

Curriculum Vitae

Name: Hyoungshick Kim
Gender: Male
Citizenship: South Korea
Contact details: Sungkyunkwan University
Suwon, Republic of Korea
Tel: +82 31-299-4324
E-mail: hyoung@skku.edu

Status:

- **Assistant Professor** in Department of Computer Science and Engineering, College of Information and Communication Engineering, Sungkyunkwan University

Education:

- **Ph.D.** Computer Laboratory, University of Cambridge, UK, 2008.10-2011.12.
Supervisor: Prof. Ross Anderson
Thesis: Complex network analysis for secure and robust communications (Examiners – Prof. Jon Crowcroft and Prof. Alessandro Acquisti)
- **M.S.** Division of Computer Science, KAIST, Korea, 1999.3-2001.2.
Supervisor: Prof. Kyung-Yong Chwa
Thesis: A Distributed Algorithm for Maintaining a Minimum Spanning Tree in Dynamic Network
- **B.S.** Department of Information Engineering, Sungkyunkwan University, Korea, 1995.3-1999.2.
Supervisor: Prof. Youngik Eom
Thesis: Distributed Mutual Exclusion Algorithm for Maintaining Tree-Height Balance in Mobile Computing Environments

Experience:

- **2013.3-present: Department of Computer Science and Engineering, College of Information and Communication Engineering, Sungkyunkwan University, Korea**
Assistant Professor – Security Engineering Laboratory
- **2012.3-2013.2: Department of Electrical and Computer Engineering, University of British Columbia, Canada**
Postdoctoral Fellow – Laboratory for Education and Research in Secure Systems Engineering
- **2012.1-2012.3: Computer Laboratory, University of Cambridge, UK**
Research intern – System Research Group

- **2008.10-2011.12: Computer Laboratory, University of Cambridge, UK**
PhD candidate – Security Group
- **2009: Terrogeance Ltd., UK**
Part time – Data collection and translation about North Korea
- **2008.1-2008.9: Digital Media R&D Center, Samsung Electronics, Korea**
Senior Engineer – Core S/W Component Laboratories
- **2004.6-2007.12: Software Laboratories, Samsung Electronics, Korea**
Engineer(2004-2006)/Senior Engineer(2007) – Home Software Platform Team
- **1999.3-2004.5: Division of Computer Science, KAIST, Korea**
Research Assistant – Theory of Computation Laboratory

Teaching Experience:

- Lecturer: Computer Security, Department of Computer Science and Engineering, Sungkyunkwan University, Fall 2017. Undergraduate level course for understanding of computer security technology.
- Lecturer: Security Engineering, Department of Computer Science and Engineering, Sungkyunkwan University, Spring 2016. Graduate level course for understanding of computer security technology.
- Lecturer: Basic Programming Languages, Department of Computer Science and Engineering, Sungkyunkwan University, Spring 2015 – 2016. Undergraduate level course for understanding of basic programming skills.
- Lecturer: Database Security, Department of Financial Security, Yonsei University, Spring 2015 – 2017. Graduate level course for understanding of computer security technology.
- Lecturer: Basis and Practice in Programming, Department of Software, Sungkyunkwan University, Spring 2015. Undergraduate level course for understanding of basic programming skills.
- Lecturer: Data Structures, Department of Computer Science and Engineering, Sungkyunkwan University, Fall/Spring 2014 – 2017. Undergraduate level course for understanding of data structures and basic algorithms.
- Lecturer: Information System Security, Department of Computer Science and Engineering, Sungkyunkwan University, Spring 2013 – 2015. Graduate level course for understanding of computer security technology.
- Lecturer: Engineering Computer Programming, Department of Computer Science and Engineering, Sungkyunkwan University, Fall 2013, Spring 2014. Undergraduate level course for understanding of computer programming (MATLAB and Python).
- Lecturer: Introduction to Information and Communication Engineering, Department of Computer Science and Engineering, Sungkyunkwan University, Fall 2013. Undergraduate level course for understanding fundamental concepts of computer science.
- Organizer: Freshmen Seminar, Department of Computer Science and Engineering, Sungkyunkwan University, Spring 2013. Seminar for undergraduate freshmen.
- Guest Lecturer: Introduction to Computer Security, Department of Electrical and Computer Engineering, University of British Columbia, Fall 2012. Undergraduate level course for understanding of computer security technology.
- Supervision: Part II Projects, Computer Laboratory, University of Cambridge, Michaelmas 2010 – Lent 2011. Undergraduate level project for designing and implementing a practical system.
- Supervision: Security, Computer Laboratory, University of Cambridge, Michaelmas 2010. Undergraduate level course for understanding of computer security technology.
- Supervision: Algorithm II, Computer Laboratory, University of Cambridge, Michaelmas 2010. Undergraduate level course on the introduction to the design and analysis of computer algorithms.
- Supervision: Algorithm I, Computer Laboratory, University of Cambridge, Easter 2010. Undergraduate level course on the introduction to the design and analysis of computer algorithms.
- Supervision: Algorithm II, Computer Laboratory, University of Cambridge, Lent 2010. Undergraduate level course on the introduction to the design and analysis of computer algorithms.

