PROBLEM STATEMENTS
(Department of Information Technology Engineering)

1. Develop an android app for to Control Security Cameras for wireless surveillance.

Abstract:-Minimal features:

This app control the security cameras through android mobile, an individual control the number of cameras to be operated through this app. This app shows real time recording of cameras on mobile, an individual through this app should be able to set timer for cameras to work on daily basis.

Developer is allowed to add any other required feature on this app.

2) Develop an android app for Socio Academic Network between universities

Abstract:-Minimal features:

This app is to increase the socio academic network between universities. This app contain all the socio academic information of universities located in an state, country. A user from a university can able to access the academic information of another university. Academic information like average grades of student on a particular course, special areas where student of a particular university excels, social information like fest and event organized in particular university, social &recreational activities.

Developer is allowed to add any other required feature on this app.

3) Develop an android app for Bus Time and Reservation.

Abstract:-Minimal feature:

By this app an individual is able to track bus location and book a seat in bus. This app shows the time of arrival and departure, number of seat available, passenger density,cost of travelling, ac or non ac number of stoppage between destination, time to reach the destination.

Developer is allowed to add any other required feature on this app.

4) Develop an android app Alumni Management System.

Abstract:-Minimal features:

This app contain all the information of alumni of particular university like year of admission ,year of passing, average grade throughout course, current job profile, current place of living, address , contact number, currently working on which company or business etc. In this app alumini build an account of individual giving the information listed above. Also there should be a function which inform the alumni to upgrade his/her profile after a period of time.

Developer is allowed to add any other required feature on this app.

5) Develop an android app for monitoring the students.

Abstract:-

Minimal features:

This app contains information of teacher's student academic and social information like report card, test result, weekly performance of student, database of each and every student contain parents\guardians contact number and address ,contain attendance record , number of days student not attend school and also having the reason specified.

Developer is allowed to add any other required feature on this app.

6) Sports Event Management

Abstract:-

In the existing Sports Event Management system, students are not able to get proper information about the games conducted in various colleges. The student needs to spend the time to get the information about the game. The student should attend the venue to get registered for the game which takes a lot of time. In the proposed Sports Event Management system student can get all the information of various games and the venue. Develop a web application where student can get registered from anywhere and at any time. By using this system student can save a lot of time and effort. The student can easily get the information from anywhere.

Modules:

Admin:

Admin will get log in with a unique username and password. Admin will add all the information of the games conducted in various colleges. Admin will send the password to the student registered email.

User:

The user can view all the details of the games and can get registered with the selected game by entering all the details in the registration form. The user will get a confirmation password to his email.

Minimal Details should be like-

1) Name of game
2) Time
3) Venue
4) Result
5) Complete description about games
6) Rules and regulation

Etc.

Developer is allowed to add any other required feature on this app.

7) Result through email

Abstract:-

The word Entasi came from Greek origin which means tension and the name of the website gives the meaning tension free. The idea of this results through emails website entasi free came into existence due to the problem faced by the students during the time of results. Generally, all the students face the problem in checking their results as soon as they are kept on portal. Because the server gets bulk login requests and it just breaks down. The one click solution to this problem is our website Entasi free which enables the students to get the results through email. Here the email id's of the students are linked with the website as soon as the administrator logins and submit the details the mails are sent to the respective email id's. Results are checked in the Results Through Emails website which is a very time consuming process.

Make the way easy application where results are directly send to the students mail id without wasting time.
Use HTML(hypertext markup language) in order to create the web pages
And these web pages linked using the code written in java.
Use my SQL database in order to store the data like student roll numbers, email-id's and results

Description about admin
The admin of the website logins into the website and after authentication he will go with updating the database with new results. After the process of altering the database and updating it the admin further proceeds in sending the results to the students through e-mails.
Description about The User Actions
The user just registers into the website by giving his mail id and later on there is no direct interaction of the user with the website. The results are directly sent to their mail-id's and then the students login into their mail-id's and check the results and send the feedback.
User (student) registers into the website by giving his mail-id admin verifies the user and validate his account. Admin then send them results through mails. The admin logins and authenticates then the db class verifies the user and grants the permission to access it. Later, he can alter and update the results and send them to students through mails.

