

## ABSTRACT

Monitoring is the work that carried out regularly and continuously, and monitoring the temperature is very important for device that vulnerable from changes of temperature. Server will generate heat when working, the acceleration of the temperature rise will be very high with closed room condition. Therefore, all the room where the server is located is equipped with cooler. However, that room temperature stability can't be guaranteed. Because of the cooler in the room are electronic device that have a limited lifespan.

Device based on microcontroller designed with master-slave method designed in every room as a sub-control, and then sends the data to the main control that is connected to a computer. The data have been obtained by the computer will be displayed through software that is designed. Sub-kontrol dengan kontrol utama berkomunikasi melalui serial RS485 sedangkan, kontrol utama dengan komputer menggunakan serial RS232. Untuk perangkat lunak menggunakan program antarmuka seperti Delphi dan Visual Basic dan *database* menggunakan MySql. Data yang telah tersimpan dalam *database* dapat diunggah ke media intranet. Sub-control and main control comunicated sing a serial RS485, while main control and computer using RS232. The software designed using interface programs such as Delphi and Visual Basic and database using MySQL.

The data from the experiment result is match with LM35 sensor characteristic, and data can be sent for long distance with RS485 communication media. Main control can take and the data that already stored in the database displayed to an intranet media. When the temperature reach 30°C or over it fan will working to help reduce the temperature.

**Key words:** interfaces, databases, intranets, computer, master, microcontroller, RS232, RS485, sensor, slave, temperature.