

The 10th International Conference on Network and System

Security (NSS 2016)

Taipei, Taiwan September 28-30, 2016

Organized By The Chinese Cryptology and Information Security Association (CCISA) NSS 2016 Committees

Sponsored By Springer (LNCS) Microsoft TEND micro Taiwan Information Security Center (TWISC) TWISC@NTUST National Taiwan University of Science and Technology National Dong Hwa University Chang Gung University



Program of NSS 2016

Time	Session	Location
08:20-08:50	Welcome Opening	
08:50-10:05	NSS Session I: Cloud Computing Security	VF, Shih-Cyuan Room (十全軒)
10:05-10:25	Coffee Break	
10:25-12:00	NSS Session II: System Security	VF, Shih-Cyuan Room
		(十全軒)
12:00-13:00	Lunch (Eastern and Western Cuisine)	Grand Garden
		Restaurant (松鶴餐廳)
13:00-14:55	NSS Session III: Security Protocol	VF, Shih-Cyuan Room
		(十全軒)
14:55-15:15	Coffee Break	
15:15-16:30	NSS Session IV: Security Policy and Access	VF, Shih-Cyuan Room
	Control	(十全軒)

Wednesday, 28th September, 2016

NSS Session I: Cloud Computing Security, Session Chair: Raylin Tso

- 08:50-09:15, Raylin Tso. Two-in-One Oblivious Signatures Secure in the Random Oracle Model
- 09:15-09:40, Kai He, Jian Weng, Joseph Liu, Wanlei Zhou and Jia-Nan Liu. Efficient Fine-Grained Access Control for Secure Personal Health Records in Cloud Computing
- 09:40-10:05, Shashank Gupta and Brij Gupta. An Infrastructure-Based Framework for the Alleviation of JavaScript Worms from the OSN in Mobile Cloud Platforms

NSS Session II: System Security, Session Chair: Fei Xu

- 10:25-10:50, Qiumao Ma, Wensheng Zhang and Jinsheng Zhang. DF-ORAM: A Practical Dummy Free Oblivious RAM to Protect Outsourced Data Access Pattern
- 10:50-11:15, Wenjuan Li, Weizhi Meng, Lam-For Kwok and Horace Ho Shing Ip. PMFA: Toward Passive Message Fingerprint Attacks on Challenge-based Collaborative Intrusion Detection Networks
- 11:15-11:40, Yen-Lung Lai, Zhe Jin, Bok-Min Goi, Tong-Yuen Chai and Wun-She Yap. Iris Cancellable Template Generation based on Indexing-First-One Hashing
- 11:40-12:00, Fei Xu, Pinxin Liu, Jianfeng Yang, Jing Xu. The Design and Implementation of Multi-Dimensional Bloom Filter Storage Matrix (Short Paper)

NSS Session III: Security Protocol, Session Chair: Tomasz Hyla

- 13:00-13:25, Gang Sheng, Chunming Tang, Wei Gao and Ying Yin. MD-VC Matrix: An Efficient Scheme for Publicly Verifiable Computation of Outsourced Matrix Multiplication
- 13:25-13:50, Wei-Ting Lu, Wei Wu, Shih-Ya Lin, Min-Chi Tseng and Hung-Min Sun. A System of Shareable Keyword Search on Encrypted Data
- 13:50-14:15, Sherman S. M. Chow, Russell W.F. Lai, Xiuhua Wang and Yongjun Zhao. Privacy Preserving Credit Systems
- 14:15-14:35, Tomasz Hyla and Jerzy Pejas. Secure Outsourced Bilinear Pairings Computation for Mobile Devices. (Short Paper)
- 14:35-14:55, Kewei Lv, Ke Wang and Qin Wenjie. Improved Security Proofs for Modular Exponentiation Bits. (Short Paper)

NSS Session IV: Security Policy and Access Control, Session Chair: Chien-Lung Hsu

- 15:15-15:40, Prosunjit Biswas, Ravi Sandhu and Ram Krishnan. An Attribute Based Protection Model for JSON Documents
- 15:40-16:05, Maanak Gupta and Ravi Sandhu. The GURA-G Administrative Model for User and Group Attribute Assignment
- 16:05-16:30, Asma Alshehri and Ravi Sandhu. On the Relationship between Finite Domain ABAM and PreUCONA

Time	Session	Location
08:30-09:30	Keynote Speech I: Applications of	
	Multimedia Security and Forensic Techniques	12F, Kunlun Hall
	for Secure Communication, Protection and	121, Kullun Hall (崑崙廳)
	Detection of Data Content	(託爾娜)
	(Anthony T.S. Ho, University of Surrey, UK)	
09:30-10:30	Keynote Speech II: Privacy-Preserving Big	
	Data Analysis	12F, Kunlun Hall
	(Atsuko Miyaji, Osaka	(崑崙廳)
	University/JAIST/CREST, Japan)	
10:30-11:00	Coffee Break	
11:00-12:00	Keynote Speech III: Staying Secure in a	
	Cloud-First Mobile-First World	12F, Kunlun Hall
	(Eric Lam, Director for Asia, Enterprise	(崑崙廳)
	Cybersecurity Group, Microsoft)	
12:00-12:50	Lunch (Cantonese Cuisine)	Golden Dragon

