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Abstract Book of Best Project's

MECHANICAL ENGINEERING		
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Human Resource Optimization Process Engine

B.H.Harika, G.Naveen Kumar, N.Sai Mahesh

ABSTRACT

HROPE enables HR Department to initiate a recruitment process till the generation of Appointment Letter. This is done by posting new jobs to the portal, upload and registering of a candidate applying for a suitable position. This facilitates a company's recruitment policy along with the business need.

Android Mobile As A Dynamic Web Server

Anusha Padala

ABSTRACT

An android mobile, acts as a dynamic web server, without having to use any PC based web server for running dynamic scripts and allows us to view both static and also dynamic content on mobile itself.

Image Retrieval System Using Haar-Wavelet Transformation

R.Chaitanya Kumar Raju, Mohd Abdul Manan Amir, Anusha Sirna

ABSTRACT

The main objective of our project is to evaluate the retrieval system based on Texture features. The texture features are extracted by using wavelet transform. For medical images wavelet transformation is the suitable texture extraction.Texture is that innate property of all surfaces that describes visual patterns, each having properties of homogeneity. It contains important information about the structural arrangement of the surface, such as; clouds, leaves, bricks, fabric, etc. It also describes the relationship of the surface to the surrounding environment. Texture is one of the most important defining features of an image. It is characterized by the spatial distribution of gray levels in a neighborhood. In order to capture the spatial dependence of gray-level values, which contribute to the perception of texture, a two-dimensional dependence texture analysis matrix is taken into consideration. This two-dimensional matrix is obtained by decoding the image file; jpeg, bmp, etc. Image retrieval is done using textual features which gives us an efficient output because the computations are done based on global values.

Leveraging Smart Phone Cameras For Collaborative Road Advisories

Lakshita Gulati

ABSTRACT

Ubiquitous smartphones are increasingly becoming the dominant platform for collaborative sensing. Smartphones, with their ever richer set of sensors, are being used to enable collaborative driver-assistance services like traffic advisory and road condition monitoring. To enable such services, the smartphones' GPS, accelerometer, and gyro sensors have been widely used. Hence we introduce a collaborative sensing platform that exploits the cameras of windshield-mounted smartphones.

Track Buddy

Hethal Aelay Bakkola, Poojitha, Pavan Kumar Pasula

ABSTRACT

A track buddy is a device, which counts each step a person takes by detecting the motion of the person. Informal calibration, performed by the user, is required if presentation of the distance covered in a unit of length (such as in kilometers or miles). Used originally by sports and physical fitness enthusiasts, track buddy are now becoming popular as an everyday exercise measurer and motivator. Track buddy can be a motivation tool for people wanting to increase their physical activity. Various websites exist to allow people to track their progress; however, many will also find entering their daily step count and a heart counter onto a calendar to be motivational as well. Track buddy have been shown in clinical studies to increase physical activity, and reduce blood pressure levels and Body Mass Index.

Online Time Table Automation

Percy Kannarapu, Chandhra Prakash, Kaushik Kumar K

ABSTRACT

To generate an Online Automation For Time-Table that results in high efficiency and accuracy. This project is mainly intended to reduce the man power while scheduling the time-table. This is an internet based application that deals with interaction of various interfaces effectively.

Employee-Softmart

Anusha G, Archana Vodnala, Keerthi Marru

ABSTRACT

Employee SoftMart is a largest retailer application which allows employees to buy/sell their goods within an organization which are already used. This project is designed from an employees point of view and also allows business to grow larger and faster . Employees within a particular organization of different branches can visit this site and they can request for resources at the same time they can post the resources either for rent/buy. This site will let employee to view from any corner of the world belongs to a single organization.

Best Price Portal

Aravind Reddy Mandapati, Armaan Azaad, Prasad Recherla

ABSTRACT

To compare the prices of different items in different online websites and different retail shops in our state. This project is mainly intended to reduce the time taking of people who are regularly purchasing the items in online websites or retail shops. This is an internet based application that deals with interaction of various interfaces effectively.

Java Library for SQL

Mounika Ponuganti, Mounika G, Manasa Mogulla

ABSTRACT

SQL Maker's only purpose is performing text-manipulation of SQL. It does not use any of the JDBC classes. Typically SQLMaker is used to generate SQL statement, thenpass it to JDBC for execution. SQL Maker is not a persistence layer. It is designed to help the persistent layer like Hibernate framework. SQL Maker's purpose is for building SELECT statements only. However it can be extended to support custom needs if required.

Campus Galaxy

Ravi Kiran Nishtala, Prashanth Vyasa Sai Akundi, Jayanjali Neella

ABSTRACT

To reduce the strain enquiries by providing an easier platform for notification delivery and a generalized communication in any college campus or a huge administration with a need of quick and reliable information transfer system.The prime purpose is to provide information from college authorities to students in a quick, reliable and an efficient manner. It also allows an efficient notification viewing system with quick integration of several updates.

Employee Performance Portal

Sai Manish Bachula M, Sai Shashank Goud Rachamalla, Sravan Naidu, Sandeep Pandikonda

ABSTRACT

Employee Performance and Recognition Portal is online Performance Appraisal and Recognition system used by all the employees in different sections of the company. Salary hike and promotion depends upon the employee performance. This portal is a one stop shop for all the employees to provide details like tasks performed and performance measures improved etc to their superiors. It allows superiors to evaluate and analyze the employee's performance and work done by him and target achieved in a given period of time and to rate him. It provides a very good interface between superiors and subordinates. Based on these ratings and overall performance shown by employees ranks will be allotted to them among the group of employees with same designation. This rank is called consolidated rank. This is the basic criteria for recognizing employee's performance and to provide salary hike/promotion to any employee. This application maintains the entire data in a centralized and secured database server to maintain consistency in report generation and allows users to access from any location. This is an online application that allows multi user access of system and to track or manage the data simultaneously. Various roles and authentications have been provided and access to various areas in the tool is restricted according to the role given to users.

Droid-Shield

Sai Lakshmi Nelluvoyi S, Rakesh Babu Podishetty, M.Sai Kumar, Spandan Valapadas

ABSTRACT

Droid-Shield is an application which helps us to track the location of Android mobiles. It consists of Android client application which will automatically send SMS when SIM card is changed .This application allows your phone to ring and vibrate even though it is in silent, enable GPS feature remotely to trace mobile location and lock the device remotely when stolen.

Field Service Application

Revathi Krishna Bai Bondili, Soini Rajitha, Vishali Ch

ABSTRACT

Field service application is an android application that is used to plan out certain tasks and track the progress / status of the tasks. It aids users in planning out activity and tracking what tasks they've actually done and who has done it.

POMARCC

Sneha Thandle, Sushmitha Byathol, Sravanthi Ml

ABSTRACT

The proposed system is a web based application. It requires users to register before making use of the facilities provided by it. Prospective employees can register as a premium user. Employers advertise their jobs on the job board and prospective employees present themselves as the candidates interested in those jobs. Admin and/or manager do the job of facilitating the communication between prospective employees and employers.

It deals with three modules Student, Training and Placement Office (TPO) and Human Resource Representative (HR).In Student module, every student can access all the functionalities provided by the portal. A registered student can make use of all the facilities provided by the portal such as visiting companies, interview dates, interview results etc. In TPO module, each TPO represents a college and must register himself to make use of the portal. In HR module, corporate user will be provided with a login id and password by the administrator. Corporate user represents one corporate; he posts the job requirements on the portal. He can view or edit job drive details, notify interview results and send feedback.

POMARK

Suma Mandalreddy, Manmai Yathapu, Ranjith Gajula

ABSTRACT

The proposed system is a web based application. It requires users to register before making use of the facilities provided by it. Prospective employees can register as a premium user. Employers advertise their jobs on the job board and prospective employees present themselves as the candidates interested in those jobs. Admin and/or manager do the job of facilitating the communication between prospective employees and employers. This application includes modules for campus marketer, corporate marketer, manager and admin. Campus marketer is the user who is expected to be continuously in touch with campuses.Campus marketer collects all the necessary information regarding the colleges and records all the interaction details. Corporate marketer collects all the required information from the corporate/companies and records all the interaction details .Manager is a registered user who facilitates the communication between campuses and corporate . Manager forwards the job details to TPOs (Training and Placement Officer) and/or students and the number of eligible students to the corporate user. Manager also processes the feedback,blocks/unblocks users,customizes the jobs,receives and broadcasts emails to relevant users. Admin registerscompanies,controls/overrides TPO/student registration.

