

## ABSTRACT

*Along with the world era that becomes more sophisticated, technology is also growing rapidly. The traditional equipment that once was used in the world of industries, is now slowly changed by the more sophisticated equipment. The positive results of this change are increasingly ensuring the security and safety of workers. Sophisticated technology allows operator to control all industrial activity remotely. This can be done by applying an integrated automation down to the plants. An Integrated automation system means to control and monitor the process using centralized system. The implementation of this automation system is about to make an integration of PLC program as a controller for a plant. A mini-plant that is representing the real conditions of the plant can be made to simulate this automation system. The design of integrated automation system aims to ensure that all production activities in the plant are running and integrated with each other as desired. In order to make controlling and monitoring can be done remotely, a SCADA (Supervisory Control and Data Acquisition) system must be designed. The SCADA system performs automatic data reporting accurately even in very complex plant. Moreover with technology that had evolved now, SCADA system can be made in a web based form so the controlling and monitoring process can be done from anywhere. Web based SCADA can be built using Wonderware Information Server, a feature of Wonderware Intouch.*

*This research resulted a web-based SCADA system that is equipped with a recipe manager and alarm management system. Recipe manager is used for storing recipes / components / elements / materials production in an integrated system with SCADA, so inputting recipes / components / elements / materials only done once and for further sistemproduksi will run automatically. Alarm management systems provide real-time alerts when an error occurs on a production system.*

*Keywords-- Automations, Chemical Milling, Mini Plant, PLC, Integrations, SCADA, website, recipe, alarm*