**IOT based Theft Premption and Security System**

**ABSTRACT**

Internet of things has been governing the electronics era with cloud services dominating the ever increasing electronics productsegment. Security and safety has always become a basic necessity for urban population. The paper proposes a novel security system based on Open source cloud server “things speak .com” and a low cost esp8266 Wi-Fi module. The project includes a PIR module which constantly monitoring the Home or Work space to be monitored .When the PIR module detects a intruder it sends a signal to the Atmega 328p microcontroller and the controller is connected to a Esp8266 wifi module and also to a alarm system. The System transmits an alert signal to the Open source cloud which provides a alert signal on the users mobile phone. The system employs a second esp8266 module which is programmed to act as a web server, which allows the user to activate or deactivate the security system by means of any device with internet. The system also employs a thumb print reader rs305 which controls the opening and the closing of a safety locker door. Thus the system uses esp8266 Wi-Fi module and atmega328p to control the security system from the users mobile phone by means of any device with a potential internet connection.

**INTRODUCTION**

The Internet of Things (IoT) is the physical network of things or objects—devices, buildings, vehicles, and other items—embedded with electronics, software, sensors, and network connectivity that enables these things or objects to collect and exchange data. An anti-theft system is any device or method used to prevent or deter the unauthorized appropriation of items considered valuable. Theft premption based on IOT provides a system. Internet of Things is expected to produce high degree of human to machine communication along with machine to machine communication. This project proposes the security system using IOT, which prevents theft in home, bank etc. The primary objective of this project is to reduce human work.Automation has always been a prime factor for security system. We aimed in the project is to design and implement a security system. System that offers controllability through a hand held mobile phone by means of IOT. The commands from a mobile phone are used to switch ON and OFF the alerting system.This project is implanted as prototype model.

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