# Foreword and Editorial

## International Journal of Smart Home

We are very happy to publish this issue of an International Journal of Smart Home by Science & Engineering Research Support soCiety.

This issue contains 3 articles. Achieving such a high quality of papers would have been impossible without the huge work that was undertaken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

In this paper "Multipurpose Illumination Control", a new multipurpose high power illumination control scheme that could create a foot step for energy conservation within power and infrastructural amalgam including institutional and industrial utilization is presented. A control scheme in conjunction with UJT firing circuit for controlling the conduction of SCR that acts as a power switch for high power luminary is designed and developed for three different modules under multipurpose illumination control and tested in laboratory for validation.

The main objective of this project "Microcontroller ATmega 328Pand GSM Based Advanced Home Security System" is to provide an advanced home security system using microcontroller ATmega 328P, GSM module and chloroform gas. Home security is very important nowadays as the possibilities of theft are increasing day by day. There has been much research done on various types of Home Security systems like Sensor based Home Security System, Face recognition, Finger print, Palm print and keypad activation for authentication and so on. Many technologies have been used to capture an unauthorized movement using CCTV cameras and motion cameras, but they were failing in stopping the theft from being happening. Overcoming these drawbacks, this project is used to catch the thief from escaping away. This system consists of ATmega 328P microcontroller, fingerprint sensor, DC gear motor, IR sensor, DC servo motor, buzzer, chloroform sprayer and GSM module. Whenever the IR sensor senses the thief entering into the room, the security system locks all the doors and windows. At the same time chloroform sprayer releases its gas inside the room and makes the thief goes into unconscious. Then the alarm present in the security system alert its surrounding peoples and also GSM module is used to communicate with the owner of the house and police station.

This paper "Multi Resident Complex Activity Recognition in Smart Home: A Literature Review" presents an overview of state of art of multi resident activity recognition in smart home environment. Generally wearable sensors as well as bespoke sensors are used for tracing the pattern of activity recognition among home dwellers in smart home scenario. Unlike wearable sensor, deployment of bespoke sensors embedded into the environment could be challenging to infer user activities. However, this type of sensors is selected due to human centric concerns, non-obtrusive, inviolate residents' privacy and pervasive concern. Moreover, as human activity is becoming complex when dealing with multi resident, affected that inference activity in smart home scenario are also becoming complicated. Hence, this paper highlight the review of intelligent of smart home including technology sensing involved, previous research on activity recognition area specifically multi resident complex activity recognition in the same environment.

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**Editor of the June Issue on**
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