- Supervision: Security, Computer Laboratory, University of Cambridge, Michaelmas 2009. Undergraduate level course for understanding of computer security technology.
- Supervision: Bioinformatics, Computer Laboratory, University of Cambridge, Easter 2009. Undergraduate level course on algorithms and techniques for bioinformatics.
- Supervision: Database, Computer Laboratory, University of Cambridge, Lent 2009. Undergraduate level course on the fundamental concepts in database.
- Supervision: Bioinformatics, Computer Laboratory, University of Cambridge, Lent 2009. Undergraduate level course on algorithms and techniques for bioinformatics.
- Teaching Assistant: Problem Solving (CS 202), Division of Computer Science, KAIST, Fall 2002. Undergraduate level course on the methods for problem solving and algorithm development.
- Teaching Assistant: Design and Analysis of Algorithms (CS 500), Division of Computer Science, KAIST, Spring 2002. Graduate level course on the principles and techniques for design and analysis of computer algorithms.
- Teaching Assistant: Graph Theory (CS 600), Division of Computer Science, KAIST, Fall 2001. Graduate level course on the introduction to topics and applications in graph theory.
- Teaching Assistant: Design and Analysis of Algorithms (CS 500), Division of Computer Science, KAIST, Spring 2001. Graduate level course on the principles and techniques for design and analysis of computer algorithms.
- Teaching Assistant: Algorithms (CS 300), Division of Computer Science, KAIST, Spring 2000. Undergraduate level course on the introduction to the design and analysis of computer algorithms.
- Teaching Assistant: Data Structure (CS 206), Division of Computer Science, KAIST, Fall 1999. Undergraduate level course on the fundamental concepts in data structures and algorithms.

Technical/Special Skills:

- **OS:** Windows and Linux
- **Programming:** C/C++/C#, Python, Java and XML
- **Simulation and Math package:** Matlab and R
- **Languages:** English & Korean (native language)

Appointments and Services:

- **2017-Present:** Editorial Board in KSII Transactions on Internet and Information Systems Editor.
- **2016-Present:** Editorial Board in International Journal of Computer & Software Engineering (IJCSE).
- **2015-Present:** Associate Editor in IEEE Consumer Electronics Magazine
- **2014-Present:** Editor of X.sdnsec-1 in ITU-T SG17.
- **2013-Present:** Consultant on security, Samsung Electronics.
- **2012-Present:** Editorial Review Board in International Journal of Privacy and Health Information Management (IJPHIM).
- **2018:** Workshop Chair of ACM Asia conference on Computer & Communications Security
- **2018:** Member of Program committee in ACM Asia conference on Computer & Communications Security
- **2018:** Treasurer & Conference Operation Co-Chairs of ACM International Conference on Ubiquitous Information Management and Communication.
- **2017:** Chair of Organization Committee in Asia Joint Conference on Information Security
- **2017:** Chair of Architecture/Security committee in Future Internet Forum

