

Amrita School of Computing, Chennai

Department of Computer Science and Engineering (Artificial Intelligence)

*21AIE204 – Introduction to Communication system*

**Capstone Project Title:Data Encryption using DMS and DSP**

**ABSTRACT:**

The internet, a necessity for modern existence, is among the everyday needs of 60% of the world's population. Because hackers can utilize this data, difficulties with data security and privacy arise when utilizing the internet. In light of this, we in this project suggested the advanced custom adjustable algorithm for AES. To prevent hackers from encrypting a communication, an additional layer of security is added to each letter of the message. In order to decrypt and eliminate the vulnerability to frequent attacks, we are introducing a new layer of encryption in the established method and creating a key via clock synchronization. This new layer enhances the AES algorithm in terms of security and encryption speed, which is already more secure. In today's digital environment, digital encryption is essential for safeguarding electronic data flows that are later processed by Digital Signal Processing. These documents include those pertaining to health, finance, the law, automatic and online banking, and more modes of online encrypted message transfer. To satisfy these requirements, electrical data encryption using the Advanced Encryption Standard (AES) can be used. Despite the fact that no substantial AES attacks have been discovered yet.

**KEYWORDS:**

Hacking, Encryption, AES, Decryption, Cipher Key

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