8) Safe internet - internet filtering tool
Abstract:-
Safe Internet is an Internet Content Filtering tool that can primarily be used to keep the teenage Internet browsing risk free. The complete features of the tool are listed below.

1.Block Websites
2.Block web pages that contains inappropriate contents on the fly
3.Website redirection
4. Proxy service
5. Report Generator etc.
The Safe internet is a browser free application so that it will work with any web browser like IE, Mozilla, and Opera etc. The application will monitor the downloading contents as well as the uploading contents.
Safe Internet can be used as a parental control solution that helps parents protect their children and monitor their Internet use. This can also be used in corporate environment to reduce the internet Slacking. The Internet Content Filtering tool project Safe Internet can developed using Java. The application has the same working principles of a proxy server.
The Safe Internet plus programme aims to promote safer use of the Internet and new online technologies, particularly for children, and to fight against
illegal content and content unwanted by the end-user.

PROPOSED SYSTEM:
Here we proposed a Internet Content Filtering tool system which contains to block any websites or Web Pages directly with a small operation. And also there is registration for users. By this registration the user can recharge their mobile phones or DTH directly from our application.
MODULES:
1.Admin
2.User
Admin:

In this module admin can block the websites or web pages directly by some login. And the admin can view the users who are using our application.

User:

Here in this module user contains a small registration which gives some login id and password. By using that login id and password user can use this application. On user side user can view their profile, recharge their mobile, DTH, etc.., and the user has a right to change their password.

9) Mobile based attendance

Abstract:-

Mobile Phone based Attendance System project is web application .In many colleges and schools teachers take attendance manually by each and every student. They need to take attendance in each and every period in case of private engineering colleges and they have 60-90 students in a single class. They need to look at each and every student and then mark on the attendance book absent or present. Then they carry the attendance book with them, they also need to keep them safely for future reference. This takes lots of time in taking in attendance and at last of the year they need to count total attendance and then find the percentage of each and every student. This is the burden on the professors .To remove this burden we can develop such application that will take attendance automatically and fast.This application will be based on the different modules like:

List of Modules in this Mobile phone based Attendance System Project:

User: This module is for staff, they need to enter user name and password to enter this page, then only they can take attendance from mobile phones.

Attendance entry: This module for marking the attendance of the students. They select branch, year and semester of the students. After that they mark to the absentees.

GPRS connectivity :With this function they send attendance list when it receives the signal from the cell phone.

Display: This module is for students, they can check their attendance, they need to select their year, semester and branch.

SMS: This is the best feature of the application; student can get his attendance on his cell phone by just sending an SMS from anywhere.

10) Automated Street Lighting using IoT

Abstract:-

The main consideration in the present field technologies are automation, power consumption and cost effectiveness. Automation is intended to reduce man power with the help of intelligent systems. Power saving is the main consideration forever as the source of the power(Thermal, Hydro etc.) are getting diminished due to various reasons. As we all know that energy consumption has increased a lot and sources of energy are limited so in order to meet the increasing demand of energy use of renewable sources of energy is a must. The project aims to describe a method for modifying street light illumination by using sensors at minimum electrical energy consumption. When presence is detected, all surrounding street lights glow at their brightest mode, else they stay in the dim mode. LED bulbs shall be implemented as they are better than conventional incandescent bulbs in every way. This shall reduce heat emissions, power consumption, maintenance and replacement costs and carbon dioxide emissions. Coupled with SSSLS (Solar Smart Street Light System), massive energy-savings are envisioned. Also, a demonstration with a real-time prototype model involving costs and implementation procedure has been developed using internet of things (IOT) to visualize the real time updates of street processing and notifying the changes occur.

