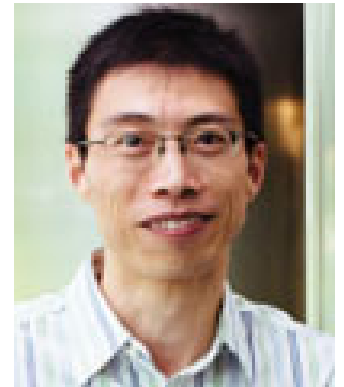


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Education

PhD, University of Southern California, United States of America, 2003

Master of Science, Shanghai Jiao Tong University, China, 1999

Bachelor of Science, Shanghai Jiao Tong University, China, 1995

Academic Appointments

Associate Professor of Computer Science, School of Computing and Information Systems, SMU, Apr 2021 - Present

Associate Professor of Information Systems, School of Computing and Information Systems, SMU, Jan 2012 - Mar 2021

Assistant Professor of Information Systems, School of Computing and Information Systems, SMU, Jan 2004 - Dec 2011

Lecturer of Information Systems, School of Computing and Information Systems, SMU, Oct 2003 - Dec 2003

Academic Administrative Positions

Coordinator, BSc (CS) Cybersecurity Track, School of Computing and Information Systems, SMU, Jul 2018 - Jun 2023

Member (School of Information Systems), Institutional Review Board, SMU Institutional Review Board, SMU, Jan 2013 - Dec 2016

RESEARCH

Research Interests

Network and system security

Applied cryptography

Trustworthy systems for data protection

Publications

Journal Articles [Refereed]

T-counter: Trustworthy and efficient CPU resource measurement using SGX in the cloud, by DONG, Chuntao; SHEN, Qingni; DING, Xuhua; YU, Daoqing; LUO, Wu; WU, Pengfei; WU, Zhonghai. (2022). *IEEE Transactions on Dependable and Secure Computing*, 20 (1), 1-18. <https://doi.org/10.1109/TDSC.2022.3145814> (Advance Online)

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Efficient authentication and access control of scalable multimedia streams over packet-lossy networks, by DENG, Robert H.; DING, Xuhua; LO, Swee Won. (2014). *Security and Communication Networks*, 7 (3), 611-625. <https://doi.org/10.1002/sec.762> (Published)

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KRover: A symbolic execution engine for dynamic kernel analysis, by PITIGALA ARACHCHILLAGE, Pansilu; DING, Xuhua; QIU, Haiqing; TU, Haoxin; HONG, Jiaqi; JIANG, Lingxiao. (2023.0). *Proceedings of the 2023 ACM SIGSAC Conference on Computer and Communications Security*, (pp. 2009-2023) US: ACM. <https://doi.org/10.1145/3576915.3623198> (Published)

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Achieving revocable fine-grained cryptographic access control over cloud data, by YANG, Yanjiang; DING,

Xuhua; LU, Haibing; Wan, Zhiguo; Zhou, Jianying. (2013.0). *Information Security: 16th International Conference, ISC 2013, Dallas, Texas, November 13-15: Proceedings*, (pp. 293-308) Cham: Springer. https://doi.org/10.1007/978-3-319-27659-5_21 (Published)

Self-blindable credential: Towards anonymous entity authentication upon resource-constrained devices, by YANG, Yanjiang; DING, Xuhua; LU, Haibing; WENG, Jian; ZHOU, Jianying. (2013.0). *Information Security: 16th International Conference, ISC 2013, Dallas, Texas, November 13-15: Proceedings*, (pp. 238-247) Cham: Springer. https://doi.org/10.1007/978-3-319-27659-5_17 (Published)

Technique for authenticating H.264/SVC streams in surveillance applications, by ZHUO, Wei; DENG, Robert H.; SHEN, Jialie; WU, Yongdong; DING, Xuhua; LO, Swee Won. (2013.0). *Electronic Proceedings of the 2013 IEEE International Conference on Multimedia and Expo Workshops (ICMEW 2013): 15-19 July, 2013, San Jose, California*, (pp. 1-14) Los Alamitos, CA: IEEE Computer Society. <http://doi.ieeecomputersociety.org/10.1109/ICMEW.2013.6618259> (Published)

