ABSTRACT

Urinating is a daily human activity when the bladder is full. Mineral water consumption and activities performed can affect the frequency of urination. If the color and smell of urine is different from usual, this can be a sign that the body is not in good condition. A healthy person will produce 0.5-1.5 cc of urine per Kg of body weight.

The process of monitoring urine output is done with the naked eye, namely by looking at the volume of urine contained in the urine bag, so the results are less objective. In this final project, a monitoring system is created that uses Internet of Things (IoT) technology to calculate in real time the volume of urine released by users. The reading sensor connected to the flowmeter via ESP8266 sends data to the ThingSpeak platform which is accessed by the user's smartphone or computer to find out whether the user is experiencing urination disorders such as Polyuria.

The results of the realization of the monitoring system made produce a fairly small percentage of error by making measuring cups and digital scales as a comparison of the amount of urine released, with an average error value of 0.7025%. While the results of QoS testing using the wireshark application produce good category values based on ITU-T standards, namely with a packet loss value of 0% - 0.3% and a delay value of 33.5ms - 42.3ms.

Keywords: *ESP8266, ThingSpeak, Urine Volume, Internet of Things (IoT), Wireshark*