Human Detection by Measuring its Distance based on IOT

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Abstract –**Earlier days, we use to have security cameras for detection.But the main disadvantage was: Absence of mobility and Sophisticated cameras To overcome this disadvantage: We have find a way to detect the door when it is opened and we have to register that through a wifi connection. So the 'door detection' module should send data to a mobile over wifi when a door is opened an alarm is also raised.**
The distance is been measured by the device,if distance is more so that a person can move inside the alarm get raised and a sms is sent to user.By the alert msg user can be aware of any burglary taking place.Basic goal to make this project is to make people more secure in their absence at home. Our project one aim is to make india a IOT based country ,to make people's lifestyle more comfortable and easy.

Index Terms – Internet of Things(IOT); Software As A Service(Saas) ; Wireless Fidelite (Wi-Fi) ;Passive Infrared Sensor(PIR);current sensor; Power Consumption of household appliances; Device to server(D2S) communication.

I. INTRODUCTION

Nowadays ,people basically focus on only security.as it is increasing ,security is becoming an important aspect for the people.Our project aims to describe a security alarm system using Internet of things which helps to monitor and get alarms when door is opened and the distance is being measured.Each and every.

Activity related to door distance is taken under consideration.Internet of Things has help us to make it online useful i.e. MOBILITY it plays an important role in our project for execution.Project is based on IOT(internet of things),it can be anything.Basically it means that things communicating with each other over a wide distance or range using internet.Everything is completely based on internet as we want communication to take place using internet of things.

II. DEVICES

A.Sensor

The Passive Infrared Sensor sensor module is used in our project. It can be used as motion detector for security systems or robotics.

B. Arduino UNO Microcontroller

III. BASIC ARCHITECTURE

The sensor attached to the door helps to get information or an alert about the action performed with the door. These sensors are connected to a microcontroller which helps to transfer data from the sensor to cloud storage through a Wi-Fi module. The data stored at cloud would be analyzed and the resulting information will be provided to the respective users. This is the basic flow of data used in our project.

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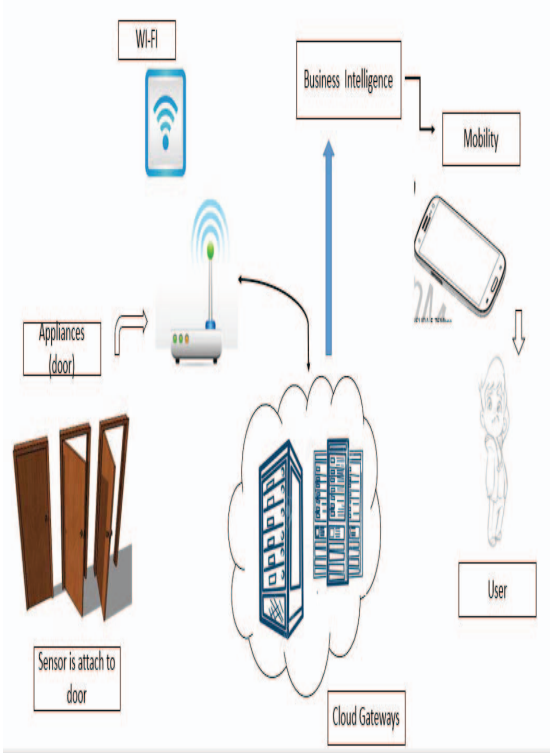

Fig.1.Basic Architecture

IV. COMMUNICATION TECHNOLOGIES

MQTT:

To transfer the sensor data through the Wi-Fi module to the cloud we need to use a communication protocol. In our project we are using MQTT(Message Queuing Telemetry Transport) protocol

GATEWAY:

Wi-Fi Direct does this by creating a connection between two devices using a protocol called Wi-Fi Protected Setup (WPS). The Wi-Fi direct helps to make a simple and easy gateway setup for communicating.

V. DATA STORAGE AND ANALYTICS

One of the most important outcomes of this project is the creation of a data which is never before seen or done and can use amount of data. The data stored and used intelligently for smart monitoring.

Artificial intelligence algorithm is used which is centrally placed or distributed. Cloud storage is being used to store the data. Using Wi-Fi gateway the data has been sent to cloud. Sensors are sending the data through the Ardiono board. Cloud is used to store the data which is being used by the program for further analysis.

VI. CONCLUSION AND FURTHER WORK

So,here I conclude with this project and will plan to put more devices for further use. If we get time we would love to increase more and more details and add some new features to our project/module.

Aim of this is achieved to make india a IOT based country ,to make people's lifestyle more comfortable and easy.

We have implemented our project by connecting it to all the devices and modules we have gathered.Later on,a further implementation will take place and provide the required output where various types of devices will connect for security purposes.

We used Gantt Chart and various more techniques for our project plan which is working according to the give plan and scheduling on time.

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