Persisting Mobile Inbox

Santosh Karthik Voore, Sravya Kandukuri, Sanjana P

ABSTRACT

This application allows you to automatically backup SMSs on your Android device to Gmail. You'll be able to browse your messages - neatly put into threads - under the "SMS" label in Gmail. To browse your backed up messages, log into Gmail account and click on "SMS" in the labels box, which is located in the left sidebar.

Time Trax

Sindhu Hari, Sai Kiran Reddy Likki, Sharanya Kumari Cheguri

ABSTRACT

TimeTrax is an android application which is developed to track the user details. The user details include state of the user, latitude, longitude, speed, timestamp, duration and place details.User can view his/her current location marked on the Google Maps which is integrated with in the application. User can also record the tracked details displayed in the list and can email them to a specific address provided.Time trax application can run in background in order to keep tracking the user details as mentioned above.

Location Based Remainder

Rasagyna Y, Saisree Mallela, Tejaswnini Adapaduchu

ABSTRACT

This application will let users to set a location based alarm on their phone that will go off when they get close to the preselected location. Many people use public transportation every day and this application can be easily used with the support from GPS and internet already on the Android phones. Any person who has android gadgets can use this application and set the alarm for the desired location. This is used to assist with exact information at right place in real time with personalized setup and location sensitiveness. This application allows dynamic route guidance service which ensures user to arrive at destination in the shortest time.

Key 2 Safe Driving

Tejasvi Soma, Sunitha Lakkala, Sowmya Sabbani

ABSTRACT

As vehicle manufacturers continue to increase their emphasis on safety with advanced driver-assistance systems (ADASs), we propose a device that is not only already in abundance but portable enough as well to be one of the most effective multipurpose devices that are able to analyze and advise on safety conditions. Mobile smart phones today are equipped with numerous sensors that can help to aid in safety enhancements for drivers on the road. In this project, we use the three-axis accelerometer of an Android-based smart phone to record and analyze various driver behaviors Effective use of these data can educate a potentially dangerous driver on how to safely and efficiently operate a vehicle. With real-time analysis and auditory alerts of these factors, we can increase a driver's overall awareness to maximize safety.

3 Stage FM Transmitter

Akhil Reddy, S. Anusha, Krishna Shyam, Madhusudhan

ABSTRACT

3 Stage FM Transmitter is a devce is used for small range communications i.e., approximately upto 5 km. The general frequency of 88-108 MHz FM broad cast band can be used for this purpose. In this device output audio amplified signal is frequency modulated and then used for transmission. This device consists of 3 transistors which are used in 3 stages of transmission. In the first stage the audio signal is amplified and in the second stage they are used as input to an oscillator. In third stage the oscillator waves are frequency modulated and used for transmission.

Production Of Energy From Salt Solution

Akshitha, Laxmikanth, Manisha, Manoranjani

ABSTRACT

Water mixed with sodium chloride is used as salt solution which is the major component in this project. Copper sheet attached arround the coke tin using rubber strips as insulator in between them is immersed in the salt solution. In this system the copper sheet functions as cathode and coke tin as anode. Thus electrolysis is obtained in the system and electricity is produced. The energy obtained by this method can be used for low voltage (nearly 10 volts) applications.

Production Of Current Through Bicycle

Y. Sai C Haran, G. Naga Sai Kumar

ABSTRACT

The main principle involved in this is magnetic induction and is helpful for villages under different conditions. We can use it for any appliances under 12v.

Sterling Engine

D. Brahmendra Kumar, K. Dharani Kumar, K. Anil

ABSTRACT

Around 200 years ago Robert Sterling has invented this engine (air cycle). Since this requires only differential temperature, any waste burnings or nuclear waste & also heat rays can be used for producing electricity.

Hydro Electric Power

B. Soujanya, K. Swetha, A. Soumya, P. Ravi

ABSTRACT

In this model, it is demonstrated production of electrical energy by using water, turbine and DC motor. Turbine is made with the help of spoons and wheels of the toy car. Water is arranged at certain height to fall on the turbine so that the potentail energy stored is converted to kinetic energy during the down fall of water. This kinetic energy is used to rotate the wheels attached to DC motor. Then DC motor supports the conversion of the mechanical energy to electrical energy. Thus it is demonstrated the principle of hydro electric power plants in this project.

Microbial Fuel Cell

Y. Vamshi Sai, P. Usha Sree, E. Sravani, K. Shiva Kumar, P. Vaishnavi

ABSTRACT

This model works under the principle of conversion of energy released from decomposition of organice matter into electrical energy. The material used for making this fuel cell consists of two containers, salt bridge, moist soil, sodium chloride salt solution, air pump, carbon cloth and connecting wires. Final ouput of this model is with production of electricity from the bio waste.

Solar Boat

Alekhya, N. Ananth Shah, Arunkumar, Karthik

ABSTRACT

In this model it demonstrated the conversion of solar energy to electrical energy using the basic principle of Newton's 3rd law as thrust created by DC motor causes the movement of the boat. For this purpose solar panel (12V), DC motor (300 rpm), copper wire (2 mm gauge) and base (water bottle) are used.

Physics Is Enjoyable

P. Vishnu, S. Yashwanth, Laxman Varun, Sainath

ABSTRACT

In this project, a few a simple models are projected as examples of Physics applications to focus on the theme how physics is enjoyable.

1. Magnetic levitation

2. Optical illusion and

3. Magic window are considered for the above mentioned purpose.

Design Development & Analysis Of A Six Wheel Solar Rover For Motion On Uneven Terrain

Mallesh Manda, Sai Kiran B, Rajashekhar Adavelli, Molakari Satish, Santosh Kumar Nalla

ABSTRACT

It is very prominent with those dependable upon the non-renewable sources. It's a pro-active approach to shift our source of energy to renewable source. This project work details the Development of a Solar Powered Vehicle which is one of the solutions for the oncoming crisis. Also this project describes the design of a rocker-bogie mechanism for six wheel solar Powered Vehicle. The Link of Rocker-Bogie mechanism was analyzed using FEM. The best link design for the rover was chosen so that different parameters like stress, displacement are within the limit. The Vehicle has been designed for minimum mass by analyzing the stresses and deflections on its links, using finite element method. Wheels were designed in such a way to have a motion even on uneven terrain. As the speed of rover is very slow, only static forces act on the rover structure and hence the acceleration forces are neglected. The basic modelling of the links is done in Pro-E and then the models are imported in ANSYS software for FEM analysis.

Adaptive Headlight System And Driver Alert System

Rohit P.L., Pavan Kumaragrawal , Abhinay Reddy Bobbili, Mali Veeranna

ABSTRACT

The adaptive headlights on vehicle cast the beam in the direction of the curve and ensure better visibility on winding roads and alerts the driver when he is sleepy.By using this method we will be able to control the night accidents generally occurs at turns because of not negotiating the turns properly by drivers.Compatible with all new generation vehicles. Enhance the future applications such as : Collision avoidance. Automatic change of beam intensity as per incident light..Cost effective.Reliable and easy maintenance. Degree of rotation of lamp is – 30degree.

Conversion Of Plastic Into Diesel

Nikhil Chakravarthy S, Hari Hara Banda, Vamshi Yadav Allamla, Ganesh D

ABSTRACT

Waste plastics are one of the most promising resources for fuel production because of its high heat of combustion and due to the increasing availability in local communities. Unlike paper and wood, plastics do not absorb much moisture and the water content of plastics is far lower than the water content of biomass such as crops and kitchen wastes. The conversion methods of waste plastics into fuel depend on the types of plastics to be targeted and the properties of other wastes that might be used in the process. Additionally the effective conversion requires appropriate technologies to be selected according to local economic, environmental, social and technical characteristics. In general, the conversion of waste plastic into fuel requires feedstocks which are non-hazardous and combustible. In particular each type of waste plastic conversion method has its own suitable feedstock. The composition of the plastics used as feedstock may be very different and some plastic articles might contain undesirable substances (e.g. additives such as flame-retardants containing bromine and antimony compounds or plastics containing nitrogen, halogens, sulfur or any other hazardous substances) which pose potential risks to humans and to the environment. Pyrolysis is the thermal disintegration of carbonaceous material in oxygen-starved atmosphere. When optimized, the most likely compounds formed are methane, carbon monoxide, hydrogen carbon dioxide and water molecules.the yields of different products depend very much on the process variables. The pyrolytic oil can be blended with the conventional liquid fuels. The pyrolytic waste disposal will also mitigate the problems of environmental pollution.

