

IMPLEMENTATION OF AES 128 BIT ALGORITHM FOR SECURING MINUTA FILES OF COOPERATION AGREEMENT DEEDS

(Case Study: Notaris & PPAT Irsyam Fanani, S.H., M.Kn.)

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ABSTRACT

Notary & Patriarch Office Irsyam Fanani, S.H., M.Kn. located at Jl. Raya Yogya-Solo Km 17, Tegal Sanggrahan, Sanggrahan, Kec. Prambanan, Klaten Regency. This office creates and stores various types of deeds. One of them is the minutes of the cooperation agreement deed. This file is confidential and cannot be accessed by random people, only notaries may access it. However, in soft file storage it is only stored in a digital archive in a folder on the office computer without a security system. Therefore, this research was carried out with the aim of creating a system that can file deed minutes through an encryption and decryption process using the Advanced Encryption algorithm. Standard (AES) 128 bits. The 128-bit AES algorithm was chosen because it has faster processing time compared to 192-bit and 256-bit AES. AES is the latest cryptographic algorithm standard published by NIST (National Institute of Standard and Technology) as a replacement for the DES (Data Encryption Standard) algorithm. From the results of research that has been carried out, the entered deed minutes file has been successfully encrypted and stored in the database, thereby minimizing the occurrence of data theft and data loss. The size of the encrypted and decrypted files is still the same as the original file.

Keywords: Notary, Deed minutes file, AES 128-bit, Encryption, Decryption.