Thursday, 29th September, 2016

		Restaurant (金龍餐廳)
12:50-14:50	NSS Session V: Data Mining for Security	VF, Shih-Cyuan Room
	Application	(十全軒)
14:50-15:10	Coffee Break	
15:10-16:25	NSS Session VI: Network Security and	VF, Shih-Cyuan Room
	Forensic	(十全軒)
18:00-20:30	Banquet	VF, Wu-Fu Room (五
		福軒)

NSS Session V: Data Mining for Security Application, Session Chair: Yu Wang

- 12:50-13:15, Jinshuo Liu, Yabo Xu, Juan Deng, Lina Wang and Lanxin Zhang. Ld-CNNs: A Deep Learning System for Structured Text Categorization Based on LDA in Content Security
- 13:15-13:40, Zisis Tsiatsikas, Dimitris Geneiatakis, Georgios Kambourakis and Stefanos Gritzalis. Realtime DDoS detection in SIP Ecosystems: Machine Learning tools of the trade
- 13:40-14:05, Mohammad Mamun, Mohammad Rathore, Arash Habibi Lashkari, Natalia Stakhanova and Ali Ghorbani. Detecting Malicious URLs Using Lexical Analysis
- 14:05-14:30, Bailin Xie, Yu Wang, Chao Chen and Yang Xiang. Gatekeeping Behavior Analysis for Information Credibility Assessment on Weibo
- 14:30-14:50, Anisur Rahman, Yue Xu, Kenneth Radke and Ernest Foo. Finding Anomalies in SCADA Logs Using Rare Sequential Pattern Mining. (Short Paper)

NSS Session VI: Network Security and Forensic, Session Chair: Shi-Cho Cha

- 15:10-15:35, Toshihiro Yamauchi and Yuta Ikegami. HeapRevolver: Delaying and Randomizing Timing of Release of Freed Memory Area to Prevent Use-After-Free Attacks
- 15:35-16:00, Yosuke Ishikuro and Kazumasa Omote. Privacy-Preserving Profile Matching Protocol Considering Conditions
- 16:00-16:25, Nikolai Hampton and Zubair Baig. A Network Timestamp Verification Mechanism for Forensic Analysis

Time	Session	Location
09:00-10:00	Keynote Speech IV: Towards Secure Search	
	Over Large Encrypted Datasets	VF, Shih-Cyuan Room
	(Kui Ren, University at Buffalo, State	(十全軒)
	University of New York, USA)	
10:00-10:30	Coffee Break	

Friday, 30th September, 2016

10:30-12:10	NSS Session VII: Symmetric Key	VF, Shih-Cyuan Room
	Cryptography	(十全軒)
12:10-13:10	Lunch (Cuisine of Jiangsu and Zhejiang)	Yuan-Yuan Restaurant
		(圓苑餐廳)
13:10-14:25	NSS Session VIII: Digital Signature	VF, Shih-Cyuan Room
		(十全軒)
14:25-14:45	Coffee Break	
14:45-16:25	NSS Session IX: Authentication	VF, Shih-Cyuan Room
		(十全軒)
16:25-16:35	Closing Ceremony	

NSS Session VII: Symmetric Key Cryptography, Session Chair: Kuo-Yu Tsai

- 10:30-10:55, Min Hsuan Cheng, Reza Sedaghat and Prathap Siddavaatam. A New Adaptable Construction of Modulo Addition with Scalable Security for Stream Ciphers
- 10:55-11:20, Qianqian Yang, Lei Hu, Siwei Sun and Ling Song. Extension of Meet-in-the-Middle Technique for Truncated Differential and Its Application to RoadRunneR
- 11:20-11:45, Tingting Wang, Man Ho Au and Wei Wu. An Efficient Secure Channel Free Searchable Encryption Scheme with Multiple Keywords
- 11:45-12:10, Fangming Zhao and Takashi Nishide. Searchable Symmetric Encryption Supporting Queries with Multiple-Character Wildcards

NSS Session VIII: Digital Signature, Session Chair: Man Ho Au

- 13:10-13:35, Man Ho Au, Kaitai Liang, Joseph K. Liu and Rongxing Lu. While Mobile Encounters with Clouds
- 13:35-14:00, Chao Lin, Fei Zhu, Wei Wu, Kaitai Liang and Raymond Choo. A New Transitive Signature Scheme
- 14:00-14:25, Hiroaki Anada, Sushmita Ruj and Kouichi Sakurai. Expressive Rating Scheme by Signatures with Predications on Ratees

NSS Session IX: Authentication, Session Chair: Jia-Ning Luo

- 14:45-15:10, Kamil Kluczniak, Jianfeng Wang, Xiaofeng Chen and Miroslaw Kutylowski. Multi-Device Anonymous Authentication
- 15:10-15:35, Jia-Ning Luo, Ming Hour Yang and Cho-Luen Tsai. A Mobile Device-Based Antishoulder-Surfing Identity Authentication Mechanism
- 15:35-16:00, Chang-Shiun Liu, Li Xu, Limei Lin, Min-Chi Tseng, Shih-Ya Lin and Hung-Min Sun. Mutual Authentication with Anonymity for Roaming Service with Smart Cards in Wireless Communications
- 16:00-16:25, Ishai Rosenberg and Ehud Gudes. Evading System-Calls Based Intrusion Detection Systems (From NSS Session VI: Network Security and Forensic)