**Smart Security System For Home Appliances Control Based On Internet Of Things**

**ABSTRACT**

Technology is always evolves. Home security is essential for occupants‘ convenience and protection. Security systems are being preferred over manual system. With the rapid increase in the number of users of internet over the past decade has made Internet a part and parcel of life, and IoTs is the latest and emerging internet technology. Home Appliances Control of Smart Security System using IoTs uses computers or mobile devices to control basic home functions and features through internet from anywhere around the world. This security system differs from other system by allowing the user to operate the system from anywhere around the world through internet connection. With the implementation of Arduino Mega microcontroller as an Embedded device, security system design was constructed with many sensors and web server database. The Arduino Ethernet shield is used to eliminate the use of a personal computer (PC). The motion sensing circuit, temperature and humidity sensing circuit, smoke or gas sensing circuit, door lock sensing circuit, light on/off circuit were designed to be connected with Arduino Mega microcontroller and Ethernet shield. This system can monitor the temperature and humidity values and the state of some sensors for intruder detection. It can also control the electric appliances like lights and door at home. Real time result was displayed on web server page via the internet.

# INTRODUCTION

Safety and security of any living or working place is one of the most primary concerns. The advancement of technology has increased the safety and security of people along with their belongings. One of the reasons for the rise of the smart home is the increasing risk of burglary and robbery and the busy lifestyle. The busy lifestyle of people is leading to the necessity of controlling the devices at home remotely and increasing the necessity of keeping surveillance over their homes. With advancement of internet technology lifestyle of every person is changing constantly. Internet of Things can be described as connecting everyday objects like smart phones, internet televisions, sensors and actuators to the internet where the devices are intelligently linked together to enable new forms of communication amongst people and themselves. The significant advancement of IoTs over the last couple of years has created a new dimension to the world of information and communication technologies. The IoTs technology is useful one for creating new concepts and wide development space for smart home security in order to provide intelligence, comfort and improved quality of life[2]. Therefore, home security is the most significant one for every homeowner either in an individual house or an apartment. To get the absolute peace of mind whether you are at first time home or out of home you must ensure that your home is installed with the perfect home security monitoring system. This home security system can be used to provide security system for residential, industrial, and for all domestic and commercial purposes using IoTs technique. Security systems are certain electronic devices which are used to detect intrusions in home or industry. The basic components of a home automation security system are motion detectors, temperature and humidity detectors, door lock detector and smoke detecto

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