

Mini SCADA

Product Highlights

Objectives :

- To setup a demonstration module of the distribution system automation and control unit.
- To teach the student the operation of the distribution system automation and control.
- To help the students to conduct the energy audit in terms of total energy sent from the main receiving station to the energy received at different buildings. The energy audit in different building can be done to account for the energy consumption at each building.
- To help the students to conduct project work by developing programs for load research, demand side management, energy audit, fault location and feeder restoration schemes.
- To help the students to understand different means of communication, viz., optic fiber, dial up - telephone line, dedicated wire, GSM - mobile, etc.

Project Details :

The Feeder Control Unit (FCU) is placed at the transformer secondary, at each LT outgoing feeder from the main distribution station and at all incoming feeders at each building. FCU consists of 3 phase MCCB with built in protection, 3 phase contactor for remote operation, control circuit, energy monitoring unit to measure the three phase power, voltage, current and energy. FCU has the communication unit and is connected to the central SCADA system for the remote monitoring and control. SCADA system computer consists of Man Machine Interface (MMI) software for user interaction, demand side and feeder management software tools for decision making and communication unit to talk to FCUs.

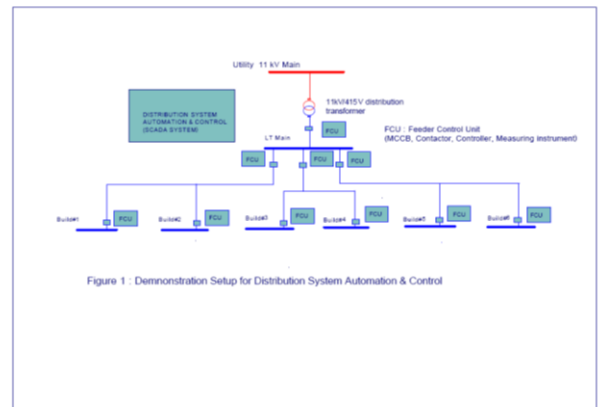
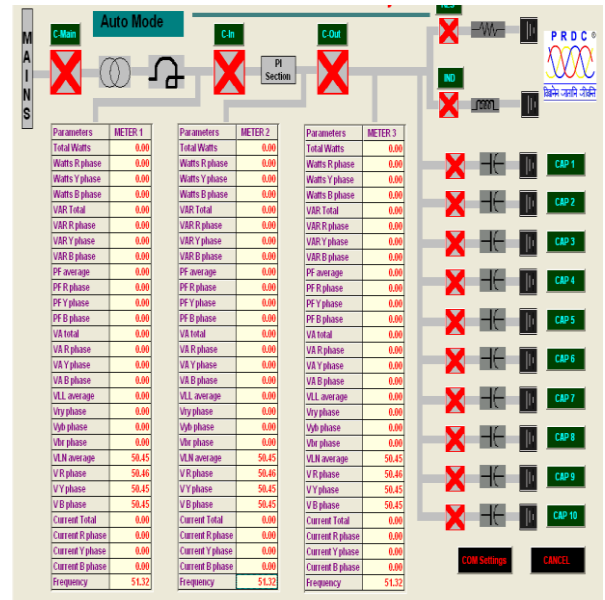


Figure 1 : Demonstration Setup for Distribution System Automation & Control

**Conceptualized by Industry Experts
for academic Institutions**

In the electrical engineering stream, the aspects of power system analysis and operation and control are imparted both in UG and PG level. Most of the experiments are carried out with the software simulation. However the student cannot visualize the various physical aspects of operation and control using SCADA system. This model is proposed to give the students insight details of a SCADA system in real life condition.