In medical emergencies commonly, we face problem in deciding which hospital they should visit for specific disease treatment. We face problem in identification of medical resources like medical facility, medicines, blood banks. Hospital seeker will solve this problem by allowing people to find the specific hospital on basis of disease treatment, specialist doctors, medicine and blood availability.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

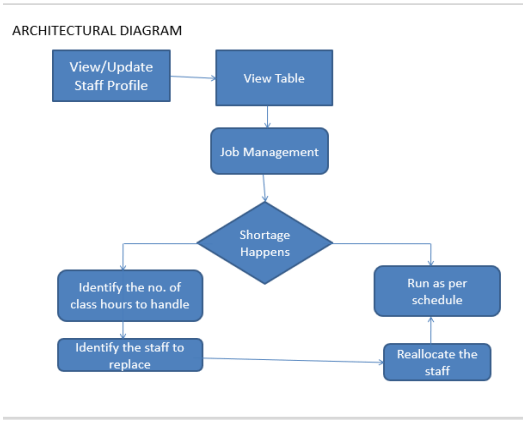
TEAM ID-**4CSE32**

TITLE OF THE PROJECT: SMART AND DYNAMIC TIME TABLE MANAGEMENT SYSTEM

FACULTY GUIDE: Ms. R. Meena

JOHN LAWRENCE

VINOTH KUMAR DG



Abstract:

Timetable and attendance management app helps create a timetable and mark attendance of faculties themselves and also the students. It helps align a proper schedule and allot faculty as per their availability by mapping the class, sections and teacher details pre-fed into the system Switching to a digital system for timetable and attendance management improves authenticity of the data as it is not susceptible to manipulations and increases efficiency due to automation of workflow.

Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28.02.2019

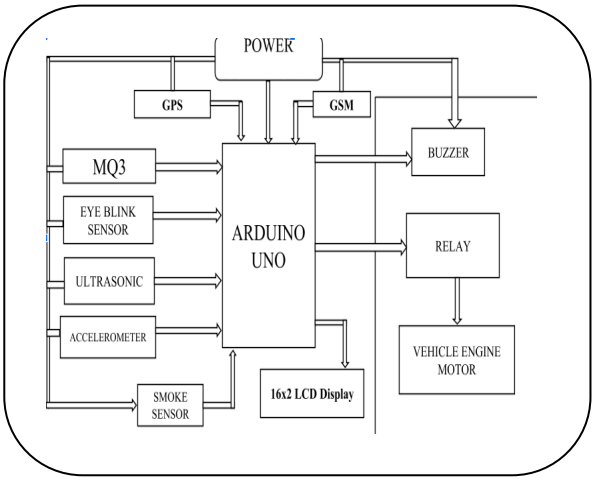
TEAM ID- 4CSE39

TITLE OF THE PROJECT: IoT ENABLED SMART VEHICLE SAFETY SYSTEM

FACULTY GUIDE: Dr. S. Padmapriya

SHRI RAM S

SHASHIVARDHAN



Abstract:

The exponential growth of the metropolitan cities of the country has generated and magnified urban sprawl into problematic proportions. Lack of efficient traffic control and management has many times lead to the loss of lives due to ambulances getting stuck in traffic jams. Understanding GPS: Principles and Applications (Artech House Telecommunications Library), Elliott D. Kaplan (Editor) / Hardcover / (1996), (USD 99). At present criteria, we cannot detect where the accident has occurred and hence no information related to it, leading to the death of an individual. The research work is going on for tracking the position of the vehicle even in dark clumsy areas where there is no network for receiving the signals. Our project will provide an optimum solution to this drawback. The proposed system has a GPS for tracking the position of the vehicle, GSM is used for sending the message and the ARM controller is used for saving the mobile number in the EEPROM and sends the message to it when an accident has been detected. An LCD display is used to display the latitude and longitude values and as well as speed in knots. Once the accident is held up an alert will be sent to the concerned mobile number for rescue.

Achievements:

Project Design Contests:

Symposium: RIT

Publications:

Social Media Reach:

YouTube:

Facebook:

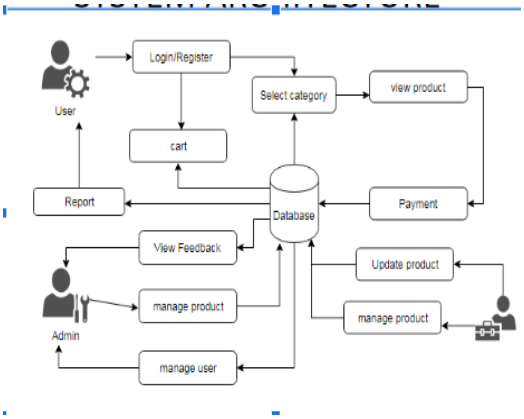
TEAM ID-4CSE26

TITLE OF THE PROJECT: **EARLY REVIEWERS FOR EFFECTIVE PRODUCT MARKETING ON E-**

FACULTY GUIDE: **Mr. W. Thamba Meshach**

NISHAANTH G

S. FIROZ



Achievements:

Project Design Contests:

Symposium:

Publications:

Social Media Reach:

YouTube:

Facebook:

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

DEPARTMENT OF ECE

Department	Project Coordinator	Domain	No. of Projects	Total
ECE	L.PADMANABAN	Embedded & Robotics	20	20
		VLSI	2	22
		Antenna	06	28
		MATLAB/Image Processing	04	32
		NI LabVIEW	11	43
		Speech Processing	02	45

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 4

TITLE OF THE PROJECT: VOICE CONTROLLED MOTOR VEHICLE

FACULTY GUIDE: MR. E. Dilliraj

Abstract :

The purpose of robotics in commercial & residential intention has come to be quite essential for executing challenging work into more conveniently simple way. There are a lot of researches working on to enhance the connection between humans and robot. The paper presents the research of the designing & development of a voice controlled talking robot using mobile phone based on Arduino Uno microcontroller. The control system of the robot movement will be employed by the voice and the robot will response the commanding persons by generating sounds of human voice with each verbal instruction. The proposed system will be designed based on microcontroller which is connected to smart android phone through Bluetooth module for receiving voice command. The voice command is converted to text by an app of the android phone and sends necessary data to the microcontroller for controlling robot movement. After receiving the data the robot responses according to the command by performing proper movement to the proper direction according to the voice command. A SD card module along with a SD card which will consist some pre-recorded human voice as audio file will be used by the robot for the development of the robot's talking system. After getting each command the robot will act according to the instruction and will be able to speak different sentences.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

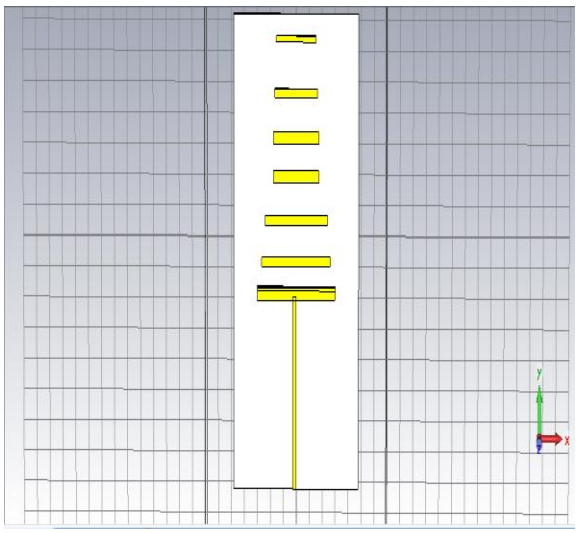
Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:44

TITLE OF THE PROJECT:A PROPOSED LONG DISTANCE WIFI PATCH ANTENNA FOR COMMERCIAL PURPOSES

FACULTY GUIDE: Mr.J.Arunprasath AP/ECE



Abstract :

The microstrip patch antenna for Wi-Fi range is limited to 50metre.Our aim is to increase the distance to certain kilometres. Generally directional antenna are typically used to extend the range of a Wi-Fi network into hard to reach corners of buildings or other specific situations where 360degree coverage is not needed. Being very high gain, usually 12 dBi or higher, these antennas are typically used to extend the range of outdoor hotspots in specific directions or to reach an out building .In our point of literature, we are the first designers to designing an antenna for increasing the range of Wi-Fi.

Achievements:

Project Design Contests:

Symposium:

Publications:Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

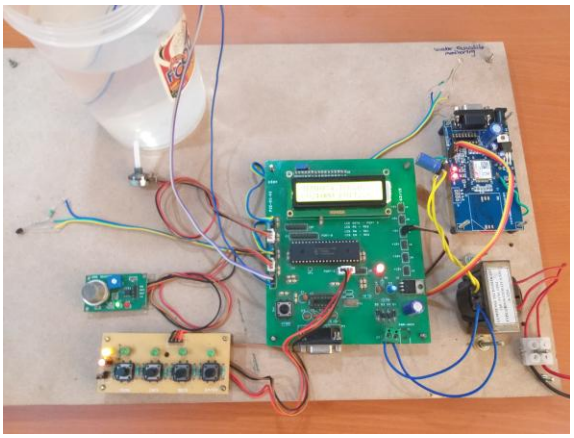
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 26

TITLE OF THE PROJECT: Industrial smart water quality monitoring system using IOT.

FACULTY GUIDE: Ada Christa Mam

Project Snap Shot/Design Diagram



Abstract :The proposed WQM system collects the five parameters of water data such as water pH, water level, turbidity, carbon dioxide (CO2) on the surface of water and water temperature in parallel and in real time basisand gives us information and alert through SMS and web

WQM- Water Quality Monitoring

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:45

TITLE OF THE PROJECT: Design and development of 2*2 microstrip patch antenna in SAR for sat application

FACULTY GUIDE: Mr.T.RubeshKumar ME,Ph.d

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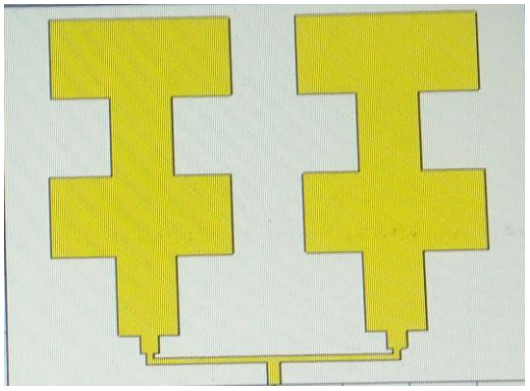


Abstract : TheObjectiveoftheprojectistodesignanantennaforC-and to operateat2.4GHzfrequencyforSyntheticApertureRadar(SAR).Themicrostrippatchantennasaresmallinsize ,lightinweight,lowcost,compatibletorigidsurface.Theyarelowprofileantennas.Initiallywehavedesignedasi nglepatchMicrostripantenna.Later,wehavedesigneda2*2SquarepatchMicrostripantennaandafterthat2*3S quarepatchMicrostripantennaarray.Inthisproject,theantennastructureisdesigned,simulatedandantennapar ametersareanalysedandvalidatedusingCSTsoftware.TheproposedantennaisdesignedusingCSTmicrowav estudiosuite2014andresultsareanalysedintermsofreturnloss,bandwidthandVSWR.

Achievements:

Project Design Contests:

Symposium:

Publications:Journal

Socialist Media Reach:

Youtube : Yes

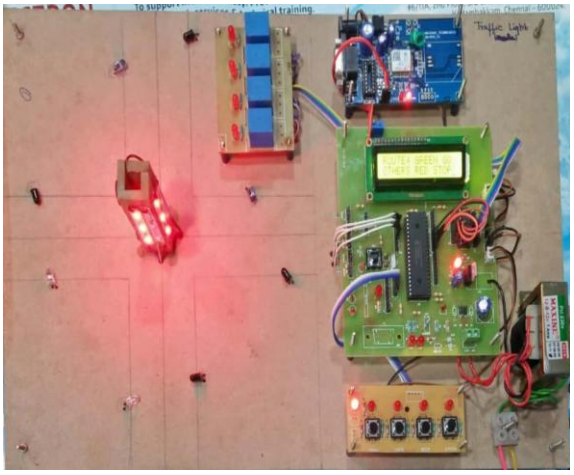
Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:28

TITLE OF THE PROJECT:IOT BASED TRAFFIC CONTROL SYSTEM BY USING GSM

FACULTY GUIDE: Mr.E.U.INIYAN



Abstract :

In the world of Innovative and automotive world everything is getting computerized. Each data is in effect effortlessly available. Yet, the movement signals checking is as yet done physically. The activity signals are observed physically from the control room by the executives or a predictable time is settled for signals evolving. Rather than this a computerized controller-based activity checking framework will be useful for controlling the movement. This plan of movement foundation will be useful in decreasing the activity clog issue in urban communities. This paper depicts a framework where IR sensors are incorporated with an Arduino to work the paths which measure the movement thickness. This incorporated arrangement of movement is Internet of Things (IoT) based which likewise empowers to clear the activity for emergency vehicle by giving a catch in rescue vehicle so the activity gets cleared on that side. It additionally empowers the vehicles tally that move over the sensors. Subsequently, movement controlling gets upgraded effectively, which in the end prompts huge change in rush hour gridlock framework.

Achievements:

Project Design Contests:

Symposium:

Publications:Journal

Social Media Reach:

Youtube : Yes

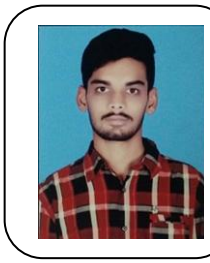
Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

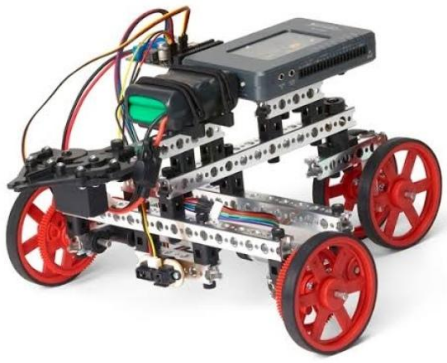
TEAM ID/BATCH NO: 7

TITLE OF THE PROJECT: AUTOMATIC PATH TRAVERSING ROBOTIC CAR USING PITSCO TETTRIX PRIME

FACULTY GUIDE: Ms.Dr.P.Kalpana Devi, Ph.D



Project Snap Shot



/Design Diagram

Abstract :

A Robotic car is a Vehicle which is completely automatic which has been designed to reduce human burden.It is used to avoid the obstacles automatically while travelling . It requires Vision and Motion software for video transmission and uses picture function palettes in robotic cars. Image processing technique is used to identify the images of obstacle using NI VISION in LabVIEW . Segmentation of images of the obstacle is done with threshold segmentation technique and each and every pixel in an image has its own threshold value .This threshold of the pixel in an image value is estimated by calculating mean of gray scale value of its neighbouring pixels called EDGE DETECTION.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:34

TITLE OF THE PROJECT: EBG BASEDMICROSTRIP PATCH ANTENNAFOR BRAIN TUMOUR DETECTION MICROWAVE IMAGING SYSTEM

FACULTY GUIDE: Mr.N.Darwin (M.E/AP)

Project Snap Shot/Design
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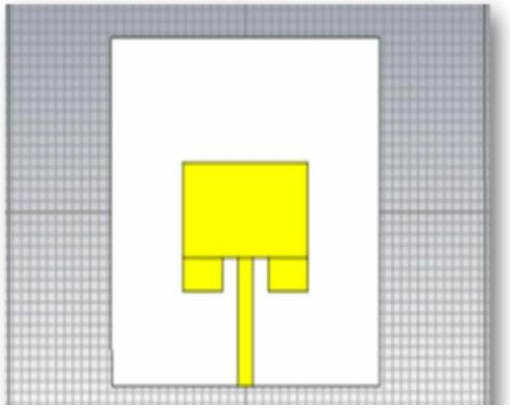

Abstract

:Themainobjectiveofthisprojectistodetecttumourinsidethehumanbrainusingmicrowaveimagingsystem.Acompactandefficientmicrostrippatchantennahadbeenusedinthemicrowaveimagingsystemtotransmitandreceiveequivalentsignalsfromthehumanbrain.Electromagneticbandgapstructure(EBG)isincorporatedonthegroundplanetoenhancetheperformance.Inthisprojecttheantennastructureisdesigned,simulatedanantennaparametersareanalysedandvalidatedusingCSTsoftware.Theproposedantennaisdesignedusing CSTsoftwarestudiosuite2014andresultsareanalysedintermsofreturnloss,bandwidthand VSWR.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:14

TITLE OF THE PROJECT: SMART VACUUM CLEANER USING NILabVIEW

FACULTY GUIDE: Mr.T.RUBESH KUMAR

Project Snap Shot/Design Diagram

Abstract :

Households of today are becoming smarter and more automated. Home automation delivers convenience and saves more time for people. Several robotic vacuum cleaners are available on the market but only few only indicate the density of dust. The purpose of this project is to design and implement a vacuum cleaner controlled via laptop application. Smart vacuum cleaner is designed to make cleaning process more easier rather than by using manual vacuum cleaner. The main objective of this project is to design and implement a vacuum cleaner prototype by using MyRio, ultrasonic sensor,Dual Hbridge(L298N),Relay, Battery (12V DC),Sucking motor. Smart vacuum cleaner will be user-friendly.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

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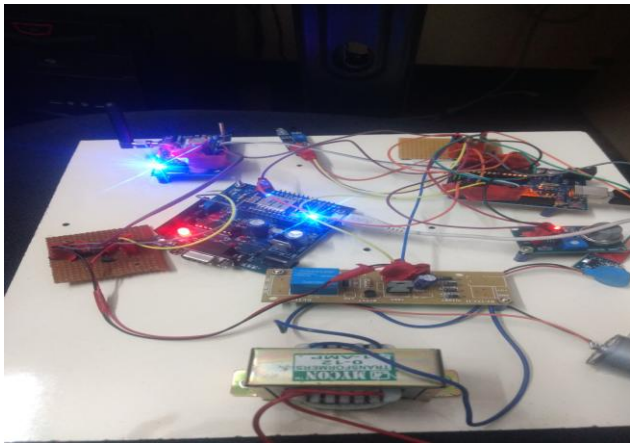
ROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:39

TITLE OF THE PROJECT: A SMART SAFETY MOTORCYCLE SECURITY SYSTEM



Abstract :wearing a motor cycle helmet reduces accident fatalities by almost one third.presently head injury is causing a lot of accident in motor cycle crashes.our task as an electronic engineerwas to design a helmet that could autonomously detect and help to avoid accident.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