11)IOT Based Home Automation System

Abstract:-
Home Automation

Home automation is the process of controlling home appliances automatically using various control system techniques. The electrical and electronic appliances in the home such as fan, lights, outdoor lights, fire alarm, kitchen timer, etc., can be controlled using various control techniques.

Wireless Home Automation using IOT(Internet of Things)

There are various techniques to control home appliances such as IOT based home automation over the cloud, home automation under wifi through android apps from any smartphone, Arduino based home automation, home automation by android application based remote control, home automation using digital control, RF based home automation system and touch screen based home automation. Wireless home automation using IOT is an innovative application of internet of things developed to control home appliances remotely over the cloud.

Required Components & Materials

The essential components and materials for home automation using IOT project can be listed as a Wi-Fi module, Opto-coupler, TRIAC, resistors, capacitors, diode, regulator, loads (home appliances). There are various eCommerce websites that are providing facility to purchase all the required components online such as a project kit consisting of individual components essential to design a particular project from www.edgefxkits.com, Edgefx also offers ready-made kit-plug and play type project kits and (Do It Yourself) DIY project kits for engineering students and electronic hobbyists.

12) Railway Gate Control System Using RF

Abstract:-Automatic Railway Gate Control System is a simple but very useful project, which help in automatically opening and closing the railway gate upon detecting arrival or departure of the train. In general, Railway gates are opened or closed manually by a gate keeper. The information about arrival of train for opening or closing of door is received from nearby station. But some railway crossings are totally unmanned and many railway accidents occur at these unmanned level crossings .To avoid the human intervention at level crossings completely, we need to automate the process of railway gate control.

The main aim of our project is to operate and control the unmanned railway gate in the proper manner in order to avoid the accidents in the unmanned railway crossing. In a country like ours where there are many unmanned railway crossings, accidents are increasing day by day. The railway gate can be operated to prevent the accidents at the level crossing in terms of speed of the train. Automatic Railway Gate control System is an innovative circuit which automatically controls the operation of railway gates detecting the arrival and departure of train at the gate. This system uses ATmega328P microcontroller with the help of two sensors. It has three IR sensors which is used to detect arrival and departure of the train. In this project we are using RF transmitter and RF Receiver for the transmission of sensor output to controller which is in remote location.Besides, the output signal Arduino will activate LCD display and alarm. The first IR sensor is fixed at a certain distance from the gate and the second sensor is fixed at the same certain distance after the gate and the third sensor is placed near the gate. The gate is closed, when the train crosses the first and second sensor and the gate is opened, when the train crosses the third IR sensor. This system deals about one of the efficient methods to avoid train accidents. The second part is based on software programming to operate the hardware structure. Program for railway gate control system is based on Arduino controller with Arduino basic pro language.

13) Wireless Digital Code Lock with a Status Display using RF
Abstract:-

Security is primary concern in our day-to-day life. Everyone wants to be as much as secure as possible. An access control system forms a vital link in a security chain. This access control system allows only authorized persons to access a restricted area .This system is best suitable for corporate offices ,ATMs and home security. This project is aimed to design a digital code lock system with a status display by using wireless communications RF technology and GSM technology. The wireless communications is established by using RF modules and a digital keypad interfaced to the controller. The authentication is provided through password for locking or unlocking the system and the status will be displayed using LCD module and the acknowledgement is provided to the user by GSM technology.

MODELS AND PROTOTYPES ARE ALSO ACCEPTED ONLY ON IOT AND RF STATEMENT TOPICS.
THESE ARE JUST SOME EXAMPLES, IF ANY INDIVIDUAL HAVE ANY OTHER IDEAS RELATED TO IOT AND RF BASED ARE ALLOWED & WELCOMED.
ANY PROJECT RELATED TO SMART CITIES PROBLEMS ARE WELCOMED.