

## **ABSTRACT**

*Nowadays, personal data is important for some uses, whether for payment, medical records and attendance. Personal data is stored in several storage media. A kartu pintar is a storage medium that store personal data which is easy and light to carry and have functions like a microcomputer that is useful to do reading, writing and computing.*

*Generally, the writing and reading system of the kartu pintars is through the exchange of messages between the off-card applications with the kartu pintar, in form of Application Protocol Data Unit (APDU). Steps in making this program includes the study of literature, analysis and system design, system implementation and data collection, data analysis and conclusions.*

*The purpose or the results of this thesis is to contained the data on the kartu pintar so that it can be read and displayed in Single Board Computer (SBC) via LCD, such as personal data of students includes the Student Number, Name, University and Picture, also to know the long process of appearance of these data. From the tests and results that have been tested the data contained can be displayed with data size 19 byte, 29 bytes, 36 bytes and 4.2 Kbyte and the process to display data does not require a long time. Such a data display of 19 bytes takes 0.31229s.*

*Keywords: Kartu pintar, Single Board Computer ( SBC ), Application Protocol Data Unit ( APDU), Graphical User Interface (GUI).*