



## NSS 2010 Call For Papers

While the attack systems have become more easy-to-use, sophisticated, and powerful, interest has greatly increased in the field of building more effective, intelligent, adaptive, active and high performance defense systems which are distributed and networked. We will focus our program on issues related to **Network and System Security**, such as authentication, access control, availability, integrity, privacy, confidentiality, dependability and sustainability of computer networks and systems. The aim of this conference is to provide a leading edge forum to foster interaction between researchers and developers with the network and system security communities, and to give attendees an opportunity to interact with experts in academia, industry and governments.

NSS 2010 will be in technical co-sponsorship with the IEEE and the IEEE Computer Society Technical Committee on Scalable Computing.

NSS 2010 will be held in Melbourne, Australia. Since 2002, Melbourne has been consistently ranked in the top three 'World's Most Livable Cities' by The Economist.

**Topics** of interest include, but not limited to:

- Active Defense Systems
- Adaptive Defense Systems
- Benchmark, Analysis and Evaluation of Security Systems
- Biometric Security
- Distributed Access Control and Trust Management
- Distributed Attack Systems and Mechanisms
- Distributed Intrusion Detection/Prevention Systems
- Denial-of-Service Attacks and Countermeasures
- High Performance Security Systems
- Identity Management and Authentication
- Implementation, Deployment and Management of Security Systems
- Intelligent Defense Systems
- Internet and Network Forensics
- Key Distribution and Management
- Large-scale Attacks and Defense
- RFID Security and Privacy
- Security Architectures in Distributed Network Systems
- Security for Critical Infrastructures
- Security in P2P systems
- Security in Cloud and Grid Systems
- Security in E-Commerce
- Security and Privacy in Wireless Networks
- Secure Mobile Agents and Mobile Code
- Security Protocols
- Security Simulation and Tools
- Security Theory and Tools
- Standards and Assurance Methods
- Trusted Computing
- Viruses, Worms, and Other Malicious Code
- World Wide Web Security

## Submission Guidelines

To submit your paper, please go to <http://www.anss.org.au/nss2010> and follow the link "Submit Your Paper". Submitted papers must not substantially overlap with papers that have been published or that are simultaneously submitted to a journal or a conference with proceedings. Papers must be clearly presented in English, must not exceed 8 pages, including tables, figures, references and appendixes, in IEEE CS proceedings 8.5" x 11" Two-Column Format, with Portable Document Format (.pdf). Papers will be selected based on their originality, timeliness, significance, relevance, and clarity of presentation. Submission of a paper should be regarded as a commitment that, should the paper be accepted, at least one of the authors will register and attend the conference to present the work.

The publication will be IEEE Computer Society Proceedings (EI, ISTP, and INSPEC indexed). Selected best papers will be published in **The Computer Journal** (Oxford), **Computers & Security** (Elsevier), and **Concurrency and Computation: Practice & Experience** (Wiley). All journals are SCI and EI indexed.

## General Chairs

Wanlei Zhou, Deakin University, Australia  
Ahmad-Reza Sadeghi, Ruhr-University Bochum, Germany

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Pierangela Samarati, University of Milan, Italy  
Jiankun Hu, RMIT University, Australia

## Workshop Chairs

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Haining Wang, College of William and Mary, USA

## Publicity Chair

Laurent Lefevre, INRIA, University of Lyon, France  
Wen Tao Zhu, Chinese Academy of Sciences, China  
Muhammad Khurram Khan, King Saud University, Saudi Arabia

**PC Members** (Please see NSS 2010 website)

## Important Dates

Workshop Proposal Due: April 30, 2010  
Submission Deadline: **May 10, 2010 (UTC/GMT time 23:59, firm)**  
Authors Notification: June 7, 2010  
Final Manuscript Due: June 21, 2010

## Website and Contact Information

Please see NSS 2010 website at  
<http://www.anss.org.au/nss2010>  
Further questions, please email  
[ieee.nss@gmail.com](mailto:ieee.nss@gmail.com)

# NSS 2010 Program

## Tuesday 31 August 2010

14:00-18:30	Registration (Registration Desk)
18:30-20:30	Welcome Reception (Tonic Bar)

