



PROBLEM STATEMENTS

(Department of Computer Science and Engineering)

1.Student's Diary

Design an android based app for college students where they can view there semester details, receive notice etc. you can review student diary app of NIT Raipur available on Google play store, all the features of the “student diary app” must be present as well as other features such as notice and assignment providing features.

2.Teacher's Diary

Any computer system is as good as its input data. Design a counter-part app for college teachers making it easier for uploading student details and their particular required inputs such as:-

1. Their schedule
2. Ability to take class attendance
3. Ability to send assignment
4. Also to show basic details such as salary dues, number of classes taken. The same way “student diary app” shows student detail.

Note:- The above two problems will be focused on enhancing student teacher interactions as well as making use of modern day tech for productive purposes, as we all know that everyone nowadays is equipped with a smartphone and other gadgets.

3.Intelligent water tank filling system

In urban areas where water supplies are regulated to some specific period of time, person need to be present on that specific time to switch on their water pumps and store water in their water storage tank. If they are not present at the time then they have to pass through the hassle created due to no water. This project must intelligently (without need of any person) switch on the motor when municipal water supply comes and switch off the motor when storage tank gets filled. Also

create a monitoring app for the above that informs user about the status of motor like whether it's on/off and also have a switch off feature through app.

4.Smart Speaker Build with Google Assistance with Alexa

Smart speakers are all range these days they very much helpful to understand certain things & are now being embedded within every device, be it car devices, showers, or practically almost everything. Alexa powered and Google-Assistant powered speaker taking over the market. Both have different qualities skills. But what if someone wants the best of both worlds? Well, you build your own smart speaker that can have features of both of them .You can use Google-Assistant SDK or any other build in tools.

5.Android Application for NIT Raipur SAMAR(The sports fest of Nit Raipur) Event

Build an android application for SAMAR sports that can help athletes as well as audience's to get information about various events, results, news regarding SAMAR etc.

6.Smart Traffic Signal System

Traffic management on the road has become a severe problem of today's society because of growth of the population, urbanization and industrialization. Design a dynamic system that can reduce the probably of traffic jam by applying Machine Learning to predict the traffic load and based on that system can allocate the time to a particular Road . Along with this number plate can be detected if a particular vehicle violet the traffic rules. Additional design cascade classifier to detect the ambulance & based on detection system must be able to allocate road for ambulance.

7.College Enquiry Chat Bot

During college counseling and first semester of students in college they often have plenty of questions regarding college procedures and other things and they often have to ask around a lot and it may even end up taking a lot of time so design a college enquiry chat bot which can be used to solve this problem.

Use Deep Learning and AI Mind cloud concept to make system intelligence enough to provide correct suggestions or answer.

8.Recommendation System

When a person Search for a product over the internet she/he might find a number of similar products with different prices and qualities. Design a server based application that can help the customers to choose best product. Customer should have facility to search any product & system need to search for the same product from various sources over the internet and must provide the best suggestions. Analysis of the product must be based on some parameters likes' price, brands, customers ,feedback etc.

9.NITRR Education Vending

Design a web based system where students of all branches can get previous years questions papers. System must large sets of quiz where students can practice various subjects. More over system should be open for all NIT Raipur students to contribute to the system by writing the articles. Website must have search option so that they can search from other platform as well (Recommended to use Google SDK tools to develop search system).