

PROTOTYPE DESIGN OF 1 PHASE MONITORING AND MOTOR PROTECTION SYSTEM USING IOT-BASED CURRENT AND TEMPERATURE SENSORS

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ABSTRACT

The internet of things is a technology that requires the operation and cooperation of various types of hardware via the internet network. This is used to create a driver that functions to monitor and protect single phase motors where these motors are very often damaged due to continuous use, resulting in overheats and overloads. This 1 phase motor monitoring and protection driver uses current and temperature sensors, namely the DS18B30 and also the PZEM-004T and can be controlled remotely using the ESP8266 microcontroller. The results of the DS18B20 temperature sensor reading research have an accuracy rate of 98.43%, while the PZEM-004T current sensor reading accuracy is 98.28%. Based on the level of accuracy that has been tested, the creation of this monitoring and protection driver can work well to protect single-phase motors from damage

Keywords : *Internet of Things, Microcontroller, PZEM-004T, DS18B20, 1 Phase Motor*