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SUBJECT : UBIQUITOUS COMPUTING

ASSIGNMENT NO : 3

## **IDEA : INTEGRATED SCHOOL TRANSPORT BASED ON SCHEDULE ON SMARTPHONES**

- I really wish our school had a integrated transportation system.
- It really annoys me when I miss my transport by minutes and have to walk to the class.
- In this scenario the students and faulty traveling from home to campus or between campus to campus to attend classes or exams or give lecture's are affected. I think the university would pay good amount of money maybe around \$5,000 to get this implemented.
- For the current problem we have an application commissioned and being used by students to track the shuttles From each campus and we also have LRTA applications that has the local transport mapped out and points the GPS locations of each bus and their arrival time at a particular stop.
- The current solution is actually a smart and working solution. I suggest a enhancement for the current solution where in which we have 2 different applications one for the college shuttle and the other for the local buses plying in college routes. I suggest that we integrate the both the applications for starters and later also add the previously devised class schedule that the students are given for example the schedule builder tool on the UML website where we get weekly schedules of classes in the format of a PDF which cane used to upload and integrate into the mobile application onto our device and later the application gets the inputted data integrates with the application and alerts the user of the bus or shuttle which is to be taken for him/her to reach his destination on time.

## **IDEA : INTEGRATED AUTONOMOUS SYSTEMS IN CAR**

- I really wish my car Could drive itself.
- It annoys me when i am stuck in a traffic Jam and have to make movements on clutch and brake and be very careful while changing lanes.
- Nowadays, We usually face lot of traffic jams in cities where the roads are heavily clogged. When i was back in Bangalore i had to drive a car with stick and had to keep shifting gears when i was stuck in traffic everyday and used to wish there was a self driving car !. People would shell out around \$30,000 for a Self driving car.
- There are leaps and progress in the design pf future cars with autonomous systems such as lane switch control , cruise control , Temperature controls and the newly introduced Tesla's Auto pilot system. There are various other sensing technologies already added to a car such parking Assist and collision sensor and camera's around the car for a smoother and safer driving. With all these technology which in hand they all work individually to reduce the strain of commute for a driver.
- There are AI 's developed by NVIDIA for Tesla's autopilot systems but they are only been developed for Highways where the commute is not so hectic and people stick to one lane. The actual challenge is to automate the car while driving in a city. I would like to suggest that the car is completely integrated with online maps available in the market to sense a particular short route and travel in that way for a fully automated car the braking and acceleration should be automated through a main system in the car which senses the motion and its surrounding and is governed by speed limiter for the car to move in a moderate space based on the surrounding it senses.

**IDEA : Automated Vacuum Cleaning controlled by Devices**

- I really wish my house had a automated vacuum cleaning Device.
- It really annoys me when i have to bend and clean my house.
- At home when i try to Clean my room i have to get this huge device up the stairs into my room where i have to hold and vacuum the whole place. Needless to say i have to bend down and reach the unreachable spaces with the tube to clean the place. I think if we have a small compact device whose movements can be monitored or controlled on a Mobile device or laptop to help move around all the edges of a room sitting at one place would really help a lot of people avoid backaches and would make it fun for people to clean their homes. I think this technology would garner good support and people will be willing to pay around \$100 to \$200 dollars for the machine.
- In the current world we find robotic vacuum cleaners easily available but they have a remote and set modes such as edge cleaning, spot cleaning i would like it to be integrated with a mobile device and hand controlled by the mobile device as well as a auto mode of cleaning where it can detect the edges of the wall and clean as it goes. The Idea is more of a gaming concept where the vacuum cleaner is controlled by a digital device.