ABSTRACT

Wireless Sensor Network (WSN) is a wireless device that can be monitoring with simultant and broadcast a information from some device in their range environment, as example teperature, voice, electromagnetic wave, pressure, and move. The application Wireless Sensor Network in many function, but in specific for communication tracking and controlling. One of the application is Wireless Sensor Network in PLC communication.

In design and implementation hardware, all reference use datashet each device. The device in this final project ZIG100, Mikrokontroller ATMega128 and some device.

The result of this final project, it has been implemented a wireless sensor network with PLC (Programmable Logic Controller). This final project uses ZIG100 as Wireless Sensor Network device. PLC (Programmable Logic Controller) can communicate with other PLC using Wireless Sensor Network. The PLC which has been designed and implemented in this final project is compatible to be used in an otomation system which need a not too sensitive instruction execution respons and a relatively low logic level transition speed.

Kaeyword: Wireless Sensor Network, Programmable Logic Controller, ZIG100