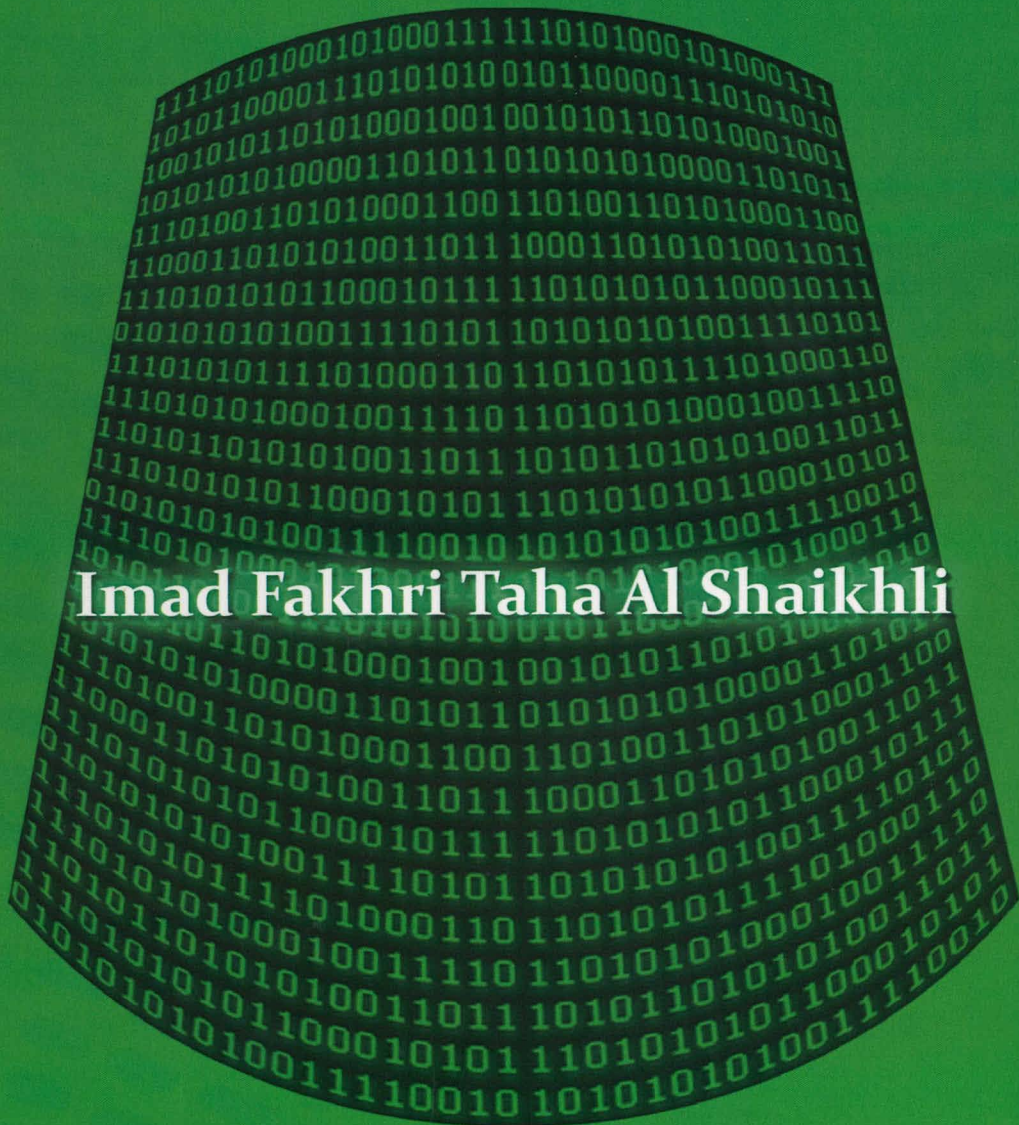


Cryptography

Past, Present and Future



Imad Fakhri Taha Al Shaikhli

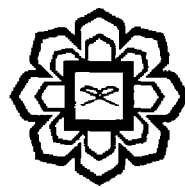


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Imad Fakhri Taha Al Shaikhli



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- Sibomana Hilali Hussein

ABSTRACT

In this article we will talk about the description of RIPEMD and Chameleon Hash Function. Also we will introduce into RIPEMD, RIPEMD-160 and their security. Also, we will talk about the Chameleon digital signatures property, Process of Chameleon hash function and the security of Chameleon hash function.

BACKGROUND OF RIPEMD

RIPEMD (Race Integrity Primitives Evaluation) hash value algorithm that was based on the implementation of MD4. Due to its weakness, improved versions were designed Preneel (1997). The most popular of which is RIPEMD-160. Other versions were developed, notably: RIPEMD-128, RIPEMD-256, RIPEMD-512. RIPEMD is considered as the first algorithm to efficiently use the 32-bit processors that were in use at that time.

One unique technique that the RIPEMD uses is that it uses two parallel versions of MD4 in its compression function. The two versions of MD4 used in the compression function only differ in round constants used by each MD4 version. At the ending the compression function, the words of right and left halves of the MD4 are added.