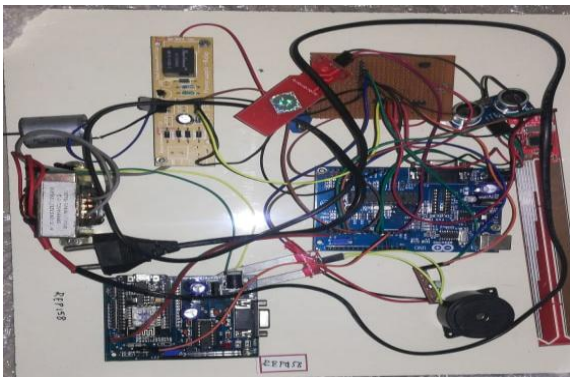
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:36

TITLE OF THE PROJECT: automatic irrigation and domestic system for water management

FACULTY GUIDE: Dr.S.Vimala

Project Snap Shot/Desig n Diagram



Abstract : This paper automates plant monitoring and smart gardening using IOT in the Arduino platform. The main purpose of automation is to provide comfort to the people by reducing the manual work and to improve the overall performance of any system without the user interaction. The important parameters for the quality and productivity of plant growth are soil and air temperature,water level, soil moisture and pH. Information to the user about the plant health and growth may be provided to the user by continuously monitoring and recording these garden parameters. It provides a better understanding of how each parameter affects the growth of plants. All the sensors (Temperature, moisture, humidity, pH) used in this project interface with the Arduino controller. And this information about the garden can be directly monitored and controlled by the owner of the garden through his or her smart phone

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

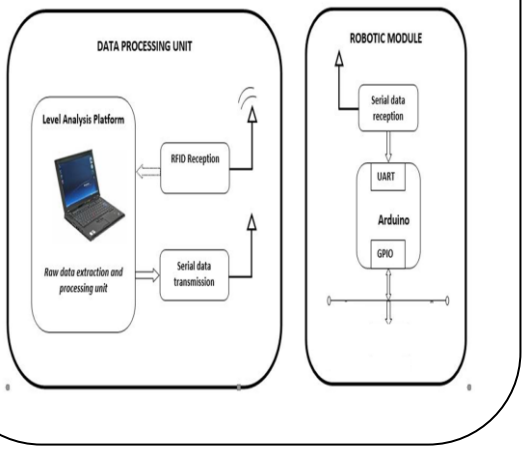
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 32

TITLE OF THE PROJECT: WEARABLE MOBILE BASED EMOTIONAL RESPONSE FOR DRIVERS

FACULTY GUIDE: Mr.Padmanaban



Abstract :

This project discussed about a brain controlled robot based on Brain–computer interfaces (BCI). BCIs are systems that can bypass conventional channels of communication (i.e., muscles and thoughts) to provide direct communication and control between the human brain and physical devices by translating different patterns of brain activity into commands in real time. With these commands a mobile robot can be controlled. The intention of the project work is to develop a robot that can assist the disabled people in their daily life to do some work independent of others.

A muscle contraction will also generate a unique electrical signal. All these electrical waves will be sensed by the brain wave sensor and it will convert the data into packets and transmit through Bluetooth medium. Level analyzer unit (LAU) will receive the brain wave raw data and it will extract and process the signal using MATLAB platform. Then the control commands will be transmitted to the robot module to process. With this entire system, we can move a robot according to the human thoughts and it can be turned by blink muscle contraction.

Achievements:

Project Design Contests: applied

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

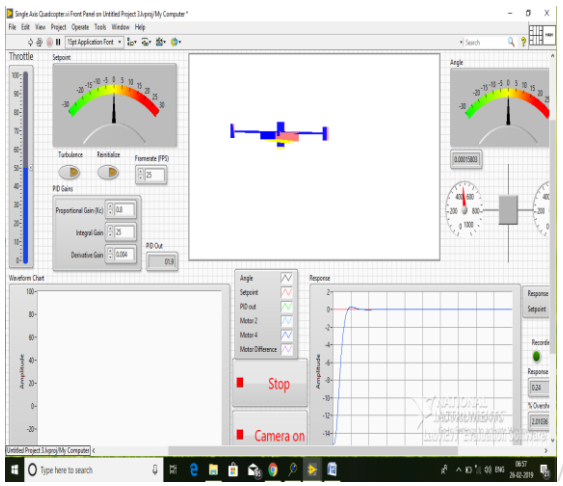
Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:27

TITLE OF THE PROJECT: LIVE VIDEO STREAMINGUSING OCTOCOPTER

FACULTY GUIDE: Ms.Dr.P.Kalpana Devi Ph.D



Abstract :

An octocopter is an Unmanned Aerial Vehicle used to transport or deliver the package through video surveillance, which can transmit signal to range of 500ft. This simulation shows how UAV works in real-time; it looks complicated but explains the concept in clear way. It requires Vision and Motion software for video transmission and uses picture function palettes to show virtual drone.UAV is controlled through the gauge meter for angle control, similarly uses throttle control for change in altitude. A copter is designed for an ultimate view of UAV by creating picture related to copter through picture processing. Two simulations are designed Single-Axis Octocopter and Un-tethered Octocopter.

Achievements:

Project Design Contests:

Contest

Symposium: Journal

Social Media Reach:

Youtube: Yes

Facebook: Yes

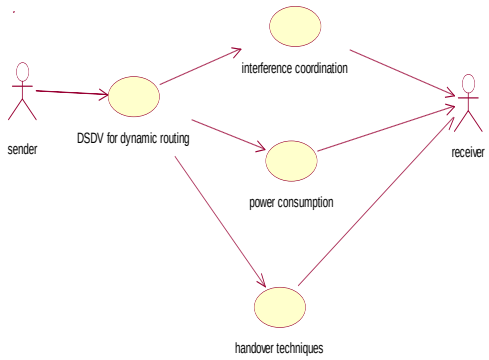
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 37

TITLE OF THE PROJECT: DETECTION AND LOCALISATION OF IDS BASED SPOOFING ATTACKERS IN WIRELESS SENSOR NETWORKS

FACULTY GUIDE: **Dr.S.VIMALA, M.Tech,Ph.D.,**

Project Snap Shot/Design Diagram



Abstract :

- Now a day's wireless spoofing attacks are easy to launch, it plays a significant role in the performance of wireless sensor networks.
- Although the identity of a node can be verified through cryptographic authentication, conventional security approaches are not always desirable because of their overhead requirements.
- The challenging tasks in Wireless Sensor Network are identification of spoofing attackers, determination of number of attackers, localization of multiple adversaries and eliminating them.
- Our proposed system uses k-mean algorithm which performs clustering, thereby providing fastest means of identifying malicious nodes and even localizes and eliminates them .
- The simulation result clearly shows that the proposed scheme detects the spoofing attackers in Wireless Sensor Network.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

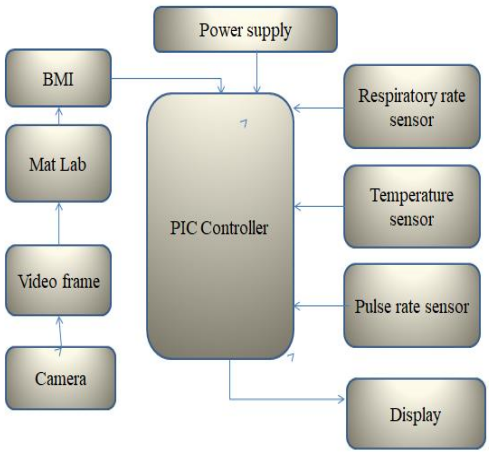
Facebook: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 18

TITLE OF THE PROJECT: SMART BODY POSTURE RECOGNITION AND GUIDING SYSTEM

FACULTY GUIDE: DR.G.PREMALATHA



Diagram

Abstract :

Human posture recognition is gaining increasing attention in the field of computer vision due to its promising applications in the areas of personal health care, environmental awareness, human-computer-interaction and surveillance systems. With the development of image processing and computer vision techniques, it is possible to analysis human behavior automatically by recognition the posture of human body, which has become one of most significant research topic in both computer-based intelligent video surveillance system and pattern recognition area. A well designed, self-assisted kiosk for monitoring the health vital parameters like BMI, Heart beat rate, Respiratory rate and Temperature. The Body Mass Index (BMI) is measured by recognizing the body posture of the patient standing at a distance of 10m range using image processing techniques. And the parameters like heart beat rate, temperature and respiratory rate are measured using the sensors like heart beat sensor, temperature sensor and respiratory rate sensor respectively. The output of the Mat Lab software and sensors are interfaced together and displayed using 16X2 LCD.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

Face book: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 46

TITLE OF THE PROJECT: DRONE BASED MEDICAL FACILITY

FACULTY GUIDE: Mr.N.Darwin

Project
S

Abstract: Use drones to deliver critical medicines, blood, blood derivatives to rural health centers in India. There would be some centralized distribution centers from where the drones will be launched and retrived. The drones should autonomously perform the delivery and return back to the base.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

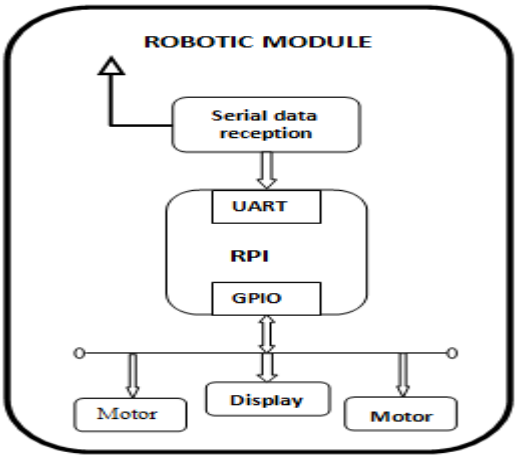
Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:43

TITLE OF THE PROJECT: RF CONTROLLED WAR FIELD SPY ROBOT USING NIGHT VISION CAMERA

FACULTY GUIDE: MR.E.DILLIRAJ



Design Diagram

Abstract:

The unique feature of this surveillance robot is that it can travel both on land and water. In this project we are using the Raspberry pi to control the entire robotic module and we are using the ultrasonic sensor to sense the obstacles in the path. Surveillance area Critical features include the ability to follow a search instruction plan, rigorous terrain mobility, and the capacity to classify and map underwater mines and other potential threats, communication, obstacle avoidance, and sensor payloads remain critical issues to be resolved for successful operation. Robots have been widely used to perform variety of tasks which reduces the manual work specifically in remote areas where human accessibility is unimaginable. The main applications where the robots have exhibited their excellence include surveillance, tracking targets for military purposes and also for disaster management like searching and rescuing victims. The main objective behind developing this robot is for the surveillance of human activities in the war field or border regions in order to reduce infiltrations from the enemy side.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

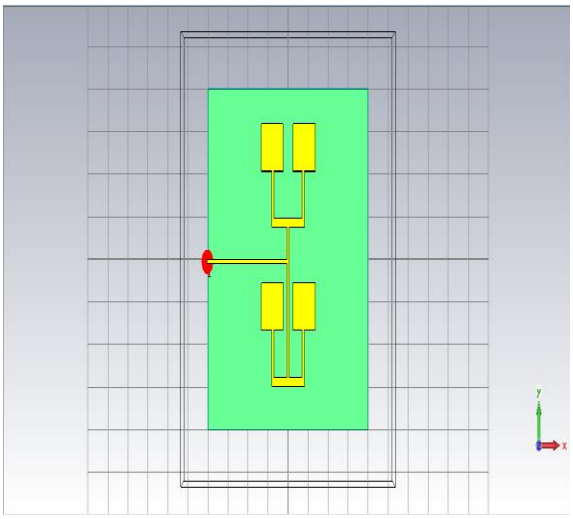
Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 35

TITLE OF THE PROJECT: 60Ghz Array Antenna for mmWave 5G Wearable Application

FACULTY GUIDE: J. ARUN PRASATH M.E., AP



Abstract:

A micro strip patch antenna array printed on textile is proposed for off-body communications in the 60-GHz band. The textile substrate is characterized in V-band using the open stub technique. A new fabrication process is introduced for the reliable and accurate manufacturing of millimeter-wave micro strip antennas on textiles. The antenna reflection coefficient, radiation patterns and efficiency are studied in free space, with and without bending, and on a homogeneous skin-equivalent phantom. The numerical and experimental results are in a good agreement. To the best of our knowledge, this is the first textile millimeter-wave antenna optimized for off-body communications.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

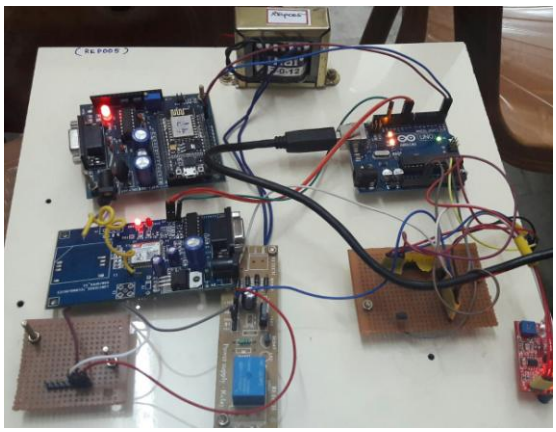
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 21

TITLE OF THE PROJECT: Smart mobile system during pregnancy

FACULTY GUIDE: Mr. J.Yuvaraj

Project Snap Shot



/Design Diagram

Abstract: The world morality rate has decreased but many women are still dying every day from pregnancy complications. Various technical resources are being used in an integrated manner in order to minimize even more the death of mothers and babies. Pregnant women from rural areas can't do their regular check-ups at the early stage of pregnancy. But routine checkup can avoid birth of physically challenged infant in this system. Some vital parameters of pregnant women like pressure, temperature, heartbeat rate are monitored and measured. This project provides a wearable device which will continuously monitor the vital parameters to be monitored for a patient and do data logging continuously. If any critical situation arises for a patient, this unit rise an alarm will be enabled as well as the intimation given to the doctor through message using IOT.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

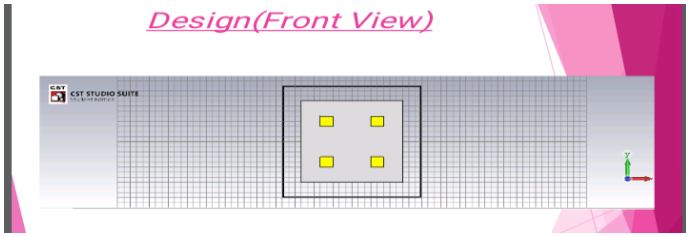
Youtube: Yes

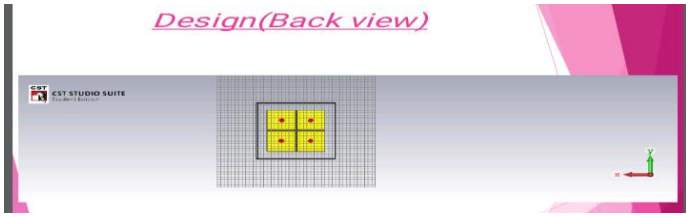
Facebook: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 15

TITLE OF THE PROJECT: 6*6 ARRAY ANTENNA FOR HIGH GAIN SATELLITE RECEIVER AT LOW ELEVATION





Abstract:

The antenna provides steerable high-gain high-tilt right-handed circularly polarized (RHCP) beams for satellite communications. The antenna operates over a test frequency band of 1500 MHz to 1670 MHz and covers the entire L1 band. The four arms are arranged symmetrically with respect to the center of the antenna and each arm is fed by a coaxial line. When one of the four feed points is excited and the remaining feed points either open-circuited or terminated to 50° impedance, the antenna generates an RHCP tilted beam of 49° in the elevation plane. The antenna can switch the tilted beam in the four different space quadrants in the azimuth plane by exciting one feed point at a time. Assuming on simulation test results the gain and efficiency will be more than our base paper.