Chainless Bicycle-Fabrication,Assembling And Performance Demonstration

Vishnu Teja Punugupati, Nagarjun S., Srivesh Reddy Guduru, Srihari Yarukala

ABSTRACT

The name itself suggests that a bicycle runs without chain, we might have never seen the chainless bicycles in our daily life. Here instead of chain, we are using gears and shaft to transmit power from pedal to the rear wheel. For the manufacturing of gears we opted EN8 material, because it is unalloyed medium carbon steel which has high strength levels compared to normal bright mild steel, due to thermo mechanical rolling. EN8 is suitable for all round engineering purposes that may require a steel of greater strength.Bike computer is a wireless device which shows the top speed, current speed, trip distance, trip time etc. Solar LED light is placed below the seat as danger light, where it could be visible even at the night .We all know the principle of dynamo, but here we connected the armature to LED lights to get better brightness. When compared to conventional bicycle this chainless bicycle is easy to drive on normal roads or on hilly regions .These gears are setup in the ratio of 1:2.64 ,where normal conventional bicycle will have it's ratio as 1:2.

Spokeless Bicycle

Sravanya Tayi G, Jayesh. H .Solanki, Shylaja Mittapelly, Nandu Battu, Priestley Bandi

ABSTRACT

These days we hear about “e-vehicles” a lot. Every effort made towards an environment friendly concept grabs attention and interest too. Students, engineers, research scholars and techno-geeks are coming up with numerous ideas.

Most of the pollution contribution comes from the industries and automobiles. The more powerful and sophisticated vehicles giving higher comfort to the user are looked forward to. But all this is achieved at the cost of our environment. Even for an instance, if one considers the concept of electric vehicles, we may “just feel” that we are saving a good amount of fuel as well as contributing to nature. But a deep insight may bring it clear to our minds that the electricity used as an alternative also needs to be generated, and this in turn is achieved by using the conventional fuel!!!

So, our team decided to work with the conventional methods, which are “simple but always effective”. We landed on the idea of making a bicycle with an alternative design. The ordinary bicycle which we see is with spokes, but the one we conceived is spoke-less. We are fabricating a bicycle with a gear drive. This is a beautiful model and a feast for eye to see once it’s done. Apart from the visible beauty, it has also got its own mechanical advantage. It is a sturdy structure when compared to the conventional one. The speed of this bicycle may not be very high. But to fulfill this drawback, we have better advantage too. In this bicycle, one can drive along very steep curves also. This is not very much possible with the ordinary bicycle.

The main backbone of our project is the thought of making a mechanical setup which is both eco-friendly and cheap.

Design And Developmemnt Of Mechanical Solar Tracker

Gopi Srinivas Goud Putta, Venkata Varun Ramagiri, Jayanth Raju D., Jampain Naik, Rammadhav Manne

ABSTRACT

Rapidly exhausting fossil fuels has propelled need to utilize renewable sources of energy like solar energy; wind energy etc., to the best of their potential. Solar energy is most readily available compared to other forms of energy. Photo-voltaic (PV) cells are responsible for generating electricity, which is usable form of energy, from solar energy. To utilize maximum amount of solar energy, the PV cells must be aligned orthogonally to the sun. For this purpose we need trackers. The aim of this project is to make a tracker using gear mechanism, which would continually track the sun all the time without any manual effort. This would ensure maximum utilization of solar energy, as mentioned earlier. The design and working of tracker along with results due to tracking will be discussed and presented in detail in this project.

Simulation Of Robotic Arm

Bhavana Chidagani, Aruna Jala Deepthi Vydyula, Radhika Konyala, Avinash Kesipeddi

ABSTRACT

The Project aims at designing a Motorized Helping Hand to resemble to function as the human arm that will able to grip, pick and place various objects with the help of leg movements on the table.

The design of Helping involves few major components which include the rotating base, shoulder, wrist and gripper and Leg base movement station at the foot level.

The robotic arm in our project has 4 degrees of freedom. The arm is a 4 axis robotic manipulator consisting of a rotating base, two links and a gripper.

The four axis consist of the following:

- Elbow, wrist (vertical movement)
- an axis at the base (horizontal movement)
- Finger (gripping movement)

The main considerations taken during the design process was to design a Helping Hand that functions as the human arm, able to stand alone, with size similar and, light and the overall low cost.

The material used to fabricate the body of the robotic arm was chosen to be aluminum as it is a light weight metal, rigid, cheap compared with stainless steel and easy available in the market. It is also resistance to wear and rust. Another important point why aluminum was chosen mainly because it is easy to fabricate as the components of the robotic arm require a lot of bending and hole drilling process. The thickness of the aluminum was chosen to be 1.5mm thick.

Design And Fabrication Of Solar Street Lighting System With Booster Mirrors

Anusha V., Akhilesh K V S S, Linga Murthy Gumasa, Praveen Mangalagiri

ABSTRACT

Solar street lights are raised light sources which are powered by Photovoltaic panels

generally mounted on the lighting structure. The Photovoltaic panels charge a rechargeable battery, which powers a LED light during the night. Solar street lights provide public lighting without use of an electrical grid; they may have individual panels for each lamp of a system, or may have a large central solar panel and battery bank to power multiple lamps.

Advanced Vehicle Tracking Using GPS Modem

Madhuri S, Bhuvana Jyothi K, Prateek Abhyankar, Lokesh Kumar Viswavarapu

ABSTRACT

In this project, the route/path travelled by the vehicle can be obtained by storing its position at each and every point. With this one can keep the track of the vehicle and check if the vehicle followed the required path to reach its destination. Here the GPS Logger is being used to store location information. Generally they are deployed in the field and connected to a computer to retrieve information. To track and store data, three components are used. They are Arduino uno board, SD card module, GPS module. Arduino uno is a open source with ATMEL controller. The Arduino Uno has a number of facilities for communicating with a computer, another Arduino, or other microcontrollers. SD card module is used for storing the GPS data received from the GPS module. The GPS module spits out raw NMEA data in the form of serial strings. The program running on the arduino parses the NMEA strings and saves the data in a CVS file located on the SD card module. The CVS file from the SD card can be transferred to the computer. The data stored is processed using matlab and can be displayed in the form of maps.

Patient Monitoring / Attending System Using Zigbee and GSM with MEMS

Prathyusha Maloth, Kusumavathi S, Sriram Naresh

ABSTRACT

The project aims in designing an emergency defibrillator which is capable of giving shocks to a human heart which has stopped working suddenly.

A defibrillator is a machine commonly used by cardiologists. This machine is used in order to shock a human's heart back into usage. The way your heart works is that you have small cells called pacemakers sending electrical pulses to your cardiac muscles that tell your heart when to pump blood. When these electrical pulses stop, your heart stops beating. When this happens, a defibrillator is used to shock the heart muscles and the pacemakers back into action. The way this is achieved is by rubbing the two panels of the defibrillator together to create an adequate electrical current, and then the heart gets back to the normal state.

The project aims in designing a system which is capable of continuously displaying the heart beat of a person on LCD and tilt made by the patient using MEMS. The concerned doctor gets the heart beat and tilt details continuously through the GSM Modem in the form of SMS alerts. In case of abnormal condition, the doctor sends message format regarding the amount of electric shock needed. Automatically the Microcontroller gives the input to the defibrillator which in turn gives the shock to the patient. The needs of the patient can be expressed using MEMS wirelessly through zigbee and the voice circuit in the receiver section announces that voice command for example I need water etc.

