## **ABSTRACT**

Along with the development of technology that is increasingly rising, the competition in the industry became more stringent. In the competitive industry must compete to advance the company to become a company that can compete in the global competition. One of the global industry efforts to advance the company is to implement the automation system. By applying the company's automation system performance can be improved because of the system which has been automated so that the work to be effective and efficient and can reduce the errors so that the company's global competitiveness can be improved by itself. But now not only just about the only implement automation systems, the company also wants to be its new innovation controlling and monitoring can be done remotely and online. One way to do that is by controlling and monitoring using SCADA systems. SCADA systems are connected to the PLC as the brain of the system of the stretcher, but the connection cable for general use was made of an innovation system that diigunakan SCADA system using wireless transmission medium. In addition, the company requires a reporting of the results of processes in a company and periodically automatically searches for the company to constantly monitor the performance of the company.

In designing SCADA in the process of making milk pasteurization in PT. XYZ uses the Active Factory reporting to automatically and periodically, then the results of the reporting will be displayed in Microsoft Word and Microsoft Excel so that companies can immediately see the results of the report without having to create your own reports. The report can also be displayed in real time directly on the HMI by utilizing Generic Data Grid. Before the implementation of the system on a real industrial plant simulator will be made to the process of making the pasteurized milk which consists of three work stations that work station cooking and mixing, bottling and packaging.

Based on the research conducted can be concluded that the design of SCADA in the process of making milk pasteurization in PT. XYZ has managed so as to provide a solution to the problems faced. By using the Active Factory and Generic Data Grid can facilitate the management of the company to generate the data process of milk pasteurization takes place both real time and historical in Microsoft word and excel.

Keywords: SCADA, HMI, ActiveFactory, Generic Data Grid