

## ABSTRACT

Telephone exchange is known as an expensive telecommunication core, so that it should be carefully maintain to keep its optimum work. Because of that reason, the temperature of the telephone exchange should be regularly checked. There are so many telephone exchanges in an exchange room, so that it is going to be easier if it is a computing technology; also keep the human resources efficient.

The telephone exchange monitoring equipment with PC server is divided into two parts, hardware and software. The electronics circuit for detecting and acquired signals temperature sensor until it is ready to proceed by PC server is the hardware; while the software is used as a driver controlled the interconnection between hardware and PC server.

This final project specifically discuss about design and realization of remote temperature monitoring for telephone exchange using PC server by multipoint communications RS-485 and MCS-51 controlling system. The monitoring process including the display of temperature measure saved on the data base, so that it could be used as telephone exchange temperature history. By the existing data on PC server database, those data could be remotely monitored using web browser. RS-485 communication system is a full duplex multipoint communication system which functioning as transceiver channel between hardware and PC server, ADC control, and addressing to hardware; while MCS-51 control system functioning as a controller.

The purpose of this final project is to produce an output of remote temperature telephone exchange monitoring using PC server and client; an electronic circuit connected to PC server complete with its compatible software application used as circuit inter connector on the PC server which is able to displays client monitoring with PC in real time, historic, and updated is made, so that it is easily monitored with browsing facility. Software can to printing with direct database information, can to all hardware interaction, and setting to temperature dynamic display at website.