Heart beat monitor and display system is a portable and a best replacement for the old model stethoscope which is less efficient. The heart beat rate is calculated manually using stethoscope where the probability of error is high because the heart beat rate lies in the range of 70 to 90 per minute whose occurrence is less than 1 sec, so this device can be considered as a very good alternative instead of a stethoscope.

Robotic Arm With Wireless Control

Mohan Sameer R., Sushanth Reddy K, Vivek Sthanam V L N

ABSTRACT

Now a day's every system is automated in order to face new challenges in the present day situation. Automated systems have less manual operations, flexibility, reliability and accurate. Due to this demand every field prefers automated control systems. Especially in the field of electronics automated systems are doing good performance.

In the present scenario of war situations, unmanned systems plays very important role to minimize human losses. So this robot is very useful to do operations, find enemies, to detect human bodies, we cant do work with our hands at that place we can use robot and other things in the earthquakes etc.

In this system, a robot is fitted with two stepper motors. A micro controller is used to control all operations. It moves the arm in all directions and it scans detector. This vehicle is operated with battery power. With this system we can complete our work with the robot help.

In this project we are controlling a robot according to path. Two stepper motors are connecting to the robot, one motor is connecting to the one end another one motor is connecting to another end arm. The micro controller is connecting to the robot for control all operations of robot. For example, if any problem exists in machine we can't rectify with hands at that place we can use this system. These all operations are controlled by assembly language instructions.

A 12V battery is provided to power the robot to perform all functions. These are very useful for carrying files in offices, or any other material which human cannot handle.

An Improved Object Tracking Using Compressive Tracking Algorithm

Abibhai Anoop M, Mangu Malothu, Naresh Varikollu

ABSTRACT

It is a challenging task to develop effective and efficient appearance models for robust object tracking due to factors such as pose variation, illumination change, occlusion, and motion blur. Existing online tracking algorithms often update models with samples from observations in recent frames. While much success has been demonstrated, numerous issues remain to be addressed. First, while these adaptive appearance models are data-dependent, there does not exist sufficient amount of data for online algorithms to learn at the outset. Second, online tracking algorithms often encounter the drift problems. As a result of self-taught learning, these mis-aligned samples are likely to be added and degrade the appearance models. In this paper, we propose a simple yet effective and efficient tracking algorithm with an appearance model based on features extracted from the multi-scale image feature space with data-independent basis. Our appearance model employs non adaptive random projections that preserve the structure of the image feature space of objects. A very sparse measurement matrix is adopted to efficiently extract the features for the appearance model. We compress samples of foreground targets and the background using the same sparse measurement matrix. The tracking task is formulated as a binary classification via a naive Bayes classifier with online update in the compressed domain. The proposed compressive tracking algorithm runs in real-time and performs favorably against state-of-the-art algorithms on challenging sequences in terms of efficiency, accuracy and robustness.

Design and Development of a GSM Based Vehicle Theft Control System

Poojitha Koppula, Poorna Chandrabindu B, Prathyusha Saddala

ABSTRACT

Currently almost of the public having an own vehicle, theft is happening on parking and sometimes driving insecurity places. The safe of vehicles is extremely essential for public vehicles. Vehicle tracking and locking system installed in the vehicle, to track the place and locking engine motor. The place of the vehicle identified using Global Positioning system (GPS) and Global system mobile communication (GSM).These systems sends the current position of the vehicle each time it started in the form of a message to the stored owner number and constantly watch a moving vehicle and report the status on demand. When the theft identified, the responsible person send SMS to the microcontroller, then microcontroller issue the control signals to stop the engine motor. Authorized person need to send the password to controller to restart the vehicle and open the door. This is more secured, reliable and low cost.

RFID And GSM Based Intelligent Courier Mail Box System

Surya Srimayee Dhulipala, Vaidehi Rao V, Vidya Sree Mahadeva B

ABSTRACT

In the recent times, the lifestyle of people has completely changed due to which there is no time for micromanagement of every issue personally. Technology can be effectively used in such a scenario to monitor issues which require our personal presence. One such issue which requires our presence is receiving a paper documents, letters or courier, which is sent back in case the receiver is not present at the time the courier boy arrives. This causes delay in receiving the necessary information and might also create difficult situations. The main aim of this project is to provide a very reliable and user friendly solution to overcome this problem.

Using technologies like Radio Frequency(RF) and GSM, a device is designed which is capable of identifying the arrival of a letter or courier and forwarding the same to the receiver and also send an acknowledgement to the courier office so that they do not require the signature of the particular person for whom the courier is meant. The basic idea of the system is to employ an RFID tag to the letter which is being sent and send the identity number to the receiver's mobile. The receiver of the courier will have a letter box which has an RF reader and a dedicated GSM modem in it. As soon as the courier boy drops the letter into it, the RF reader reads the identity number of the tag and informs the same to a micro controller and compares it with the identity number sent by the courier office and if both are same, it sends a message to the receiver and also to the courier office about the arrival of the courier. The microcontroller acts as a medium of communication between the RF reader and the GSM modem

Investigate Code Through Invisible Devices For Opening A Secret Door

Suresh Rayabandi, Vamshi Krishna Gangula, Thiru Pavan Sai Krishna Vemavarapu

ABSTRACT

The system is aimed to provide privacy protection, such that unauthorized persons can not open the door under any circumstances. This kind of automated door with top secret code can be implemented at important places where high level security is essential. For example strong rooms, personal labs, etc. Most of the security systems those offers password protection is quite common these days, in some places scratch cards or RFID cards are used to identify the users, but all these techniques are became very old, people are looking for new methods, and there by this project work is designed which creates some enthusiasm while decoding code through invisible devices arranged in side the wall. Since it is a prototype module, devices are accessible to the user.

The concept is to locate & activate the magnetic switches one after another in a sequence through a piece of permanent magnet. The magnetic switches arranged inside the wall are invisible in fact, when a piece of magnet is brought very near to the switch, it will be activated. These kinds of switches can be arranged at different locations, only authorized user can identify the location of these switches. In addition these switches are supposed to be activated in a sequence in Symbolism manner, and then only the door will be opened. If the sequence is wrong, door will not be opened & alarm will be raised for a moment. The demo module is constructed with a sliding type of door mechanism & it will be driven through a DC motor. Wooden plank is used to simulate the wall which holds the door mechanism. The code decoding circuit is designed with 5 magnetic switches, all of them are interfaced with microcontroller & they are arranged behind the plank. The piece of magnet must be moved over the plank in a particular route, there by switches will be activated one after another in a sequence.

Pollution Monitoring Systesm For Automobiles Using GSM

Vamshi Sowdaboina, Sandeep Kumbam, Raghu Soyam

ABSTRACT

The system designed here is aimed to perform four main tasks, i.e. a) to detect the polluted vehicle, b) to switch off the vehicle ignition automatically when it is polluted, c) to acquire the global position data through GPS and d) to send the vehicle position data to the concern mobile through GSM module. The sensor used here for detecting the pollution can not measure the pollution level, as it is a universal sensor it can detect all sorts of gasses and smoke. Since the availability of exact sensor is critical, the demo module is constructed with TGS813 which can detect toxic gases, alcohol vapors, petroleum products, smoke, etc. Here this sensor is aimed to generate logic high signal for the microcontroller when it detects thick smoke coming out of the vehicle. Depending up on the density of smoke, proportionate voltage will be produced by the sensor, and this voltage is compared with reference voltage fed to the op-amp. When sensor output is grater then reference voltage, comparator output will become high, which indicates that the vehicle pollution level is more. Based on this signal, the controller energizes the relay and breaks supply to the motor. The DC motor used here is aimed to simulate the vehicle engine, if the motor is stopped assumed that vehicle is stopped automatically due to the pollution.

The main concept involved in the system is to locate the position of failed vehicle over the globe, for this purpose GPS module is used which collects its global position data from the concern satellites. This data in the form of longitude and latitude will be displayed through an LCD interfaced with embedded system and the same information will be transmitted to the concern authorized mobile number.

Design & Development Electronic Farmer Aid For Monitoring & Controlling The Field For Better Yielding

Suresh Kumar Perala, Srihari Narsing, Sachin Kumar Racharla

ABSTRACT

In the field of agriculture, use of proper method of irrigation is important and it is well known that irrigation by drip is very economical and efficient. In the conventional drip irrigation system, the farmer has to keep watch on irrigation timetable, which is different for different crops. The project makes the irrigation automated. With the use of low cost sensors and the simple circuitry makes these projects a low cost product, which can be bought even by a poor farmer.