- **2017:** Member of Program committee in IEEE International Workshop on Big Data Security and Services.
- **2017:** Member of Program committee in International Conference on Information Science and Applications.
- **2017:** Member of Program Committee in International Conference on Complexity, Future Information Systems and Risk.
- **2016-2017:** Member of Program Committee in the Track on Social Network and Media Analysis, the 31st ACM Symposium on Applied Computing.
- **2016-2018:** Member of Program Committee in ACM International Conference on Ubiquitous Information Management and Communication.
- **2016-2017:** Member of Program Committee in IEEE International Conference on Advanced and Trusted Computing.
- **2012-2017:** Member of Program Committee in International Symposium on Foundations and Practices of Security.
- **2016:** Member of Program Committee in IEEE International Conference on Information Science and Security.
- **2016:** Member of Program Committee in IEEE ICNP Workshop on Hot Topics in Internet-of-Things.
- **2016:** Member of Program Committee in ACM Workshop on Security in Software Defined Networks & Network Function Virtualization.
- **2015-2016:** Co-chair of Program Committee in International Conference on Software Security and Assurance.
- **2012-2016:** Member of Program Committee in Workshop on Complex Networks and their Applications.
- **2015:** Member of Program Committee in International Workshop on Simplifying Complex Networks for Practitioners.
- **2015:** Member of Program Committee in Workshop on Decentralized Social Networks.
- **2015:** Member of Program Committee in IEEE Region 10 Symposium.
- **2015:** Member of Program Committee in IEEE Conference on Standardization for Communications and Networking.
- **2013-2015:** Member of Program Committee in Conference on Information Security and Cryptography.
- **2014:** Co-chair of Program Committee in International Workshop on Simplifying Complex Networks for Practitioners.
- **2014:** Member of Program Committee in IEEE Workshop on Telecom Standards.
- **2014:** Member of Program Committee in International Workshop on Information Security Applications.
- **2014:** Member of Program Committee in International Workshop on Inconspicuous Interaction.
- **2014:** Member of Program Committee in International Workshop on Device Centric Cloud with the 28th AINA, Victoria, Canada, 2014.
- **2013-2014:** Member of Program Committee in International Conference on Wireless Communications and Signal Processing.
- **2007-2008:** Editor of Technical TF in Long Pura Project (with Orange/France Telecom, Intel, CoreMedia and Philips)
- **2005-2007:** Editor of Architecture WC in Coral Standardization.

Awards and Grants:

- **The runner-up award**, ICSSA, 2016.
- **The best paper award**, CISC, 2016.
- **The Korean Ministry of Interior Award for Research Excellence**, NETSEC-KR, 2016.
- **The best paper award**, DC2, 2016.
- **The best student paper award**, ICSSA, 2015.
- **The best paper award**, DC2, 2015.
- **The 3rd place winner**, Korea Crypto Award, 2015.
- **The best paper award**, WISA, 2014.
- **The runner-up award**, SIMPEX, 2014.
- **The 2nd place winner of the Facebook Hackathon** at the University of British Columbia, 2012.
- **NSERC Postdoctoral Fellowship Award**: NSERC ISSNet, 2012-2013.
- **Research Studentship** in the Computer Laboratory with Northrop Grumman Corporation, 2010-2011.
- **Silver Medal in Samsung Electronics Annual Award**: Samsung Electronics, 2007.
- **Full Scholarship**: Ministry of Science and Technology, Korea, 2001-2003.
- **Full Scholarship**: Ministry of Science and Technology, Korea, 1999-2000.
- **Information Engineering Scholarship**: Sungkyunkwan University, 1997-1998.

Publications:

2018

[3] “A Framework for DNS Naming Services for Internet-of-Things Devices”, Keuntae Lee, Seokhwa Kim, Jaehoon Jeong, Sejun Lee, **Hyounghick Kim**, Jung-Soo Park, Future Generation Computer Systems, 2018. (under major revision)

[2] “Interface to Network Security Functions for Cloud-based Security Services”, Sangwon Hyun, Jinyoung Kim, **Hyounghick Kim**, Jaehoon Jeong, Susan Hares, Linda Dunbar, Adrian Farrel, IEEE Communications Magazine, 2018. (accepted)

[1] “A Framework for Managing User-defined Security Policies to Support Network Security Functions”, **Eunsoo Kim**, **Kuyju Kim**, **Seungjin Lee**, Jaehoon Jeong and **Hyounghick Kim**, IMCOM(ICUIMC): The 12nd ACM International Conference on Ubiquitous Information Management and Communication, Langkawi, Malaysia, 2018. (accepted)

2017

[27] “User Credential Cloning Attacks in Android Applications”, **Junsung Cho**, Dayeon Kim and **Hyounghick Kim**, IEEE Consumer Electronics Magazine, 2017. (accepted)

[26] “Hello, Facebook! Here is the stalkers’ paradise!: Design and analysis of enumeration attack using phone numbers on Facebook”, **Jinwoo Kim**, **Kuyju Kim**, **Junsung Cho**, **Hyounghick Kim** and Sebastian Schrittwieser, ISPEC: The 13rd International Conference on Information Security Practice and Experience, Melbourne, Australia, 2017.

