# SMART GRID COMPATIBLE CONTROL OF APPLIANCES USING INTERNET PROTOCOL

In this day and age of modern technology, the concept of home automation is fast gaining popularity around the world. Additionally, the problem of conserving energy takes importance in a world of rapidly depleting natural resources. Our project aims to enable control and monitoring of appliances through the internet and additionally help in energy conservation by means of occupancy detection coupled with automatic switch off of appliances. This is also in compliance with the smart grid initiatives being taken in the country.

Our project uses webcam-based occupancy detection and an Android App as the interface for control of appliances through the internet. A digital wall switch was also designed to replace the traditional arrangement. The main component of the project is the Raspberry Pi which is used as the control centre. The appliances of the house can be controlled from anywhere across the world. Change of state of any appliance will be instantly reflected on all the devices connected to the house.

Using the Raspberry Pi and webcam decreases both the cost and size of implementing this project, and Android phones are almost ubiquitous. Hence it is possible to bring luxury and energy savings to many users, even in developing countries such as India.


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