

## **ABSTRACT**

*Era of technology development that happened so fast now does out possibility of human still facing a few problems. like does a plant treatment sometime feels not efficient and effective so that make a plant too dry and died. On the other side, we can take advantage from some tools or device from technology development for this problem-solving like using a sensor and mini computer Raspberry Pi which is integrating with some other hardware for created automatic prototype plant watering. With using temperature sensor (DS18B20) and soil moisture sensor then prototype will give water supply more effective periodically on plant according temperature parameter, soil moisture parameter and times parameter that was fixed. Parameters set includes on over temperature 30°C, soil moisture under 40% acquired from soil moisture sensor calibration, and times parameter that are only used for doing intensive watering that is at clock 08.00, 12.00, and 16.00 and not for main refrence. Prototype will also sending data report result measurement of temperature and soil moisture on website and can we access through a browser by writing Raspberry IP address from celluler or computer device use network protocol 802.11ac. Purpose from sent a data so as we can monitored soil moisture and air temperature when growth process of plant happened with counting of average value from air temperature and moisture on soil. From QoS network measurement when prototype do it transmittal data getting a throughput and delay value as big as 38967,85 bps and 42043 ms, whereas packet loss value itself have a value 0% because nothing parameter used in terms of network speed and distance when prototype doing transmittal data. Prototype in good function with giving analyze of value from soil moisture as big as 86% and 31.101°C temperature value in one week (7 days).*

**Keywords:** *Prototype, Raspberry Pi, Sensor, Plant, Network Protocol 802.11ac*