The heart of the project is the Intel 89c51microcontroller.UART controller that will be used in this project. A 16×2 LCD is connected to the microcontroller.

The aim is to use the readily available material to construct low cost sensors circuit. Relay is used to control the pump which in turn is controlled by the microcontroller through the high current driver.

The system has two features.

1. Whenever the moisture sensor senses the dry field motor is switched on
2. If fire is detected a SMS is sent to Emergency i.e. Fire station.

The complete operation is fully automated and uses sensor for better output. Once relay is used to switch on the motor and also to shut-off the main motor which is used to pump the water to the field.

Designing of a Disaster Security Robot

Komuravelly Aravind , Nallapu Kranthi Kiran

ABSTRACT

The project aims in designing a “Robot to rescue a human being from a disaster condition” which is capable of moving inside the cave or mine according to the user commands given from PC.

The robot is operated through PC using wireless Zigbee technology and using wireless camera you can view both audio and video on the TV. This robot has a high power LED which acts as a light source when light intensity inside the cave or mine is low. It is a low cost robot used to monitor the changes of different parameters in the caves or mines.

Zigbee is a PAN technology based on the IEEE 802.15.4 standard. Unlike Bluetooth or wireless USB devices, Zigbee devices have the ability to form a mesh network between nodes. Meshing is a type of daisy chaining from one device to another. This technique allows the short range of an individual node to be expanded and multiplied, covering a much larger area.

The controlling device of the whole system is a Microcontroller. Whenever the user presses a button from the keyboard of the PC, the data related to that particular button is sent through Zigbee module interfaced to PC. This data will be received by the Zigbee module in the robot system and fed this to Microcontroller which judges the relevant task to the information received and acts accordingly on the robot movement. The live images from the camera in the robot system can be sent to TV through AV transmitter system. The Microcontrollers used in the project are programmed using Embedded C language.

Characterisation of Micro Strip Patch Antenna with Superstrate at ISM Band

Sachin Swargam, Sudheer Kumar Sikilammetla, Uday Gannappa Reddy

ABSTRACT

In this project a Rectangular Microstrip patch antenna operating at 2.45 GHz will be designed using electromagnetic simulation software ANSYS HFSS (High Frequency Structure Simulator). Planar antennas, such as microstrip and printed antennas have the attractive features of low profile, small size, and conformability to mounting hosts and are very promising candidates for satisfying this design consideration. HFSS is a high performance full wave electromagnetic (EM) field simulator which employs the Finite Element Method (FEM), adaptive meshing, and brilliant graphics to give unparalleled performance and insight to all 3D EM problems.

First of all, a microstrip transmission line with 50 ohms characteristic impedance will be designed. This transmission line will be used to feed the signal to the antenna design to operate at 2.45 GHz frequency band which is an unlicensed ISM (Industrial, Scientific and Medical) band. The antenna will use substrate having dielectric constant of 2.2 and thickness of 1.6mm. The characteristics of this antenna such as return loss, VSWR, radiation patterns, gain etc will be simulated in HFSS. Then, keeping the dimensions of the Rectangular patch antenna constant, subsequent microstrip patch antenna with varying dielectric constants and substrate thickness will be designed. Finally the characteristics of these antennas will be simulated and compared among them. The changes in the characteristics of these antenna with varying dielectric property and substrate thickness will be brought out elaborately. The advantages and disadvantages of using low/high dielectric constant and thiner/thicker substrate height will be reported in this thesis.

Voice Controlled & Activated Wheel Chair Robot for Physically Challenged

Sowmya Purankar, V.Vandana, K.Varshini Sathya

ABSTRACT

The advent of new high-speed technology and the growing computer capacity provided realistic opportunity for new controls and realization of new methods of control theory. This technical improvement together with the need for high performance robots created faster, more accurate and more intelligent robots using new robots control devices, new drives and advanced control algorithms. This project is designed to help a handicapped person who moves on a wheel chair. The chair will automatically move to a particular direction as dictated by the handicapped person. Also the chair will sense the obstacles in front of it and changes the direction automatically. A PIC microcontroller will act as the master controller for the movement of the robot. It is responsible for all the decisions taken by the robot. A voice said in front of the PIC is converted into text by the Voice Recognition IC HM 2007 and is fed as input to the controller. So the controller reacts to it. Sensors are provided to assist the robot position by itself when it finds an obstacle in its path or flame or hot materials.

GSM BASED E-NOTICE BOARD

K.Rahul, A.Varun

ABSTRACT

The main aim of this project will be to design a SMS driven automatic display board which can replace the currently used programmable electronic display. It is proposed to design receiver cum display board which can be programmed from an authorized mobile phone. The message to be displayed is sent through a SMS from an authorized transmitter. The microcontroller receives the SMS, validates the sending Mobile Identification Number (MIN) and displays the desired information. Started off as an instantaneous News display unit, we have improved upon it and tried to take advantage of the computing capabilities of microcontroller. Looking into current trend of information transfer in the campus, it is seen that important notice take time to be displayed in the notice boards. This latency is not expected in most of the cases and must be avoided. It is proposed to implement this project at the institute level. It is proposed to place display boards in major access points. The electronics displays which are currently used are programmable displays which need to be reprogrammed each time. This makes it inefficient for immediate information transfer, and thus the display board loses its importance. The GSM based display board can be used as an add-on to these display boards and make it truly wireless. The display board programs itself with the help of the incoming SMS with proper validation. Such a system proves to be helpful for immediate information transfer. The system required for the purpose is nothing but a Microcontroller based SMS box. The main components of the kit include microcontroller, GSM modem. These components are integrated with the display board and thus incorporate the wireless features. The GSM modem receives the SMS. The AT commands are serially transferred to the modem through Rx-Tx connection. In return the modem transmits the stored message through the COM port. The microcontroller validates the SMS and then displays the message in the LCD display board. Various time division multiplexing techniques have been suggested to make the display boards functionally efficient. The microcontroller used in this case is AT89s52. Motorola C168 is used as the GSM modem. In the prototype model, LCD display is used for simulation purpose. While implementation this can be replaced by actually display boards. The data will be displayed only after entering unique pass key .In addition to that address matching is done and data can be receive only by the dedicated receiver , and this data is displayed on LCD. The main focus of the thesis is on displaying information to a dedicated LCD by the any part of world using GSM network, which facilitate to control any message board globally from any location.

Under Ground Cable Fault Distance Locator

M.Mounika, R.Gyanendra, P.Sai Krishna Pratap

ABSTRACT

Project is intended to detect the location of fault in underground cable lines. It is actually not feasible to keep a check on the fault of the cables. This project gives a digital way to detect the fault location, i.e. the distance of the fault from the feeder end, so that it is easy to rectify that fault. This uses the fact that when any fault like a short circuit occurs, the voltage drop varies as the resistance between that distance changes since the current varies. A set of resistors are therefore used to represent the cable and a dc voltage is fed at one end and the fault is detected by detecting the change in voltage using a analog to voltage converter and a microcontroller is used to make the necessary calculations so that the fault distance is displayed on the LCD display. The whole system is divided into four parts – The DC power supply part, the cable part, the controlling part and the display part. When the microcontroller sends a logic high signal to one of the input pins of the relay driver, the corresponding output pin goes low. This low logic signal energizes the relay connected to the output. Eventually the set of resistors connected to that relay gets connected to ground in case a switch is in on state, representing the fault. That particular resistors get connected to the –ve 5V supply representing a short circuit condition (line to ground connection). As different resistors get added in series with the resistors of the 4th row (connected to the ADC) through the fault switch, the current flowing through the resistors changes and eventually the voltage drop changes. The ADC converts the analog value of this voltage drop into an 8bit digital data. This digital signal is fed to the microcontroller. The microcontroller is programmed to read the ADC values to detect the fault which has occurred at that exact location. The microcontroller is interfaced to a LCD display which displays the distance of the cable in kilometers at which the fault has occurred and the particular phase. In case of no fault, the display will show all the phases are in no fault state.