- [25] “Adversarial Examples for Classifiers in High-Dimensional Network Data”, **Muhammad Ejaz Ahmed** and **Hyoungshick Kim**, CCS: The 24th ACM Conference on Computer and Communications Security (Poster), Dallas, USA, 2017.
- [24] “Mitigating DNS Query-Based DDoS Attacks with Machine Learning on Software-Defined Networking”, Muhammad Ejaz Ahmed, Hyoungshick Kim and Moosung Park, MILCOM: The 36th IEEE Military Communications Conference, Baltimore, USA, 2017.
- [23] “Open Sesame! Design and Implementation of Backdoor to Secretly Unlock Android Devices”, Junsung Cho, Geumhwan Cho, Sangwon Hyun and Hyoungshick Kim, MobiSec: The 2nd International Symposium on Mobile Internet Security, Jeju Island, Korea, 2017. video
- [22] “Preventing DNS amplification attacks using the history of DNS queries with SDN”, Soyoung Kim, Sora Lee, Geumhwan Cho, Muhammad Ejaz Ahmed, Jaehoon Paul Jeong and Hyoungshick Kim, ESORICS: The 22nd European Symposium on Research in Computer Security, Oslo, Norway, 2017.
- [21] “O2TR: Offline Off-the-Record (OTR) messaging”, Mahdi D Firoozjaei, Sangmin Lee and Hyoungshick Kim, WISA: The 18th World Conference on Information Security Applications, Jeju Island, Korea, 2017.
- [20] “COAT: Code Obfuscation Tool to evaluate the performance of code plagiarism detection tools”, Sangjun Ko, Jusop Choi and Hyoungshick Kim, ICSSA: The 3rd International Conference on Software Security and Assurance, Altoona, USA, 2017.
- [19] “IoT Security Threats and You”, Jungwoo Ryoo, Soyoung Kim, Junsung Cho, Hyoungshick Kim, Simon Tjoa and Christopher Derobertis, ICSSA: The 3rd International Conference on Software Security and Assurance, Altoona, USA, 2017.
- [18] “Security analysis and enhanced user authentication in proxy mobile IPv6 networks”, Dongwoo Kang, Jaewook Jung, Donghoon Lee, Hyoungshick Kim, Dongho Won, PLOS ONE, 2017.
- [17] “Security and Privacy Challenges in the Internet of Things”, Jong-Hyoun Lee and Hyoungshick Kim, IEEE Consumer Electronics Magazine, 2017.
- [16] “TARD: Temporary Access Rights Delegation for Guest Network Devices”, **Joonghwan Lee**, Jaewoo Seo, **Hoon Ko** and **Hyoungshick Kim**, Journal of Computer and System Sciences, 2017.
- [15] “SysPal: System-guided Pattern Locks for Android”, **Geumhwan Cho**, Jun Ho Huh, **Junsung Cho**, **Seongyeol Oh**, **Youngbae Song** and **Hyoungshick Kim**, S&P: The 38th IEEE Symposium on Security and Privacy, San Jose, USA, 2017. presentation
- [14] “Design of Backdoor on Android Devices”, **Junsung Cho**, **Geumhwan Cho**, Sangwon Hyun and **Hyoungshick Kim**, S&P: The 38th IEEE Symposium on Security and Privacy (Poster), San Jose, USA, 2017.

