

# Cryptography

## Past, Present and Future

Imad Fakhri Taha Al Shaikhli

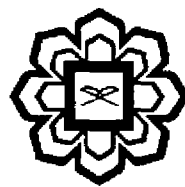


IIUM PRESS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

# **Cryptography: Past, Present and Future**

**Imad Fakhri Taha Al Shaikhli**



IIUM Press

Published by:  
IIUM Press  
International Islamic University Malaysia

First Edition, 2011

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Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Imad Fakhri Taha Al-Shaikhli  
Cryptography: Past, Present and Future  
Imad Fakhri Taha Al-Shaikhli

ISBN: 978-967-418-091-1

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM  
(Malaysian Scholarly Publishing Council)

Printed by :  
**IIUM PRINTING SDN. BHD.**  
No. 1, Jalan Industri Batu Caves 1/3  
Taman Perindustrian Batu Caves  
Batu Caves Centre Point  
68100 Batu Caves  
Selangor Darul Ehsan

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## **17. Interactive Proof Systems**

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- Imad Fakhri Taha Al Shaikhli
- Siti Khairunnisa Mohd Bakri
- Nur Dalilah Bt More Yusoff
- Nur Khairunnisa Bt Juara

### **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)