THE PROTOTYPE OF THE VOLTAGE, CURRENT, ENERGY, AND THE TORSION GATE MONITORING SYSTEM OF THE TRAIN IN REAL TIME BASED ON IOT

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ABSTRACT

The train torsion gate supports the rail travelling safety. Delay torsion gate handling may cause accidents. These problems underlie the prototype in the form of an IoT-based Realtime Monitoring System for Train Voltage, Current, Power, and Torque. There are 4 parameters displayed in this monitoring, namely voltage, current, power and torque. To monitor these parameters, an INA219 sensor is needed to read voltage, current, and power. It also needs WeMos D1R1 as a data processor obtained from reading and sending it to the IoT platform. The readings obtained are displayed on OLED 0.96 ”and web monitoring. From the test results obtained through INA219, an average current error of 2.67% and an average voltage error of 3.68%. From the web monitoring test with the serial monitor it has been successfully read, and notification when an undervoltage occurs can be sent. Web monitoring displays realtime reads, last reads, and datalogger. The datalogger from web monitoring can be downloaded in excel format. Web monitoring can also be accessed at any time as long as it is connected to the internet network.

Keywords: *Railway Doorstop, Internet of Things*