

ABSTRACT

Wireless body area network (WBAN) or a wireless network in the body area is formed from several sensors that are worn or implanted in the body area so that several WBAN connections are formed. [1]. Scheduling applied in this experiment is based on RSSI priority.

WBAN designed in this study uses yahoo gait cycle detection to detect Period (T_p) and Phase in moving object conditions which are expected to be a solution in simple scheduling using the output of T_p from the first experiment as the latest delay (t).

The final result of this study compares the line of sight and non line of sight experiments as well as the second experiment with an experimental scheme when walking by limiting the input of sample X , walking without limiting the input of sample X , limbs in a standing condition and the tool is not used. The input for the second experiment is based on the output parameters obtained from the first experiment, such as T_p as the new delay(t), RSSI as the priority of the sample at the time of delivery, the sample limit of X . RSSI signal strength at each sensor node.

In the LOS and NLOS experiments, it was found that the attenuation of the NLOS experiment and the distance between the sensor node and the sink node had an effect on the T_p and Phase results when compared to the LOS experiment. And with the MPU6050 sensor, it can also find out the condition of the user based on the x sample obtained.

Keywords: WBAN, Gait Cycle Detection Algorithm, MQTT, sensor MPU6050