Fabrication of Wireless Transmission of Electricity

Ch.Jaya Surya, V.Brahmendra, B.Ravinder

ABSTRACT

The main objective of the project is to develop a device for wireless power transfer. The concept of wireless power transfer was realized by Nikolas tesla. Wireless power transfer can make a remarkable charge field of the electrical engineering which eliminates the use conventional copper cables and current carrying wires. Based on this concept, the project is developed to transfer power within a small range. This power can be used for charging batteries those are physically not possible to be connected electrically but pace makers (an electronic device that works in place of a defective heart valve) implanted in the body .this runs a battery. The patient is required to be operated every year to replace the battery. This project designed to charge a rechargeable battery wireless for the purpose. Since charging of the battery is a possible to be demonstrated, we are providing a dc fan that runs through wireless power.

The project is built upon using an electronic circuit which converts Ac 230v 50Hz to Ac 12v 50Hzfrequency. The output is fed to a tuned coil forming as primary of an air core transformer . The secondary coil develops a voltage of HF 12v. Thus the transfer of the of power is done by the primary(transmitter). It is secondary that is separated with a considerable distance (say 3Cm). Therefore the transfer could be secondary the primary transmits and the secondary receives the power to run load.

Monitoring and Controlling of Distribution Transformer using GSM

G.Ashvath , B.Persis M.Sunil Kumar

ABSTRACT

Automated distribution systems are gaining popularity because of their ease in their operation and controlling. Transformers are one the main equipment to be monitored for a healthy distribution system. For successful operation of transformer the parameters like load currents, transformer oil, ambient temperature should be monitored.

In this project design and implementation of transformer operation indicators is presented by implementing mobile embedded system. The proposed on-line monitoring system integrates a Global Service Mobile (GSM) Modem, with stand alone single chip microcontroller and sensor packages. It is installed at the distribution transformer site and the above mentioned parameters are recorded using the built-in 8-channel analog to digital converter (ADC) of the embedded system. The acquired parameters are processed and recorded in the system memory.

If there is any abnormality or an emergency situation the system sends SMS (Short message Service) messages to designated mobile telephones containing information about the abnormality according to some predefined instructions and policies that are stored in the embedded system EEPROM .This design is implemented by using AT89S51 microcontroller.

The proposed system can be used for identifying problems in transformer operation before any catastrophic failure .It helps the utilities to optimally utilize transformers under variable load conditions.

Control of an Optimized Power Flow in Wind Power Plants with Doubly-Fed Induction Generator

V.Hemanth, M.Mahesh, D.Yogasivananda Varma

ABSTRACT

Wind Energy is gaining interest now-a – days as one of the most important renewable sources of energy due to its ecofriendly nature. But the major disadvantage lies in variable speed wind generation and this project gives a study on control of Wind driven doubly fed Induction Generators. The speeds above and below Synchronous speeds are obtained using a bidirectional power flow converter. By using this reactive power is controlled and hence the overall Power factor of system can be kept at unity under varying load conditions.This project presents simulation results of a Grid-connected DFIG. A switch-by-switch representation of the PWM converters with a carrier-based Sinusoidal PWM modulation for both rotor- and stator-side converter has been proposed. A methodological approach is deployed for both stator- and rotor-side converters to provide independent control of active and reactive power and keeping the DC-link voltage constant. A 1.5 KW generator is designed and its effectiveness in controlling is verified in different operating conditions i.e. above and below synchronous speeds.

Fire Alaram Detecting Robot

D.R.Damodar, M.Naveen, M.Sathish Kumar

ABSTRACT

The project is based on fire detecting using microcontroller and ic L293D which is the motor driver to drive the motor it has senor which detects the fire. When the switch is on the robo starts moving on the floor. By the program damped in the microcontroller 89S52. When fire catches the sensors the before the robot moves on the floor. While fire catches the sensor and the robot stops at that minute only and the robot is defined as a mechanical design that is capable of performing human tasks or behaving in a human-like manner. Building a robot requires expertise and complex programming. It's about building systems and putting together motors, flame sensors and wires, among other important components. A fire fighter robot is one that has a small fire extinguisher added to it. By attaching a small fire extinguisher to the robot. Fire Fighting Robot continuously monitors the temperature at four sensors and if fire accident is true, the robot moves to the direction to which the temperature is recorded to be the relatively maximum among the four sensors and extinguishes the fire with water pump provided to it.

Automatic Street Light Control System

M.L.Haritha, G.Shiva Kumar, A.N.Gyaneshwar, Heena Mehren

ABSTRACT

Automatic Street Light Control System is not only easiest but also the powerful technique. Transistor is used as a automatic switch in this system. It reduces the manual work almost upto 100% . As soon as the sunlight goes under the visible region of our eyes this system automatically switches ON lights. Light Dependant Resistor (LDR)is a type of sensor which actually does this work and senses the light as our eyes does. As soon as the sunlight comes, visible to our eyes it automatically switches OFF lights . Such type of system is also usefull for reducing energy consumption.

Rotation Counter

Uday.G Maheswaraiah , Veera Babu.G

ABSTRACT

It is necessary to measure the speed of any rotating device because to know the performance of any rotating object.This can be implemented by using opto-coupler(MCT2E), 4-digit counter with 7-segment display driver(74C926), four common-cathode 7-segment display(LTS543), reed switch and small magnet.

Opto-coupler is used to isolate the counter and provide a clock pulse to 4-digit counter with 7- segment display driver(74C926). It counts the a pulse when contacts of reed switch touch each due to the magnet that comes near each rotation. For rps we can be used 12V adaptor or 12V battery.

Line Following Robot

M.Sai Prapoorna, V.Sravani, G.Sushmitha, A.Vidya

ABSTRACT

A line following robot is an electronic system that can detect and follow the line drawn on the floor. Generally, the line is a specified predefined path that can be either visible like a black line on white surface with a high contrasted colour. In order to detect these lines various sensing schemes have been employed. It mainly uses Light Depending Resistors (LDR) to move in the particular line because LDR's have the capacity of sensing the more intensity colours.

The line following robot has many advantages like the robot movement is automatic. It is also cost effective, simple in construction and can be used for long distance purposes. These robots have many applications in industries, home, health care management system. For example, in ware houses these are used to carry stocks from one place to another without any deviations in their path. These are also used in driverless cars.

Hence, these line following robots have a good scope in future which reduces the human power and make the work easy.

Solar Power Charge Controller

Vamshi Krishna, Varun Sai Teja.T, Sharvani.P, B.Vikram

ABSTRACT

The solar energy is converted to electrical energy by photo-voltaic cells. This energy is stored in batteries during day time for utilizing the same during night time. This project deals with a controlled charging mechanism which over charge, deep discharge and under voltage of the battery.

In this project a solar panel is used to charge a battery. A set of op-amps are used as comparators to continuously monitor panel voltage, load current etc. Indications are also provided by a green LED for fully charged battery while a set of red LEDs to indicate under charged, overloaded and deep discharge condition. Charge controller also uses MOSFET as power semiconductor switch to ensure cut off the load in low battery or overload condition. A transistor is used to bypass the solar energy to a dummy load while the battery gets fully charged. This protects the battery from getting over charged.

Further the project can be enhanced by using microcontroller and GSM modem to communicate the status of the system to a control room via SMS.

Themoelectric Refrigerator

Yaswanth Reddy, T.Yasasvy, P.Venkatasubba Reddy, K.Sunil Kumar, G.Pavan Kumar

ABSTRACT

Summer is near and there will be an increased demand in the usage of refrigerators and other cooling equipments . Here is a small refrigerator which works on the principle 'Thermoelectricity' . All it needs is an ATMega8 Microcontroller and other microelectronic components like ICs,resistors etc, By proper interconnection of various components and finally adding the thermoelectric module to the electronic circuit results in a low cost refrigerator. The entire setup just costs you Rs.1200/- wherein the major portion of it is occupied by microcontroller itself .This thermoelectric refrigerator works on the principle of seebeck effect. According to this effect when electric current is passed through different metals conjoined together then one metal gets cooled down. This bimetallic strip when placed in a insulating medium filled with air, it gets condensed down and finally a cold region is obtained. Thus by this project we are actually providing a small refrigerating medium. We are also including the control module which basically functions via a program written and dumped in ATMega8 microcontroller. Desired temperature can be setup . Through two 7 segment display or an LCD constant monitoring of internal temperature can be done . With very less power consumption and suitable control via a microcontroller we get a cool summer equipment .We also want to include a computer controlled module to this refrigerating device Many more additional equipments like a blow air etc .,shall also be added. The whole functioning of the components and other parts will be illustrated at the exhibition.

