ABSTRACT

Currently, Student Identity Card (KTM) owned IT Telkom students can not yet maximized its use. One service that allows to maximize the use of KTM is used to open the locker contained in IT Telkom Learning Center. The current system is if the student will use one of the existing lockers, students need to do a scan KTM using bar code reading system manually. This causes the process took too long when visitors a lot. In addition, service personnel must always be in place locker key retrieval service.

In this final project proposal, the authors apply the RFID (Radio Frequency Identification) technology ID-12 series and ATmega 8535 microcontrollers to simplify the process of storing luggage in the Learning Center student IT Telkom. Later, in any KTM will have a chip that will be read by the RFID reader when brought near to an RFID reader integrated with a server. RFID (Radio Frequency Identification) reader located near the lockers will capture radio frequency signals emitted by the chip, and RFID (Radio Frequency Identification) reader sends the information on the chip to the microcontroller. Furthermore, the microcontroller will open an empty locker locker with the smallest number. Furthermore, to reopen the locker in question, as in the process of opening, KTM brought near the RFID reader. Next locker is considered empty. Locker number that can be used will be displayed through the LCD.

Therefore, the final project is expected to result in a locker that allows the service in the deposit of goods with RFID-based technology (Radio Frequency Identification) and microcontroller. Manual process with barcode scanning is no longer needed. Thus, students do not need to go to the table but directly toward the locker service is available.

Keywords: *RFID, microcontroller, lockers, LCD*