

ISSN: 2153-1234

Volume 8, Number 1, January 2017



Journal of Information Security



ISSN: 2153-1234



www.scirp.org/journal/jis

Journal Editorial Board

ISSN: 2153-1234 (Print) ISSN: 2153-1242 (Online)

<http://www.scirp.org/journal/jis>

Editor-in-Chief

Prof. Gyungho Lee

Korea University, South Korea

Editorial Board (According to Alphabet)

Prof. Chris Cannings

University of Sheffield, UK

Dr. Xiaochun Cheng

Middlesex University, UK

Dr. Ashraf Darwish

Helwan University, Russia

Prof. Javier Diaz-Carmona

Instituto Tecnológico de Celaya, Mexico

Prof. Marina L. Gavrilova

University of Calgary, Canada

Prof. Vic Grout

Glyndwr University, UK

Prof. Le Gruenwald

University of Oklahoma, USA

Prof. Sun-Yuan Hsieh

National Cheng Kung University, Chinese Taipei

Prof. Lucas Chi Kwong Hui

The University of Hong Kong, China

Prof. Min-Shiang Hwang

National Chung Hsing University, Chinese Taipei

Prof. Jiejun Kong

Beijing Institute of Technology, China

Dr. Fagen Li

University of Electronic Science and Technology of China, China

Prof. Giannis F. Marias

Athens University of Economics and Business, Greece

Prof. Stavros D. Nikolopoulos

University of Ioannina, Greece

Prof. Changwoo Pyo

Hongik University, South Korea

Prof. John A. Springer

Purdue University, USA

Prof. Sofiene Tahar

Concordia University, Canada

Prof. Lina Wang

Wuhan University, China

Dr. Ronald D. Williams

University of Virginia, USA

Table of Contents

Volume 8 Number 1

January 2017

Analyzing Security Threats to Virtual Machines Monitor in Cloud Computing Environment

A. F. S. Althobaiti.....1

A Comparative Study between the Jordanian and Omani Digital Crimes Law

A. A. Romman.....8

A Robust Chaos-Based Image Cryptosystem with an Improved Key Generator and Plain Image Sensitivity Mechanism

H. Oğraş, M. Türk.....23

Program Counter Encoding for ARM® Architecture

S. Park, Y. Lee, G. Lee.....42

Web Search Query Privacy, an End-User Perspective

K. Mivule.....56

Authenticated Privacy Preserving Pairing-Based Scheme for Remote Health Monitoring Systems

K. Mtonga, E. J. Yoon, H. S. Kim.....75

Journal of Information Security (JIS)

Journal Information

SUBSCRIPTIONS

The *Journal of Information Security* (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright and reuse rights for the front matter of the journal:

Copyright © 2017 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

Copyright for individual papers of the journal:

Copyright © 2017 by author(s) and Scientific Research Publishing Inc.

Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

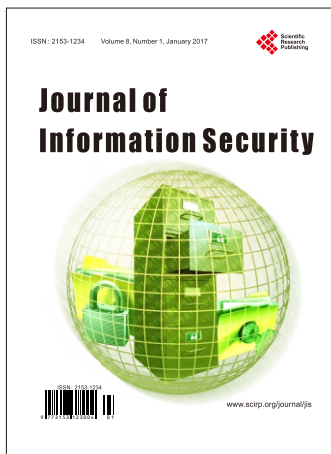
Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: jis@scirp.org



Journal of Information Security

ISSN 2153-1234 (Print) ISSN 2153-1242 (Online)

<http://www.scirp.org/journal/jis>

JIS, a quarterly journal, publishes research and review articles in all important aspects of information security. Both experimental and theoretical papers are acceptable provided they report important findings, novel insights, or useful techniques in these areas.

Editor-in-Chief

Prof. Gyungho Lee

Korea University, South Korea

Subject Coverage

JIS aims to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of information security. All manuscripts submitted to JIS must be previously unpublished and may not be considered for publication elsewhere at any time during JIS's review period. Additionally, accepted ones will immediately appear online followed by printed in hard copy. The topics to be covered by Journal of Information Security include, but are not limited to:

Access Control	Intrusion Detection
Anti-Virus and Anti-Worms	Key Management and Key Recovery
Authentication and Authorization	Language-Based Security
Biometric Security	Network Security
Cryptography	Operating System Security
Data and System Integrity	Risk Evaluation and Security Certification
Database Security	Security and Privacy for Social Computing
Distributed Systems Security	Security Evaluation
Electronic Commerce Security	Security for Mobile Computing
Fraud Control	Security Models
Grid Security	Security Protocols
Information Hiding and Watermarking	Signature and Key Agreement Protocol
Information Privacy	Software Security
Information Security Engineering	System Security
Intellectual Property Protection	Trusted Computing and Trustworthy Computing Technology

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the **JIS**.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/jis>

E-mail: jis@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org