Diy Night Light

Yamini .P, I.Gouthami , Jayasree.K

ABSTRACT

This Project leads to simple way of constructing a circuit that turns on when it goes dark.The increase in resistance of the LDR in relation to the other resistor which is fixed as the light intensity drops will cause the transistor to turns ON.The value of the fixed resistor will depend on the LDR used,the transistor used and the supply voltage.

Light dependent resistor is a resistor whose resistance is dependent on light. The resistance of LDR is of the order of Mega Ohms in the absence of light and reduces to a few ohms in presence of light. In this circuit when the light falls on LDR, the resistance of LDR becomes low and the entire voltage drop takes place across the variable resistance VR1 (100K). As a result the base of transistor (T1) gets high input and it gets biased thereby OFF the LED. When no light falls on LDR, the resistance of LDR becomes high so almost entire voltage drop takes place across it and the base of transistor is at low potential. So transistor does not gets biased nor it becomes conducting, hence switching ON the LED. The sensitivity of the circuit can be adjusted by varying the preset VR1. to turn.

There are many applications for Light Dependent Resistors. These include

Lighting switch The most obvious application for an LDR is to automatically turn on a light at certain light level. An example of this could be a street light.

Camera shutter control LDRs can be used to control the shutter speed on a camera. The LDR would be used the measure the light intensity and set the camera shutter speed to the appropriate level.

Automatic Alcoholic Detector

Sharanya.K, Sushma.G, Anjali.S, Uday Kumar.K

ABSTRACT

Alcoholic detecting sensor sense the percentage of alcoholic that present in the human body. If there is a presence of alcoholic then automatically signal goes to the microcontroller. Where the program is already dumped in the microcontroller .Then the signal passes to the decoder and then it sends the information to the relay. If the percentage of alcoholic is present then the motor gets stop and the alarm gets activated and it makes the beep sound. Then the microcontroller gives the information to the LCD then it shows the output.

Speed Control of DC Motor by Micro Controller

Sowmya.G, Tejasree .J, Pooja.R

ABSTRACT

The aim of developing this project is to control the speed of DC motor. The main advantage in using a DC motor is that the Speed-Torque relationship can be varied to almost any useful form. To achieve the speed control an electronic technique called Pulse Width Modulation is used which generates High and Low pulses. These pulses vary the speed in the motor. For the generation of these pulses a micro controller (AT89s52) is used. As a microcontroller is used setting the speed ranges as per the requirement is easy which is done by changing the duty cycles time period in the program. This project is practical and highly feasible in economic point of view, and has an advantage of running motors of higher ratings. This project gives a reliable, durable, accurate and efficient way of speed control of a DC motor.

Face Feature Detection

D.Vaishnavi , G.Preethi

ABSTRACT

The aim of this project is to develop an algorithm that detects human facial features like the mouth, nose and eyes in a full frontal face image. We adapted a multi-step process in order to achieve the goal. To detect the face region a skin-color segmentation method was used. A fast, reliable automatic human face and facial feature detection is one of the initial and most important steps of face analysis and face recognition systems for the purpose of localizing and extracting the face region from the background.

This project presents a Viola Jones Face Detection Method that instantly detects faces in still images or video frames. This work is distinguished by three key contributions. The first is the introduction of a new image representation called the integral image which allows the features used by our detector to be computed very quickly. The second is a learning algorithm, based on AdaBoost, which selects a small number of critical visual features from a larger set and yields extremely efficient classifiers. The third contribution is a method for combining increasingly more complex classifiers in a cascade which allows background regions of the image to be quickly discarded while spending more computation on promising object-like regions.

Applications are Law enforcement and justice solutions, Childbase protection, Identification solutions, Homeland defence, Immigration, Access control, Scene analysis and surveillance solutions.

Audio Communication using Microwave Bench

M.Srikar Phani Kumar, K.Prashanth, D.Rubeena

ABSTRACT

Here we are trying to establish audio communication through microwave bench. The low signal audio signal is amplified by using audio amplifier circuits and is given as input to the microwave bench. At the other end of the microwave bench the output is again a low power signal and hence is again amplified using some power amplifier circuits. The speaker acts as a load at the output and hence voice can be heard.

Basic Intercom Circuit

T V S R Prasad, N Ramakrishna Rao, D. Sri Vidya

ABSTRACT

An intercom is a stand-alone voice communication system for use within a certain range that is either within a college or an office etc. Our circuit helps in establishing a one way intercom service using basic components of electronics like transistors, resistors and capacitors. 2 intercom circuits are connected and connections are established between them and the output can be verified in the speakers provided which act as load to the circuits.

Wireless Power Transfer

Mohammed Salim, M. Shashanka, K.Srivathsa, J .Venkat Reddy

ABSTRACT

The main objective of this project is to develop a device for wireless power transfer. The concept of wireless power transfer was realized by Nikolas tesla. Wireless power transfer can make a remarkable change in the field of the electrical engineering which eliminates the use conventional copper cables and current carrying wires.

One of the major issue in power system is the losses occurs during the transmission and distribution of electrical power. As the demand increases day by day, the power generation increases and the power loss is also increased. The major amount of power loss occurs during transmission and distribution. The percentage of loss of power during transmission and distribution is approximated as 26%. The main reason for power loss during transmission and distribution is the resistance of wires used for grid. The efficiency of power transmission can be improved to certain level by using high strength composite over head conductors and underground cables that use high temperature super conductor. But, the transmission is still inefficient.

The circuitry used in this project is base on slayer circuit. A slayer exciter is basically a small solid state tesla coil, usually a one transistor design. A Slayer Exciter is an air-cored transformer that steps up a very low DC voltage to a very high AC voltage. This creates an electromagnetic field around the coil that is capable of lighting up fluorescent and neon light bulbs. It is fairly similar to a Tesla Coil.

Moreover this technique can be used in number of applications, like to charge a mobile phone, iPod, laptop battery, propeller clock wirelessly. And also this kind of charging provides a far lower risk of electrical shock as it would be galvanically isolated.

This concept is an Emerging Technology, and in future the distance of power transfer can be enhanced as the research across the world is still going on.

Generation of Electricity through Speed Breaker Mechanism

Roja.P, G.Sainath, Sirisha

ABSTRACT

This paper is presenting the study of electricity generation through the speed breaker mechanism. For obtaining the electricity through the speed breaker mechanism a prototype model is developed and studied.

Findings from this research work is discussed in this paper, the generator used here is permanent magnet D.C. generator. The generator voltage is 12 Volt D.C. This D.C. voltage is stored to the lead 12-volt battery. The battery is connected to the inverter. The inverter is used to convert 2 volt D.C. to the 230 volt A.C. voltage is used to activate the streetlights, traffic signals etc. By increasing the capacity of the battery and the inverter circuit the power rating is increased.

The principle of the electric power generation using speed breaker mechanism is very simple.

It is based on the same Principle as in the case of electricity generation in case of hydroelectric power plant, thermal electric power plant, nuclear power plant, geothermal energy, wind energy, tidal energy etc. In all of the above power plant mechanical energy is converted into electrical energy. In this setup also mechanical energy is converted into electrical power using a D.C. generator. Here the vertical motion of the top of the speed breaker is converted into the rotational motion, which in turn rotates the generator and generates electricity.

3D LED CUBE

Rohit Vedula, P.Sai Praveen

ABSTRACT

Our project consists of building a 3 dimensional LED array that will be able to display various graphics through the concept of persistence of vision. The array will also be sensitive to motion in three directions, allowing it to focus certain graphics to a targeted audience through motion detection. There will be several options for display including non-directional animations and direction focused graphics.