Accountable Trapdoor Sanitizable Signatures, by LAI, Junzuo; DING, Xuhua; Wu, Yongdong. (2013.0). *Information Security Practice and Experience: 9th International Conference, ISPEC 2013, Lanzhou, China, May 12-14, 2013: Proceedings*, (pp. 117-131) Berlin Heidelberg: Springer Verlag. http://dx.doi.org/10.1007/978-3-642-38033-4_9 (Published)

Verifiable and private top-k monitoring, by DING, Xuhua; PANG, Hwee Hwa. (2013.0). *ASIA CCS '13: Proceedings of the 8th ACM SIGSAC Symposium on Information, Computer and Communications Security, Hangzhou, China, May 8-10*, (pp. 553-558) New York: ACM. <https://doi.org/10.1145/2484313.2484388> (Published)

Simple identity-based encryption with mediated RSA, by DING, Xuhua; TSUDIK, Gene. (2013.0). *Proceedings of The Cryptographers' Track at the RSA Conference 2013, San Francisco, CA, February 25 - March 1*, (pp. 193-210) Berlin: Springer. https://doi.org/10.1007/3-540-36563-X_13 (Published)

Guardian: Hypervisor as Security Foothold for Personal Computers, by CHENG, Yueqiang; DING, Xuhua. (2013.0). *Trust and Trustworthy Computing: 6th International Conference, TRUST 2013, London, UK, June 17-19, 2013. Proceedings*, (pp. 19-36) Berlin Heidelberg: Springer Verlag. http://dx.doi.org/10.1007/978-3-642-38908-5_2 (Published)

An improved authentication scheme for H.264/SVC and its performance evaluation over non-stationary wireless mobile networks, by ZHAO, Yifan; LO, Swee-Won; DENG, Robert H.; DING, Xuhua. (2012.0). *Network and System Security: 6th International Conference, NSS 2012, Wuyishan, Fujian, China, November 21-23, Proceedings*, (pp. 192-206) Cham: Springer. https://doi.org/10.1007/978-3-642-34601-9_15 (Published)

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Secure Real-Time User Preference Collection for Broadcast Scheduling, by DING, Xuhua; WANG, Shuhong; ZHENG, Baihua. (2006.0). *2nd International Conference on Security and Privacy in Communication Networks (SecureComm'06)*, (pp. 1-10) Baltimore, MD: IEEE. <http://dx.doi.org/10.1109/SECCOMW.2006.359540> (Published)

Multiplex Encryption a Practical Approach to Encrypting Multi-Recipient Emails, by DING, Xuhua; Wei, Wei; CHEN, Kefei. (2005.0). *Information and Communications Security: 7th International Conference, ICICS 2005, Beijing, China, December 10-13: Proceedings*, (pp. 269-279) Beijing, China: Springer Verlag. http://dx.doi.org/10.1007/11602897_23 (Published)

Leak-Free Group Signatures with Immediate Revocation, by DING, Xuhua; Tsudik, Gene; Xu, Shouhuai. (2004.0). *Proceedings of the 24th International Conference on Distributed Computing Systems, 24-26 March, 2004, Hachioji, Tokyo*, (pp. 608-615) Hachioji, Tokyo, Japan: IEEE. <http://dx.doi.org/10.1109/ICDCS.2004.1281628> (Published)

Experimenting with server-aided signatures, by DING, Xuhua; Mozzacchi, D.; Tsudik, Gene. (2002.0). *Proceedings on Network and Distributed System Security Symposium, San Diego, California, 2002 February 6-8*, San Diego, CA: Internet Society. (Published)

A method for fast revocation of public key certificates and security capabilities, by BONEH, Dan; DING, Xuhua; Tsudik, Gene; WONG, Chi Ming. (2001.0). *Proceedings of the 10th conference on USENIX Security Symposium, Washington, D.C., 2001 August 13-17*, Washington DC: ACM. (Published)

Research Grants

Singapore Management University

National Satellite of Excellence in Mobile Systems Security and Cloud Security, National Cybersecurity R&D (NCR) Programme, National Research Foundation (NRF) , PI (Project Level): Robert H DENG , Co-PI (Project Level): Debin GAO, PANG Hwee Hwa, DING XuHua, LI Yingjiu, 2019, S\$7,498,320

A Novel Hybrid Kernel Symbolic Execution Framework For Malware Analysis, NSoE TSS Grant Call, National Satellite of Excellence - Trustworthy Software Systems , PI (Project Level): DING XuHua , Co-PI (Project Level): JIANG Lingxiao, 2019, S\$715,000

