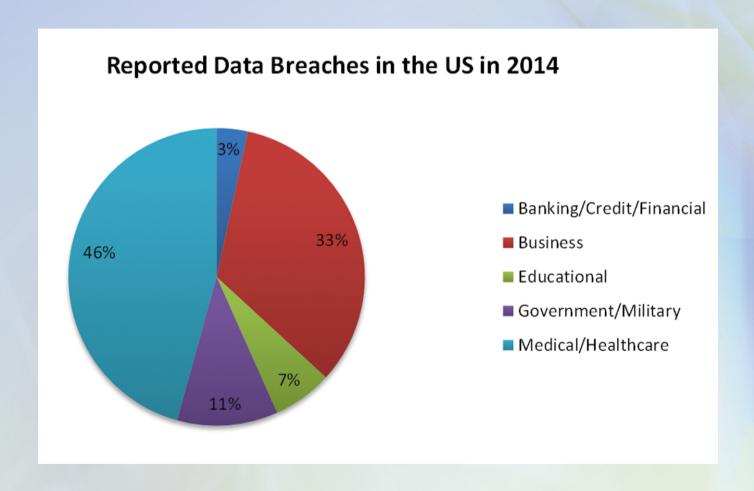




# Journal of Information Security





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. Abbaci Azzedine Universite Badji Mokhtar, Algeria

Prof. Chris CanningsUniversity of Sheffield, UKDr. Xiaochun ChengMiddlesex University, UKDr. Ashraf DarwishHelwan University, Russia

**Prof. Javier Diaz-Carmona** Instituto Tecnologico de Celaya, Mexico

Dr. Marina L. Gavrilova University of Calgary, Canada

**Prof. Vic Grout** Glyndwr University, UK

**Dr. 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 TaharConcordia University, CanadaProf. Lina WangWuhan University, China

Dr. Ronald D. Williams University of Virginia, USA



# **Table of Contents**

Volume 5 Number 4	October 2014
Awareness of the Potential Threat of Cyberterrorism to the N  A. Alqahtani	•
The Necessity of Information Security in the Vulnerable Pharn	naceutical Industry
S. J. Roberts	147
Hardware Realization of Artificial Neural Network Based Intru	usion Detection & Prevention System
I. Mukhopadhyay, M. Chakraborty	154
A Conceptual Framework for Threat Assessment Based on Org	ganization's Information Security Policy
J. E. Mbowe, I. Zlotnikova, S. S. Msanjila, G. S. Oreku	166
On the Matrix and Additive Communication Channels	
V. Leontiev, G. Movsisyan, A. Osipyan, Z. Margaryan	178
An Efficient Trusted Computing Base for MANET Security	
S. D. Mohanty, V. Thotakura, M. Ramkumar	192
Security Enhanced Adaptive TCP for Wireless Ad Hoc Network	<b>ts</b>
W. S. Alnumay	207
Method of Designing Generators of Pseudorandom Sequence Protection Based on Shift Register with Non-Linear Feedback	
	246

# **Journal of Information Security (JIS)**

#### Journal Information

# **SUBSCRIPTIONS**

The *Journal of Information Security* (Online at Scientific Research Publishing, <a href="www.SciRP.org">www.SciRP.org</a>) 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 © 2014 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 © 2014 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

Anti-Virus and Anti-Worms

Authentication and Authorization

Biometric Security

Cryptography

Data and System Integrity

**Database Security** 

Distributed Systems Security

**Electronic Commerce Security** 

Fraud Control Grid Security

Information Hiding and Watermarking

Information Privacy

Information Security Engineering

Intellectual Property Protection

Intrusion Detection

Key Management and Key Recovery

Language-Based Security

**Network Security** 

**Operating System Security** 

Risk Evaluation and Security Certification

Security and Privacy for Social Computing

**Security Evaluation** 

Security for Mobile Computing

**Security Models** 

Security Protocols

Signature and Key Agreement Protocol

**Software Security** 

System Security

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