

IMPLEMENTING ADVANCED ENCRYPTION STANDARD (AES) OF 128 ALGORITHMS FOR WEB-BASED DOCUMENT SECURITY

(Case Study: SMP Negeri 1 Gantiwarno, Klaten, Central Java)

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ABSTRACT

Public Junior High School (SMP) 1 Gantiwarno is a secondary school located in Gesikan Village, Gantiwarno District, Klaten Regency, Central Java Province. The school employs a document data storage information system; however, document storage is still manually conducted by saving data directly in a computer folder without any security measures. The lack of document security increases the risk of data theft or manipulation, which can compromise the accuracy of the data or information stored. Therefore, this study aimed to develop a Public SMP 1 Gantiwarno document security system using the Advanced Encryption Standard (AES) 128 algorithm. The AES-128 algorithm is a cryptographic technique that utilizes complex secret keys to ensure high data security. The Advanced Encryption Standard (AES) 128 data security method was implemented to ensure the integrity and protection of school documents, thereby mitigating the risk of data theft and data manipulation.

Keywords: *Encryption, AES Algorithm, Advanced Encryption Standard, AES-128, Web*