

ABSTRACT

The development of technology in today's era has become more advanced, where at this time society will live side by side with technology, this technological progress is applied in industry, companies, schools and offices, one example of technology that has been applied in schools is RFID-based Attendance.

Attendance is an important factor for school attendance data, information related to attendance data at this school can determine grades in several schools, from several schools there are still those that use manual attendance, but for this case, SMK Telkom Bandung has used attendance using RFID, therefore my final project developed an attendance system that already exists in the school.

In this Final Project, an RFID-based attendance device will be designed and uses the ESP-NOW protocol with the addition of a Matrix LED Display as an interface. This final project will focus on the communication protocol between esps that use ESP-NOW technology. The results of this final project research use the ESP-NOW protocol and Matrix LED as a display, this research can be 100-150m from between ESP-RFID and ESP-LED. An additional feature of this Final Project is a spreadsheet database. Then this final project can recognize 6 cards that have been registered. I hope that by using this attendance system it can make it easier to do attendance at SMK Telkom Bandung.

Keywords: Technology, Presence, RFID, ESP-NOW, SMK Telkom Bandung, LED Matriks.