The antenna can switch the tilted beam in the four different space quadrants in the azimuth plane by exciting one feed point at a time. Assuming on simulation test results the gain and efficiency will be more than our base paper.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

Facebook: Yes

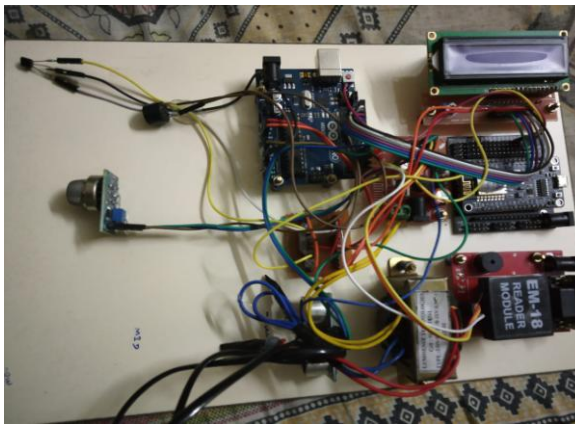
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 09

TITLE OF THE PROJECT: vehicle emission monitoring system using IOT

FACULTY GUIDE: ADA CRISTA

Project Snap Shot/Design Diagram



Abstract:

In this project the emission of CO2 , Lpg gas leakage in car and Rf smart card sensors such as mq6 lm35 to measure the. Vehicle emission of co2 can be monitored by using IOT all the data gets transmitted wirelessly.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube : Yes

Facebook: Yes

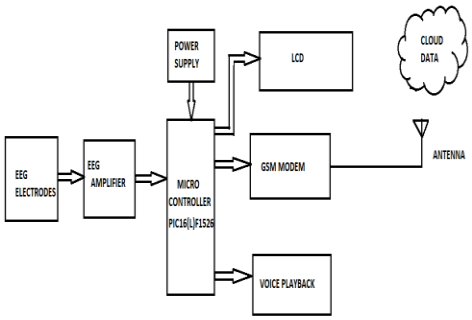
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:13

TITLE OF THE PROJECT: EMOTION DETECTION USING EEG SIGNALS

FACULTY GUIDE: Dr.L.Vanitha, M.E, Ph.d

Project Snap Shot/Design Diagram



Abstract:

The system is like a brain nerve stimulator which senses the brain waves and Sends information about the brain wave to the cloud which is easily accessed by The caretaker through an URL otherwise through mobile application and it Includes one of the technique to calm down the stressed people by playing a Song automatically depending upon the stress level. Hence the emotion Detection is done by this project.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

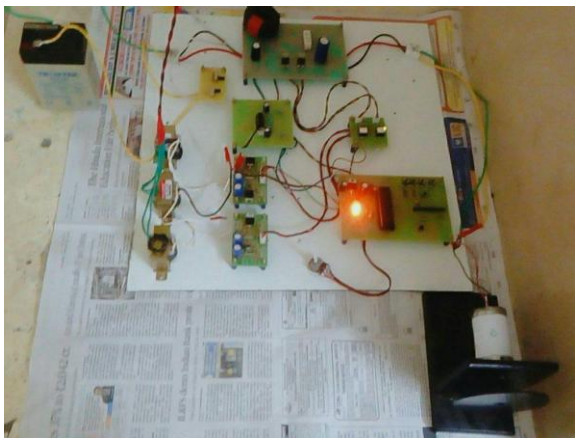
Facebook: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 33

TITLE OF THE PROJECT: POWER GENERATION USINGREGENERATIVE BRAKING CONCEPT

FACULTY GUIDE: MR.L.PADMANABHAN



Abstract:

- Hybrid electric vehicles (HEVs) offer many advantages, such as high fuel economy, low emissions, and silent operation. In Multi-Port HEVs, we use two or more voltage source purposes of better performances of the vehicle.
- In the electric vehicle applications, an auxiliary energy storage battery absorbs the Regenerated energy which is obtained during the process of braking and is fed back by the electric machine. In addition, bidirectional dc-dc converter draws power from the auxiliary battery to boost the high-voltage bus during vehicle starting, accelerate and hill climbing.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

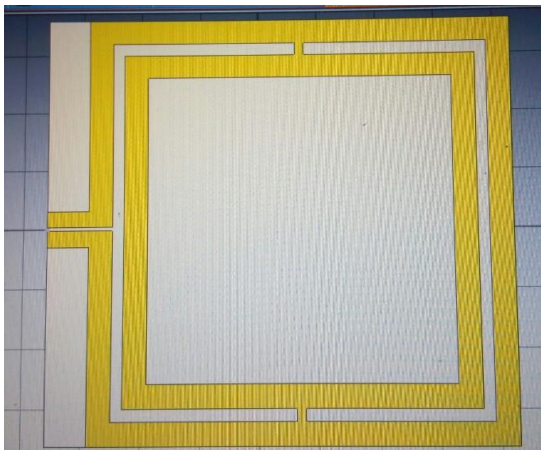
Facebook: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 24

TITLE OF THE PROJECT: A compact micro strip patch antenna for iot application

Project Snap
S



FACULTY GUIDE: Mr. T. Rubeshkumar

Abstract : Real time weather monitoring in aircraft is gaining its importance in emerging IoT applications. Here a compact micro strip rectangular patch antenna with different slots have been proposed. The slots are introduced to reduce the resonating frequency and to obtain miniaturization of antenna. Here a micro strip patch antenna is developed with resonating frequency in the range of S band. Slots of various shapes are introduced to shift the resonating frequency range to L band. By this we achieve reduction in size of antenna. Also it detects even close to proximity metal. Our proposed method is based on literature survey method.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

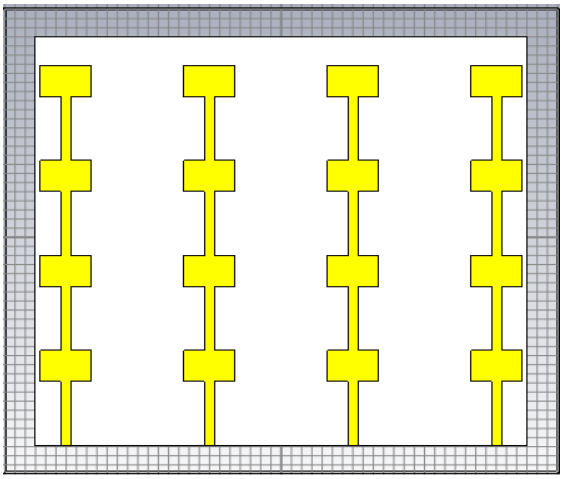
Face book: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO**:** 25

TITLE OF THE PROJECT**:** A 24 GHz Micro patch Antenna Array for Human Hand Gestures Detection.

FACULTY GUIDE: Mr.J.Arunprasath



Abstract: The radiation pattern, gain and directivity requirement for certain applications were unable to meet by the single antenna element. Suitable solutions can be obtained by combining more than one antenna which is generally called as antenna array. In this project, a new 24GHz transmitting/receiving antenna module for human hand gesture detection is designed and simulated using CST software and then fabricated. The antenna consisted of 16 micro patch array in order to support multi-channel signal receiving. This module had a dimension of 44.8×48 mm2 and its performance was verified and proved to be satisfied with the pattern and portability required by human hand gesture detection.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

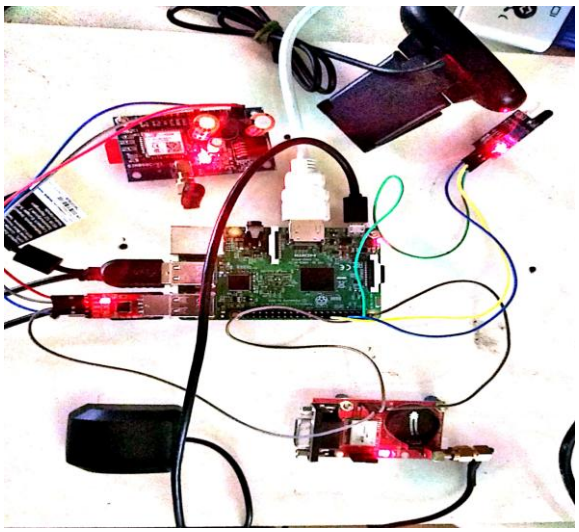
Face book: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 22

TITLE OF THE PROJECT: GPS, GSM BASED MULTILEVEL SUVEILLANCE SECURITY SYSTEM USING RASPBERRY-PI

FACULTY GUIDE: Dr.L.VANITHA, M.E., Ph.D



Abstract:

At the present time, the rate of crime is increasing rapidly because it is a kind of evident from actual fact that thefts became a matter of routine. To overcome this problem, there are numerous technologies available in the market such as GPS, GSM systems. In the present days, most of the devices are designed with GSM based control system which protects from intruders. These GSM, GPS tracking system significantly reduces manpower and operates without interference of humanoid. In modern world, these various technologies are integrated to a single system as multilevel surveillance security system. In surveillance security system project we use IR sensor for obstacle detection (eg.hand). If any obstacle is detected then only GSM, GPS and webcam functions and stores images in cloud. The main objective of this project is to send messages, position

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

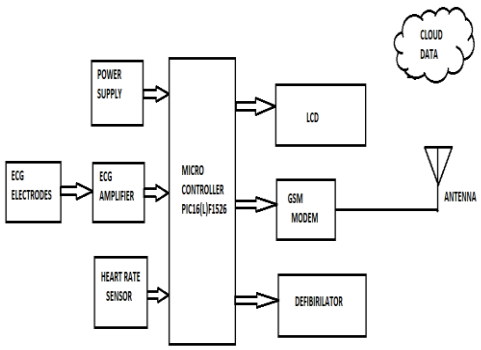
Facebook: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 12

TITLE OF THE PROJECT: CARDIAC ARREST DIAGNOSIS USING ECG SIGNALS

FACULTY GUIDE: Dr.L.Vanitha, M.E, Ph.d



Abstract :

Our project includes wearable sensors that measures the parameters in terms of ECG signals that is being transferred through wireless and it is send to Cloud. The cloud will be accessible by the caretaker or doctor and when the Cardiac arrest is detected, automatic defibrillation is provided. We also use a heart rate sensor to get the blood count. This can help us to detect the cardiac arrest before one hour. The data's of the patient is stored in the cloud for every second so that the doctor can know the conditio n of the patient even from very long distance.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube: Yes

Face book: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 29

TITLE OF THE PROJECT: Object detection and tracking using radar

FACULTY GUIDE: Ms. G. Premalatha,M.E,(PhD)




Project Snap Shot/Design Diagram

Abstract : The purpose is to detect and track human targets using mm wave radar. The detection has been performed by the microphone and sound analysis. For tracking the targets, multiple hypothesis tracking has been studied. Particle filtering has been used for the state prediction, considering a significant amount of uncertainty in a motion model used in the project. The methods have been implemented in MATLAB with fractional spline wavelet transform. Tracking in the cases of a single target and multiple targets stimulated and experimented. The detection methods showed poor performance when using data that had been collected by the radars. For single targets, the detections were accurate enough to continuously track a moving target randomly in a controlled area. In the multiple target cases the tracker was not able to distinguish the multiple moving objects.

Achievements:

Project Design Contests: Yes (HR conclave at PEC)

Symposium:

Publications: Journal

Social Media Reach:

YouTube : **Yes**

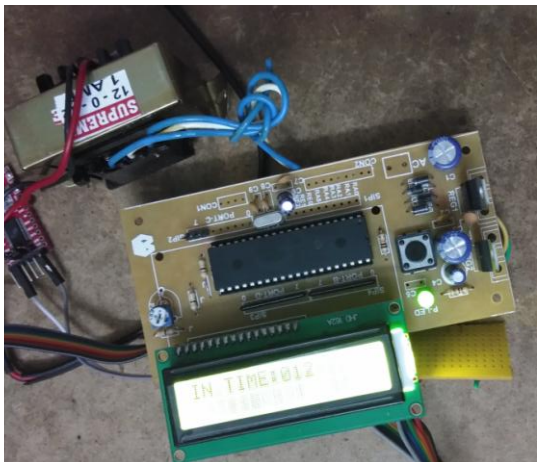
Face book: **Yes**

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 31

TITLE OF THE PROJECT: Perspective Car Park

FACULTY GUIDE: MS. M Priya



Abstract: To overcome the issues arising due to increasing number of cars along with the increasing population, the need of an intelligent car parking system has also increased. our project is mainly designed to deal with the available empty Parking space and also reduce the time consumption in searching of an empty slot in an intelligent manner. This system devidesthe parking area in to two proportional sections One for big cars and the other for smaller ones. And finds the size of the car at the Entrance and check for an empty slot in that particular area, if slot is available it guides the car to the particular slot without wasting time in search of empty slots. It also shows the available slots on the Display. This system also uses in time and out time indicators to find the total parking duration of the car in case of a token system.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

YouTube : yes

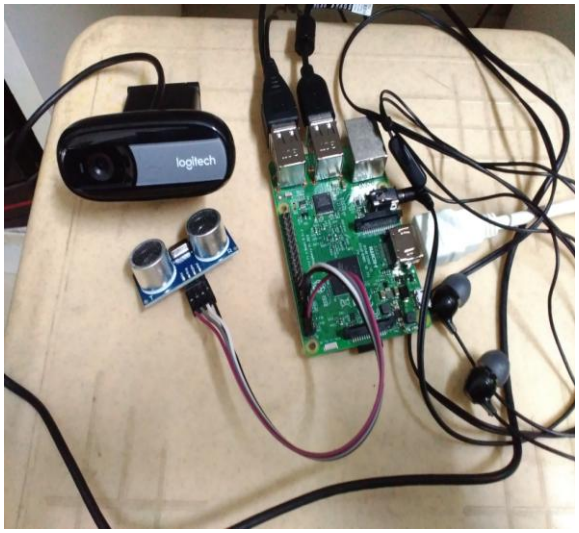
Face book :yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:**03**

TITLE OF THE PROJECT: **OCR RECOGNITION OF TEXT AND TTS FOR VISUALLY CHALLENGED**

FACULTY GUIDE: MRS.MALATHI SHARAVANAN



Abstract: There are about millions of people are blind through world-wide. Disability of visual text reading has a huge impact on the quality of life for visually disabled people. Existing system for text recognition are typically limited either by explicitly relying on specific shapes (or) by requiring user existence (or) may be of high cost. The effort is to suggest an approach for image to speech conversion using OCR and text to speech technology. An OCR (Optical Character Recognition) system which is a branch of computer vision and in turn a sub-class of Artificial Intelligence. Optical character recognition is the translation of optically scanned bitmaps of printed or hand written text into audio output by using of Raspberry Pi. OCRs developed for many world languages are already under efficient use. This method extracts moving object region by a mixture-of-Gaussians-based background subtractionmethod. A text localization and recognition are conducted to acquire text information. Text characters in the localized text regions arethen binaries and recognized by off-the-shelf optical character recognition software. The recognized text codes are output to blind user's inspeech.

Achievements:

Project Design Contests:

Symposium:

Publications: GOING TO PUBLISH (1-03-19)

Social Media Reach:

YouTube: Yes

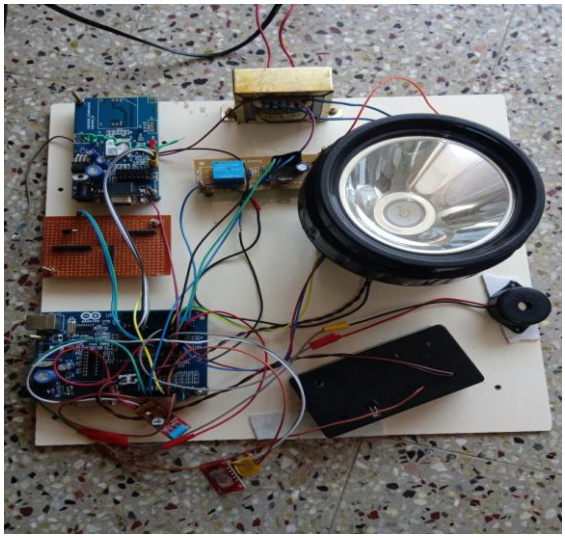
Facebook: Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:38

TITLE OF THE PROJECT: Vehicle to vehicle communication using lifi

FACULTY GUIDE: Mr.E.U.Iniyan



Abstract: The main aim of this project is to avoid the accidents.Vehicle to vehicle communication is the most effective solution we have used in order to reduce the vehicle's accident. In Li-fi technology for vehicle to vehicle data transmission we use LED bulb. In this technology there is elimination protocols use so in Li-fi technology complexity get reduce.The aim of designing this system is highly reliable which give desired data transmission between vehicle to vehicle by using transmitter and receiver mounted on vehicle.

Achievements:

Project Design Contests: At veltech

Symposium: Participated at symposium

Publications: Journal

Social Media Reach:

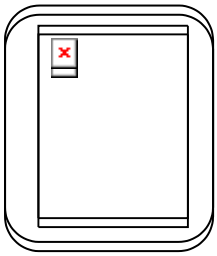
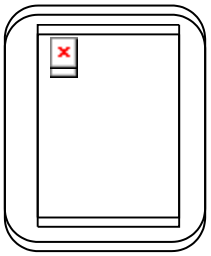
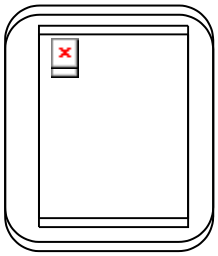
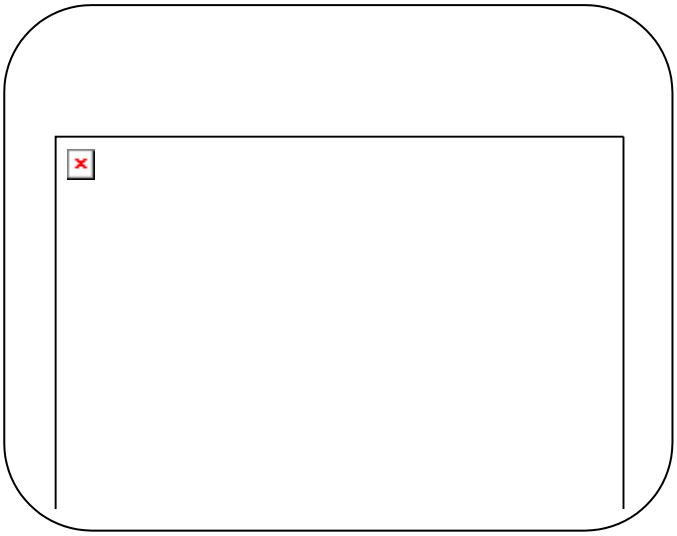
Youtube : Yes

Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 01
TITLE OF THE PROJECT:"REALIZATION OF AGING AWARE VEDIC MULTIPLIER USING VERILOG HDL"

FACULTY GUIDE: Mr.R.Ajin

Abstract : Most of the digital devices use multipliers for their operation especially in digital signal applications. It helps to achieve a high data throughput in digital devices. Comparing to addition, multiplication process consumes a greater deal of time, consuming more amount of power and area and thus reduces the speed of the processor. Aging of transistors has a considerable effect on the performance of the multiplier. The effect of aging can be reduced by the use of over-design approaches, but it leads to inefficiency in area and power. Furthermore, the use of fixed latency design may lead to timing violations. To overcome this predicament, we use low power variable latency multiplier with Adaptive Hold Logic (AHL). Negative bias and positive bias temperature instability, both degrade the transistor speed, and in the long term, the system may fail due to timing violations. Hence, it becomes more important to design highly reliable multipliers with reduced area, delay and power consumption. The proposed architecture will be designed as a razor based Vedic multiplier design with novel adaptive hold logic (AHL) circuit which as high efficiency than the existing column bypass multiplier. The experimental results show that our proposed architecture with 64 ×64 column-bypassing multipliers and furthermore, our proposed architecturewith 64 × 64 row-bypassing multipliers is more efficient.

Achievements:

Project Design Contests: At veltech

Symposium: Participated at symposium

Publications: Journal

Social Media Reach:

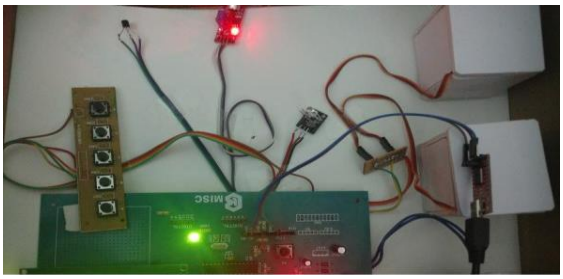
Youtube : Yes

Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 10
TITLE OF THE PROJECT: AUTOMATIC MEDICINE VENDING MACHINE

FACULTY GUIDE: Dr.P.KALPANA DEVI



Abstract

Device can fetch out the medicines automatically for the basic common symptoms, and the medicines provided by the machine are only for the timely relief and in emergency case.The aim of this project is that people would be able to access the drugs via patient kiosks in public places such as drug stores, malls, bus / railway stations, on highways, areas where medical stores are limited. Regular replenishment can help in not only tracking usage pattern and thus taking precautionary measures but also ensure availability of drugs24x7.Diagnosis is always a concern for the people living in rural area. At the same time medicine availabilityalso has a major impact excluding the factor about complete cure. The aim of this prototype is that temporary relief is to be given out that can give people a better chance for resisting the health from withdrawing before they are able to reach doctor. Major advantage is that people would be able to access the drugs via patient kiosks in public places such as drug stores, malls, bus, railway stations, on highways,areas where medical stores are limited.

