

Designing Of SCADA Trainer And Implementation Of PID Controller



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ABSTRACT

The objective of this project is to design a trainer for university students, office employees etc for getting knowledge and experiment based knowledge about SCADA systems. We also implemented AIR BOOSTER Plant on our trainer to show the practical example that how SCADA works and how it may be applied to real world systems. For this purpose, we used the most useful equipments of almost every industry and interfaced them all and also controlled and monitored them remotely and also with Android Cell Phone using RFB protocol. We used PLC, HMI , VFD and Energy Analyzer in our project and many other small equipments. Using this trainer we can provide twenty to twenty five experiments to the engineering students specially on Automated systems. We Used KINCO, ALPHA and SFERE brands. All are Chinese brands and have a good reputation in national and international markete. The programming of PLC is done on KINCO BUILDER software and HMI Programming is done on KINCO HMIWARE. Both the KINCO HMIWARE and KINCO BUILDER is copy cat of SIEMENS and has a perfect output like SIEMENS. The Energy Analyzer is also interfaced with Human Machine Interface and also communicate with Android Cell Phone and with computer systems as well. There is also a control section which allow us to remotely ON/OFF the motors. The Air Booster Plant's working is that when pressure of gas goes below than our required pressure then the plant will automatically on and generate a particular frequency to get the required pressure. And when the system meets the required pressure the it will hold that frequency and system will be maintained and when disturbance occurs then the plant will boost/decrease its pressure according to the situation.

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