## **ABSTRACT**

## THE IMPLEMENTATION OF ONE TIME PASSWORD AUTHENTICATION METHODS (OTPA) BASED ON MOBILE TOKEN AT THE EXAM ONLINE APPLICATION (Case Study: DEPARTMENT OF MATHEMATICS FMIPA UNILA)

## By

## **ERWIN CESAR SIMAMORA**

Security becomes one of important aspect that must be considered in online exam information systems. When starting the test, each user must login by entering a password. But the case that has been applied is the using of the same password (static password). It may cause the password vulnerable to network sniffers make authentication information piracy. One time password authentication methods (OTPA) is made to resolve the issue. The principle of OTPA is when a password has been used, then the same password can not be used for a second time. One time password generated always changing every time it raised so that it becomes harder to pirate authentication session at any time. This research will develop an application using the Mobile Token J2ME programming language and will develop online exam application for Mathematics Department University of Lampung by modifying the authentication module. So the results of this study is expected to reduce even it may eliminate the possibility of illegal access when doing an online exam process.

**Keywords:** Authentication Method, One Time Password, Mobile Token