Abstract

This paper presents a cost effective & user friendly approach to control and monitor home appliances such as light, fan, heater, motor over the computer network. The appliance are connected to the server machine and can be controlled by user web browser on a desktop PC, Laptop computer or PDA. The design is based on a stand alone embedded system board connected to a PC based server at home. The home appliances can be monitored and controlled through the controller board. The serial port used to transfer data from server computer to particular device to be controlled.

As we know Java developed for network application, Here in the proposed system Java programming technique used as software interface of the system & Access is used as back end of the system to store the obtained data from the sensors. The monitoring and control software is based on the combination of core Java, servlet & Assembly Language is used.
Design and Development of Network Based System for Controlling and Monitoring Home Appliances

We have developed a system, by which it is possible to properly control three devices (relays) motors (stepper & DC Motor) as well as provision for controlling & monitoring at temperature, humidity and water level detector etc. The designed system controls the most important required factors in home automation system such as flexibility easy to use, ability to feedback information to the client immediately.

Reference


Index Terms
Computer Science Network Applications

Key words
Controller board
Servlet
Home Automation

Architecture