Achievements:

Project Design Contests: At veltech

Symposium: Participated at symposium

Publications:Journal

Social Media Reach:

Youtube : Yes

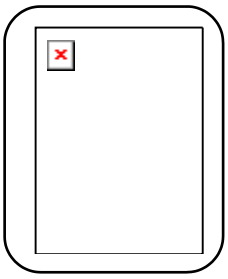
Facebook : Yes

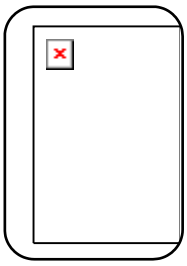
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

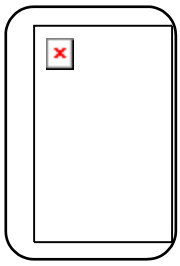
TEAM ID/BATCH NO: 20

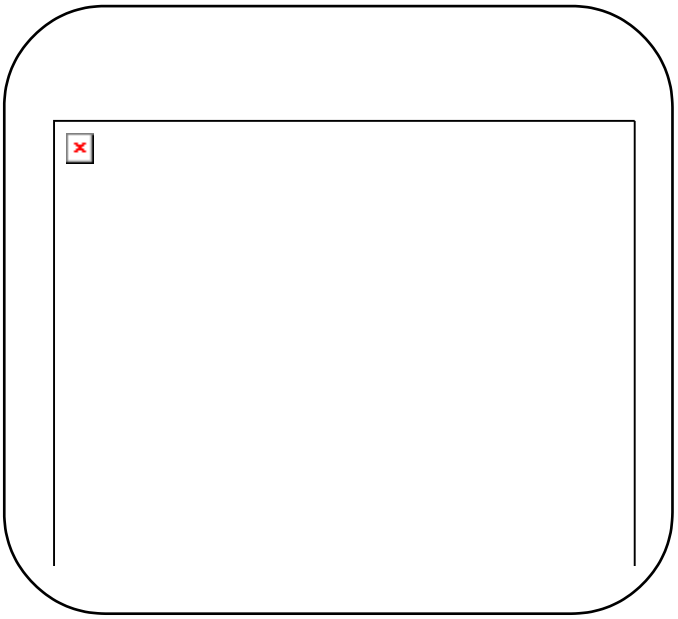
TITLE OF THE PROJECT: SMART GOGGLES WAIST BELT

FACULTY GUIDE: MR.B.VIDHYAPATHI









Abstract: The enduring system includes the Infra-red sensor in the blind stick which indicates the presence of obstacles and voice message alert system. This system involves limited and fixed routes to follow daily routine. This project encompass ultrasonic sensor with voice message system and GPS tracking system to help the person to reach the destination easily. In this paper we propose a navigation system or device which is helpful for blind persons. They can detect obstacle in front of them, they can also travel in known as well as unknown location with the help of that blind stick. The GPS tracking system guides the person by suggesting the possible routes, mode of transport and journey time to reach the destination safety. The convenience of the project admits autodetection of obstacles and GPS navigation system.

Achievements:

Project Design Contests: At veltech

Symposium: Participated at symposium

Publications: Journal

Social Media Reach:

Youtube : Yes

Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 42

TITLE OF THE PROJECT: SMART DRIP IRRIGATION

FACULTY GUIDE: Ms.P.Vadivu

Abstract: Today we are living in an era where automation is playing important role in human life where luxuriousness is Simplified and provided for common lay man. The proposed smart drip irrigation system is cost effective and useful for the illiterate farmers in remote areas and villages who have large and small agricultural lands. The system uses the hardware component; which is subjected to various environmental conditions such like temperature ,humidity, moisture. The Moisture sensor which finds out the moisture needed for the plant; the temperature sensor is used for the continuous monitoring of soil humid, when moisture content required is detected to be much lower than the provided threshold value its ends the signal to the relay ;The solenoid valve opens to fetch water to the plants Based on the usage of water the sump or tank automatically fills water from other water resources using wires .The my-Rio which is used to acquire data's from the experimental set up and gives the exact readings and calibrated values. This project would also help during drought where there are minimal water resources**.** This framework is explicit for a product and subsequently its use is constrained. Appropriate booking of water system is basic for proficient water the executives in harvest creation; especially under states of water shortage

Achievements:

Project Design Contests:

Symposium:

Publications:Journal

Social Media Reach:

Youtube : Yes

Facebook : **Yes**

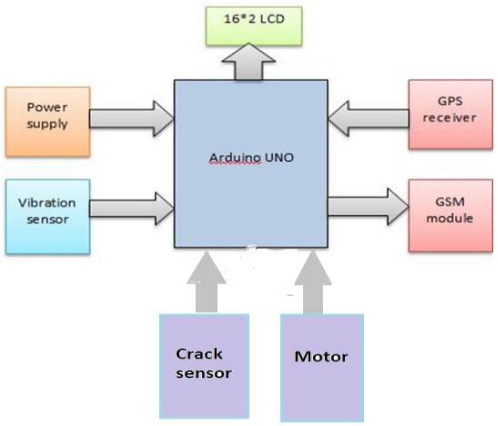
PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO: 8

TITLE OF THE PROJECT: AUTOMATIC ALERT TO SAFETY OFFICERS

FACULTY GUIDE: Mr.Darwin.M.E

Project Snap Shot/Design Diagram



Abstract :

Road accident takes places frequently which causes huge loss of life and property because of poor emergency rescue facilities.The previous system used to detect and track the accident location was not satisfactory-The proposed system we replaced vibrator sensor by a crack sensor to get more accurate and efficient to detect an accident.Our project will track the accident location immediately by using GPS and GSM and providing immediate medical facilities and save more lives.

Achievements:

Project Design Contests:

Symposium:

Publications: Journal

Social Media Reach:

Youtube : Yes

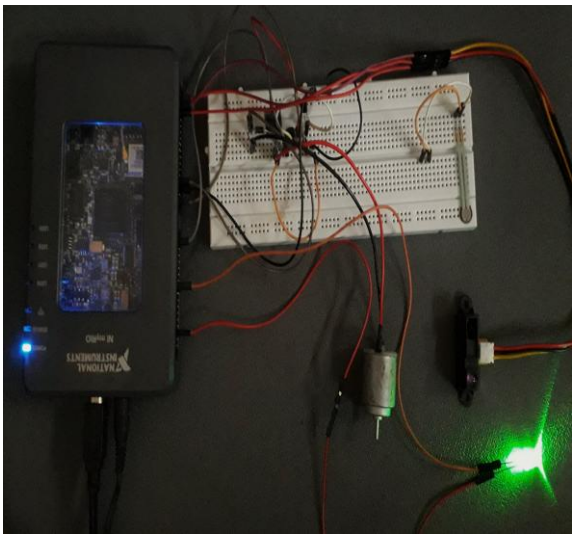
Facebook : Yes

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID/BATCH NO:30

TITLE OF THE PROJECT: Smart Privy

FACULTY GUIDE: Dr. Kalpana Devi



Abstract: Our Project is based on automated system, "SMART PRIVY". It gives automatic flow of water without use of any electric system. It is specially design for toilet system in railways, malls, multiplexes and government sectors. So, the project objective is to reduce the loss of water and electricity. It is also reducing the maintenance cost. Also, we included an automatic room-light controller automatically turns on the lights when a person enters into a room, and turns off the lights when the person leaves the room. Air fresheners are also used in this project. These emits fragrance automatically for every hour. We also included an automatic motor controller to switch on the motor when it reaches a low level and it automatically switches off when it reaches a high level.

Achievements:

Project Design Contests:

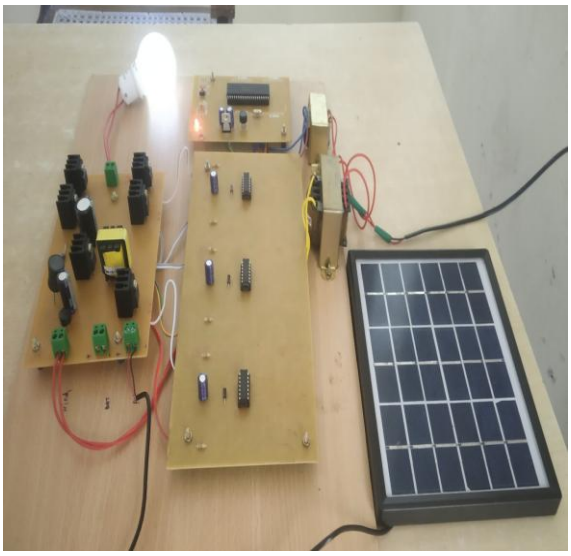
Symposium:

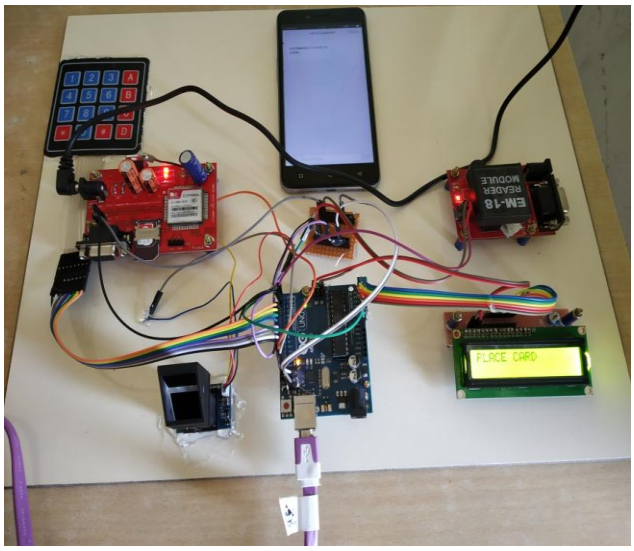
Publications: Journal

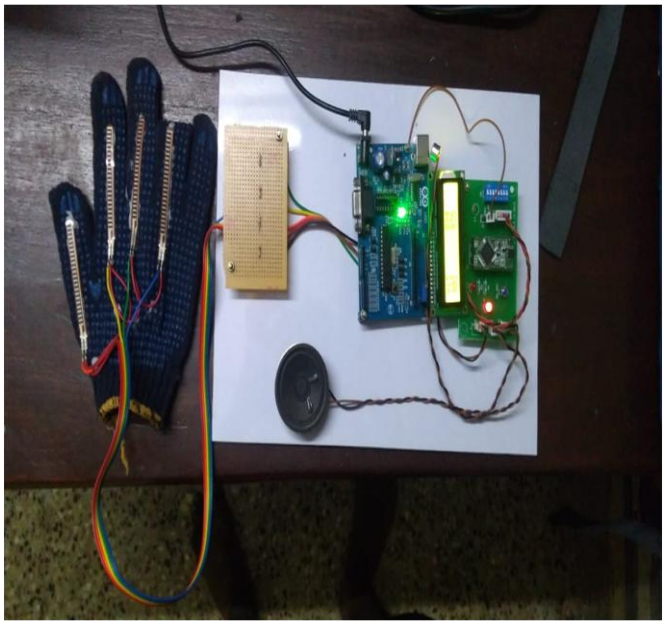
Social Media Reach:

Youtube: yes

Facebook: yes




EM-18
READER
MODULE
PLACE CARD

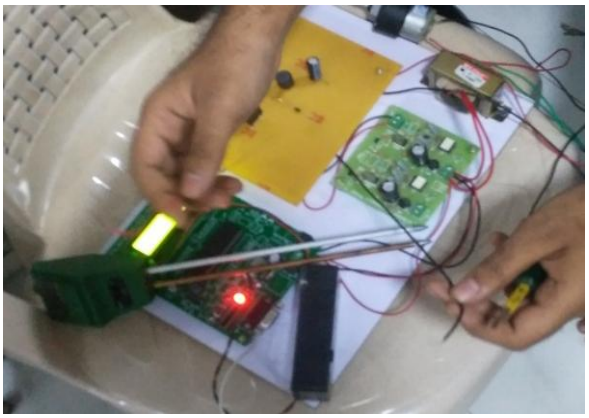


Department	Project Coordinator	Domain	No. of projects	No. of mini project	Total
EEE	Mr.K.ANAND	POWER ELCTRONICS	10	1	11
		EMBEDDED SYSTEM			
		COMMUNICATION			

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 01

TITLE OF THE PROJECT: MICROCONTROLLER BASED CHLORINE LEVEL MONITORING & CONTROL SYSTEM FOR ELECTRO CHLORINATION PLANT



FACULTY GUIDE: Mr.K.ANAND

Abstract :(10 lines)

In thermal Power station sea water is used as coolant agent in condenser for steam to water condensation process. The salty sea water needs to be chlorinating to avoid growth of blue mussels & green algae inside condenser parts and sea water carrying pipe line. The Electro chlorination system produce sodium hypochlorite in electrolysis process of the incoming salty cooling water. This sodium Hypochlorite dosage creates unfavorable condition for mussel larvae growth in incoming salty sea water that occurs in summer & autumn seasons preventing them settling in the sea water cooling line & condenser parts. The equipments in electro chlorination process consists of feed water pump which takes sea water form cooling water system, booster pump,electrolyser,degassing, Storage tank and dosing pumps. As per environmental standard the chlorine dosing level should not exceed above 1.0 ppm. In our project we proposed "microcontroller based chlorine level monitoring and control system for ElectroChloniation Plant "the optimum level of chlorine generation which prevent over dosing of chlorine in sea.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

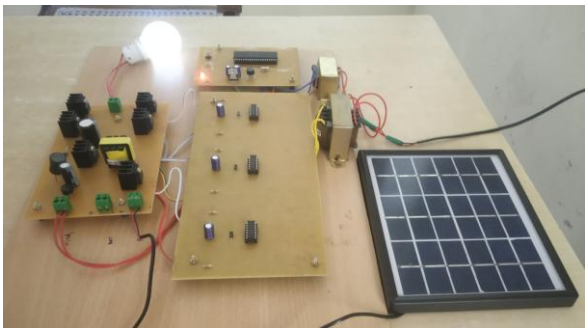
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 02

TITLE OF THE PROJECT: HYBRID DYNAMC PERFORMANCE USING ANFIS FOR VARYING SOLAR RADIATION & FUZZY LOGIC CONTROLLER IN HIGH SPEED WIND



FACULTY GUIDE: Mr.J.RAJESH

Abstract :(10 lines)

Energy demand is ever increasing in the world, searching for fossil fuel is done on priority basis. These fuels are not sustainable, they pollute the environment. Shortage of fossil fuels resources and adverse environment affects made use of Renewable Energy Sources (RES) as solar energy and Wind energy essential. Solar energy and Wind energy are natural resources which are not depleted by use and are more popular. Availability and ease to obtain electric power made Solar and Wind power as alternative energy sources. In this project a noval method is implemented with hybrid solar wind renewable energy generation is propose with ANFIS Maximum Power Point Tracking (MPPT) algorithm and FUZZY algorithm for power system is implemented for better hybrid maximum power extraction.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

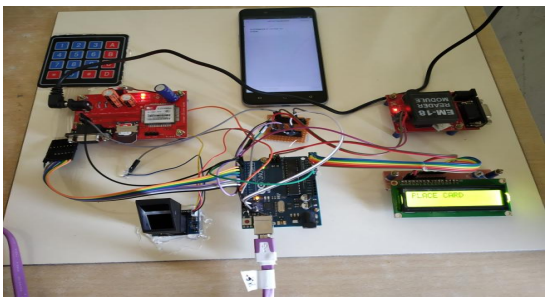
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 03

TITLE OF THE PROJECT: DESIGN & DEVELOPMENT OF BIOMETRIC VOTING SYSTEM



FACULTY GUIDE: Mr.C.Ramesh

Abstract :(10 lines)

Voting machines are the total combination of mechanical, electromechanical, or electronic equipment (including software, firmware, and documentation required to program control, and support equipment), that is used to define ballots; to cast and count votes; to report or display election results; and to maintain and produce any audit trail information. The first voting machines were mechanical but it is increasingly more common to use electronic voting machines. Moreover it is also important that a false entry should not be made so for this one of the most secure methods for voting is using a biometric sensor like a fingerprint reader. In this project we will be using a Fingerprint reader for providing access to the voter as well as making a log if the person has voted or not.

