

SCADA APPLICATION DESIGN USING IGNITION FOR PLANT MONITORING AND CONTROL BASED ON OMRON CP2E PLC

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ABSTRACT

In modern industry, automatic monitoring and control are essential to ensure efficient, consistent and safe operations in a factory or plant environment. SCADA (Supervisory Control and Data Acquisition) is an ideal solution to integrate automatic control systems and monitor hardware such as PLCs. This study created a SCADA system for plant monitoring and control which is divided into two plants, namely the first plant VSD monitoring and control system, and the second plant pneumatic control system. In the sensor monitoring test from three trials, an error of 1.07% was obtained. The VSD control system tested has four modes, namely mode 0 produces a voltage of 0 V with a frequency of 0 Hz and a maximum mode produces a voltage of 5.8 V with a frequency of 50.00 Hz. In the pneumatic test, it was carried out five times in two modes, namely auto and manual, with all successful results. .

Keywords: SCADA, monitoring, control, plant