

**IMPLEMENTATION OF ADVANCED ENCRYPTION STANDARD (AES) FOR  
SECURING POPULATION DATA**

*(Case Study: Cokrobedog Hamlet)*

**Nimas Afiffah Aprilia, Ahmad Tri Hidayat, S.Kom., M.Kom.**

*Informatics Study Program, Faculty of Science and Technology*

*University of Technology Yogyakarta*

*Jl. Ringroad Utara Jombor Sleman Yogyakarta*

*E-mail : [nimasafi2000@gmail.com](mailto:nimasafi2000@gmail.com) [ahmad.tri.h@uty.ac.id](mailto:ahmad.tri.h@uty.ac.id)*

**ABSTRACT**

*Cokrobedog is a hamlet located in Sidoarum Village with a population of 363 people. Population data is only stored in the RT Head's computer folder. Data is stored without special security which poses a huge risk if the computer is accessed by irresponsible people and misuses resident data for personal gain. Given this problem, a way is needed to secure data, including sensitive data. Researchers created a system to secure resident data using the 128 bit Advanced Encryption Standard (AES) algorithm. This data security is carried out from an original message to a protected message, in this case an encrypted message. When population data is added to the system, the data will be encrypted and difficult to understand. So it can be concluded that the data security system can help the RT Head to secure data so that it is not easily manipulated by irresponsible parties.*

*Keywords: Data Security, Advanced Encryption Standard, Encryption, Decryption*