- [13] “I’m too busy to reset my LinkedIn password: On the effectiveness of password reset emails”, Jun Ho Huh, **Hyounghshick Kim**, Rakesh B. Bobba, Konstantin Beznosov and Swathi Sri V Rayala, CHI: The 35th ACM SIGCHI Conference on Human Factors in Computing Systems, Denver, USA, 2017. video
- [12] “DDoS Attack Mitigation in Internet of Things Using Software Defined Networking”, **M. Ejaz Ahmed** and **Hyounghshick Kim**, BigDataSecurity: The 1st Workshop on Big Data Security and Services, held in conjunction with IEEE Big Data Service, San Francisco, USA, 2017.
- [11] “Boosting the Guessing Attack Performance on Android Lock Patterns with Smudge Attacks”, **Seunghun Cha**, **Sungsu Kwag**, **Hyounghshick Kim** and Jun Ho Huh, ASIACCS: The 10th ACM Asia Conference on Computer and Communications Security, Abu Dhabi, UAE, 2017.
- [10] “Design of a secure digital recording protection system with network connected devices”, **Hyounghshick Kim**, DC2: The 4th Workshop on Device Centric Cloud held in conjunction with IEEE AINA, Taipei, Taiwan, 2017.
- [9] “Wrong Siren! A location spoofing attack on indoor positioning systems: the Starbucks case study”, **Junsung Cho**, **Jaegwan Yu**, **Sanghak Oh**, Jungwoo Ryoo, Jaeseung Song and **Hyounghshick Kim**, IEEE Communications Magazine, 2017.
- [8] “k-Depth Mimicry Attack to Secretly Embed Shellcode into PDF”, Jaewoo Park and Hyounghshick Kim, ICISA: The 8th International Conference on Information Science and Applications, Macau, China, 2017.
- [7] “I Don’t Use Apple Pay Because It’s Less Secure ...: Perception of Security and Usability in Mobile Tap-and-Pay”, Jun Ho Huh, Saurabh Verma, Swathi Sri V Rayala, Rakesh Bobba, Konstantin Beznosov and Hyounghshick Kim, USEC: The 5th Usable Security Conference, San Diego, USA, 2017.
- [6] “Security Analysis of Samsung Knox”, Munkhzorig Dorjmyagmar, MinChang Kim and Hyounghshick Kim, ICACT: The 19th International Conference on Advanced Communication Technology, Pheonix Park, Korea, 2017.
- [5] “Forensic analysis of the backup database file in KakaoTalk messenger”, **Jusop Choi**, **Jaewoo Park** and **Hyounghshick Kim**, BigComp: The 4th IEEE International Conference on Big Data and Smart Computing, Jeju Island, Korea, 2017.
- [4] “Security Challenges with Network Functions Virtualization”, **Mahdi D Firoozjaei**, Jaehoon Jeong, **Hoon Ko** and **Hyounghshick Kim**, Future Generation Computer Systems, 2017.
- [3] “Privacy-Preserving Nearest Neighbor Queries Using Geographical Features of Cellular Networks”, **Mahdi D Firoozjaei**, **Jaegwan Yu**, Hyoungkee Choi and **Hyounghshick Kim**, Computer Communications, 2017.

[2] “A Flexible Architecture for Orchestrating Network Security Functions to Support High-Level Security Policies”, **Sanghak Oh, Eunsoo Kim**, Jaehoon Jeong, **Hoon Ko** and **Hyoungshick Kim**, IMCOM(ICUIMC): The 11st ACM International Conference on Ubiquitous Information Management and Communication, Beppu, Japan, 2017.

[1] “Analysis and Comparison of Fax Spam Detection Algorithms”, Jaekwang Kim, **Hyoungshick Kim** and Jee-Hyoung Lee, IMCOM(ICUIMC): The 11st ACM International Conference on Ubiquitous Information Management and Communication, Beppu, Japan, 2017.

2016

[18] “WiPING: Wi-Fi signal-based PIN Guessing attack”, **Seunghun Cha, Jaewoo Park, Geumhwan Cho**, Jun Ho Huh and **Hyoungshick Kim**, CCS: The 23rd ACM Conference on Computer and Communications Security (Poster), Vienna, Austria, 2016. video

[17] “Secure DNS Name Autoconfiguration for IPv6 Internet-of-Things Devices”, Keuntae Lee, Hyungsuk Kang, Jaehoon (Paul) Jeong, **Hyoungshick Kim**, and Jung-Soo Park, ICTC 2016: The 7th International Conference on ICT Convergence, Jeju, Korea, 2016.

[16] “SDN-Based Network Security Functions for VoIP and VoLTE Services”, Daeyoung Hyun, Jinyoung Kim, Jaehoon (Paul) Jeong, **Hyoungshick Kim**, Jung-Soo Park, and Taejin Ahn, ICTC 2016: The 7th International Conference on ICT Convergence, Jeju, Korea, 2016.

