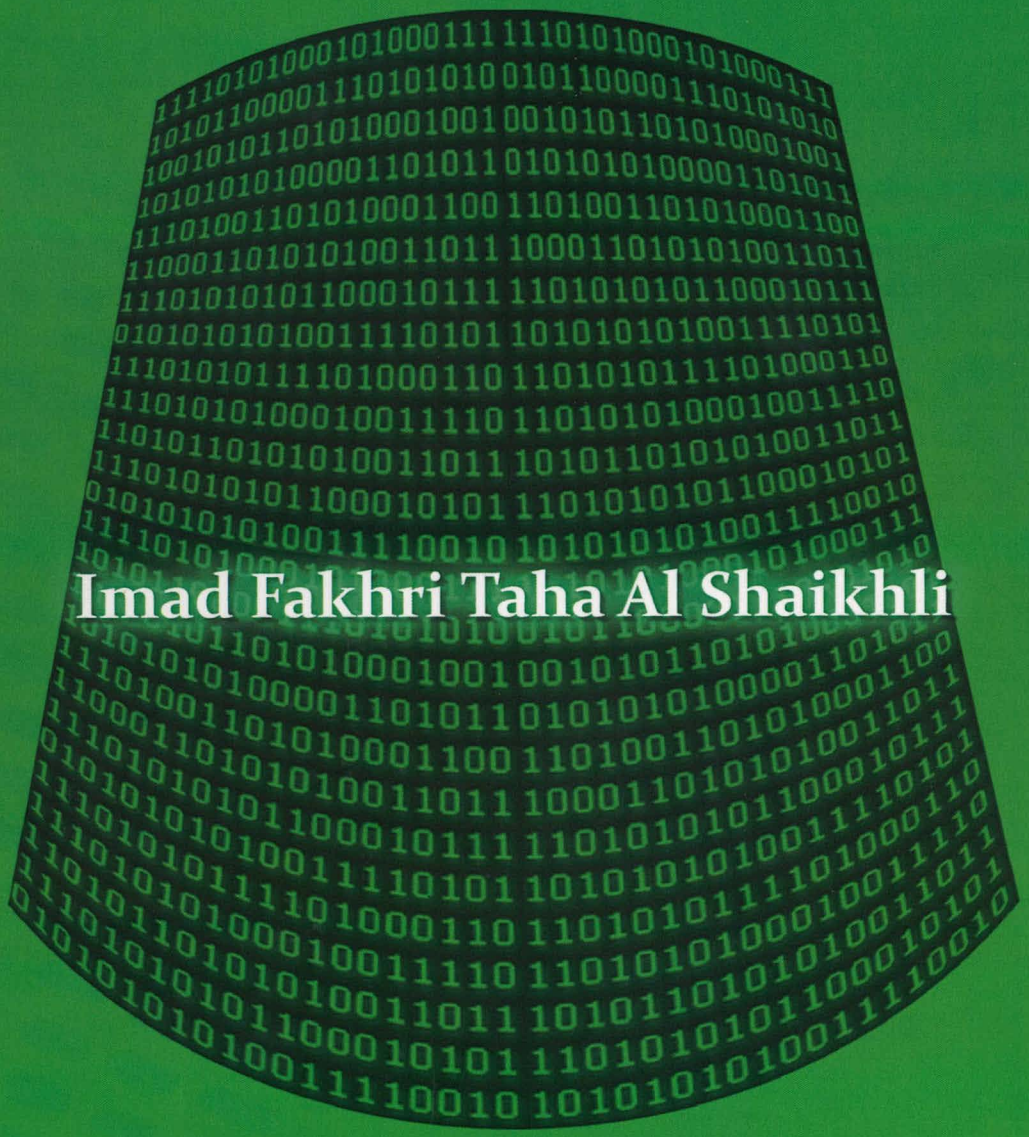
Cryptography

Past, Present and Future



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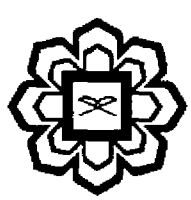

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ABSTRACT

In this article we will talk about the background of Interactive Proof Systems. Also we will introduce into definition of interactive turing machine and Proof Systems. Also, we will give examples.

BACKGROUND

Interactive proof systems have been introduced by Goldwasser, Micali and Rackoff [GMR85] and Babai [Ba85] independently in 1985. The idea of interactive proof systems extends the idea of efficient proofs which has led to the class IP. Interactive proof systems are a randomized extension to NP formalization of the concept of an efficient proof system captures one way of communicating a proof. There is a deterministic polynomial-time verifier (in the length of the common input) that will exchange the messages (strings) with an infinitely powerful prover which will persuade the verifier to be convinced of the truth of a proposition with a very small probability error. Interactive Turing machines will be defined below before defining interactive proof systems further. (Mohr, 2011)