

DESIGN AND IMPLEMENTATION OF EMBEDDED ETHERNET INTERFACE USING ARM

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Abstract

Computer communication systems and especially the Internet are playing an important role in the daily life. Using this knowledge many applications are imaginable. Home automation, utility meters, appliances, security systems, card readers, and building controls, which can be easily, controlled using either special front-end software or a standard internet browser client from anywhere around the world. The aim of the project is to control the devices or equipment's from the remote place through a web page. Here all the devices, which are to be controlled, are connected to the relays (acts as switches) on the web server circuit board. The web-server circuit is connected to LAN or Internet. The client or a person on the PC is also connected to same LAN or Internet. By typing the IP-address of LAN on the web browser, the user gets a web page on screen; this page contains all the information about the status of the devices. The user can also control the devices interfaced to the web server by pressing a button provided in the web page.

Keywords: ARM, Ethernet interface, LAN, TCP/IP protocol, Embedded C.