[15] “Detecting encrypted traffic: a machine learning approach”, **Seunghun Cha** and **Hyoungshick Kim**, WISA: The 17th World Conference on Information Security Applications, Jeju Island, Korea, 2016.

[14] “Empirical analysis of SSL/TLS weaknesses in real websites: Who cares?”, **Sanghak Oh, Eunsoo Kim**, and **Hyoungshick Kim**, WISA: The 17th World Conference on Information Security Applications, Jeju Island, Korea, 2016.

[13] “Towards Automated Exploit Generation for Embedded Systems”, Matthew Ruffell, Jin Hong, **Hyoungshick Kim** and Dong-Seong Kim, WISA: The 17th World Conference on Information Security Applications, Jeju Island, Korea, 2016.

[12] “A security analysis of paid subscription video-on-demand services for online learning”, **Sora Lee, Jinwoo Kim, Sangjun Ko** and **Hyoungshick Kim**, ICSSA: The 2nd International Conference on Software Security and Assurance, St. Pölten, Austria, 2016. (selected as “runner-up”)

[11] “A framework for detecting MAC and IP spoofing attacks with network characteristics”, **Jaegwan Yu, Eunsoo Kim, Hyoungshick Kim** and Jun Ho Huh, ICSSA: The 2nd International Conference on Software Security and Assurance, St. Pölten, Austria, 2016.

[10] “On the Guessability of Resident Registration Numbers in South Korea”, **Youngbae Song, Hyoungshick Kim** and Jun Ho Huh, ACISP: The 21st Australasian Conference on Information Security and Privacy, Melbourne, Australia, 2016. video

[9] “PassBYOP: Bring Your Own Picture for Securing Graphical Passwords”, Andrea Bianchi, Ian Oakley and **Hyounghick Kim**, IEEE Transactions on Human-Machine Systems, Vol. 46(3), 2016. video

[8] “Developer-Friendly Software Security”, Victoria McIntyre, Jungwoo Ryoo, **Kyungwon Park** and **Hyounghick Kim**, Encyclopedia of Software Engineering (book chapter), 2016.

[7] “SAN: Self-Adaptive Navigation for Drone Battery Charging in Wireless Drone Networks”, Jinyong Kim, Jinho Lee, Jaehoon Jeong, **Hyounghick Kim**, Jung-Soo Park, and Taeho Kim, DC2: The 3rd Workshop on Device Centric Cloud held in conjunction with IEEE AINA, Crans-Montana, Switzerland, 2016. (selected as “best paper”)

[6] “Detecting False Emergency Requests Using Callers’ Reporting Behaviors and Locations”, **Mahdi D Firoozjaei**, **Jaewoo Park** and **Hyounghick Kim**, DC2: The 3rd Workshop on Device Centric Cloud held in conjunction with IEEE AINA, Crans-Montana, Switzerland, 2016.

[5] “A Healthcare Information System for Secure Delivery and Remote Management of Medical Records”, Hyounghick Kim, Ki-Eun Shin and **Hyounghick Kim**, IEICE Transactions on Information and Systems, 2016.

[4] “You are a Game Bot!: Uncovering game bots in MMORPGs via self-similarity in the wild”, Eunjo Lee, Jiyoung Woo, **Hyounghick Kim**, Aziz Mohaisen and Huy Kang Kim, NDSS: The 23rd Network and Distributed System Security Symposium, San Diego, USA, 2016.

[3] “Combating online fraud attacks in mobile-based advertising”, **Geumhwan Cho**, **Junsung Cho**, **Youngbae Song**, Donghyun Choi and **Hyounghick Kim**, EURASIP Journal on Information Security, Vol. 2016(1), 2016.

[2] “Bypassing the Integrity Checking of Rights Objects in OMA DRM: a Case Study with the MelOn Music Service”, **Jusop Choi**, William Aiken, Jungwoo Ryoo and **Hyounghick Kim**, IMCOM(ICUIMC): The 10th ACM International Conference on Ubiquitous Information Management and Communication, Danang, Vietnam, 2016. video

[1] “Threat Assessment in the Cloud Environment – A Quantitative Approach for Security Pattern Selection”, Priya Anand, Jungwoo Ryoo, **Hyounghick Kim** and **Eunhyun Kim**, IMCOM(ICUIMC): The 10th ACM International Conference on Ubiquitous Information Management and Communication, Danang, Vietnam, 2016.

