

SMART CHEMICAL PLANT

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Abstract - Supervisory control and data acquisition (SCADA) system can be used in the chemical plants. The demand for the household products are increasing with the growth in the population. SCADA systems can be used to automate the manufacturing industries. The SCADA system has a central control unit and the remote terminal unit. The central control unit is handled by the plant operator. The remote terminal unit is attached with the field devices. The SCADA actuators are connected with the remote terminal unit of the SCADA system. A communication link can be used to connect the central control unit and the remote terminal unit of the SCADA system. The chemical plants can be efficiently operated using the SCADA system. Lot of developed and developing countries are using SCADA system to automate their industries. The efficiency, capacity, and throughput of the manufacturing plant can be increased by the SCADA system. Sever client programing can be used to develop the SCADA system. The system contains one single central control unit and multiple remote terminal units. The central control unit and the remote terminal units are connected with communication protocol via wide area networks. Genesys protocol is used to transmit messages between central control unit and the remote terminal units.

Keywords: SCADA; Central Control Unit; Remote Terminal Unit; Emulator; Genesys.