## Wednesday 1 September 2010 Morning

08:30-09:00	Opening and Welcome ( <b>Conference Hall 1 &amp; 2</b> ) <i>Prof Wanlei Zhou (NSS/HPCC 2010 General Chair, Deakin University, Australia)</i> <i>TBD (HPCC 2010 Program Chair, TBD, TBD)</i> <i>TBD (NSS 2010 Program Chair, TBD, TBD)</i>			
09:00-10:00	ICDKE 2010 Keynote Address: <b>TBD (Conference Hall 1 &amp; 2)</b> Speaker: <i>Gora Datta (CAL2CAL Corporation, USA)</i> Chair: <i>Dr Hua Wang (University of Southern Queensland, Australia)</i>			
10:00-10:30	Morning Tea ( <b>venue</b> )			
10:30-12:30	Session 1C: NSS 2010 ( <b>Conference Hall 2</b> )	Session 1D: NSS 2010 ( <b>M12</b> )	Session 1F: ICDKE 2010 ( <b>M15</b> )	

### Session 1C: NSS 2010 (Conference Hall 2) – Distributed Intrusion Detection/Prevention Systems Session Chair: *TBD (TBD, TBD)*

A Framework for Monitoring SIP Enterprise Networks

*Mohamed Nassar, Radu State, and Olivier Festor*

A Flexible and Efficient Alert Correlation Platform for Distributed IDS

*Sebastian Roschke, Feng Cheng, and Christoph Meinel*

Monitoring Heavy-Hitter Flows in High-Speed Network Concurrently

*Fengyu Wang, Bin Gong, Shangling Guo, and Xiaofeng Wang*

### Session 1D: NSS 2010 (M12) – Distributed Access Control and Trust Management Session Chair: *TBD (TBD, TBD)*

Dynamic Trust Model for Federated Identity Management

*Hao Gao, Jun Yan, and Yi Mu*

Securing Emergency Response Operations Using Distributed Trust Decisions

*Peter Danner, Daniel Hein, and Stefan Kraxberger*

Trust-Involved Access Control in Collaborative Open Social Networks

*Hua Wang and Lili Sun*

Router and Link Admittance Control in the Optimized Link State Routing Protocol Version 2 (OLSRv2)

*Thomas Clausen and Ulrich Herberg*

### Session 1F: ICDKE 2010 (M15) – Modeling Session Chair: *TBD (TBD, TBD)*

Cluster Based Rule Discovery Model for Enhancement of Government's Tobacco Control Strategy

*Shamsul Huda, John Yearwood, and Ron Borland*

Specifying Usage Control Model with Object Constraint Language

*Min Li and Hua Wang*

A Query Processing Strategy for Conceptual Queries Based on Object-Role Modeling

*António Rosado and João M.P. Cardoso*

The Enablers and Implementation Model for Mobile KMS in Australian Healthcare

*Heng-Sheng Tsai and Raj Gururajan*

## Wednesday 1 September 2010 Afternoon

12:30-13:30	Lunch ( <b>venue</b> )			
13:30-14:30	HPCC 2010 Keynote Address: HPCC with Grids and Clouds (Conference Hall 1 & 2) Speaker: <i>Professor Geoffrey Charles Fox (Indiana University Bloomington, USA)</i> Chair: <i>TBD (TBD, TBD)</i>			
14:30-15:00	Afternoon Tea ( <b>venue</b> )			
15:00-17:30	Session 2C: NSS 2010	Session 2D: NSS 2010	Session 2F: ICDKE 2010	Session 2G: BFSCS 2010

	(Conference Hall 2)	(M12)	(M15)	(M16)
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## Session 2C: NSS 2010 (Conference Hall 2) – Denial-of-Service Attacks and Countermeasures

**Session Chair:** *TBD (TBD, TBD)*

Information-Theoretic Detection of Masquerade Mimicry Attacks

*Juan E. Tapiador and John A. Clark*

CALD: Surviving Various Application-Layer DDoS Attacks That Mimic Flash Crowd

*Sheng Wen, Weijia Jia, Wei Zhou, Wanlei Zhou, and Chuan Xu*

A Novel Threat Assessment Method for DDoS Early Warning Using Network Vulnerability Analysis

