

## ABSTRACT

Zuttharez (08320060007)

### IMPLEMENTATION OF GPRS TECHNOLOGY ON WEATHER MONITORING STATION PROTOTYPE

(xiv + 58 pages; 34 figures; 5 tables; 2 appendixes)

The advance in technology can ease weather monitoring effort by implementing available technologies such as the GMS/GPRS network. The previous weather station prototype was able to send weather information using short message service (SMS). However the operational cost of the weather monitoring station can be significantly reduced by replacing the SMS technology with the GPRS technology.

In this final project, the previous SMS-based weather monitoring station prototype is improved into a GPRS-based prototype. The proposed weather station prototype can collect temperature and pressure information, and then send the data to a web server through the GPRS network and the internet. The weather data can be accessed by many people around the world from a website.

The evaluations showed that the weather station prototype can collect data, connect to the internet through a GPRS-capable modem, and send the data to the web server. The data can be successfully transmitted to the internet from the modem in a relatively short amount of time from 3.4 seconds to 5.6 seconds, depending on the signal quality at the modem. The total expense in a month using GPRS service is 12.320 rupiah. It is much cheaper rather than using SMS service that cost 2.592.000 rupiah. This is because GPRS service calculates cost based on the total volume of data transmission, not based on the number of messages.

Reference: 13 (2004-2008)

