

Contents

Editorial i

Research

Security Requirements Engineering Using Outsourcing-
A. Meligy, H. Diab, M. Torky 103

Enhancing Digital Signature Schema Using Fingerprint Minutiae Point and RSA Algorithm-
Rima DJELLAB, Aicha ABDENNABI 116

Grover's Algorithm Applied to Quantum Cryptography-
Z. Sakhi, A. Tragha, R. Kabil, M. Bennai 125

Risk Analytic Approach and Cost Analysis for Interworking on the New Secured
IMS Architecture-
Hamid Allouch, Mostafa Belkasmi 130

Book Review 148

Conference Notification 149

- The First International Conference on Future Generation Communication Technologies (FGCT 2012)
- The Eighth International Conference on Digital Information Management (ICDIM 2013)

Editorial

Software are prone to vulnerability and security threat and thus research always focus on software security. Software engineering issues focus on design models and one such paper is produced by *Meligy, Diab and Torky* on “*Security Requirements Engineering Using Outsourcing*”. They came with up a new model specify security requirements during software requirement engineering using Managed Security Service Provider. With experiments conducted concretely they concluded that, the proposed model will increase the security of customer’s software system from the beginning of SDLC, and involving MSSP in the process will save security effort, cost and time.

Digital signature and fingerprint are the twin security keys in the information security environment. *Rima Djellab and Aicha Abdennabi* in their paper on “*Enhancing Digital Signature Schema Using Fingerprint Minutiae Point and RSA Algorithm*” have combined these two measures to ensure the embedding of finger print images in digital signature. They focussed this theme by proposing an enhanced method for digital signature identification based one RSA and using minutiae point features of fingerprint image. The approach is quite interesting and we can expect more research on this area.

Quantum cryptography offers promise in the secret communications by offering the ultimate security assurance of the inviolability of a Law of Nature. *Sakhi, Tragha, Kabil and Bennai* in their paper on “*Grover’s Algorithm Applied to Quantum Cryptography*” have studied the applications of a new quantum algorithm in the quantum cryptography. The authors have worked on the Grover algorithm and its implementation in the qubits systems.

In a paper on “*Risk Analytic Approach and Cost Analysis for Interworking on the New Secured IMS Architecture*”, *Hamid Allouch and Mostafa Belkasmi* proposed a elegant design of architecture, that turns up some challenges of new IMS architecture and security system with optimal cost. The proposed architecture, the authors claim that it provides a robustness, reliability, scalability and strategy for extension in the future and responds to the security challenges. They did experiments and found that the cost without Security Gateway (SEG), for signaling IMS traffic is lower than the cost with SEG.

The research presented in this issue leads to new focus on new areas.

Editors