Advanced Hybrid Algorithm for Data Security

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A dissertation submitted in partial fulfilment of the requirement for Master of Science in Cyber Security & Forensics

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Abstract

Encryption is the most important process that is used in cyber security domain. There

are number of encryption methods that are using in recent world. There are lot of

drawbacks with the existing encryption methods. With last 20 years there were no

solutions newly proposed to overcome those drawbacks and yet there are no

suggestions to overcome those.

This research was conducted to find a solution for above issues and to overcome with

those drawbacks with a new algorithm for encryption. After many findings with domain

expertise, students, information technology sector employees and many more; finally

founded a solution to overcome with those drawbacks. The solution is to design a new

algorithm for encryption with hybrid technology. This hybrid architecture helps lot to

fill the gaps of each encryption algorithm has, for example some algorithms have some

specific drawbacks and some doesn't have that. So, with this combination of existing

algorithm and this idea will become a new beginning for the data security sector as well

as for cyber security domain. The suggested algorithm is designed according to the

feedback of the cyber security domain representatives and all of the feedbacks were

compared accordingly and with that the final output of the research was created.

Only the framework was designed by this research and the development part is going

as a future enhancement of this research. Mainly this new hybrid encryption algorithm

focuses on data security, time efficiency and minimal complexity as the main

parameters of a standard encryption algorithm. For the evaluation purposes, a simple

script that is running according to this architecture of the new hybrid encryption

algorithm that is proposing from this research is also presented behalf of the framework

that suggests the new hybrid encryption algorithm for data security.

Keywords: Data Security, Hybrid Encryption, Encryption Algorithm, Data

Encryption.

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