

ABSTRACT

Every single years the number of criminality becoming increasing. The caused one of them is the security of house / building minimally such usage of mechanic key. On the other side, GSM/CDMA SIM Card coming from various provider in Indonesia, around 15% inactive again and useless. Though making one chip card phone (SIM Card) is not easy to and expensive. Needing many calculation in determination of card number so that can be synchronized with the other card number.

On this final task is made electronic key by using inactive SIM Card again as key/opener. This tool is consisted of three major block, that is : shares of interface of reader card, part of microcontroller (ATMEL 89S52) and computer. SIM card reader for reading ATR (answer to reset) which is produced by SIM card uniquely. Computer undertake as data base of user. Microcontroller itself functions as interface of SIM Card reader and computer and as I/O such LCD, keypad, mechanic key and *Speaker*.

The outcome of this final task is not only as electric key but also function as presence record tool because there is a history content at this program. After doing the measurement of each block, this system appropriate with voltage and signal standard. The performance raises 97%, it means in 100 experiments there are 7 errors.

Keyword: SIM Card reader, Microcontroller, CPU