2015

[20] “Surpass: System-initiated user-replaceable passwords”, Jun Ho Huh, **Seongyeol Oh**, **Hyounghick Kim**, Konstantin Beznosov, Apurva Mohan, and S. Raj Rajagopalan, CCS: The 22nd ACM Conference on Computer and Communications Security, Denver, USA, 2015.

[19] “SDN-based Security Services using Interface to Network Security Functions”, Jinyong Kim, **Mahdi D Firoozjaei**, Jaehoon Jeong, **Hyounghick Kim**, and Jung-Soo Park, ICTC: The 6th International Conference on ICT Convergence, Jeju Island, Korea, 2015.

- [18] “An empirical study of click fraud in mobile advertising networks”, **Geumhwan Cho, Junsung Cho, Youngbae Song and Hyounghick Kim**, IWCC: The 4th Workshop on Cyber Crime held in conjunction with ARES, Toulouse, France, 2015.
- [17] “Encryption Is Not Enough: Inferring user activities on KakaoTalk with traffic analysis”, **Kyungwon Park and Hyounghick Kim**, WISA: The 16th International Workshop on Information Security Applications, Jeju Island, Korea, 2015.
- [16] “A new technique using a shuffling method to protect confidential documents from shoulder surfers”, Hyunsoo Kim, Ji Won Yoon and **Hyounghick Kim**, ICSSA: The 1st International Conference on Software Security and Assurance, Suwon, Korea, 2015. (selected as “best student paper”)
- [15] “Performing clickjacking attacks in the wild: 99% are still vulnerable!”, **Daehyun Kim and Hyounghick Kim**, ICSSA: The 1st International Conference on Software Security and Assurance, Suwon, Korea, 2015.
- [14] “Addressing security challenges in cloud computing – a pattern-based approach”, Priya Anand, Jungwoo Ryoo and **Hyounghick Kim**, ICSSA: The 1st International Conference on Software Security and Assurance, Suwon, Korea, 2015.
- [13] “On the Memorability of System-generated PINs: Can Chunking Help?”, Jun Ho Huh, **Hyounghick Kim**, Rakesh B. Bobba, Masooda Bashir and Konstantin Beznosov, SOUPS: The 11st Symposium On Usable Privacy and Security, Ottawa, Canada, 2015.
- [12] “Devil in a Box: Installing Backdoors in Electronic Door Locks”, **Seongyeol Oh, Joon-Sung Yang, Andrea Bianchi and Hyounghick Kim**, PST: The 13rd International Conference on Privacy, Security and Trust, Izmir, Turkey, 2015.
- [11] “Keyboard or Keylogger?: a security analysis of third-party keyboards on Android”, **Junsung Cho, Geumhwan Cho and Hyounghick Kim**, PST: The 13rd International Conference on Privacy, Security and Trust, Izmir, Turkey, 2015.
- [10] “Enhancing Conformance Testing using Symbolic Execution for Network Protocols”, Jaeseung Song, **Hyounghick Kim**, and Soojin Park, IEEE Transactions on Reliability, Vol. 64(3), 2015.
- [9] “Design and analysis of enumeration attacks on finding friends with phone numbers: a case study with KakaoTalk”, **Eunhyun Kim, Kyung-won Park, Hyounghick Kim** and Jaeseung Song, Computers & Security, Vol. 52, 2015.
- [8] “Visual Honey Encryption: Application to steganography”, Jiwon Yoon, **Hyounghick Kim**, Hyunjoo Jo, Hyelim Lee and Kwangsu Lee, IH&MMSec: The 3rd ACM Workshop on Information Hiding and Multimedia Security, Portland, USA, 2015.
- [7] “Visualizing Privacy Risks of Mobile Applications through a Privacy Meter”, **Jina Kang, Hyounghick Kim**, Yun Gyung Cheong and Jun Ho Huh, ISPEC: The 11st International Conference on Information Security Practice and Experience, Beijing, China, 2015.

