Journal of Information Security Research Volume 9 Number 2 June 2018

Contents

Editorial i

Research

Path Planning for Robot Using the Particle Swarm Optimization with Self-adaptive Inertia Weight-
Jian Liu, Weisheng Wu 41

3-Way Handshake PAKE Based on Reversible Cellular Automata-
Sofiane Baghor, Kamel Mohamed Faraoun 50

An Optimized Image Water marking Scheme in Hadamard Transform Domain for Color images-
Elham Moeinaddini 63

Book Review 78

Conference Notification 79

• The Ninth International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2018)

• Eighth International Conference on Innovative Computing Technology
INTECH 2018

Editorial

We with this issue bring the second leaf of the ninth volume of the Journal of Information Security Research which is characterized by the below listed papers.

In the opening paper on "**Path Planning for Robot Using the Particle Swarm Optimization with Self-adaptive Inertia Weight**", the authors *Jian Liu* and *Weisheng Wu* viewed that the current robot path planning methods suffer from poor local searching capability and slow convergence speed. To get the globally optimal path of the robot, the authors have utilized the grid method to establish space model and is based on the particle swarm optimization algorithm. Testing results found that a simple and secure optimal path is established between the starting point and the end points.

Sofiane Baghor and *Kamel Mohamed Faraoun* in their next paper on "**3-Way Handshake PAKE Based on Reversible Cellular Automata**" have proposed a 'only three way' handshake password authenticated key exchange using only the mechanism of two-dimensional reversible cellular automata. The experimental results proved that the proposed schemes ensured the three authentication requirements, namely the mutuality, the authenticity and the key exchange using only elementary and parallelizable operations.

Elham Moeinaddini in the last paper on "**An Optimized Image Water marking Scheme in Hadamard Transform Domain for Color images has proposed**" a robust watermarking method using hadamard transform is for color images. The principle component analysis is used for watermarking. Results shown that the proposed method improves results of similar methods in terms of robustness and transparency.

We bring more research in the next issue.

Editors