Achievements:

Project Design Contests:NIL

Symposium:NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

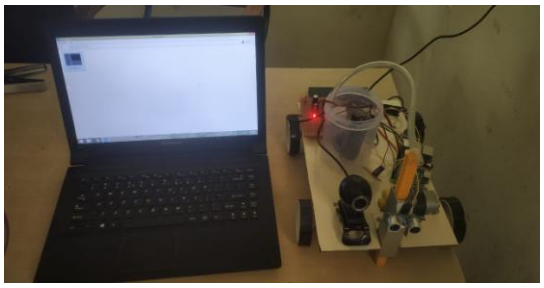
Youtube :NA

Facebook :NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 04

TITLE OF THE PROJECT: AUTONOMOUS ADJUSTABLE PESTICIDE SPRAYING DEVICE FOR AGRICULTURAL APPLICATION



FACULTY GUIDE: Mr.J.RAJESH

Abstract :(10 lines)

This project presents the development of a smart sensor based environment monitoring system, in remote villages especially for crop fields. Basically, it is difficult to monitor the environment, weather all the time, so we proposed this project Crop field, to monitor the weather and any environment changes using IOT which having some sensors like Temperature sensor, Moisture sensor, humidity which measures respective parameters throughout the day. And also parameters measured by sensors are sent through IOT. Using measured parameters we can detect and prevent from diseases by spraying pesticides.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

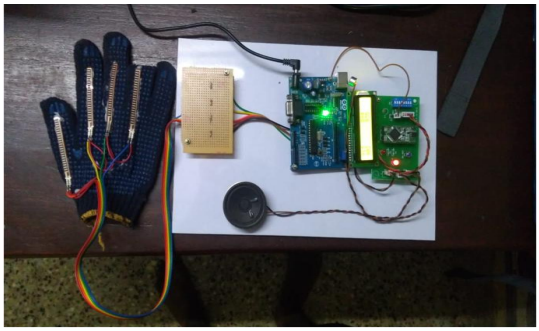
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 05

TITLE OF THE PROJECT: VOICE FOR VOICELESS



FACULTY GUIDE: Mr.P.Manikandan

Abstract :(10 lines)

This project presents the development of a smart sensor based environment monitoring system, in remote villages especially for crop fields. Basically, it is difficult to monitor the environment, weather all the time, so we proposed this project Crop field, to monitor the weather and any environment changes using IOT which having some sensors like Temperature sensor, Moisture sensor, humidity which measures respective parameters throughout the day. And also parameters measured by sensors are sent through IOT. Using measured parameters we can detect and prevent from diseases by spraying pesticides.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

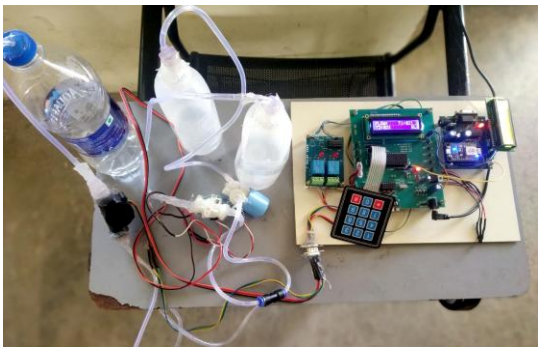
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 06

TITLE OF THE PROJECT: DESIGN & IMPLEMENTATION OF PERISTALTIC PUMP FOR SALINE FLOW RATE CONTROL



FACULTY GUIDE: Ms.Sangeetha

Abstract :(10 lines)

Nowadays there are many problems during the operation period due to variation of temperature of the person undergoing operation. This is due to improper supervision of the patient. This can be reduced by using the continuous monitoring of the patient's temperature. This is achieved by measuring the patient's temperature for every Nano seconds. A pump called peristaltic pump is used to inject the drug at the rate depending on the temperature variation. Self-excited dc motor is used to rotate the pump depending on the temperature and it will also send certain amount of the glucose. The pump used will be very advantageous as it does not produce any contamination to the drug and it is achieved by our project.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 07

TITLE OF THE PROJECT: BIDIRECTIONAL FULL BRIDGE CONFIGURATION FOR INDUCTIVE WIRELESS POWER TRANSFER SYSTEM

FACULTY GUIDE: Ms.Mathumathi

Abstract :(10 lines)

The wireless power transfer (WPT) offers a band new way for energy acquisition in electric-driven devices. An active resonance circuit is used to wirelessly transfer power from the transmitter to the receiver. In traditional circuits parallel L-C resonant tank in transmitter circuit is commonly used, where as our project utilizes series-parallel CLC tank circuit. Capacitive WPT is used for low power applications whereas the wireless inductive power transfer (IPT) is used for both low and medium power applications. Various WPT applications are electric vehicles, electronic gadgets, lighting, material handling and biomedical implants. Day by day new technologies are making our life simpler. Wireless charging through resonance could be one of the next technologies that bring the future nearer. In this project it has been shown that it is possible to charge low power devices wirelessly via inductive coupling. It minimizes the complexity that arises for the use of conventional wire system.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

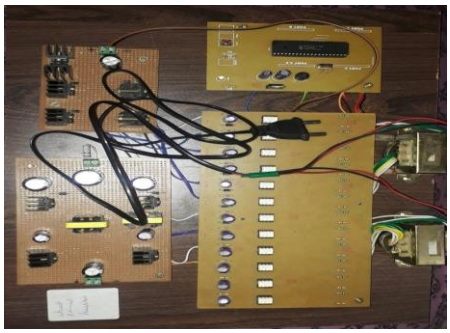
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 08

TITLE OF THE PROJECT: DUAL OUTPUT ISOLATED CONVERTER FOR E-VEHICLES



FACULTY GUIDE: Mr.Somasekar

Abstract :(10 lines)

In this project a unique integrated and isolated dual-output dc–dc resonant converter is created, which can interface both HV traction batteries and LV loads. The proposed topology is bidirectional, capable of delivering power from HV traction batteries to the LV load. This is achieved by increase the power density of the converter, the dual-output dc–dc resonant converter combines magnetic components of resonant networks into a single three-winding electromagnetically integrated transformer. This project improves economics and environmental incentives, as well as advances in technology, are reshaping the traditional view of industrial systems. Currently existing system, Batteries cannot be charged from grid and in down times no back up facilities. In comparison to two stand-alone dc-dc converters and other integrated converters, the proposed integrated topology has less number of components, smaller size, wide input/output voltage range, and potentially lower cost.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

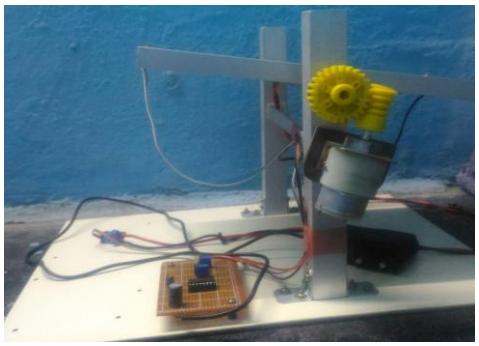
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 09

TITLE OF THE PROJECT: PV DATA ACQUISITION WITH WEB BASED MPPT CONTROLLER



FACULTY GUIDE: Ms.J.Sangeetha

Abstract :(10 lines)

Monitoring of solar energy is essential for effectively reducing the power losses. In order to do that, This paper proposes idea For remote monitoring technique. In this LABVIEW program is used because of its Graphical user interface ,web publishing tool, shared variables features and we created horizontal single axis solar tracker which is employed for tracking the solar energy efficiently and the MPPT algorithm programmed in LABVIEW is used for providing maximum output voltage. The simulation results are remotely monitored in web browser by using web publishing tool of LABVIEW and by using data dashboard app the shared variable solar power was monitored in the mobile using system IP address.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

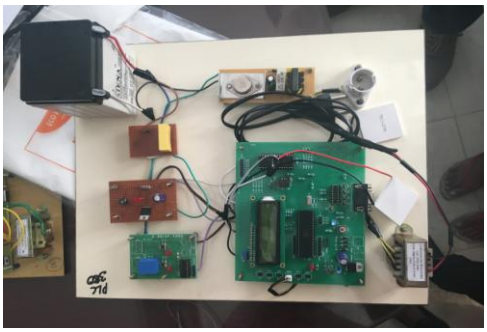
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 10

TITLE OF THE PROJECT: INGENIOUS AUTOMATED STREET LIGHTS



FACULTY GUIDE: Ms.M.Preetha

Abstract :(10 lines)

Energy crisis is one of the critical issues. The main aim of the project is the intelligent illumination control of street lights to optimize the problem of power consumption. Street lights are being replaced by LEDs & controlled by PLC. The main difference from other computers is that PLCs are armoured for severe conditions such as dust, moisture,heat,cold etc. & have the facility for extensive input/output arrangements

.

Achievements:

Project Design Contests: NIL

Symposium: NIL

Publications: APPLIED IN UGC APPROVED JOURNAL

Social Media Reach:

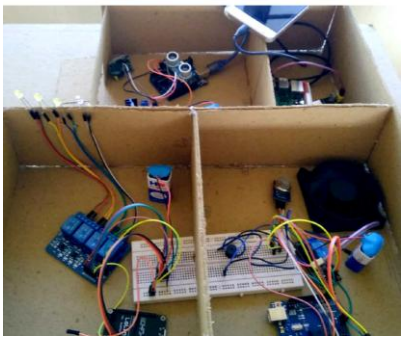
Youtube: NA

Facebook: NA

PROJECT EXHIBITION DATED 28TH FEBRUARY 2019

TEAM ID-EEE 11

TITLE OF THE PROJECT: SMART HOME AUTOMATION



FACULTY GUIDE: Ms.S.Shobana

Abstract :(10 lines)

This project presents the overall design of smart home automation wireless system. Its designed to assist & provide supporting order to fulfill the needs of elderly & disabled persons & also improve the comfort. This concept improves the standard of living at home by saving energy & electricity distribution. The switch mode, face recognition mode, presence detection mode and voice mode are used to control the home appliances. The android which streams PI camera the main control system implements wireless technology to provide remote access from smart phone through the clapping sounds. The on & off operation of switches can be monitored. The design remains the existing electrical switches &provides more safety control on the switches with low voltage activating method. It is an user friendly interface, ease of installation for more safer & secure. It can be controlled from anywhere in the world.

Achievements:

Project Design Contests: Participated in Anna university design CTDT contest

Symposium: NIL

Publications: NIL

Social Media Reach:

Youtube: NA

Facebook: NA

DEPARTMENT OF INFORMATION TECHNOLOGY

Department	Project Coordinator	Domain	No. of Major Projects	Total
INFORMATION TECHNOLOGY	Ms.C.KAMATCHI	Web Technology	3	12
		Intelligent System	3	
		Mobile Application	3	
		Data Mining	2	
		Cloud Computing	1	

MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT1

TITLE OF THE PROJECT

SMART AMBULANCE SYSTEM DETECTION

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

ABSTRACT:

Ambulance services are important for health and Medical facilities. The main purpose of this App is to ease the process of booking an ambulance and contribute to saving the lives of the Patient. This App will have user's registration in order to book an ambulance, ambulance driver's registration to checking the availability of nearest ambulance and hospital registration to get patient updates Using GPS system available in ambulance, location of the ambulance can be tracked by the user in panic situation. Map matching algorithm is used for detecting the nearest ambulance. Sharing current status of the patient through PUSH Notification, to the hospital will facilitate for early preparation for treatment. Sharing the previous medical history of the patient through EMR will help for quick diagnosis and immediate action. This App will promise a fast and reliable ambulance service in case of emergency.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications: Nil

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT4

TITLE OF THE PROJECT

ESTIMATION & PREDICTION OF DIABETES MELLITUS USING ASSOCIATION & SUMMARIZATION TECHNIQUE

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

```
> library(MASS)
> library(mlbench)
> data(PimaIndiansDiabetes)
>
> fit <- lda(diabetes~., data=PimaIndiansDiabetes)
> print(fit)
Call:
lda(diabetes ~ ., data = PimaIndiansDiabetes)

Prior probabilities of groups:
      neg       pos
0.6510417 0.3489583

Group means:
    pregnant  glucose pressure  triceps  insulin     mass pedigree      age
neg 3.298000 109.9800 68.18400 19.66400  68.7920 30.30420 0.429734 31.19000
pos 4.865672 141.2575 70.82463 22.16418 100.3358 35.14254 0.550500 37.06716

Coefficients of linear discriminants:
                LD1
pregnant  0.0938638298
glucose   0.0269863520
pressure -0.0106293929
triceps   0.0007043468
insulin  -0.0008229296
mass      0.0603702056
pedigree  0.6711517147
age       0.0119490869
```


ABSTRACT:

Diabetes Mellitus is a chronic disease, in extreme cases it may leads to death. The growth of Diabetic patients are increasing day by day due to various causes such as obesity, bad diet, pollution etc. In Health Care Systems, the diagnosis of Diabetes has been comprehensively investigated showing acceptable levels of accuracy. Our motive is to design a model which can prognosticate likelihood of Diabetes in patients with maximum accuracy. The data set taken from PIDD are used as train data and data collected from hospitals are taken as test data. The objective of the project is to predict the diabetes using data mining algorithms and to compare its accuracy. Performance comparison of Regression, Decision tree, Naïve Bayes algorithms has been done on Pima Indian Diabetes Dataset. The highest accuracy measure was calculated using instances.

Achievements:

Project Design Contests: GANDIVIA'19, Jeppiar College.

Symposium: Nil

Publications: IJRET

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

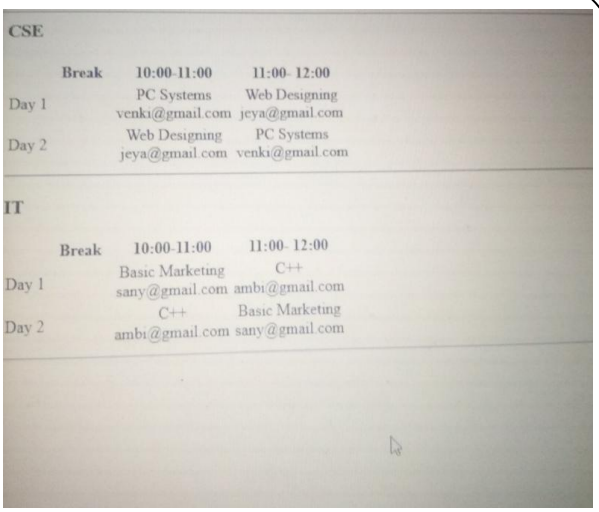
MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT2

TITLE OF THE PROJECT

S & D TIME TABLE AUTOMATION SYSTEMRULE SUMMARIZATION

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



CSE

	Break	10:00-11:00	11:00- 12:00
Day 1		PC Systems venki@gmail.com	Web Designing jeya@gmail.com
Day 2		Web Designing jeya@gmail.com	PC Systems venki@gmail.com

IT

	Break	10:00-11:00	11:00- 12:00
Day 1		Basic Marketing sany@gmail.com	C++ ambi@gmail.com
Day 2		C++ ambi@gmail.com	Basic Marketing sany@gmail.com

ABSTRACT:

The manual operated system of timetable preparation in college is very monotonous and time consuming with results in either the same teacher ending up with more than one class or number of teachers conflicting at same class. Due to a non-automatic perspective, the utilization of resources has proven ineffective. In order to deal with such problem, a mechanized system can be designed with computer aided time table generator. The system will take different inputs like number of subjects, teachers, maximum lectures and priority of subjects and topics to be covered in a week. It will create a feasible time tables for working days in which it suits for the constraints. The proposed technology filters out the best of active rules to generate as optimized solution. This project introduces a practical time tabling algorithm capable of taking care of both strong and week constraints effectively

Achievements:

Project Design Contests: Nil

Symposium:

Publications:

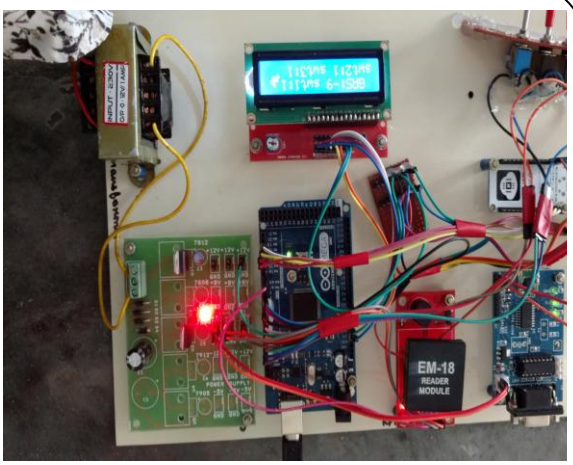
MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT3

TITLE OF THE PROJECT

HYGIENE MONITORING SYSTEM

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



ABSTRACT:

Human beings are very conscious on their health. The provision of hygienic washroom is globally recognized as a key intervention to promote the people live in a clean and hygienic environment. The aim of this project is to maintain a hygienic washroom in the hospital which can be implemented using the figaro sensor which will detect the dirt level in the washrooms. ZigBee is used to transmit the information from sensors to receiver section, if the value exceeds the threshold value, it alerts the housekeeping management and housekeeping staff with help of buzzer and LCD is used to identify washroom requires cleaning and maintenance. RFID is used to monitor the working of housekeeping staff . Feedback system is used to specify the problems through buttons such as leakage of water, insufficient tissue paper, insufficient of water etc.

Achievements:

Project Design Contests: GANDIVIA'19, Jeppiar College.

Symposium: Nil

Publications:

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

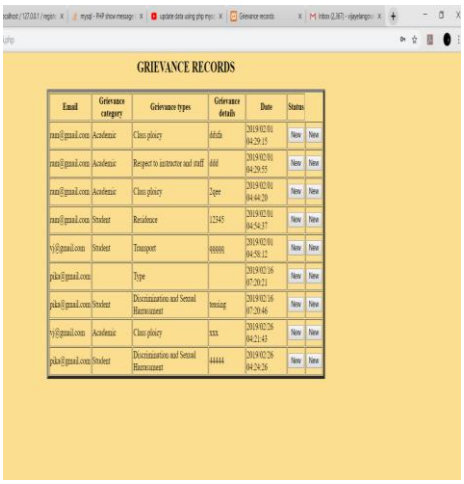
MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT5

TITLE OF THE PROJECT

ONLINE GRIEVANCES MANAGEMENT SYSTEM AT INSTITUTE LEVEL

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



ABSTRACT:

The purpose of this project is to provide optimised solutions for the student grievances. The proposed model for the student complaint management system will have ability to minimize students dissatisfaction we try to improve the relationship between student and university by presenting the model of e-complaint web based system. This system will give solution to the students grievances. The existing system has manual processing through committee, principal, concerned departments and AICTE. The proposed system had capable to complete the process automatically by using our application.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications:

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

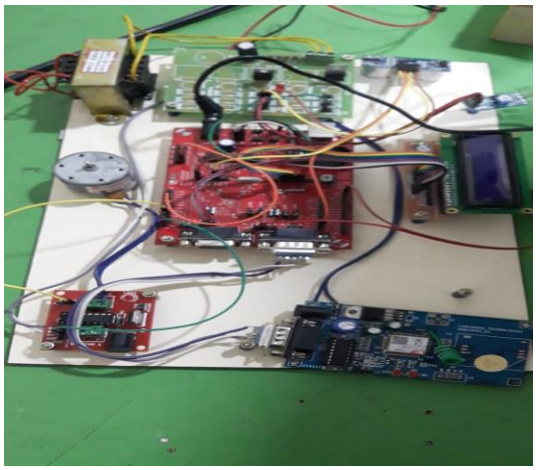
MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT6

TITLE OF THE PROJECT

AUTOMATIC POTHOLE DETECTION

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



ABSTRACT:

One of the major problems faced by India is the maintenance of road condition. Road infrastructure for the society is very important because majority of road accidents takes place due to bad condition of road like potholes, speed bumps etc..,. Potholes are caused due to poor quality and badly maintained roads. These ill quality roads will cause severe damage to the vehicles in terms of tyre and most important thing is the accidents. We propose an innovative method to prevent these situation by using sensor. This system alert the driver about the uneven roads and potholes. The sensors will be attached to vehicles and from vehicles the data's will be obtained from sensors and the location obtained by the GPS are transferred to road transport authority through IoT server for further procedures and actions to take place. A microcontroller interfaced with an ultrasonic sensor fixed in front of the vehicle to determine the pothole and IR sensor to detect obstacle. Whenever a pothole has been detected the microcontroller slows down the vehicle speed and gets the location of the vehicle from GPS and updates to a IoT server through Internet.