[6] “On the Effectiveness of Pattern Lock Strength Meters – Measuring the Strength of Real World Pattern Locks”, **Youngbae Song, Geumhwan Cho, Seongyeol Oh, Hyounghick Kim** and Jun Ho Huh, CHI: The 33rd ACM SIGCHI Conference on Human Factors in Computing Systems, Seoul, Korea, 2015. video

[5] “Privacy Preserving Nearest Neighbor Search based on Topologies in Cellular Networks”, **Mahdi D Firoozjaei, Jaegwan Yu and Hyounghick Kim**, DC2: The 2nd Workshop on Device Centric Cloud held in conjunction with IEEE AINA, Gwangju, Korea, 2015. (selected as “best paper”)

[4] “SBUS: Smart e-Bus Battery Substitution Scheme in Vehicular Networks”, Jihyeok Seo, Jaehoon Jeong, **Hyounghick Kim** and Jung-Soo Park, DC2: The 2nd Workshop on Device Centric Cloud held in conjunction with IEEE AINA, Gwangju, Korea, 2015. (selected as “best student paper”)

[3] “A Framework for Security Services Based on Software-Defined Networking”, Jaehoon Jeong, Jihyeok Seo, **Geumhwan Cho, Hyounghick Kim** and Jung-Soo Park, DC2: The 2nd Workshop on Device Centric Cloud held in conjunction with IEEE AINA, Gwangju, Korea, 2015.

[2] “A Study on the Influential Neighbors to Maximize Information Diffusion in Online Social Networks”, **Hyounghick Kim**, Konstantin Beznosov and Eiko Yoneki, Computational Social Networks, Vol. 2(3), 2015.

[1] “KaaSP: Keying as a Service Provider for Small and Medium Enterprises Using Untrusted Cloud Services”, William Aiken, Jungwoo Ryoo and **Hyounghick Kim**, IMCOM(ICUIMC): The 9th ACM International Conference on Ubiquitous Information Management and Communication, Bali, Indonesia, 2015.

2014

[8] “I’ve Got Your Number: Harvesting users’ personal data via contacts sync for the KakaoTalk messenger”, **Eunhyun Kim, Kyung-won Park, Hyounghick Kim** and Jaeseung Song, WISA: The 15th International Workshop on Information Security Applications, Jeju Island, Korea, 2014. (selected as “best paper”)

[7] “Analyzing unnecessary permissions requested by Android apps based on users’ opinions”, **Jina Kang, Daehyun Kim, Hyounghick Kim** and Jun Ho Huh, WISA: The 15th International Workshop on Information Security Applications, Jeju Island, Korea, 2014.

[6] “A Private Walk in the Clouds: Using End-to-End Encryption between Cloud Applications in a Personal Domain”, **Youngbae Song, Hyounghick Kim** and Aziz Mohaisen, TrustBus: The 11st International Conference on Trust, Privacy & Security in Digital Business, Munich, Germany, 2014.

[5] “iVisher: A system for real-time caller ID spoofing detection”, Jaeseung Song and **Hyounghick Kim**, ETRI Journal, Vol. 36(5), 2014.

[4] “On the Memorability of System-generated PINs: Can Chunking Help”, Jun Ho Huh, **Hyounghick Kim**, Rakesh B. Bobba, Masooda Bashir and Konstantin Beznosov, WY: Workshop on Who are you?! Adventures in Authentication held in conjunction with ACM SOUPS, Menlo Park, USA, 2014.

[3] “Power Replay Attack in Electronic Door Locks”, **Seongyeol Oh**, Joon-sung Yang, Andrea Bianchi and **Hyounghick Kim**, S&P: The 35th IEEE Symposium on Security and Privacy (Poster), San Jose, USA, 2014.

[2] “Finding Influential Neighbors to Maximize Information Diffusion in Twitter”, **Hyounghick Kim**, Konstantin Beznosov and Eiko Yoneki, SIMPLEX: The 6th Annual Workshop on Simplifying Complex Networks for Practitioners, held in conjunction with WWW, Seoul, Korea, 2014. (selected as “runner-up”)

[1] “Don’t Count The Number of Friends When You Are Spreading Information in Social Networks”, **Hyounghick Kim**, IMCOM(ICUIMC): The 8th ACM International Conference on Ubiquitous Information Management and Communication, Siem Reap, Cambodia, 2014.

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