The software for this project uses a simple timer interrupt model to control the multiplexed LED matrix. Each time an interrupt occurs, the current layer is turned off, data for the next layer is written to the LED drivers, and the next layer is then turned on. Interrupts must occur quickly enough that all layers are refreshed at > 30Hz to avoid flicker. The algorithms to generate patterns run in between interrupts. Any number of patterns can be added and the cube will loop through all of them indefinitely.

The LED cube is made up from 27 LEDs arranged into 3 layers of 9 LEDs each. All LED anodes of a layer are connected and all cathode of a row are connected. This allows multiplexing with LED driver ICs, so instead of requiring 27 connections it requires one to each of the five layers and 9 to each LED in a layer making a total of 9.

Automatic Doorbell with Object Detection

Mounika Raj, Bindu Bharadwaj, Abhilash Reddy

ABSTRACT

We all have a doorbell at our homes. When a visitor comes to our house, he searches for the doorbell switch and then rings it to let us know his presence. If the who came to our house cannot find the doorbell or else if the person is so short that he cannot reach the doorbell. In such cases, it is better if we use an automatic doorbell which rings as soon as a person arrives at our place. There are no more hassles. The person who comes to our house need not search for the doorbell and press it any more. If we install this automatic doorbell using object detection circuit, the circuit will automatically sense the presence of the person and it rings the doorbell.This circuit operates using a pair of ultrasonic transmitter and receiver modules which are used to detect the person and then if the person is detected, the doorbell is automatically

turned ON when the person is in-front of the door. The circuit works as a panic alarm and could be applicable in many cases. The circuit operates using a pair of ultrasonic transmitter and receiver modules which are used to detect the person. When the person is detected (the person is in the front door), the doorbell is automatically turned ON.Instead of placing a buzzer circuit at the output, we may also place a bulb by connecting the NORMALLY OPERATED pin of the relay directly to the bulb and the COMMON pin of the relay is first connected to the power supply and then it is given to the bulb. In this automatic doorbell using object detection circuit, the circuit will automatically sense the presence of the person and it rings the doorbell.

4S-Spiral Inter Change (Road Junction)

K. Akash, M. Arshad, Pusa Tanuj, Sk. Sameer, M.K.T.Abbas

ABSTRACT

The Present Situation of the road transportation is facing many problem like Traffics jam, wear and tear of the road, improper signal and signs

4S- It is a Interchange where the road meets its destination without facing the problem like traffic jam, accidents at junction point , less fuel consumption , and the efficiency of vehicle engines will be maintained .In this interchange there are 2 road of double lanes , 4 Parabolic by-pass Road of single plane and 4 Spiral Roads of single lane.

Apart from this the 4S also contain few features which will help the road transportation.

(1) 1st S- safety of road crossing objects.

(2) 2nd S - Saving time and fuel at parking area.

(3) 3rdS - Service of Road Maintenance.

(4) 4thS – Sign at the best.

Underground Cultivation
(Crops / Agriculture)

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ABSTRACT

INDIA is an agricultural country.But,now-a-days farmers are deviating into other development sectors and are getting attracted towards city culture.The underground cultivation is introduced to overcome the future problems.Here in this cultivation the crops will be grown under a tunnel which is 9-10metres deep from the earth surface where,all the requirements for the good yield are provided artificially like sunlight, water, carbondioxide, fertilizers etc.As there is no exposure of the crops to pollution the yield obtained by this method will be more tastier and healthy.

By the idea of this underground cultivation the agricultural sector will be alive even if there is no land remained for the cultivation.

Precast Building

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ABSTRACT

The concept of precast (also known as “prefabricated”) construction includes those buildings where the majority of structural components are standardized and produced in plants in a location away from the building, and then transported to the site for assembly. These components are manufactured by industrial methods based on mass production in order to build a large number of buildings in a short time at low cost. The main features of this construction process are the division and specialization of the human workforce. The use of tools, machinery, and other equipment, usually automated, in the production of standard, interchangeable parts and products.

Many countries used various precast building systems during the second half of the 20th century to provide low-income housing for the growing urban population. They were very popular after the Second World War, especially in Eastern European countries and former Soviet Union republics. In the former Soviet Union, different precast buildings systems are denoted as “Seria”, whereas in Romania they are called “Sectiunea.”

This type of construction requires a restructuring of the entire conventional construction process to enable interaction between the design phase and production planning in order to improve and speed up the construction. One of the key premises for achieving that objective is to design buildings with a regular configuration in plan and elevation. Urban residential buildings of this type are usually five to ten stories high. In general, precast building systems are more economical when compared to conventional multifamily residential construction (apartment buildings) in many countries.

Hydroelectric Power Plant

E. Raj Pavan Reddy, P. Arjun, K. Kiran Kumar, M.Sri Hari, D. Nikhil, K. Chandrahas

ABSTRACT

Hydroelectric power plants has been increased more and more because of fast increasing electrical energy demand. Small hydro power plants have great importance caused by their low administrative, executive costs, using water drink and irrigation systems suitability for rural areas and low environmental effects. Hence, operation conditions and constructible possibilities of the plants must be determined. In this study, the role of small hydroelectric power plants has been investigated. In order to carry out load-frequency control of small hydroelectric power plants in computer, the models of turbine, generator, and governor have been generated. After small hydroelectric power plant model has been obtained by being combined these models. Hydroelectric power plant models having linear turbine have been acquired the variations of power and frequency with respect to time by being operated for different load values.

Energy generation is one of the major key factors for economic and social development in all the developed and developing nations of the world. Adequate amount of energy generation in a sustainable manner is a major challenge in the present energy scenario. Fast depleting fossils fuels and their environmental effects forces to look towards renewable sources for sustainable development. Micro hydropower plants are emerging as a major renewable energy resource today as they do not encounter the problems of population displacement and environmental problems associated with the large hydro power plants. Hydro power plants convert potential energy of water into electricity.

Floating Bridge

K.Gautham , B.Suribabu

ABSTRACT

The **Floating Bridge** was constructed in 1943 by the British People across River Hooghly at Kolkata It is popularly known as **Suspension Bridge**".

GSM / CDMA Operated Switch

A.Praveen Kumar

ABSTRACT

Generally we can operate a switch wirelessly by various methods such as Bluetooth, wifi, infrared and microprocessor, but these can be done within a limit distance. To eliminate this GSM/CDMA working mobile can be used for operating a switch. That means we can ON or OFF a switch by using our mobile phone here is a setup designed which can operate two switches independently. And I hope this can be useful for society.

Steam Engine

Sagar Nellutla , Sahit Rao

ABSTRACT

Advanced steam technology (sometimes known as **Modern Steam**) reflects an approach to the technical development of the steam engine intended for a wider variety of applications than has recently been the case. Particular attention has been given to endemic problems that led to the demise of steam power in small- to medium-scale commercial applications: excessive pollution, maintenance costs, labor intensive operation, low power/weight ratio, and low overall thermal efficiency; where steam power has generally now been superseded by the internal combustion engine or by electrical power drawn from an electrical grid. The only steam installations that are in widespread use are the highly efficient thermal power plants used for generating electricity on a large scale. In contrast, the proposed steam engines may be for stationary, road, rail or marine use.

Fireless locomotives: Another proposal for advanced steam technology is to revive the fireless locomotive, which runs on stored steam independently pre-generated. An example is the Solar Steam Train project in Sacramento, California.

Stirling Engine

Sharath Goud Ranga, G Pratap Kumar

ABSTRACT

A Stirling engine is a heat engine operating by cyclic compression and expansion of air or other gas, the working fluid, at different temperature levels such that there is a net conversion of heat energy to mechanical work. Or more specifically, a closed-cycle regenerative heat engine with a permanently gaseous working fluid, where closed-cycle is defined as a thermodynamic system in which the working fluid is permanently contained within the system, and regenerative describes the use of a specific type of internal heat exchanger and thermal store, known as the regenerator. It is the inclusion of a regenerator that differentiates the Stirling engine from other closed cycle hot air engines.

The Stirling engine is noted for its high efficiency compared to steam engines, quiet operation, and the ease with which it can use almost any heat source. This compatibility with alternative and renewable energy sources has become increasingly significant as the price of conventional fuels rises, and also in light of concerns such as peak oil and climate change. This engine is currently exciting interest as the core component of micro combined heat and power (CHP) units, in which it is more efficient and safer than a comparable steam engine.

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