Achievements:

Project Design Contests: Nil

Symposium:

Publications:

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

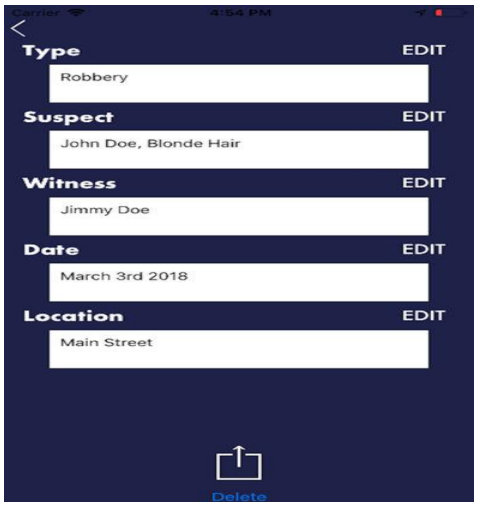
MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT7

TITLE OF THE PROJECT

PUBLIC CRIME REPORTING, PREVENTION & MONITORING SYSTEM

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



ABSTRACT:

In our country more than 2,50,000 crimes are happening per year but only 40% of them are getting filed because most of the people will hesitate to go to the police station to register a complaint. So, this system proposes an application which helps the users to register complaints against various categories of criminal activities like robbery, woman abuse, missing person and other illegal activities. Here respective police officers have to register their details based on their specific location. The user also has to register with the application. So whenever the user sign-in into the application they can file any new complaints happened in their locality. The complaints will be redirected to respective area police station, based on the given location. Here user has a facility to capture an evidence in image or video format. An SMS alert will be sent to the respective police station. It also provides the information of missing persons. By this system the violence rate will be reduced and increases the public safety.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications:

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

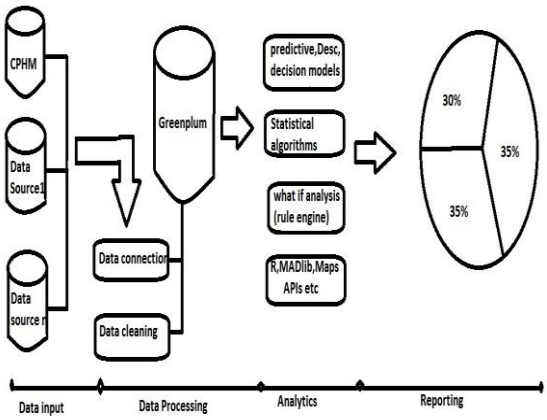
TEAM ID-4IT8

TITLE OF THE PROJECT

ANALYSIS ON MEDICINES AND DOCTORS AVAILABILITY IN GOVERNMENT HOSPITALS

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

Architecture:



ABSTRACT:

Government hospitals provides medicines for the treatment to the patients based on the diagnosis. Generally government hospitals stores all the patients historical data and current data in cloud. This system allows the user to view the hospital location using predictive algorithm and details about the hospital such as doctors, medicines ,specialists availability and also helps the patient to get details about the government hospitals. Financial and administrative performance are improved by high utilization of resources and reduced fraud and abuses and optimized by supply chain and human capital management. The predictive algorithm reveals what actions should be taken. The predictive is an analysis of likely scenarios of what might happen. It reduce the cost and increasing the efficiency reduce the fraud and abuse, optimize the utilization of specialist and experts. Predict number of doctors and specialist required during a given time period. Fine tune analytical model wider and larger datasets.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications:

Social Media Reach: Nil

Youtube : Nil

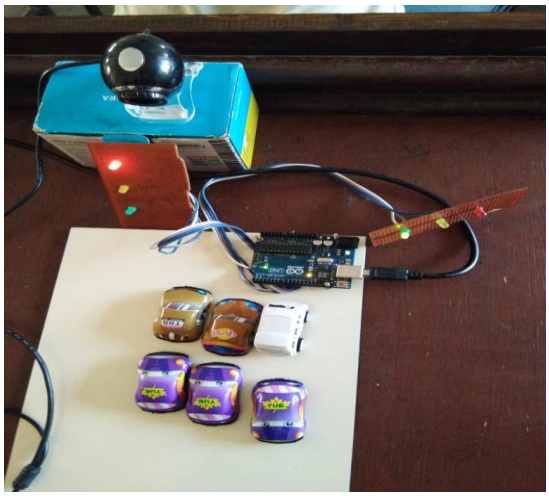
Facebook : Nil

MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT9

TITLE OF THE PROJECT

SMART TRAFFIC LIGHTS USING CCTVSENSOR



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

ABSTRACT:

Traffic congestion becomes a serious problem and has spread like a plague from major metropolitan areas to numerous small to mid-size cities. It increases human travel time, fuel consumption and air pollution. Real time Traffic light control is evaluated using Image processing. Here Vehicle congestion is monitored for certain period of time. Vehicles are detected in the lane. If more vehicles predicted in the lane then accordingly traffic light will be changed. In case of any ambulance emergency vehicle found, then the traffic lights changed accordingly. Number of emergency vehicles such as Fire engine, ambulance can be passed will be determined.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications:

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

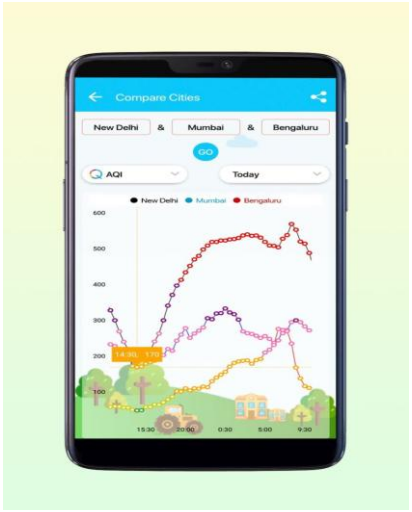
MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT10

TITLE OF THE PROJECT

SOLUTION FOR POLLUTION

FACULTY GUIDE: **Ms.J.Omana**



ABSTRACT:

It has been seen that there is no automated system/software for reporting and tracking the occurrence of pollution. A mobile application to find out the solution for pollution would be formulated. A report on type, source and criticality of pollution is registered. Once categorized, pollution strategies can be incorporated. The methodologies used are categorization based on severity of pollutions, polling using social media, automatic notifications of our issue, solution taken by our pollution control department or by public.

Steps: 1. Report on pollution.

2. Polling using social media.
3. Interest of public towards remedy.
3. Solution by two means: Public & Pollution control department.
4. Tracking of our complaint.
5. Notifications at each stage.

Achievements:

Project Design Contests: Nil

Symposium: Nil

Publications:

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

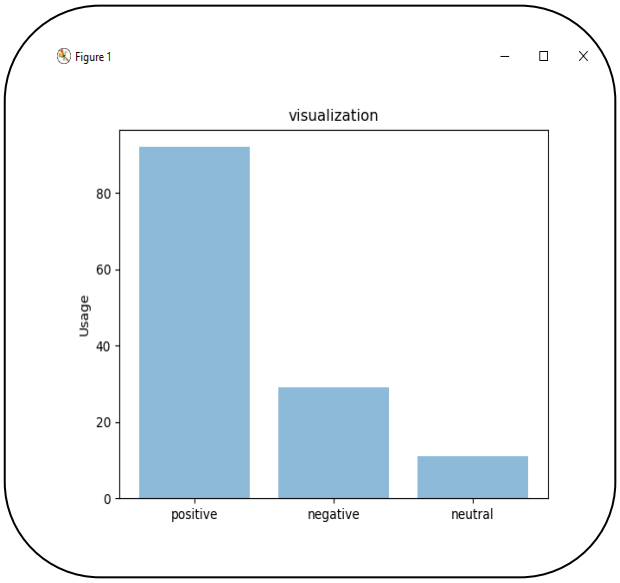
MAJORPROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT11

TITLE OF THE PROJECT

DUAL SENTIMENT ANALYSIS FOR TWO SIDES OF REVIEW

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



ABSTRACT:

Dual Sentiment analysis is an important current research area. The importance of sentiment analysis coincides with the growth of social media such as reviews, blogs, and social networks. Sentiment analysis is also called as opinion mining. We propose a system called Dual Sentiment Analysis which is better in performance when compared to Bag-Of-Words (BOW). It is used to analyse and compare the public opinion for the product review. The Dual Sentiment Analysis framework works with polarity classification i.e, positive, negative, neutral(3 classes).We propose Dual Training algorithm and dual prediction algorithm. Dual Training makes use of original and reversed training reviews in match for learning a sentiment classifier. Dual Prediction classifies test review by considering two sides. We develop corpus-based method to build a pseudo-antonym dictionary. At the end, result shows the effectiveness of Dual Sentiment Analysis in supervised sentiment classification.

Achievements:

Project Design Contests: GANDIVIA'19, Jeppiar College.

Symposium: Nil

Publications:

Social Media Reach: Nil

Youtube : Nil

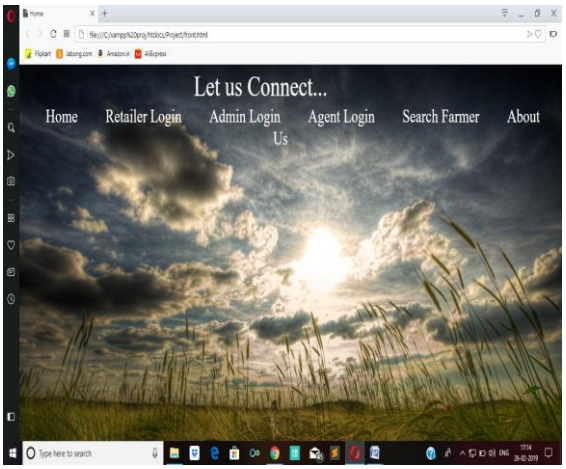
Facebook : Nil

MAJOR PROJECT EXHIBITION DATED 28th FEBRUARY 2019

TEAM ID-4IT12

TITLE OF THE PROJECT

FARM TO FORK TRACEABILIY OF FARM PRODUCE



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

ABSTRACT:

In recent many events related to food and public health occurs. Many country established strict rules to ensure the food traceability "Farm to Fork" to meet the demand of customers safety and to ensure public health. Traceability has been an important subject in the research world to be investigated. In software engineering, traceability has been crucial for software development processes. In food domain, traceability has also been seen as an important topic for tracing food content of various food products and operations. Companies in food production sector must evolve and change their organization and management chain to satisfy increasingly stringent governance rules to respond to the requirements of market. The aim of this work is to develop a farmer ID and then providing the necessary information of the farmer with their contact detail and productivity information and generate a farmer id and QR code for the data. This web based application prototype which is used for providing active, interactive, and persuasive communication among customers and farmers. The data collected by a traceability system will be stored in a database and any one can access that database to get information about their product from anywhere by scanning the QR code generated.

Achievements:

Project Design Contests: Nil

Symposium: Nil

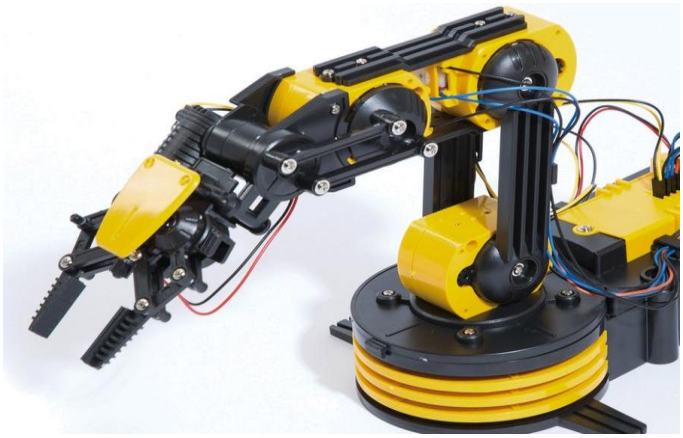
Publications:

Social Media Reach: Nil

Youtube : Nil

Facebook : Nil

DEPARTMENT OF MECHANICAL ENGINEERING



Department	Main project Coordinator	Domain	No. of Main projects	Total
Mechanical IV Year	**G.VENKATKUMAR** **K.BALACHANDAR** **N.RAMASAMY**	**Design & Fabrication**	**10**	**10**
Mechanical IV Year	**G.VENKATKUMAR** **K.BALACHANDAR** **N.RAMASAMY**	**Design & Analysis**	**5**	**15**
Mechanical IV Year	**G.VENKATKUMAR** **K.BALACHANDAR** **N.RAMASAMY**	**Design & Experiment**	**13**	**28**

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC1

TITLE OF THE PROJECT **DESIGN AND FABRICATION OF SEMI-AUTOMATIC DISHWASHER (SUB ASSEMBLY 1)**

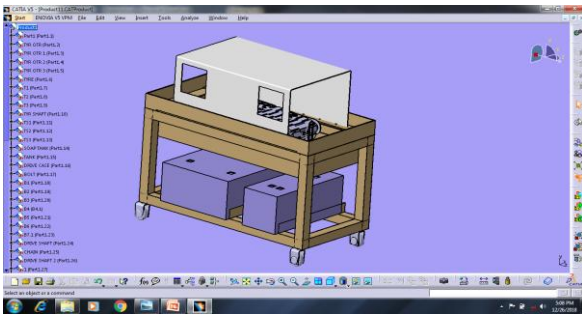
FACULTY GUIDE: Mr.D.Meganathan

R.Abishek

V.N.Deepak

S.Lokeshwaran

Project Photo/ Block Diagram or schematic:



Abstract:

Main aim of semi-automatic dish washer machine is to reduce human efforts and time with its innovative simple design which is also environment friendly. A dishwasher is a low cost machine made up of easily and readily available parts in daily life. The model of semi-automatic dish washer machine is new concept, which in its one washing cycle does all the operations of conventional dish washing i.e. spraying soda water, scrubbing with brush and rinsing with clean water similar to fully automatic dish washer machines in market. The dishwasher operates with help of DC motor, Universal motor, conveyor belt and microcontroller for time delay. Dish which is placed on the conveyor belt enters the first washing chamber where it is cleaned with soda water and scrubbed with the brushes. This is then passed to next chamber where it is rinsed with the clean water and finally moves out as a complete washed dishes.

Achievements:

Project Design Contests:Yes

Symposium: ---

Publications: Yes

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC2

TITLE OF THE PROJECT **DESIGN AND FATIGUE FAILURE ANALYSIS OF KEVLAR COMPOSITE LEAF SPRING**

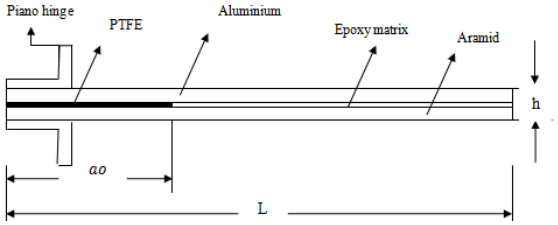
FACULTY GUIDE: Mr.N.Ramasamy

Anbarasan P

Bharani S

B U Dinesh Kumar

Project Photo/ Block Diagram or schematic:



Abstract:

The interfacial properties of the fiber metal laminate are the main obstacles to limit its practical applications. The fibre metal laminates are hybrid composite materials are made from interlacing layers of thin metals and fibre reinforced plastics. The study of adhesive strength of layer in Fibre Metal composites was determined from double Cantilever beam testing. The Glass fibre, Kevlar fiber and aluminum were taken for laminating the composite by using epoxy matrix. The adhesion property of treated aluminium in hybrid composite layer is found by Double Cantilever Beam testing in accordance with ASTM D5528-01.The various chemical and electrochemical surface treatment of aluminium such as Forest product laboratory (FPL) acid etching, Chromic acid Anodizing, SulphoFerric etching, Phosphoric acid Anodizing and Alkaline cleaning were followed to treat the aluminium thin plate for enhancing the adhesion property and surface roughness. We concluded that the modified aluminium and various surface treatments have more effect on the fiber metal composite and improved strength of ARALL composites.

Achievements:

Project Design Contests: --

Symposium: ---

Publications: ---

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC3

TITLE OF THE PROJECT **DESIGN AND FABRICATION OF THERMOELECTRIC INTERCOOLER TO IMPROVE PERFORMANCE OF S.I ENGINE**

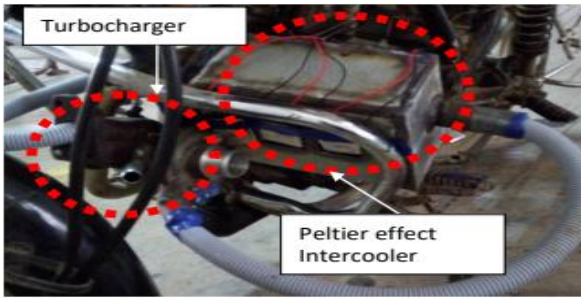
FACULTY GUIDE: Mr.S.P.Mohan Mithra

M.J.Abilesh

M.Akash

P.Abishek
Pandey

Project Photo/ Block Diagram or schematic:



Abstract:

This paper describes about the exhaust from I.C Engine supplied to the turbo charger turbine. The turbine rotates the compressor by means of turbine shaft connected to the compressor. Then compressor compresses the air from the atmosphere and supplied to the thermo-electric Intercooler which workers under Peltier effect. The Peltier sensor having hot face facing towards the atmosphere to transmit the heat and cold face facing towards the enclosed area of the Peltier effect intercooler. The exit temperature of air from the thermo-electric intercooler will be reduce due to the Peltier effect which increases the volumetric efficiency and reduces the fuel consumption rate which results the complete combustion.

