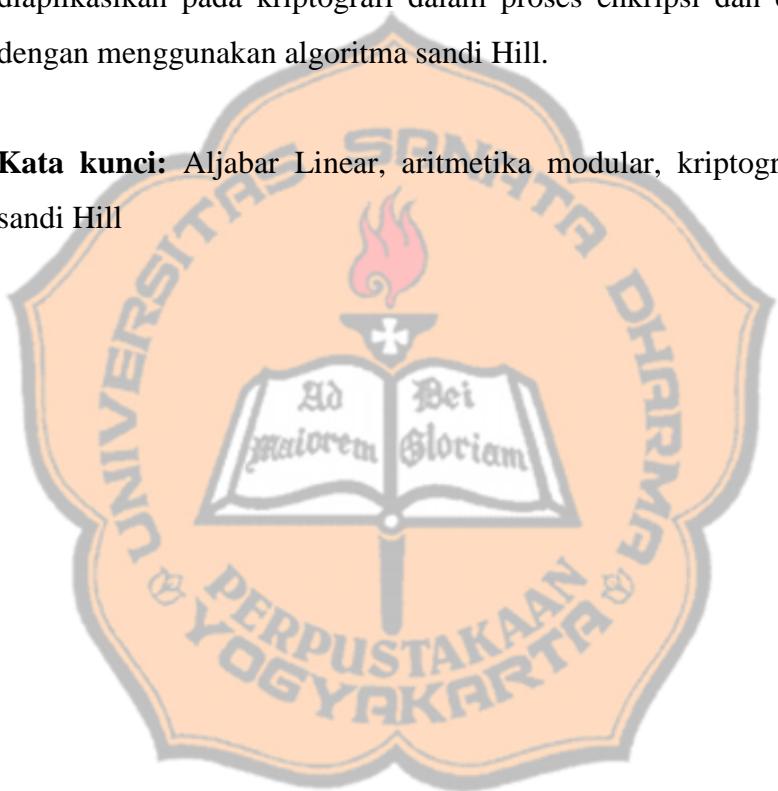


## ABSTRAK

Kriptografi adalah ilmu dan seni untuk menjaga keamanan pesan ketika pesan dikirim dari suatu tempat ke tempat lain. Dalam tugas akhir ini pokok-pokok aljabar linear, seperti sistem persamaan linear, matriks, operasi matriks, operasi baris elementer, eliminasi Gauss-Jordan, matriks invers, determinan matriks, matriks adjoint, dan aritmetika modular diaplikasikan pada kriptografi dalam proses enkripsi dan dekripsi sandi dengan menggunakan algoritma sandi Hill.

**Kata kunci:** Aljabar Linear, aritmetika modular, kriptografi, algoritma sandi Hill



## ABSTRACT

Cryptography is the science and art of maintaining message security when messages are sent from one place to other place. In this final paper topics of linear algebra, such as system of linear equations, matrices, matrix operations, elementary row operations, Gauss-Jordan elimination, inverse of matrices, determinant of a matrix, adjoint matrices, and modular arithmetic are applied to cryptography in the cipher encryption and decryption processes using Hill cipher algorithm.

**Keywords:** Linear algebra, modular arithmetic, cryptography, Hill cipher algorithm