*Qiang Liu, Jian-ping Yin, Zhi-ping Cai, and Ming Zhu*

Adaptive Clustering with Feature Ranking for DDoS Attacks Detection

*Lifang Zi, John Yearwood, and Xin-Wen Wu*

An Improved Wavelet Analysis Method for Detecting DDoS Attacks

*Liang Fu Lu, Mao Lin Huang, Mehmet A. Orgun, and Jia Wan Zhang*

## Session 2D: NSS 2010 (M12) – Security and Privacy in Wireless Networks

**Session Chair:** *TBD (TBD, TBD)*

RF-DNA Fingerprinting for Airport WiMax Communications Security

*McKay D. Williams, Sheldon A. Munns, Michael A. Temple, and Michael J. Mendenhall*

Energy Friendly Integrity for Network Coding in Wireless Sensor Networks

*Anya Apavatjirut, Wassim Znaidi, Antoine Fraboulet, Claire Goursaud, Cédric Lauradoux, and Marine Minier*

A Novel Anonymization Technique to Trade Off Location Privacy and Data Integrity in Participatory Sensing Systems

*Manzur Murshed, Tishna Sabrina, Anindya Iqbal, and Kh Mahmudul Alam*

A Dynamic Mutual RFID Authentication Model Preventing Unauthorized Third Party Access

*Matthieu-P. Schapranow, Alexander Zeier, and Hasso Plattner*

Agent-Based Trusted On-Demand Routing Protocol for Mobile Ad Hoc Networks

*Islam Tharwat A. Halim, Hossam M.A. Fahmy, Ayman M. Bahaa El-Din, and Mohamed H. El-Shafey*

## Session 2F: ICDKE 2010 (M15) – Algorithms

**Session Chair:** *TBD (TBD, TBD)*

A Smoothing Evolutionary Algorithm with Circle Search for Global Optimization

*Yuping Wang and Lei Fan*

The PU-Tree: A Partition-Based Uncertain High-Dimensional Indexing Algorithm

*Yi Zhuang*

An Improved PageRank Algorithm: Immune to Spam

*Bing-Yuan Pu, Ting-Zhu Huang, and Chun Wen*

The Convergences of Multisplitting Parallel Methods for Non-Hermitian Positive Definite Systems

*Chuan-Long Wang and Yan-Ping Wang*

## Session 2G: BFSCS 2010 (M16)

**Session Chairs:** *A/Prof Dat Tran and A/Prof Xu Huang (University of Canberra, Australia)*

Face Gender Recognition Based on 2D Principal Component Analysis and Support Vector Machine

*Len Bui, Dat Tran, Xu Huang, and Girija Chetty*

Password Entropy and Password Quality

*Wanli Ma, John Campbell, Dat Tran, and Dale Kleeman*

Protecting from Attacking the Man-in-Middle in Wireless Sensor Networks with Elliptic Curve

Cryptography Key Exchange

*Xu Huang, Pritam Gajkumar Shah, and Dharmendra Sharma*

Secure Communication in 802.11 Networks with a Novel Protocol Using Quantum Cryptography

*Xu Huang, Shirantha Wijesekera, and Dharmendra Sharma*

Scalar Multiplication of a Dynamic Window with Fuzzy Controller for Elliptic Curve Cryptography

*Xu Huang, John Campbell, and Frank Gao*

Digital Video Tamper Detection Based on Multimodal Fusion of Residue Features

*Girija Chetty, Monica Biswas, and Rashmi Singh*

## Thursday 2 September 2010 Morning

09:00-10:00	NSS 2010 Keynote Address: <b>TBD</b> (Conference Hall 1 & 2) Speaker: <i>Prof Mohammed Atiquzzaman (University of Oklahoma, USA)</i> Chair: <i>TBD (TBD, TBD)</i>
10:00-10:30	Morning Tea ( <b>venue</b> )

