PES UNIVERSITY

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PROJECT TITLE:

A Study of Simple Cryptographic Methods Using Matrix Operations

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ABSTRACT

Cryptography and associated methods are of immense use in the modern world of internet, privacy, AI and Quantum computing. There are many methods for this use of cryptography some more used than others. There are even dedicated cryptosystems and methods for information concerning national securities and intelligence. One simple area of our exploration is to understand the use of linear algebra-based operations in cryptography and to study it. Finally, we will also develop a program for the same.

Cryptography is basically a method used to secure and protect data in any kind of communication. It is a process in which plain text is converted into an unreadable format and vice-versa, using encryption and decryption so that only a designated viewer can see it. Encryption is a process in which original data is transformed into an unrecognizable form (cipher text). Decryption converts that encrypted data into a readable form for a human or a computer. We can encrypt or decrypt almost any kind of data file or image file