# *ABSTRACT*

## *ANALYSIS AND IMPLEMENTATION OF ELGAMAL CRYPTOGRAPHY AND LUHN ALGORITHMS FOR DATA SECURITY ON SMART CARDS*

**by**

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*Evil in the world of information technology increasingly rampant!. Thing - a taboo subject discussed by the general public has now become everyday food for people who are new to the world even though technology. Blend of sophistication and ease of use of the technology thought to be a major cause of crime to be developing the technology world. ATM Skimming!, Is a term that may not be familiar to millions of citizens were in Indonesia. The term is a term for the crime of theft of data on the smart card which the perpetrator does not even need to understand the system of banks, ATM machines, security is implemented on an ATM card and so forth.*

*Luhn algorithm ElGamal cryptography and security is a fusion technique that not only do the encoding, but also perform checks on the card through the Luhn algorithm. So the system can determine if the card is legal or illegal even without the use of the database though. ElGamal cryptography reliability as public key cryptography is very suitable for use on systems that possess limited storage space, because Although a bit smaller than RSA cryptography, yet possess the same reliability.*

*Both these data security techniques can be the perfect solution to crime in smart card-based systems.*

***Keywords*** : *Elgamal, Luhn, smart card, smart card security, cryptography, validation, digit check.*