ABSTRACT

With increasing tinghtly of the competition in the industry, we need a system that can support the industry's performance towards more optimal systems. Automated industrial systems successfully introduced as a system that can improve the performance of the industry, with the development of information technology more rapidly over time. In the current era the exchange of data from one media to the other media has can easily be done. One technology that is widely used for today's communication is wireless technology. Utilization of wireless communications technology combined with industrial automation and SCADA systems can be used to support the optimization of the performance of the industry.

Automation system using a wireless communication network can be applied in various industries. One of them in the production process of Arm Stay K25 RH, conducted three work stations, namely ex-turning, chamfer-drill and threading the respective still working separately and controlled by one worker at each work station. This can reduce the speed of production because the process does not take place simultaneously. Besides the accurate recording of the actual data needed for analysis and decision making management.

A SCADA and automation system using wireless communication network can be utilized for the process, monitoring and control of production can be done in real time and integrated. The design of the system is done using a Programmable Logic Controller (PLC), which is implemented in the process of ex-turning work stations, chamfer-drill and threading.

Keywords: Automation, Wireless Networks, Programmable Logic Controller, SCADA