techNITi'19

presents

HACK NITJ

2019

NIT JALANDHAR HACKATHON

SMART CAMPUS

Home away from home, our institute campus is one place where we live, we play, we study and spend the most exciting years of our life. The campus provides us everything, and now it's payback time.

The aim of the hackathon would be to generate solutions to problems faced inside the campus of an institute and also provide ideas on improving processes or management that already exists within this environment. The ideas can range from providing solutions to specific problems inside a campus to providing new ideas that can lead to the goal of smart campus.

NIT JALANDHAR HACKATHON

We have some problems for you to solve that target various day to day operations within a campus. Also you have the choice to solve either the problems provided by us or you can come up with your own ideas.

◎ PROBLEM STATEMENT

1. Smart Parking

Smart parking provides a way to use minimum resources to accommodate large number of vehicles efficiently. The idea could be to optimize how parking should be managed in order to minimize clutter and chaos.

2. Smart Waste Management

A campus is a buzzing place with a lot going on. All activities from mess to fruit shops to canteens to offices generate waste. This waste when not taken care of can spoil the beauty of campus. The goal is to take the waste and reap the maximum it has to offer.

3. Rainwater Harvesting And Water Management

One institute has enough potential to harvest enough amount of rain water in order to satisfy a portion of its needs. We need a solution that a campus can adopt to harvest this resource and also reuse the water it has to minimize its dependence on external resources.

PROBLEM STATEMENT

4. Energy Conservation

College campus is a big place with lots of classes, labs, offices, faculty rooms etc. Since in maximum building ACs is centralized even switching on AC for single room leads to huge wastage. Also to err is human and we need a solution to end the dependence on people for saving energy.

5. Efficient Mess Management and Quality Feedback

The hostel mess has a lot many things to handle ranging from buying good food to preparing just enough food to feed the children. Preparation of food for large number of students leads unsatisf-actory food taste and also leads to food wastage. The aim is to improve the process and also take into consideration the varying feedbacks of students.

6. Smart Auditorium

The auditorium is a place where we have to handle a large crowd; a smart solution could tell the number of people inside auditorium allowing us to guide people to vacant seats. Also one could use the solution to handle unpredicted situations. The solution can also be used to gain audience poll on making certain decisions during an event.

◎ PROBLEM STATEMENT

7. Smart Night Canteen

One very common problem faced by students is how to satisfy their hunger at night time. Students prepare for heir exams, they play CS 1.6 or watch movies, being up so late always triggers hunger. Due to hostel timings and closed canteen it becomes virtually impossible to get rid of the hunger. The problem is to appease the hunger.

8. Smart Library

The library system currently supports book reservation only through physical presence at the library. Also one cannot know whether a book is available in the library or not. The task at hand is to transform the library to a smart library and provide solutions for other problems related to libraries as well.

9. Miscellaneous

Oh yes, we would love to hear your ideas and solutions regarding making our campus smart. You can choose any problem you want to solve in this theme.