

ABSTRACT

Plants are plants that are cultivated so that benefits can be taken. Plants as one living creature are very useful for fulfilling human needs. The development of technology, especially computers, has progressed so far in every area of life. Almost all activities of human activities use modern technology, ranging from the world of industry, households and even agriculture. Microcontroller as one of the technological developments as an automatic system control. That is expected to facilitate every activity that you want to do. And the web as a means of communication that is very advanced in the current telecommunications era, is expected to provide access to services that are unlimited in its use. The tool built is expected to monitor the state of the plant, and will display data on the website that is already available. This automatic plant sprinkler design uses several main components as input, control and output. For input using the Soil Moisture YL-69 humidity sensor, Water Temperature sensor, Ultrasonic sensor. The main control uses the MCU Node microcontroller. And the main output uses the Pro servo motor and the Web as a display of data results from the prototype. Testing each of these components uses a different method according to the needs of the components. The results of network quality or QoS from this prototype is done by analyzing two parameters, namely delay and throughput, the results of the research measurements obtained the lowest total delay parameters 22,741 ms and the highest 65,573, while for the lowest throughput parameters 1500 ms and the highest 11000 ms. The process of taking network quality data using Wireshark software.

Key Words : Sprinkler, Node MCU, Microcontroller, web, QoS.