Achievements:

Project Design Contests: Yes

Symposium: ----

Publications: Yes

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC4

TITLE OF THE PROJECT **AUTOMATIC BRAKING SYSTEM USING IR SENSOR**

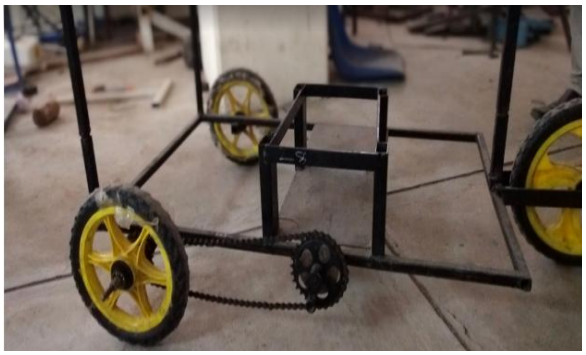
FACULTY GUIDE: Mr.A.Selvakumar

B.Abinash

Challa Vijay kumar

N.Dilli Babu

Project Photo/ Block Diagram or schematic:



Abstract:

Most of the accidents in four wheeled vehicles occur because of failure of braking systems. Manual method of applying brakes is always dangerous as it leads to accidents. Unconsciousness of driver, failure in the linkages of braking systems, road conditions, uncontrollable speed of the vehicle and manual operation of braking systems are the reasons of accidents. It is necessary to control brakes automatically through electronics devices to minimize the accident problems. In this research paper we propose an effective methodology for automatic control of braking system to avoid accidents. In this technology we used Arduino, relays, IR transmitter and IR receiver for effective function of braking control system. This complete system can be fitted on to dashboard of a vehicle and effectively used for automatic control of braking system. □ Key Words: Aduino, Intelligent braking, IR sensor

Achievements:

Project Design Contests: Yes

Symposium: ----

Publications: ---

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC5

TITLE OF THE PROJECT **AUTOMATIC TRACK CLEANING USING SUCTION PROCESS**

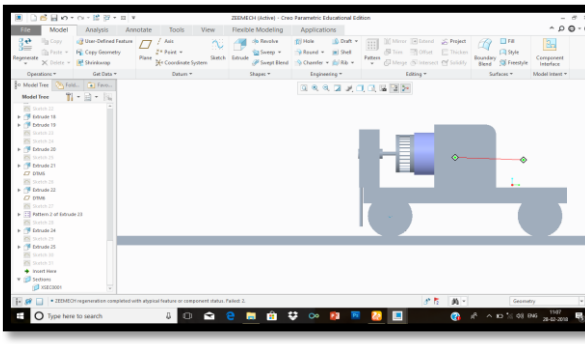
FACULTY GUIDE: Mr K.Balachandar

MGowthavaraman

R Harish

Goodwill S Brainard

Project Photo/ Block Diagram or schematic:



Abstract:

Now a day's owes a peculiar nature of job and get affected by health issues, this situation can be solved by replacing it by automatic robots in the railways. This will be very good for the scavengers who clean the garbage and sometimes human waste in the railway track. It is specially designed for the Indian railways to clean the railway tracks. This robot is the first of its kind developed exclusively for the Indian Railways. Also, the railways can save a lot of money on water and labor charges. The current use of this project in the railway cleaning scenario will ensure that there will not be any waste and unhygienic atmosphere at railway stations across the country

Achievements:

Project Design Contests: Yes

Symposium: ----

Publications: Yes

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC6

TITLE OF THE PROJECT **CHARACTERIZATION AND MECHANICAL PROPERTIES OF BASALT / CACO3 REINFORCED EPOXY HYBRID COMPOSITES**

FACULTY GUIDE: Mr. M.Rajesh

Austrin Messac.C

A.Bhuvanesh

G.Harish

Project Photo/ Block Diagram or schematic:

Abstract:

In this study to investigate mechanical characterization of basalt/CaCo3 reinforced Epoxy hybrid composite. To fabricate the hybrid composite by hand lay-up process. The effects of tensile and flexural properties of the composites to be investigate. Dynamic mechanical analyses to be evaluate the damping behavior of the composites. Using Scanning Electron Microscope (SEM) to analysis fracture surface of the composite.

Achievements:

Project Design Contests: Yes

Symposium: ---

Publications: Yes

Social Media Reach:

YouTube: --

Face book: --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC7

TITLE OF THE PROJECT **FABRICATION AND ABRASIVE WATER JET MACHINING OF FLYASH PARTICULATE AND BASALT FIBRE REINFORCED**

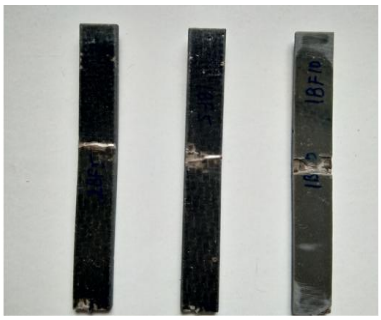
FACULTY GUIDE: Mr. M.Rajesh

S.GaneshMoorthy

R.GokulNath

S.Kannan

Project Photo/ Block Diagram or schematic:



Abstract:

A recent increase in the use of ecofriendly, natural fibers as reinforcement for the fabrication of lightweight and low cost polymer composites can be seen globally. One such material of interest currently being extensively used is basalt fiber (BF), which is cost-effective and offers exceptional properties over glass fibers. Unsaturated vinyl ester (VE) based polymer composites were developed by reinforcing basalt fabric using the hand layup technique at room temperature. This study describes BF reinforced unsaturated VE composites (BF5, BF10 and BF15) without acid and alkali treatments of the BF. This research work focus on the study of mechanical properties like tensile strength, flexural strengths and hardness. Variations in mechanical properties such as the tensile strength, flexural strengths and hardness of various specimens were calculated using a computer-assisted universal testing machine (UTM). Scanning Electron Microscope (SEM) was used to observed of the fracture surface of the composites which showed transition brittle to mixed brittle-ductile mode when increase in BF. This work confirms the applicability of BF as a reinforcing agent in polymer composites. The abrasive water jet machining (AWJM) was proven to be more effective and a preferable technique in machining of fiber-reinforced composite material. The machining characteristic of basalt fiber 15% composition was studied using AWJM and ANOVA Analysis was used to find, the major influence factor of machining composite.

Achievements:

Project Design Contests: Yes

Symposium: ---

Publications: Yes

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC8

TITLE OF THE PROJECT **VIBRATION ANALYSIS OVER AN AIRCRAFT WING SECTION**

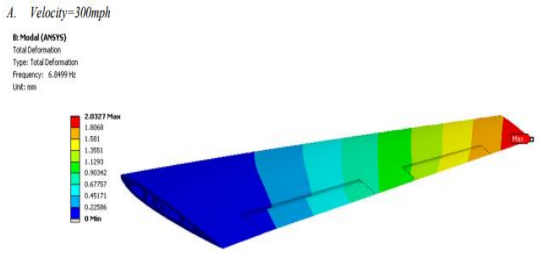
FACULTY GUIDE: Mr. R KARTHICK

S.Bala Murugan

G.Amrith

B.Bhuvanesh

Project Photo/ Block Diagram or schematic:



Abstract:

In our project we are going to analyze the stress distribution over a modern passenger aircraft wing section due to vibrations. We had taken a subsonic passenger aircraft as a reference flight and analyzed using FEA optimization tool (ANSYS WORKBENCH).Due to maximum speed, the maximum lift force is produced across the wing surface. Due to lift force and gforces, the aircraft wing starts to vibrate and will reduce the stability of an aircraft. The boundary conditions are taken from the passenger aircraft survey reports including maximum lift force distribution over the wing section is calculated. In this project we had taken the load condition because while optimizing an aircraft extreme load condition will be considered.

Achievements:

Project Design Contests: --

Symposium: ---

Publications: Yes

Social Media Reach:

YouTube: --

Face book: --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC9

TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF CONNECTING ROD UNDER STATIC LOADING CONDITIONS**

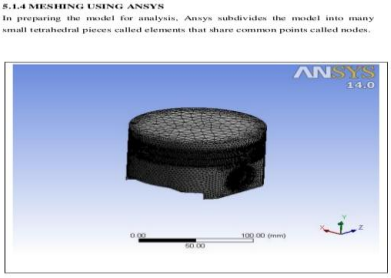
FACULTY GUIDE: Mr.A.Selvakumar

S.Hari Venkatesh

S.Divakar

V.Indhira Prasath

Main project Photo/ **Block Diagram or schematic:**



Abstract

In this study, firstly, thermal analysis is investigated on a conventional piston made of Al alloy A2618. Secondly, thermal analysis is performed on piston made of Al-GHS1300, coated with Zirconium material by means of using a commercial code, namely ANSYS. The main objective is to investigate and analyse the thermal stress distribution of piston at the real engine condition during combustion process. In this work, the main emphasis is placed on the study of thermal behavior of functionally graded coatings obtained by means of using a commercial code, ANSYS on aluminum and zirconium coated aluminum piston surfaces. The analysis is carried out to reduce the stress concentration on the upper end of the piston i.e. (piston head/crown and piston skirt and sleeve). With using computer aided design V5 Catia software the structural model of a piston will be developed. Furthermore, the finite element analysis is done using Computer Aided Simulation software ANSYS. For the analysis of piston input conditions and process of analysis, a lot of literature survey has been done. Comparative study is done to select best material.

Achievements:

Project Design Contests: NIL

Symposium:NIL

Publications:NIL

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC10

TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF GASTURBINE BLADE**

FACULTY GUIDE: Dr. V. Jayaseelan

V. Logesh

S.Dinesh kumar

KatamareddyChaitanya

Main project Photo/ **Block Diagram or schematic:**

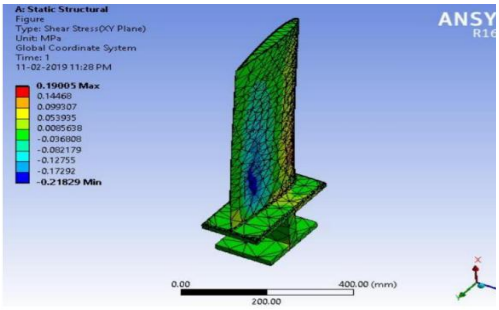


Fig.2 shear stress analysis of inconel 600

Abstract :

Gas turbines blades have plays an important role in electric power generation. Gas turbine technology is used in a various of configurations for power generation.gas Turbine rotor blades are the important components in a gas turbine . Turbine blades are mainly affected due to thermal and static loads. the temperature has one of the significant effect on the gas turbine rotor blade. This paper describes the design and steady state thermal analysis and nodal analysis of gas turbine rotor blade, on which catia software is used for design of solid part of the turbine blade. ANSYS software is used for analysis of the rotor turbine blade . The materials of the gas turbine rotor blade are selected as inconel 600.

Achievements:

Project Design Contests: NIL

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC11

TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF FOUR WHEELER IMPACT TEST UNDER VARIOUS CONDITIONS**

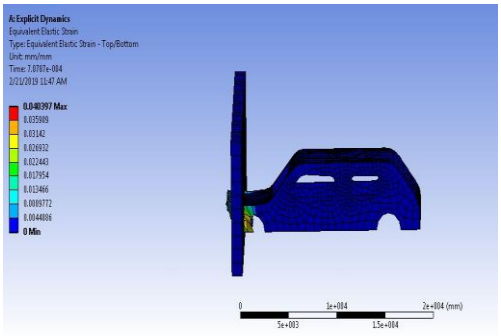
FACULTY GUIDE: Dr. V. Jayaseelan

Akash M J

Arvind D

Bala chander S

Main project Photo/ **Block Diagram or schematic:**



Abstract :

This paper analyzes the design of design and analysis of four wheeler impact test under various condition. Driving a car is a high in itself, but safety is important too. Choosing a safer car is very important to help prevent in crashes and accidents. The car body is the part of the car that contributes to the protection of passengers in case of any collision. With the improvements in roadways and implementation of new design technologies to automobiles, vehicle safety has found a tremendous growth in these days. Thus, a thorough crash-testing program is critical for the car makers and has contributed significantly to improve the safety of the cars. According to the New Car Assessment Program (NCAP) of National Highway Traffic Safety Administration (NHTSA) cars made for model year 1997 and after must pass both the tests frontal crash testing and side impact crash testing Even then automobile community is making its continuous effort to improve automobile safety to reduce injury and death drastically. Structural Steel wall was used as the obstacle and Magnesium alloy (Magnesium-99% and Aluminum-1%) was chosen as the body material for car model. The extent of plastic deformation of the car increased with increase in velocity with front part of the car absorbing the major part of the impact energy, Bumper, bonnet, A pillar and wind shield were the major parts to undergo plastic deformation. Also from the energy graphs it was clear that internal energy increased drastically and the kinetic energy decreased during the course of impact. After the impact the car body rebounds back and regains its kinetic energy, while the internal energy decreases.

Achievements:

Project Design Contests: NIL

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC12

TITLE OF THE PROJECT: **ANALYZING THE PARAMETERS OF SS304 USING SMAW**

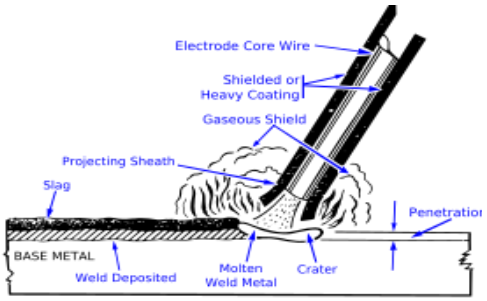
FACULTY GUIDE: Mr.K.Sivaramakrishnan

R.Jeeva

A.Imthiyaz Ahamed

M.Mohan babu

Main project Photo/ **Block Diagram or schematic:**



Abstract :

Over the years the lifespan of many machines have been reduced or have not matched its estimated lifespan due to poor joints and the materials have not adapted to the working conditions. The poor joints are due to the improper welding joints. The improper welding method that may not be suitable for the working environment or may not be apt for the material that is used in the machine. Our project deals with studying and analyzing the properties of SMAW welded SS 404 specimen by conducting various tests. SS 404 is the most commonly used metal in food processing machines because of its high corrosion resistance. But a slight drawback is that the machines that use SS 404 fail due to its poor fail welding joints. Hence this project deals with finding out whether the SMAW welded SS 404 joint can withstand extreme conditions and various tests performed on it.

Achievements:

Project Design Contests: NIL

Symposium: Nil

Publications: Yes

Social Media Reach:

YouTube: -

Face book: -

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC13

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF CATTLE FEED MIXING MACHINE**

FACULTY GUIDE: Mr.R.Vijaya kumar

Himaya Sri.B

Kavipriya.R

Tharanath .R

Main project Photo/ **Block Diagram or schematic:**

Abstract :

With the advent of Diary Development Board there has been a substantial growth of cattle farms and poultry farms all over the country. The increase of these development projects depends largely on the availability of cattle feed. Scarcity of high-quality feeding materials is one of the major constraints in the diary industry and the study was conducted to prepare a conservable and cost-effective cattle feed block. Feeding machine to livestock is advantageous to both the livestock and the farmer, as it supplies the required nutrients to the livestock and is also economical.

However, livestock feeding equipment are known to be expensive and unaffordable particularly to the local farmers. This study is an attempt towards designing and fabricating a machine capable of mixing feed constituents. The design incorporates the use of local raw materials for the construction. The machine will be designed and fabricated with a view of reducing human effort and time by exploring the various principle associated with machine design.

Achievements:

Project Design Contests: Yes

Symposium: Nil

Publications: Nil

Social Media Reach:

YouTube: -

Face book: -

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC14

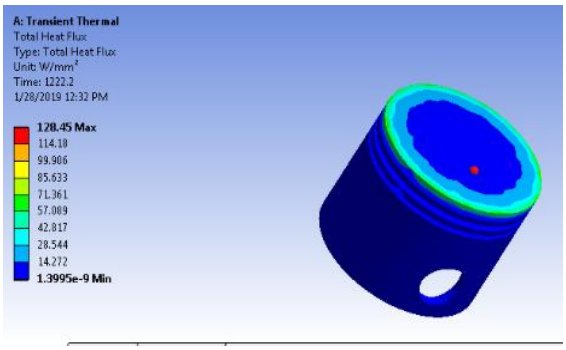
TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF TWO STROKE ENGINE PISTON**

FACULTY GUIDE: Mr.K.Sivaramakrishnan

Ajith Kumar.V

Guduru Jithendra

Main project Photo/ **Block Diagram or schematic:**



Abstract:

Piston is a important part in the reciprocating engine system. It is used to the transfer the power from the piston to the crank .The crank is used transfer the power from piston to the engine by the using of the connecting rods .Piston is the major part of an internal combustion engine which converts the chemical energy of the fuel into the mechanical energy. In this design analysis the is analysis in the different materials by is the using of the same piston dimensions the of the piston is analysis in the two different type of materials like Aluminum, cast ion materials. In the design analysis of the piston the piston is design in catia v5 and analysis in the workbench software .In this process the piston is tested in temperature ,pressure ,stress ,strain analysis

.

Achievements:

Project Design Contests: nil

Symposium: -

Publications: -Yes

Social Media Reach:

Youtube : -

Facebook : -

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC15

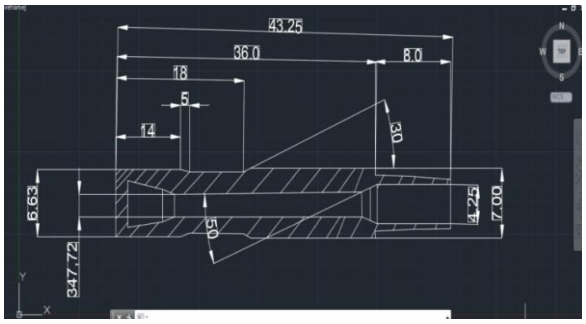
TITLE OF THE PROJECT: **ANALYZING AND PROCESS DEVELOPMENT OF PRODUCTS IN PRODUCTION**

FACULTY GUIDE: Mr K.Balachandar

S.Mohamed Fahim

S.Niranjan

Main project Photo/ **Block Diagram or schematic:**



Abstract:

The objective of this project is to make documentation of process planning that going to Improving new product development (NPD) process by analysing failure cases for the Industries and the automobile with the help of certain strategies and workflow. Process planning is one of the most important and necessary step in manufacturing industry. By production this process one can have a greater control over the process. It is very useful in industries for manufacturing Units in order to save the time and man power .Most of industries getting suffered to do production without error and failure of products. But by using this methodology can get clear solution from this and they can improve production as well as reduce cost by making more targets by keeping customer demand in our mind.

