

## ABSTRACT

The need for water for bathing is important, especially hot water. Regarding hot water, currently many technologies have been created to obtain hot water, such as water heating technology using solar panels and water heating using induction. Using electricity for water heaters is relatively expensive, especially since human errors often occur, such as forgetting to turn the device off. Several innovations have been developed to control water heaters remotely, such as an automatic cut off system with a thermocouple sensor, the use of a mobile app for monitoring the DS18B20 sensor as a cut off system, an automatic cut off system with a DHT11 sensor, the use of an Android App for monitoring automatic water heaters, and application of fuzzy logic to perform automatic cut off. No one has yet used remote control technology effectively and efficiently, and the control mode can be changed from automatic to normal switch. For this reason, a controller system was created that can remotely control automatic water heaters using a website via the internet network. Control on this system consists of two default modes, namely manual and automatic. Manual mode is a mode where the system only turns on or off according to instructions from the website, whereas in automatic mode the system turns on or off automatically using sensors based on setpoints. The accuracy of the sensor used has a value above 98% with Quality of Service (QoS) test results, delay is categorized as very good with an average value obtained of 37.42 ms. Then Throughput is categorized as very good with an average value of 3.64 Mbps, and packet loss is categorized as quite good with an average value of 21.214%.

Keywords: Water Heater, Water Heater Controller, Temperature Sensor, Website, Quality of Service.