10:30-12:30	Session 3C: NSS 2010 (Conference Hall 2)	Session 3D: NSS 2010 (M12)	Session 3F: ICDKE 2010 (M15)	Session 3G: APWCS 2010 (M16)
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### **Session 3C: NSS 2010 (Conference Hall 2) – Benchmark, Analysis and Evaluation of Security System**

**Session Chair: TBD (TBD, TBD)**

Luth: Composing and Parallelizing Midpoint Inspection Devices

*Ion Alberdi, Vincent Nicomette, and Philippe Owezarski*

Analysis of Credential Stealing Attacks in an Open Networked Environment

*A. Sharma, Z. Kalbarczyk, R. Iyer, and J. Barlow*

Business Process-Based Information Security Risk Assessment

*Kobra Khanmohammadi and Siv Hilde Houmb*

Automatic Generation of Assertions to Detect Potential Security Vulnerabilities in C Programs That Use Union and Pointer Types

*Shamsul Kamal Ahmad Khalid, Jacob Zimmermann, Diane Corney, and Colin Fidge*

### **Session 3D: NSS 2010 (M12) – World Wide Web Security**

**Session Chair: A/Prof Chris Leckie (The University of Melbourne, Australia)**

Towards Identify Anonymization in Large Survey Rating Data

*Xiaoxun Sun and Hua Wang*

Validating Denial of Service Vulnerabilities in Web Services

*Suriadi Suriadi, Andrew Clark, and Desmond Schmidt*

HTTPSLock: Enforcing HTTPS in Unmodified Browsers with Cached Javascript

*Adonis P.H. Fung and K.W. Cheung*

Ignorant Experts: Computer and Network Security Support from Internet Service Providers

*Patryk Szewczyk and Craig Valli*

Comparative Analysis of HTTP Anomaly Detection Algorithms: DFA vs N-Grams

*Li Lin, Christopher Leckie, and Chenfeng Zhou*

### **Session 3F: ICDKE 2010 (M15) – System Approach**

**Session Chair: TBD (TBD, TBD)**

Systematic Clustering-Based Microaggregation for Statistical Disclosure Control

*Md Enamul Kabir and Hua Wang*

Hybrid Wrapper-Filter Approaches for Input Feature Selection Using Maximum Relevance and Artificial Neural Network Input Gain Measurement Approximation (ANNIGMA)

*Shamsul Huda, John Yearwood, and Andrew Strainieri*

Credit Spread Option Pricing by Dynamic Copulas

*Ping Li and Guangdong Huang*

An Approach to Specify Knowledge in Multi-agent Systems Using Petri Nets

*Eder Mateus Nunes Gonçalves*

### **Session 3G: APWCS 2010 (M16)**

**Session Chairs: A/Prof Xun Yi (Victoria University, Australia), Prof Masahiro Mambo (University of Tsukuba, Japan), and Prof Lynn Batten (Deakin University, Australia)**

Certificateless Proxy Signature and Its Extension to Blind Signature

*Raylin Tso and Xun Yi*

A Novel Approach to Dynamic ID-Based Remote User Authentication Scheme for Multi-server Environment

*Min-Hua Shao and Ying-Chih Chin*

A Rights Management Approach to Securing Data Distribution in Coalitions

*Farzad Salim, Nicholas Paul Sheppard, and Reiheneh Safavi-Naini*

Security Analysis of Yang et al.'s Practical Password-Based Two-Server Authentication and Key Exchange System

*Xun Yi*

## **Thursday 2 September 2010 Afternoon**

12:30-13:30	Lunch ( <a href="#">venue</a> )
13:30-14:30	HPCC 2010 Keynote Address: Big Science on DEISA and PRACE - A European HPC Ecosystem (Conference Hall 1 & 2) Speaker: <i>Prof Wolfgang Gentzsch (DEISA Distributed European Infrastructure for</i>



	<i>Supercomputing Applications, Germany)</i> Chair: <i>TBD (TBD, TBD)</i>			
14:30-15:00	Afternoon Tea ( <i>venue</i> )			
15:00-17:30	Session 4C: NSS 2010 (Conference Hall 2)	Session 4D: NSS 2010 (M12)	Session 4F: ICDKE 2010 (M15)	

