

Data Communication and Networking (CEN-222)-BSE 5B

PROJECT PROPOSAL

Project Title:

Home Monitoring Devices in Cisco

Name of Group members:

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Background of the project:

Many of us are away from our homes throughout the day whether be it for work purpose or running errands. Some of us usually spend a day out or even leave our house unaccounted for a couple of days leaving our electronic appliances without any monitoring or control. And due to human errors, we sometimes leave devices plugged into the power sockets and some devices need to work automatically depending on the environment. All devices need individual attention time to time to operate. If some devices not operated properly could consume electricity causing higher bills or damage/ harm the room environment. So, I propose to design an internet based home automation system that will enable us to remotely manage our appliances from anywhere around the world.

Platform/Environment and Software/Hardware Requirements

The Home Automation is a wireless home automation system that is supposed to be implemented in existing home environments, without any changes in the infrastructure. Home Automation let the user to control the home from his or her computer and assignments that should happen depending on time or other sensor readings such as light, temperature or sound from any device in the Home Automation network.

Concepts of DCN covered in the project

- ISP setting
- Configuring servers for remote device like laptop
- Connecting all home devices
- Home gateway with multiple smart-things connected
- IOE server that provide IOT functionalities
- IOT Functionalities to use as much as required

Functional Features

Home automation can help us:-

- by remotely monitoring and controlling our appliances.
- by improving home safety
- by alerting any emergency
- by saving and utilizing proper electricity according to the requirement.

Conclusion

Earlier home automation was used to be powered using supply and an Arduino chip, various sensors and relay module by creating a circuit that'd be autonomous to the change in the environment. Arduino is an open-source platform used for building electronics projects. Unlike most previous programmable circuit boards, the Arduino does not need a separate piece of hardware (called a programmer) in order to load new code onto the board.