IOT Home Automation

Abstract:

IOT or internet of things is an upcoming technology that allows us to control hardware devices through the internet. Here we propose to use IOT in order to control home appliances, thus automating modern homes through the internet. This system uses three loads to demonstrate as house lighting and a fan. Our user friendly interface allows a user to easily control these home appliances through the internet. For this system we use an AVR family microcontroller. This microcontroller is interfaced with a WIFI modem to get user commands over the internet. Also we have an LCD display to display system status. Relays are used to switch loads. The entire system is powered by a 12 V transformer. After receiving user commands over the internet, microcontroller processes these instructions to operate these loads accordingly and display the system status on an LCD display. Thus this system allows for efficient home automation over the internet.

Block Diagram:
Hardware Specifications
17. 8051 series Microcontroller
18. Wifi Modem
19. Diodes
20. Transformer
21. Relays
22. Voltage Regulator
23. Crystal
24. Lamps
25. LED
26. Relay Driver IC

Software Specifications
• Keil µVision IDE
• MC Programming Language: Embedded C