

## **ABSTRACT**

Radio Frequency Identification (RFID) is an identification technology based on radio wave. The technology able to identify many objects simultaneously without direct contact needed. As we know, STT Telkom has using RFID tag as student identification card since 2005/2006 academic year. Till now, the using of student identification card still strict just for identification card and yet optimized on its using equal with its ability. For that reason, we design the student presence list system using the identification card of STT Telkom in this Final Assignment.

The system was designed covering write application on tag, read application on tag, data authentication and presence data update on database. RFID reader/writer that was used is ACR 120. The application uses Borland Delphi 7 as programming language and MySQL 5.0 as database server.

We test the system using 2 computers (client-server) connected with STT Telkom computer network. Database server was placed on rooster and the client was placed on A-201 building. From the testing result known the read function success level and the data update from reader to database approximate 99,44 % with error rate 0,55 %. The authentication success level is 100 %, write function success level is 100 %. Mean delay for read and presence update data process is 2,001 seconds for 715 trial times. Time needed for filling student presence list if there were 65 students is about 5,41775 minutes.

Wish if the system is being implemented, could make the filling process of students presence list would be easier and efficient compare with the current system