VOLTAGE DROP MONITORING SYSTEMS ON LOW VOLTAGE DISTRIBUTION NETWORKS USING THE GSM MODEM

ABSTRACT

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Monitoring of voltage drop at the end of low voltage distribution systems plays an important role to maintain the quality of service for the customers. Voltage drop below the standard in a long period of time disturbs the performance of customers' electrical equipments. Currently, PLN does not have a system which is able to monitor voltage drop at the end side of low voltage network. Voltage drop is only monitored on the transformer side, by SIMONTRA. Whereas the voltage at the end is not observed. Therefore, monitoring the quality of the voltage drop tool at the end side is needed. This tool also can detect the voltage drop below standard.

In this final project, it is designed a voltage drop monitoring system. The data from the voltage sensor is processed by the microcontroller, and transmitted by GSM modem to the computer of PLN as the server.

The experiment result sends measurement data every an hour for normally condition. When the voltage is detected less than 198 V for 20 minutes or more, this tool sends SMS to PLN's computer and the warning indicator is appeared.

Key words: Monitoring, Voltage drop, Microcontroller, GSM Modem.
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