Abstract

The aim of this paper is to developed a low-cost Arduino based automatic pot that performs the following functions: (i) monitor plant's living conditions, such as temperature, humidity, environment, and soil moisture, (ii) send plant’s collected data via the Internet to a properly configured webpage so the user can be able to remotely monitor them, (iii) automatic control plant soil’s humidity to activate automatic watering when humidity levels reach minimum set values, (iv) remote and/or manual control of the plant’s lighting and watering. Project’s main purpose is to absolve the user from his daily employment for the plant’s maintenance and strengthen plant living conditions for its optimal growth while keeping equipment cost at a minimum. An Arduino Mega 2560 is selected to operate as a plant pot’s data logger, an automation control unit and a web server [1], [2]. An Ethernet shield attached on it provides the necessary hardware to connect the microcontroller (MCU) to the Internet. Arduino webpage’s code and data acquisition are stored in a micro SD card attached to shields' card slot. Appropriate temperature and humidity sensors connected to Arduino used for data acquisition
An Automated Plant Pot Controlled via the Internet based on Arduino Applications

to later forwarded as XML files to the webpage.

References


Index Terms

Computer Science    Automated Systems

Keywords

Arduino, Automated pot, IoT, Internet of Things, Internet