IMPLEMENTATION OF A DATABASE SECURITY SYSTEM USING THE TRIANGLE CHAIN (TCC) ALGORITHM

BAGUS PUJA LAKSANA

Informatics Study Program, Faculty of Science and Technology

University of Technology Yogyakarta

Jl. Ringroad Utara Jombor Sleman Yogyakarta

Email: baguspuja.06@gmail.com

ABSTRACT

Advances in science and technology continue to give rise to new techniques that can strengthen digital data security. Abuse caused by unauthorized parties threatens the security of digital data. Database security is needed to protect company data and reduce the risk of attacks. Database security can be done using cryptographic techniques. This technique has main elements that are interrelated in securing data, namely data encryption and decryption techniques. One algorithm that can be used is Triangle Chain. This algorithm was built for the community with an open license and has fairly fast cryptography. This algorithm encodes the characters twice and depending on the results of the previous process, each character is substituted with a key and factor used to extract it which produces an encoding based on ASCII code 256. The research carried out produces a website-based database security system.

***Keywords**: Data security, Cryptography, Symmetric Key, Triangle Chain Algorithm, Encryption and Decryption*