
IT DEPARTMENT May-2018

SUMMER PROBLEM DEFINITION

Those students interested in picking up project during summer vacation, they can pick up any definition specified below as a summer challenge and contact the concern professor for further work.

Student gear up to do something new during summer vacation.

***** ALL THE BEST *****

Prof. H. M. Diwanji

- 1 Find out the structure that stores process related information in Linux and find out which information are stored in that structure. Modify the structure to add field, IP address that created the process. Now when a user runs ps command, he should get the data from modified structure.
2. Take the movie database. Decide what attributes you need to store but analysis includes
 - 1) Do people love watching films in local language?
 - 2) Do people love song based/action based films ?(which age group)
 - 3) Do people like animation film?
3. Prepare a utility winzip or winrar of your own.

Prof. Swati Patel

1. College Forums with Alumni with Content Filtering

A group of students can become a community of participants who begin to grow in their understandings of course material and individual contributions to the knowledge construction process.

2. Crime Rate Prediction Using K Means

This will help to predict crime which will occur in future. Admin will enter crime details into the system which is required for prediction. Admin can view criminal historical data. Crime incident prediction depends mainly on the historical crime record and various geospatial and demographic information.

3. **Campus Recruitment System**

The project is beneficial for college students, various companies visiting the campus for recruitment and even the college placement officer. The system handles student as well as company data and efficiently displays all this data to respective sides.

Prof. Jahnvi Vithalpura

- 1) Automatic time table generation: Most colleges have a number of different courses and each course has a number of subjects. Now there are limited faculties, each faculty teaching more than one subjects. So now the time table needed to schedule the faculty at provided time slots in such a way that their timings do not overlap and the time table schedule makes best use of all faculty subject demands.
- 2) Student information retrieval system & Bulletin board (MIS): one platform to retrieve all the information about students. Like academic records, curricular activities, personal information. And staff can also put their notice ,result on this bulletin board(mobile) by the official way.
- 3) Plagiarism tool: A tool that find similarity index for given document for the purpose of originality of dissertation work for research scholar

Prof. Pradip Patel, Prof. Manoj Patel, Prof. Ankit Patel

1. Vector Quantization using LBG algorithm.
2. Image compression using discrete cosine transform algorithm.
3. Encoding images using the Rice algorithm.
4. Encode the image using the CALIC algorithm.
5. Implement File Transfer Application
6. Digital Notice board
7. Digital Welcome Board
8. Implementation of network coding-based encoding-decoding system (in GF256).
9. Tic-Tac-To Game in .NET.
10. Intranet Mail System for IT Department.
11. Intranet Telephone System for IT Department
12. Online MCQ exam application using Android
13. Web portal for important notice, results and Term work submission.
14. Home automation using Arduino Interface.
15. Voice based email system for blind.
16. Human Resource Management for IT Department.
17. Intranet Chat Server
18. Create QR code as per requirement for any system.

Prof. M.C. Parikh

1. IPL Time table use shortest path and optimization
2. Mall Management system
3. Android application to locate items in a mall with scheme

Prof. M. K. Panchal

- 1) Maintenance of equipment: When something breaks at home or at work, we often have to obtain replacement parts. And replacement parts arriving before an appliance even breaks? So, sensors in our devices can do when they recognize the wear and tear in aging parts that need repair.
- 2) In warehouses and retail, it's common to find staff going through their work day with earpieces. These can now track the energy levels and moods with biometric sensing. By taking advantage of big data, the same earpiece can play their favorite music when they feel low or need to de-stress. Enterprises who are in the know when it comes to good music prediction will also have an edge over the competition in the job market. It can also be extended to enhance productivity and efficiency.

Prof. S. A. Solanki

- 1) Automatic time table generation
- 2) Automatic generation of multiple-choice questions with corrector