#### **Session 4C: NSS 2010 (Conference Hall 2) – Identity Management and Authentication**

**Session Chair:** *TBD (TBD, TBD)*

The Mobile Phone as a Multi OTP Device Using Trusted Computing

*Mohammed Alzomai and Audun Jøsang*

Fingerprint Reference Point Determination Based on Orientation Features

*Shan Juan Xie, Sook Yoon, Hui Gong, Jinwook Shin, and Dong Sun Park*

A Three-Factor Authenticated Key Agreement Scheme for SIP on Elliptic Curves

*Eun-Jun Yoon and Kee-Young Yoo*

Breaking Tor Anonymity with Game Theory and Data Mining

*Cynthia Wagner, Gerard Wagener, Radu State, Thomas Engel, and Alexandre Dulaunoy*

A Node-based Trust Management Scheme for Mobile Ad-Hoc Networks

*Raihana Ferdous, Vallipuram Muthukkumarasamy, and Abdul Sattar*

#### **Session 4D: NSS 2010 (M12) – Viruses, Worms, and Other Malicious Code**

**Session Chair:** *TBD (TBD, TBD)*

Overcoming Reputation and Proof-of-Work Systems in Botnets

*Andrew White, Alan Tickle, and Andrew Clark*

Computational Intelligence Utilisation in Simulation of Congestion Control in TCP/IP Edge Network

*Reginald Lal and Andrew Chiou*

Global Detection of Flooding-Based DDoS Attacks Using a Cooperative Overlay Network

*Thaneswaran Velauthapillai, Aaron Harwood, and Shanika Karunasekera*

Identifying Legitimate Clients under Distributed Denial-of-Service Attacks

*Steven Simpson, Adam T. Lindsay, and David Hutchison*

Getting the Real-Time Precise Round-Trip Time for Stepping Stone Detection

*Ping Li, Wanlei Zhou, and Yini Wang*

#### **Session 4F: ICDKE 2010 (M15) – Knowledge Discovery**

**Session Chair:** *TBD (TBD, TBD)*

Exploratory Study to Explore the Role of ICT in the Process of Knowledge Management in an Indian Business Environment

*Abdul Hafeez-Baig, Raj Gururajan, Heng Sheng Tasi, and Prema Sankaran*

Resource Selection from Distributed Semantic Web Stores

*Ahmad Ali Iqbal, Maximilian Ott, and Aruna Seneviratne*

Spatio-temporal Knowledge Discovery in Very Large METOC Data Sets

*D. Marks, E. Ioup, J. Sample, M. Abdelguerfi, and F. Qaddoura*

Privacy-Preserving Protocols for String Matching

*Yonglong Luo, Lei Shi, Caiyun Zhang, and Ji Zhang*

### **Thursday 2 September 2010 Evening**

18:30-21:30	Conference Banquet (Melbourne Aquarium)
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### **Friday 3 September 2010 Morning**

09:00-10:00	NSS 2010 Keynote Address: <b>TBD</b> (Conference Hall 1 & 2) Speaker: <i>Prof Matthew Warren (Deakin University, Australia)</i> Chair: <i>TBD (TBD, TBD)</i>			
10:00-10:30	Morning Tea ( <i>venue</i> )			
10:30-12:30	Session 5C: NSS 2010 (Conference Hall 2)	Session 5D: NSS 2010 (M12)	Session 5F: ICDKE 2010 (M15)	Session 5G: IDCS 2010 Keynote Address by <i>Prof Rajkumar Buyya</i> ( <i>Conference Hall 1</i> )

#### **Session 5C: NSS 2010 (Conference Hall 2) – Security Protocols**

**Session Chair: TBD (TBD, TBD)**

Efficient Proof of Validity of Votes in Homomorphic E-Voting

*Kun Peng and Feng Bao*

DIPLOMA: Distributed Policy Enforcement Architecture for MANETs

*Mansoor Alicherry and Angelos D. Keromytis*

Efficient Ideal Threshold Secret Sharing Schemes Based on EXCLUSIVE-OR Operations

