

Date:
23/08/22

Session: IOT - Internet of Things

Professional Readiness for innovation
Employability and Entrepreneurship

Team 2 solve and code & Build

Internet of Things (IOT) use cases:-

use case -1:-

IOT based safety gadget for child
safety monitoring & notification.

Description:-

* As we all know, kids are the heart-beat of every Parent, and when it comes to a child with special needs, Parents have to be extra careful. They ~~be~~ have to take extra care of their child.

* child tracker helps the Parents in continuously monitoring the child's location. They can simply leave their children in school or Parks and create a geo fence around the location.

* notifications will be sent according to the child's location to their Parents or care takers. The entire location data will be stored in the data base.

* child can also initiate emergency notification to the Parents in case of unsafe situation.

Social Impact:-

Improved safety index of places, Provides freedom for the children with special needs.

Business model / Impact:-

* Selling the Product directly to the Parent (Device + monthly subscription for Tracking & notification service)

* Selling the Product to the childcare centers.

Recommended Technology stack:-

BLE, Wi-Fi, GPS SOC's, IBM Watson IOT, Google Map Service etc.,

use case 2:- Hazardous Area Monitoring for Industrial Plant Powered By IOT

Description:-

* In industrial firms in which flammable substances are used or in environments in which combustible gases are produced due to

natural or chemical reactions, special safety precautions are required when using electronic devices.

* For Example, combustible gases can occur in chemical factories, Paint factories when solvents are used, in the vicinity of fuel storage tanks, in Power Plants, in the oil and gas industry, as well as in waste water treatment and Plants.

* The solution shall help the personal working in hazardous areas and it shall include the following features:

- ↳ Indoor localization / geo location
- ↳ Long work Protection control
- ↳ Exit routing

Social Impact:-

Avoids large scale hazards in industries and saves the environment & People

Business model/Impact

Sell BLE beacons with indoor Positioning service or build indoor Positioning service as service.

Recommended Technology Stack:-

BLE Beacons, Mobile APP, cloud based Indoor mapping, Service.

Use Case - 3:

IoT-based smart Crop Protection system for Agriculture.

Description:-

* Crops in the farms are many times devastated by the wild as well as domestic animals and low productivity of crop is one of the reasons for this. It is not possible to stay 24 hours in the farm to guard the crops.

* An intelligent Crop Protection system helps the farmers in protecting the crop from the animals and birds which destroy the crop. This system shall also include remote monitoring and control of Pump to avoid the farmer to visit the farm in nighttime.

* Solution Requirements:-

↳ Safety of People & animal

↳ Low-cost solutions, lower dependency on Power.

↳ Simple solution to suite the farmer community.

Social Impact:-

Improve the Productivity, and
lives of farmers.

Business Model / Impact:-

Community based solution by FAO's
solution through contract farming.

Recommended Technology Stack:-

Computer vision API's, GSM modules,

✓
26/11/20

Use Case - 4: Real time River water quality monitoring
and control system.

Description:-

* Farmers put fertilizers and pesticides
on their crops so that they grow better.

* But these fertilizers and pesticides can
be washed through the soil by rain, to end up
in rivers.

Social Impact:-

River Pollution can impact all living beings.
Better monitoring & control measures can impact
vegetation health.