A system framework for reliable and dependable incident response on mobile devices, NSoE MSS-CS Research Programme, National Satellite of Excellence - Mobile Systems Security and Cloud Security , PI (Project Level): DING XuHua , Co-PI (Project Level): Debin GAO, 2019, S\$1,201,607

AutoPrivacyModel: Automated Feature Modelling for Identifying Illegitimate Uses of Privacy-Sensitive Data in Mobile Applications, NSoE MSS-CS Research Programme, National Satellite of Excellence - Mobile Systems Security and Cloud Security , PI (Project Level): JIANG Lingxiao , Co-PI (Project Level): David LO, SHAR Lwin Khin, DING XuHua, Debin GAO, 2019, S\$700,403

Advanced defense techniques for mobile systems and future networks, Huawei Technologies co. Ltd , PI (Project Level): Robert H DENG , Co-PI (Project Level): Debin GAO, DING XuHua, LI Yingjiu, 2015

Secure Mobile Centre - Technologies and Solutions for Securing Mobile Computing, National Cybersecurity R&D (NCR) Programme, National Research Foundation (NRF) , PI (Programme Level):

Robert H DENG , PI (Project Level): DING XuHua, Debin GAO, JIANG Lingxiao, LI Yingjiu, David LO, PANG Hwee Hwa, 2014, S\$6,415,200

Mobile Platform Security Based on Virtualization, Huawei Technologies co. Ltd , PI (Project Level): DING XuHua, 2013, S\$143,780

The Protection of I/O Flows Between Peripheral Devices and Applications, Ministry of Defence (MINDEF) , PI (Project Level): DING XuHua, 2011, S\$145,782

Techniques and Systems for Securing Scalable Multimedia Content Dissemination, Public Sector Research Funding (PSF), Agency for Science, Technology and Research (A*STAR) , PI (Project Level): Robert H DENG , Co-PI (Project Level): DING XuHua, 2010, S\$605,376

A Study on System Call Security and Extensible Secure Execution Environment, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): DING XuHua, 2014, S\$20,289.67

Trapdoor Circuit and Its Application on Multiuser Computation, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): DING XuHua, 2013, S\$19,651

A Study on Software Root of Trust Using Virtualization Techniques, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): DING XuHua, 2012, S\$18,751.11

SESUM: A Secure Email System Using a Mediator, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): DING XuHua, 2004, S\$40,000

TEACHING

Courses Taught

Singapore Management University

Undergraduate Programmes :

- Computational Thinking
- Foundations of Cybersecurity
- Information Security and Trust
- Network Security

Postgraduate Professional Programmes :

- Capstone Project - Cybersecurity
- Empirical Research Project 2

Postgraduate Research Programmes :

- Empirical Research Project 1
- Empirical Research Project 2
- Empirical Research Project 3
- Empirical Research Project 4

THESES AND DISSERTATIONS

Theses and Dissertations Supervised

Singapore Management University

Supervisor, "Secure Enforcement Of Isolation Policy On Multicore Platforms With Virtualization Techniques", Dissertation by ZHAO SIQI, PhD in Information Systems, Singapore Management University, 2018

Theses and Dissertations Assessed

Singapore Management University

Committee Member, "Techniques for Identifying Mobile Platform Vulnerabilities and Detecting Policy-violating Applications", Dissertation by SU MON KYWE, PhD in Information Systems, Singapore Management University, 2017

Committee Member, "Towards Secure Online Distribution of Multimedia Codestream", Dissertation by LO SWEE WON, PhD in Information Systems, Singapore Management University, 2016

Committee Member, "Online Social Network Based Information Disclosure Analysis", Dissertation by LI YAN, PhD in Information Systems, Singapore Management University, 2014

Committee Member, "Security and Privacy in RFID-Enabled Supply Chains", Dissertation by CAI SHAOYING, PhD in Information Systems, Singapore Management University, 2014

Committee Member, "Virtualization-Based System Hardening Against Untrusted Kernels", Dissertation by CHENG YUEQIANG, PhD in Information Systems, Singapore Management University, 2014

Committee Member, "A Study of the Imitation, Collection and Usability Issues of Keystroke Biometrics", Dissertation by TEY CHEE MENG, PhD in Information Systems, Singapore Management University, 2013

Co Supervisor, "Exploiting Human Factors in User Authentication", Dissertation by GUPTA PAYAS, PhD in Information Systems, Singapore Management University, 2013