*Chunli Lv, Xiaoqi Jia, Lijun Tian, Jiwu Jing, and Mingli Sun*

A Software Watermarking Algorithm Based on Stack-State Transition Graph

*Xu Jinchao and Zeng Guosun*

**Session 5D: NSS 2010 (M12) – Internet and Network Forensics****Session Chair: TBD (TBD, TBD)**

Network Forensics in MANET: Traffic Analysis of Source Spoofed DoS Attacks

*Yinghua Guo and Matthew Simon*

Forensic Analysis of DoS Attack Traffic in MANET

*Yinghua Guo and Ivan Lee*

The Design of Real-Time Adaptive Forensically Sound Secure Critical Infrastructure

*Ray Hunt and Jill Slay*

Command Evaluation in Encrypted Remote Sessions

*Robert Koch and Gabi Dreo Rodosek*

**Session 5F: ICDKE 2010 (M15) – Database and Applications****Session Chair: TBD (TBD, TBD)**

A Purpose Based Access Control in XML Databases System

*Lili Sun, Hua Wang, Raj Jururajin, and Sri Sriprakash*

An Efficient and Effective Duplication Detection Method in Large Database Applications

*Ji Zhang*

Fast IPTV Channel Switching Using Hot-View and Personalized Channel Preload over IEEE 802.16e

*Chih-Lun Chou, Gwo-Jiun Horng, and Sheng-Tzong Cheng*

A Pivot-Based Distributed Pseudo Facial Image Retrieval in Manifold Spaces: An Efficiency Study

*Yi Zhuang*

**Friday 3 September 2010 Afternoon**

12:30-13:30	Lunch (venue)			
13:30-14:30	Panel Session: Services, Security, and Privacy in Cloud Computing (Conference Hall 1 & 2) Chair: <i>TBD (TBD, TBD)</i> Panellists: <i>TBD (TBD, TBD)</i> <i>TBD (TBD, TBD)</i> <i>TBD (TBD, TBD)</i> <i>TBD (TBD, TBD)</i> <i>TBD (TBD, TBD)</i> <i>TBD (TBD, TBD)</i>			
14:30-15:00	Afternoon Tea (venue)			
15:00-17:30	Session 6C: NSS 2010 (Conference Hall 2)	Session 6D: NSS 2010 (M12)	Session 6F: ICDKE 2010 (M15)	

**Session 6C: NSS 2010 (Conference Hall 2) – Implementation, Deployment and Management of Security Systems****Session Chair: TBD (TBD, TBD)**

Security-Oriented Workflows for the Social Sciences

*Richard O. Sinnott and Sardar Hussain*

Risk-Aware Framework for Activating and Deactivating Policy-Based Response

*Wael Kanoun, Nora Cuppens-Boulahia, Frédéric Cuppens, and Samuel Dubus*

An Efficient and High Scalable Key Distribution Scheme for Mobile Ad Hoc Network through Mining

Traffic Meta-data Patterns

*Ahmad Jabas, Wael Abdulal, and S. Ramachandram*

Improving Fuzz Testing Using Game Theory

*Sheila Becker, Humberto Abdelnur, Jorge Lucángeli Obes, Radu State, and Olivier Festor*

A View Based Access Control Model for SPARQL

**Session 6D: NSS 2010 (M12) – Security Theory and Tools**

**Session Chair:** *TBD (TBD, TBD)*

Digging into Anonymous Traffic: A Deep Analysis of the Tor Anonymizing Network

*Abdelberi Chaabane, Pere Manils, and Mohamed Ali Kaafar*

Reasoning about Relation Based Access Control

*Alessandro Artale, Bruno Crispo, Fausto Giunchiglia, Fatih Turkmen, and Rui Zhang*

Novel Multi-bit Bitwise Adaptive Embedding Algorithms with Minimum Error for Data Hiding

*Rong-Jian Chen, Yu-Cheng Peng, Jun-Jian Lin, Jui-Lin Lai, and Shi-Jinn Horng*

Organizing Access Privileges: Maximizing the Availability and Mitigating the Threat of Insiders' Knowledgebase

