

## ABSTRACT

RFID or Radio Frequency Identification, is a method which is can be used to store or receive data in long-range distance which use a device called RFID tag or transponder. In an outline, an RFID system maintain of three main parts, i.e. tag, reader, and database. Concisely, the mechanism which happened in an RFID system is that a radio frequency reader doing scanning towards data which stored inside tag, then sending the information to a database which will store the data from inside the tag.

In the application, RFID reader use as a detector for a Citizenship Identification formed from RFID tag. RFID used as a citizen detector which pass over certain city. The citizen will recorded as a provisional citizen of the city. With this method, then a citizenship problem and security of a region can be solved. That data arrangement will be easier with a website based application use a database. Citizen also get an extra facility formed a notification via SMS if do a town flitting.

Result that acquired from this final project were RFID can functioned as a detector component in a citizen detector system which pass over certain town with RFID as a Citizen ID which detected with reading error level was 0%. With using an RFID reader ACR122U and RFID tag MiFare Classic 1K, acquired qualification for using the system work well, i.e. object (tag) velocity must be under 2,25 km/jam, maximum spacing between tag and reader was 6 cm at an optimum reading angel  $0^\circ$ , amount of tag in a time was one object (tag), and allowed barrier between tag and reader was 5 cm. Else, the maximal time that needed by system to read data was 16,5 sec and maximal time until the sending SMS process was 25,6 sec, with average time from the tag detected till citizen receive an SMS was 17,6 sec.

Keywords : RFID, Citizen ID, Website