



Journal of Information System Security (JISSec)

www.JISSec.org

Mission: The Journal of Information System Security (JISSec) is a unique and innovative peer reviewed publication of the Information Institute. The Journal views Information System Security in the broadest possible terms. While failure of technical systems and losses because of problems with technical control structures are clearly a cause of security breaches, the journal also considers misapplication of rules, inadequate policy formulations and other formal structural and administrative issues to be part of security. Besides, issues related to culture and regulatory controls are also considered relevant for publication in the journal. The JISSec mission is to significantly expand the domain of information system security research to a wide and eclectic audience of academics, consultants and executives who are involved in the management of security and generally maintaining the integrity of the business operations.

JISSec publishes original research and comments about the art and science of managing security in organizations. Contributions are particularly welcome which analyze the results of interdisciplinary research and relate to the intersection of theory, method and empirical findings. Of interest will be manuscripts, which present the theoretical concepts related to security design, development and implementation. Case studies, results of experiments and review of leading technologies are also welcome. JISSec submissions are **double blind peer-reviewed** and provide a forum for high quality research, communication and debate on the subject of the information system security.

Audience: JISSec is a scholarly publication and an outlet for research in information system security. JISSec is of value to both academic and practitioner audiences, particularly individuals interested in advances in information system security research. Academics interested in the Journal may have a wide range of disciplinary affiliations, including information science and technology, computer science, sociology and criminal justice, homeland security and business management.

Information for Authors: Readers interested in submitting articles are requested to send them electronically to editor@jissec.org. The journal is edited by Dr. Gurpreet Dhillon, Virginia Commonwealth University, USA. The Managing Editor of the journal is Dr. Filipe de Sa-Soares, University of Minho, Portugal. JISSec editorial offices are co-located at School of Business, 301 West Main Street, Virginia Commonwealth University, Richmond, VA 23284, USA and the Department of Information Systems, University of Minho, Guimarães, Portugal. Detailed author guidelines are available at www.jissec.org.

Copyright and permissions: Copyright © 2016 by The Information Institute.

All rights reserved. No part of the manuscript may be reproduced in any form without written permission of the publisher, except for noncommercial, educational use such as classroom teaching purposes. "This Publication is designed to provide accurate and authoritative information in regard to the Subject Matter Covered. It is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert assistance is required, the services of a competent professional person should be sought" (from the Declaration of Principles jointly adopted by a Committee of the American Bar Association and a Committee of Publishers and Associations). Issue: Vol. 12, No. 1. ISSN: 1551-0123. An Information Institute and ISEG, Lisboa School of Economics and Management Publication.

Subscription information: Institutional - \$988 (print and online). Individual - \$80 (print and online). Individual (online) - \$45. Substantial discounts are available to institutions and individuals not residing in the high income group countries as per the World Bank. Contact Information Institute at: 2020 Pennsylvania Ave. NW Ste 904, Washington DC 20006, USA. Email: sales@information-institute.org.

Editor-in-Chief

Gurpreet Dhillon
Virginia Commonwealth University, USA

Co-Editors

James Backhouse
London School of Economics, UK

Fredrik Karlsson, Karin Hedström
Örebro University, Sweden

Dan Harnesk
Luleå University of Technology, Sweden

Managing Editor

Filipe de Sa-Soares
University of Minho, Portugal

Publishing Manager

Mark Crathorne
ISEG, Lisbon School of Economics and Management, ULisboa, Portugal

Associate Editors

Jeimy J. Cano, Universidad de los Andes, Colombia
Jean-Noel Ezingard, Kingston University, UK
Steve Furnell, University of Plymouth, UK
Qing Hu, Florida Atlantic University, USA
Günther Pernul, University of Regensburg, Germany
Jeff Stanton, Syracuse University, USA
Mikko Siponen, University of Oulu, Finland
Raj Sharman, SUNY Buffalo, USA
Rossouw von Solms, PE Technikon, South Africa
Dan Shoemaker, University of Detroit, Mercy, USA
Ramesh Subramanian, Quinnipiac University, USA
Kerry-Lynn Thomson, Nelson Mandela Metropolitan University, South Africa
Merrill Warkentin, Mississippi State University, USA
Mark Weiser, Oklahoma State University, USA
Greg B. White, University of Texas, San Antonio, USA

Book Review Editor

Heinz Roland Weistroffer
Virginia Commonwealth University, USA

Editorial Advisors

Richard Baskerville
Georgia State University, USA

Allen Lee
Virginia Commonwealth University, USA

Table of Contents

Volume 12, Issue 1, 2016

Editorial	1	
Research Papers	3	An Image of Information Security: Examining the Coping Process by Internet Users <i>Nirmalee Summers and Kent Marett</i>
	27	Application Profiling based on Attack Alert Aggregation <i>Shalvi Dave, Bhushan Trivedi, and Jimit Mahadevia</i>
Industry Review	45	A Perspective on the Evolution of Information System Security Audits: Challenges and Implications <i>Sunita Goel, Margaret Garnsey, Qi Liu, and Ingrid Fisher</i>