

## **Description about SENSOR BASED ENERGY CONSERVATION:**

It is a sensor based internet controlled automation system. This project is designed and made by our student, the principle on which this system works is IOT. The fans and lights are controlled by the app “BLYNK” which is installed in the mobile phone. So, it can be operated in anywhere.

The working principle of this system is IOT based with BLYNK app. This automation can control everywhere through internet. It is running through a main controller of an automation called node MCU which is accessed and sending signals to the relay module and it is controlled through the BLYNK app installed through our smart phone which is connected with BLYNK server and sending commands to node MCU. It is more flexible to design and operate.

The hardware and software requirements which are used to design and implementation of this system are follows:

Hard ware materials:

1. Esp8266 node MCU board.
- 2.5v dpst relays
3. ZeroPCB (general PCB)
4. In4007 1amp diodes
- 5.817octocopulers
6. 1kohm resistors
7. BC547 transistors
8. dc-dc buck converter
4. 12v 2amp power supply

Software required:

1. Arduino software
2. BLYNK app for smart phone