*Qussai Yaseen and Brajendra Panda*

New Families of 2D & 3D Arrays for Sub-image Watermarking

*Oscar Moreno, Andrew Tirkel, Ron van Schyndel, and Udaya Parampalli*

**Session 6F: ICDKE 2010 (M15) – System Architecture and Framework**

**Session Chair:** *TBD (TBD, TBD)*

OntoPsic: Leveraging the Knowledge in the Treatment and Diagnosis of Telepsychiatry

*da Costa Dias, Ryan Ribeiro de Azevedo, Cleyton Rodrigues, Eric Rommel Galvão Dantas, Guilherme Ataíde Dias, and Roberto Souto Maior de Barros*

Five Criteria for Web-Services Security Architecture

*R. G. Addie and Alan Colman*

A Two-Step Mutual Authentication Protocol Based on Randomized Hash-Lock for Small RFID Networks

*Kaleb Lee*

vESP: A Video-Enabled Enterprise Search Platform

*Pål Halvorsen, Dag Johansen, Bjørn Olstad, Tomas Kupka, and Sverre Tennøe*

**PROCEEDINGS**

**2010 Fourth International Conference on  
Network and System Security**

**—— NSS 2010 ——**

**1–3 September 2010  
Melbourne, Australia**

*Edited by*  
**Yang Xiang  
Pierangela Samarati  
Jiankun Hu  
Wanlei Zhou  
Ahmad-Reza Sadeghi**



**Los Alamitos, California  
Washington • Tokyo**





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# 2010 Fourth International Conference on Network and System Security

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## Message from the NSS 2010 Program Chairs

A warm welcome to the 4th International Conference on Network and System Security (NSS 2010) and to Melbourne, Australia.

NSS has been a premier conference that has brought together researchers and practitioners from academia, industry, and governments around the world to advance the theories and technologies of network and system security, such as authentication, access control, availability, integrity, privacy, confidentiality, dependability, and sustainability of computer networks and systems. The goal of NSS is to establish an international forum for researchers and practitioners to present their excellent ideas and experiences in all system fields of network and system security. NSS 2010 features new results, challenging research questions, novel approaches, and innovative directions in network and system security.

NSS 2010 is the fourth event in a series of highly successful events on network and system security. Previously held were the 3rd International Conference on Network and System Security (NSS 2009, Gold Coast, Australia, October 2009), the 2nd IFIP International Workshop on Network and System Security (NSS 2008, Shanghai, China, October 2008), and the 1st IFIP International Workshop on Network and System Security (NSS 2007, Dalian, China, September 2007), respectively.

In response to the call for papers, we received 131 submissions from 44 countries in the world. These papers were evaluated on the basis of their originality, significance, correctness, relevance, and technical quality. Each paper was reviewed by at least three members of the program committee. Based on these evaluations, of the papers submitted, 33 regular papers and 21 short papers were selected for presentation at the conference, representing 25.2% of acceptance for regular papers.

We would like to thank the Program Committee members and additional reviewers from all around the world for their efforts in reviewing the large number of papers. We appreciate the dedication and professionalism all of the associated conference/workshop chairs. We would like to extend our sincere thanks to the NSS Steering Committee and to the General Chairs, Professor Wanlei Zhou and Professor Ahmad-Reza Sadeghi. They provided us with invaluable guidance throughout the process of paper selection and program organization. We also thank Georgi Cahill, the Conference Secretariat, for her professional organization.

We would also like to take this opportunity to thank all of the authors for their submissions to NSS 2010 and associated conference/workshops. Many of you have travelled some distance to participate in the conference.

Last but not least, we would like to express our gratitude to all of the organizations who have supported our efforts to bring the conference to fruition. We are grateful to Deakin University, Central Queensland University, and the IEEE Computer Society TCSC for their sponsorships and assistance.

Welcome to Melbourne and enjoy!

**Yang Xiang**, *Deakin University, Australia*

**Pierangela Samarati**, *University of Milan, Italy*

**Jiankun Hu**, *RMIT University, Australia*

*September 2010*

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