Appliance & Door lock control using Android

ABSTRACT

Today we are living in 21st century where automation is playing important role in human life. Home automation allows us to control household appliances like light, door, fan, AC etc. It also provides home security and emergency system to be activated. Home automation not only refers to reduce human efforts but also energy efficiency and time saving. The main objective of home automation and security is to help handicapped and old aged people who will enable them to control home appliances and alert them in critical situations.

This project puts forwards the design of home automation and security system using Android. A single android phone or tablet is used with a Bluetooth module which will be connected to microcontroller. Home appliances are connected to the driver IC i.e communication is established between the Bluetooth module and Android mobile device or tablet. The home appliances are connected to the input/output ports of the embedded system board i.e. to microcontroller. We would develop an authentication to the system for authorized person to access home appliances. Magnetic lock is used to close or open the door for authorized user which is again connected to microcontroller through driver IC. The device with low cost and scalable to less modification to the core is much important. It presents the design and implementation of automation system that can monitor and control home appliances via android phone or tablet. For this home automation and security system we are targeting Android platform since it has huge market and open source.

BLOCK DIAGRAM:

Android Phone

Bluetooth Module

Microcontroller IC 89C52

Driver Circuit

Appliance 1

Appliance 2

Appliance 3

Magnetic Lock