

ABSTRACT

The role of smart card application in life is important enough today. In our wallet, there are smart cards, such as ATM card, ID-card, e-Money, and student card which used every day. The smart campus use smart card as one of its application. The most important of designing smart card system is data security. An example of data security in smart card is secure access module (SAM).

SAM is a module with function to store keys and criptography functions which used to authentication process between smart card and terminal. SAM ensure the data in smart card keep safe when data transaction process between smart card and terminal. There are two types of SAM, virtual SAM and physic SAM.

In this final project, virtual SAM implemented as security system in read and write application which can developed as presence system in smart campus. In testing, the security system tried to authenticate with other systems in many case of scenarios. Results obtained that the security system can authenticate the smart card only in its system although in different devices.

Keywords: Security, Smart Card, SAM.