Brief Summary of Projects (2018-19)

Chandigarh Engineering College, Landran

Innovation and Entrepreneurship Development Centre (IEDC)

Fuel Adulteration Detection System

Abstract:

Fuel Adulteration Detection System is a sensor based system which detects the presence of adulterants in fuel like kerosene. When the fuel is passed through the designed system the values are shown to the user in the real time over an app. The user can then forward the adulteration statistics to the governing authorities. The patent filing has been done. The targeted market is the private automobile manufacturing industries.

Project Team

S.No.	Project Title	Name of mentors	Students
1.	Fuel Adulteration Detection System	Dr. Sanjeev Sharma Dr. Vikas Dhawan	Naman Goyal Mohd. Jafar Mohit Kumar Mishra Mrityunjaya Vashistha

AUTONOMOUS PLANT MAINTAINER (APM)

Abstract:

An automatic plant maintainer makes it possible to track down the health status, water and the nutrient requirements with the particular location of the plant and gives the user a microscopic approach to nourish each plant individually, with the help of a software application. The working methodology is mainly focused on small plants; the process is independent of physical factors like rain and the height of plant. Need of this process is very important in institutions, highways, pedestrians, parks and villages as human time is very important. Present set of machines and flow of processes does not include any kind of working or theoretical technology that can be implemented towards this product in current market. The use of Internet of Things increases the credibility and functionality of the process, which indeed is a very multi-purpose approach. Multiple usage of the technology can be drawn according to the working environment, in smart cities the plants can be made better nourished and healthy using real time information shared using the internet. The individuality could be maintained with less human involvement and more usage of technologies like Internet of Things and smart sensors. Likewise in villages the technology

can be used to produce high yielding crops using data analytics. With the use of this technique the farming can be done using a better routed algorithm thus increasing the quality and productivity. Rather than using the human efforts the process involves the use of sensors which would keep a check on soil humidity, leaf moisture, soil temperature, plant watering sensors, sunlight sensors. Security issues like usage of machine by another users would be take care by an integrated novel feature of the process which tracks down the location of machine and single user confidentiality is maintained by the fingerprint sensor which is part of the design, which prevents human intervention and tampering of parts. The spot identified by the gap location is very important for both the plants and the machine. The ultimate goal of the machine will be, to take care of plants and send the data to the user so that he/ she would be able to detect the abnormal changes occurring in the plant. So with this process the plant remains in safe technological hands and remains pest free.

Project Team

S.No.	Project Title	Name of Mentors	Students
1	Autonomous plant maintainer using IOT Augmentation	Dr. Rajesh Sharma Dr. Sachin Mohal	Ketan Karan Gaur Utkarsh Chitranshi Himanshu Srivastva Megha Malhotra

Brief Summary of Projects (2017-18)

Innovation and Entrepreneurship Development Centre (IEDC)

Hybrid Drone

Abstract:

The unique feature of this project is that it can fly with a maximum load of 3Kg. By this drone we can supply medicine, foods etc. in remote areas where any type of causality happens. It can be controlled wirelessly from ground station. It can fly without pilot with auto GPS location. It can be used for rescue, security, agriculture, surveillance and photography etc.

Project Team

S.No.	Project Title	Name of Mentors	Students
1.	Hybrid Drone	Dr. Amit Gupta Dr. Sachin Mohal	Gavakshit Verma Devesh

Ultimate Vehicle Security (UVS)

Abstract:

In this project special type of key is made to avoid theft of vehicle by using the finger impression. A new type of security system which can be accessed only by an authorized person or only with the permission of an authorized person can be made. A fingerprint is providing on the car key which can allow the key to enter the lock after the complete authorization. Also, when the user enters the car then, also user has to complete the authorization to start the car. This project includes some highly advanced and unbreakable security features like fingerprint on key, RFID within the key, GSM based communication, Authorization based car door lock, and Android app based security access using Smartphone.
It has some highly advanced and unbreakable security features. This project has trouble shooting feature which gives an advantage to the user to control vehicle even if any component of the security system fails.

S.No.	Project Title	Name of Mentors	Students
1	UVS (Ultimate Vehicle Security)	Dr. Rajdeep Singh Dr. Sanjeev Sharma	HardiqVerma Ravikant Divakar Sharma