## 1 Objectives

The fundamental objective of this project is to gain a more comprehensible knowledge about real-time applications of several electronic components along with a few sensing devices and also to acquire proper idea about interfacing a micro-controller with various electronic components.

Specific objectives of our project are as follows:

## 1. Automatic Light Switching based on Visitor Count

Switching the lights of a room off by counting the number of people in the room. If the visitors in a room are 0, the proposed system will switch the lights off after a minimum time period has elapsed.

## 2. Home Security System

This includes detection and hopefully prevention of possible fire accidents. Detect leakage of LPG gas and notify the user in his/her cell via. mobile networking.

## 3. Automated Trash bin

Design a system such that whenever a motion is detected within the range of the sensor it opens the lid of the trash can automatically and the lid remains open as long as the sensor detects motion.