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Achievements:

Project Design Contests: nil

Symposium: -

Publications: ---

Social Media Reach:

Youtube : -

Facebook : -

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC16

TITLE OF THE PROJECT: **ANALYSIS OF INSULATION MATERIAL USED IN CRUDE DISTILLATION UNIT TO MINIMIZE HEAT LOSS**

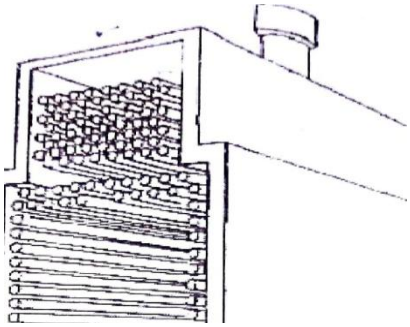
FACULTY GUIDE: Mr.G. Niresh kumar

S.A.Mageshwaran

P.Moneshraj

T.R.Mohan

Main project Photo/ **Block Diagram or schematic:**



Abstract:

feat energy is the result or the movement of tiny particles called atoms molecules or ions in ~(flick, liquids and gases. Ilea) energy can he transferred From one object to another. The transfer or now due to the, difference in temperature between the two objects is called heat. Heat transfer is a discipline of. thermal engineering that concerns the general itni, use, conversion and exchange of thermal energy (heat) between physical systems. I feat transfer is classified into various mechanisms, such as thermal conduction, thermal convection. Thermal radiation and transfer of energy by phase changes.

As we are dealing with heat transfer problem the above given two statements are most important. Our work is based on analyzing the heat transfer in insulation material and giving out theoretical and practical values for existing insulation in our area of device then by analysis certain materials have been selected for replacement which will give good thermal efficiency and reduction in heat loss. Our device we have referred is (CM HEATER II) placed in Cl IENNAI PI TROLI UM CORPORATION LIMITED which is oil refinery.

Achievements:

Project Design Contests: nil

Symposium: -

Publications: ---

Social Media Reach:

Youtube : -

Facebook : -

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC17

TITLE OF THE PROJECT: **DESIGN OF A GLASS TUBE APH TO INCREASE THE EFFICIENCY OF THE FURNACE AND COMPARE WITH CONVENTIONAL APH**

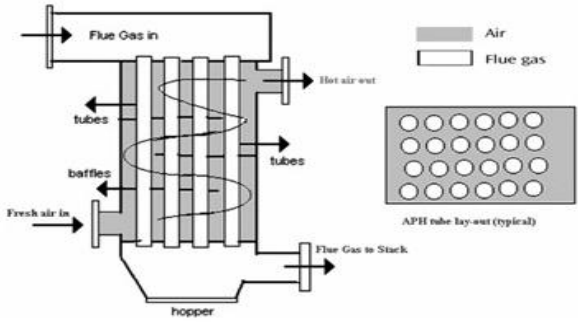
FACULTY GUIDE: Mr G.Venkat Kumar

P.Ponraj

D.Prakash

S.Rakesh Sundar

Main project Photo/ **Block Diagram or schematic:**



Abstract :

Air preheater are heat exchanger to preheat or air heating of the combustion air by means of flue 2as, steam, water or thermal oil. Air preheaters are used when exhaust temperatures of combustion systems are particularly high. This extracts the hot exhaust valuable energy, which discharged otherwise unused into the atmosphere and warming means of this exhaust heat the combustion air of the combustion process. In the classical use, air preheaters are connected behind high-pressure steam boilers or thermal oil boilers with a flue gas temperature up to 400°C. Their exhaust temperatures lend themselves to preheat the combustion air up to 300 ° C. In this way, an air preheater save up to 10% of fuel costs and thus enables payback periods of less than two years. Meanwhile, air preheater also be used in low temperature ranges in order to make the most efficient use of the fuels and counter the rising fuel prices.

Achievements:

Project Design Contests: --

Symposium:--

Publications: --

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB2019

TEAM ID- 4MEC18

TITLE OF THE PROJECT: **REDUCTION IN CLEANING TIME OF COOLANT TANKS**

FACULTY GUIDE: Mr.Ragavendran

Main project Photo/ **Block Diagram or schematic:**

Tamil Mani M

Sooraj S

Abstract :

The main purpose of this project is enumerate ways that are used to clean the coolant tanks in industries thereby reducing manual labour. An important and efficient method to select the appropriate time reduction process to clean the coolant tanks can be determined by the QC system which is commonly used in industries. The main three methods which can be employed are the vacuum grip method, the screening method and the two valve pump system. These three methods are carried out on the cleaning process. Once a process is completed, the various time incurred for the various steps in the cleaning process are noted down. This is repeated for the next two processes. Once this is done, these processes are evaluated by the QC system and the best process out of these three processes are selected. This is the main purpose of the QC system

Achievements:

Project Design Contests: ---

Symposium:--

Publications: ---

Social Media Reach:

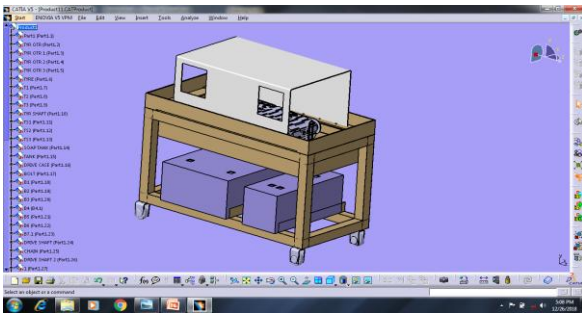
Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC19

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF SEMI-AUTOMATIC DISHWASHER**



FACULTY GUIDE: Mr.D.Meganathan

S.Venkata rajalu

P.Pradhip

M.Sanjai kumar

Abstract :

Main aim of semi-automatic dish washer machine is to reduce human efforts and time with its innovative simple design which is also environment friendly. A dishwasher is a low cost machine made up of easily and readily available parts in daily life. The model of semi-automatic dish washer machine is new concept, which in its one washing cycle does all the operations of conventional dish washing i.e. spraying soda water, scrubbing with brush and rinsing with clean water similar to fully automatic dish washer machines in market. The dishwasher operates with help of DC motor, Universal motor, conveyor belt and microcontroller for time delay. Dish which is placed on the conveyor belt enters the first washing chamber where it is cleaned with soda water and scrubbed with the brushes. This is then passed to next chamber where it is rinsed with the clean water and finally moves out as a complete washed dishes.

Achievements:

Project Design Contests: --

Symposium: --

Publications: Yes

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC20

TITLE OF THE PROJECT: **PERFORMANCE ANALYSIS OF FOUR STROKE SI ENGINE USING OXY-HYDROGEN GAS**

FACULTY GUIDE: Mr.S.P.Mohan Mithra

Yamini D G

Tamizharasan **R**

Naresh kumar V

Project Photo/ Block Diagram or schematic:

Abstract: Global air pollution is one of the major threats of 21st century for the developing and developed countries. The existence of petroleum products is reducing day-by-day and the pollution caused by them is increasing drastically, the demand for the alternate fuel is constantly increasing. One such alternate fuel is Oxy-Hydrogen gas or HHO gas. Running the automobile engine using this HHO gas as an alternate fuel and reducing the fuel (petrol/diesel) consumption, thereby reducing the atmospheric pollution is the reason behind the development of this project.HHO gas technology is still considered experimental but it is a supplemental fuel additive of sorts that could help you increase mileage, increase horsepower, reduce emissions while providing a quieter and cleaner engine. Energy must be conserved in one way or other so we are trying to implement this in the future. This might be a good plan to save the environment .It is clear from the various investigations and analyses that hydrogen has the potential to be a very promising eco-friendly fuel. The Hydrogen powered vehicle is an eco-friendly vehicle which uses Hydrogen gas as a fuel for propulsion of the vehicle. The vehicle runs on 80% Hydrogen and 20% Petrol. With high demand for more efficient engines, our mission is to create a device that will increase engine efficiency without jeopardizing its performance. Such device is an HHO Generator. This includes coming up with a creative idea to get as much hydrogen out, with the least amount of current running through the cell.

Achievements:

Project Design Contests: Yes

Symposium:--

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC21

TITLE OF THE PROJECT: **CYCLE TIME REDUCTION IN MACHINING PROCESS**

FACULTY GUIDE: Mr.R.Karthick

Sivaraman CD

Tejkiran S

Project Photo/ Block Diagram or schematic:

Abstract:

Manufacturing Organisations faces a problem in reduction of cost and efficiency challenges in their manufacturing operations. To stand up in today's Globalisation world, Manufacturers need to find ways to reduce production time and cost in order to improve operating performance and Product quality. Manufacturing time based challenge is an organised way of focusing on reduction of total throughput time in manufacturing firm. Reduction time has a cascading influence on value and worth. As cycle times are reduced, output increases equally. If reduction in cycle time is fifty percent and work in process inventory is twice turns causes output to increase from twenty to seventy percent. As output increases, resources capacity is freed. Two major effects takes place: expenses turn down, and the manufacturing firm becomes capable of producing considerably more output with fewer assets: a successful arrangement. Keywords: Cycle time, Sleeve, Grooving, Slot cutting, Hydraulic fixture

Achievements:

Project Design Contests: --

Symposium:

Publications: --

Social Media Reach:

Youtube : --

Facebook : --

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC22

TITLE OF THE PROJECT: **CYCLE TIME REDUCTION FOR BOILER HEADER MANUFACTURING**

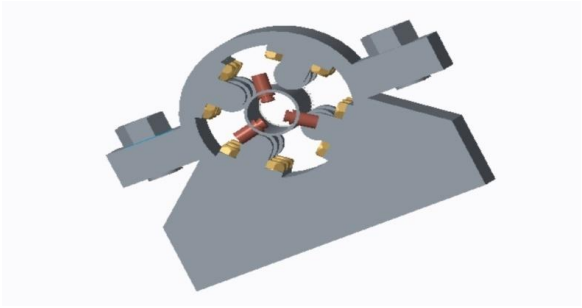
FACULTY GUIDE: Mr.N.Ramasamy

Santhosh Kumar S

Vishnu P

Yogeswaran B

Project Photo/ Block Diagram or schematic:



Abstract : Nowadays the need for the power is growing in a larger rate where they are generated by many methods out of which thermal power generation is growing in a larger rate. The key component for generation of power is by means of boilers where the feed water is made to send through them to create steam with high pressure and temperature later this steam is expanded in turbine to generate power.The header is an important part in the boiler where it collects the water or steam or mixture of both are collected at one end and distributes to another end. Among the various component of boiler, we decided to study the header manufacturing. This is one of the important components of the boiler. We have studied manufacturing activities involved in header fabrication. During fabrication some reworks are carried out, due to machining and welding cycle time also increases. So we mainly concentrated how to reduce due to welding operation.

More cycle time and rework due to above operation requires man power, more electricity. To correct the rework and increase the manufacturing process. We analyzed all the cause and suggested suitably to reduce cycle time. This type of suggestion is one of the quality improvements in manufacturing process and to increase the production economy of the industry.

Achievements:

Project Design: --

Symposium:---

Publications:---

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC23

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF SELF RECHAREGABLE BICYCLE**

FACULTY GUIDE: Mr G.Venkat Kumar

Maravan .A

Rajasekar .J

Sivaranjan .R

Project Photo/ Block Diagram or schematic:

Abstract :

Increasing demand for energy has led to the search for alternative source of energy. Since the fuel prices not only in India but throughout the world is increasing day by day. Thus there is a tremendous need to search for an alternative to conserve these natural resources.With the increase in fuel prices, pollution content in atmosphere and due to gradual end of the non renewable sources of energy we have to alter the source of our energy in our vehicles. Based on this purpose the automatic rechargeable bicycle is made with a rechargeable battery. In this project we develop alternative mode of transport for the improvement of environment and reduction of pollution .The electric bicycle is made more efficient with an alternator and the running cost is highly reduced as a result of less power consumption making it economical .

Achievements:

Project Design: Yes

Symposium: --

Publications: Yes

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC24

TITLE OF THE PROJECT: **360 DEGEREE ROTATION VEHICLE**

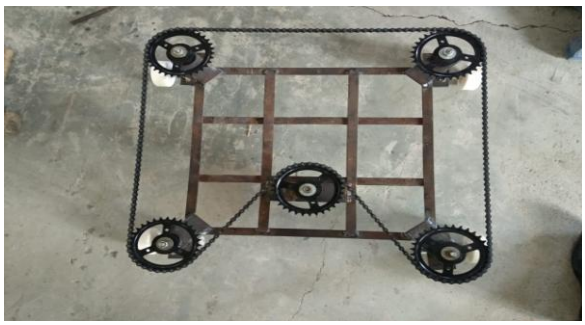
FACULTY GUIDE: Dr.P. Mohamed Ali

Sarath .A

Satheesh Kumar .S

Yuvaraj .P

Project Photo/ Block Diagram or schematic:



Abstract :

The project is about 360-degree rotating vehicle. This vehicle moves in all directions. This makes the vehicle suitable for operation in narrow path's and sharp corners. The normal wheel vehicles face lot of problems like parking, U turn and much more which consumes more time. So, a 360-degree wheel rotating vehicle is designed to reduce and eliminate problems that occur when handling material in the industries. In this system, each of the 4 wheels has given drive with Chain drive controlled by a single high torque dc motor, so it can rotate 360 degree. It has 4 DC motor drive to move the vehicle in forward and reverse direction. 360-degree rotating wheel is controlled by Server remote. Consequently, we can utilize this 360-degree rotating vehicle for various perspectives like to transport things overwhelming bags and furthermore in vehicles, which will help in decreasing rush hour gridlock and spare time.

Achievements:

Project Design: Yes

Symposium:--

Publications: Yes

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC25

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF MATERIAL RECOGNITION ROBOT (MATREC)**

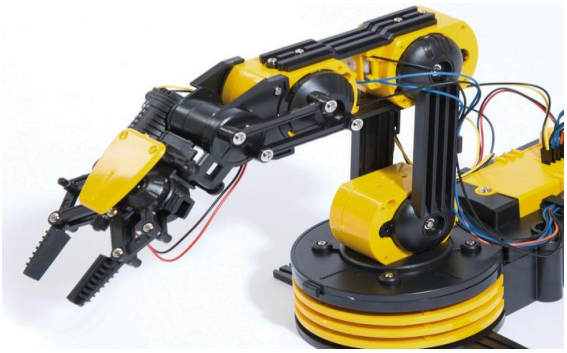
FACULTY GUIDE: Mr.N.Gopinath

Vignesh .R

Vijayabalaji .C

D.Sundar

Project Photo/ Block Diagram or schematic:



Abstract :

A Metal identifying Robot is the one which is used to pick up an object and place it in the desired location. It can be a cylindrical robot providing movement in horizontal, vertical and rotational axes, The Robot detect the metal through it's specific weight using the Load cell. The Robot place the dimensionally identical and differ with weight Metals in a Load cell and find the weight of the metals from the weight of metals it identify the required metal.

Achievements:

Project Design: --

Symposium:

Publications: --

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC26

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF FERTILIZER CRUSHING MACHINE**

FACULTY GUIDE: Mr T.Thirumalai

Magesh kumar .C

Mohamed Yasin .A

P.Venu

Project Photo/ Block Diagram or schematic:

Abstract :

Crushers may be used to reduce the size, or change the form, of waste materials so they can be more easily disposed of or recycled. Organic waste crusher machine is the key fertilizer granulation machine widely used in crushing organic compost fertilizer, city organic waste, industrial organic waste, animal manure. In before days people use to make the manure manually by using their own limbs, so that it was inconvenient for them and it was a delayed process of work. All these leads to unhealthy and unhygienic factors for the people. So, we have introduced the form of machining process to get the output product of the fertilizer in a simple way. In the formation of the manure we use organic waste materials like cow dung, solid waste predominantly, is any garbage, refuse or rubbish that we make in our homes and other places. The outcome product size gets varies from 4-12cm in granulometry of structuring waste. The maximum quantity can be loaded in the hooper is up to 4kg, the output of the mixture will take about 6.3min of time

Achievements:

Project Design: Yes

Symposium:

Publications: Yes

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC27

TITLE OF THE PROJECT: **DESIGN AND ANALYSIS OF BACK FLOW PRESSURE ROOT BLOWER FOR HIGH EFFICIENCY**

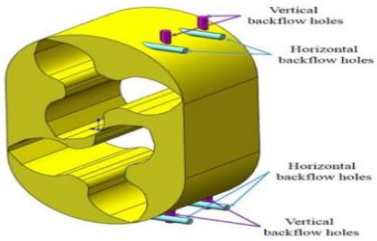
FACULTY GUIDE: Mr R.Vijayakumar

Praveen kumar .V

Rajesh .S

Prakash .M.S

Project Photo/ Block Diagram or schematic:



Abstract :

There are many solutions to achieve high efficiency for the flow of root blowers. All of them are supposing sometimes intricate devices involving high implementation costs and/or maintenance. The three-dimensional computational fluid dynamics (CFD) method were used and the CFD models were established and to simulate the flows in the working chambers of the Roots blower with and without backflow design, using the dynamic mesh method. And then, to verify the variations of pressure in thecylinder of the Roots blower with backflow design Is in experiment to validate these CFD models. The numerical simulation performed in this study involved a transient problem with an initial value. The result shows the CFD models were appropriate The backflow could reduce the amplitude of the pressure pulsation in the outlet of the Roots blower more than 50%, but the volume efficiency also be reduced by 3.5%.

Achievements:

Project Design Contests: --

Symposium:

Publications: --

Social Media Reach:

Youtube :

Facebook :

MAIN PROJECT EXHIBITION DATED FEB 2019

TEAM ID- 4MEC28

TITLE OF THE PROJECT: **DESIGN AND FABRICATION OF ELECTROMAGNETIC BRAKING SYSTEM**

FACULTY GUIDE: Mr.P.Sarmaji kumar

Manivanna .R

Uma shankar .S

Saravanan .N

Project Photo/ Block Diagram or schematic:

Abstract :

An electromagnetic braking system is a new concept. This project is a new technology of braking system. It is used in LMVs and HMVs like jeep, buses, car, truck, train and motor bikes. The electromagnetic braking system are also called electro-mechanical brake. Future to highly produced accident to use this braking system to avoid the accidents. These braking systems are described in working of prototype model. An electromagnetic braking system used magnetic force while applied the force on brake, but the power is transmitted on manually operate the brake. The rake disc is connected to the shaft and electromagnetic kit are attach in a frame. The power source is used in electricity. The electric power applied to the magnetic coil to the developed the magnetic field in armature coil and attracts the electromagnet aluminum disc. To applied the brake and stopped the road wheel and vehicle

Achievements:

Project Design: Yes

Symposium:

Publications: ---

Social Media Reach:

Youtube :

Facebook :