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Contact Info

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Educational Background

Level : Doctor of Philosophy (Ph. D.)
Field of Study : Computer Science
Major : Information Security
University : Soongsil University, South Korea
Date Graduated : 17 August 2012

Level : Master's Degree
Field of Study : Computer Science/Information Technology
Major : Information Technology
University : Malaysia University of Science & Technology
(In collaboration with MIT, USA), Malaysia
Date Graduated : 22 September 2004

Level : Bachelor's Degree
Field of Study : Computer Science/Information Technology
Major : Software Engineering
University : University of Malaya, Malaysia
Date Graduated : 10 September 2002

Employment History

- Institution Name** : Nazarbayev University (Department of Computer Science)
Position Title : Assistant Professor
Date Joined : August 2018 - Present
- Institution Name** : SoongSil University (School of Software)
Position Title : Associate Professor
Date Joined : March 2016 – July 2018
- Institution Name** : SoongSil University (School of Computer Science and Engineering)
Position Title : Assistant Professor
Date Joined : March 2010 – Feb 2016
- Institution Name** : SoongSil University (School of Computer Science and Engineering)
Position Title : Full-Time Lecturer
Date Joined : March 2008 – Feb 2010
- Institution Name** : Multimedia University, Malaysia (Faculty of Information and Technology)
Position Title : Full-Time Lecturer
Date Joined : Oct 2004 – Feb 2008
- Institution Name** : University Tunku Abdul Rahman (Faculty of Information and Communication Technology)
Position Title : Part-Time Lecturer
Date Joined : Feb 2003 – Sept 2004

Research Interests

My research interests lie in the fields of cryptography, secret sharing, security, privacy, and biometrics. The main focus of my work is primarily concerned with the protocol design for the following problems:

- Secure Multi-party Computation (SMC)
- Privacy-Preserving Data Mining (PPDM)
- Data Privacy Protection
- Differential Privacy
- Secure Collaborative Work
- Private Statistical Computation
- Self-oriented Privacy (self-enforcing, self-awareness, self-defined)
- Anonymous Privacy Protection for Data Collection and Data Publishing
- Secure Biometrics Matching for Cloud Computing and Remote Authentication
- Emerging issues for Cloud and Edge Computing
- Research on Service Selection Approaches

My ultimate research goal is to help users to protect their data privacy in this technology era. However, my research interests are not limited to the above topics/areas. I am willing to explore new areas of research and expand my knowledge.

Research Publications

Published/Accepted International Journal Papers

1. Yee Jian Chew, Shih Yin Ooi, **Kok-Seng Wong**, Ying Han Pang and Seoung Oun Hwang, "*Evaluation of Black-Marker and Bilateral Classification with J48 Decision Tress in Anomaly based Intrusion Detection System*", Journal of Intelligent & Fuzzy Systems (ISSN: 1064-1246), 2018. 08 (First Online). (SCIE)
2. Ao Zhou, Shangguang Wang, Ching-Hsien Hsu, Myung Ho Kim and **Kok-Seng Wong**, "*Virtual Machine Placement with (m,n)-fault Tolerance in Cloud Data Center*", Cluster Computing (ISSN: 1386-7857), 2017. 12 (First Online). (SCIE)
3. **Kok-Seng Wong** and Myung Ho Kim, "*Towards a Fair Indictment for Sealed-Bid Auction with Self-Enforcing Privacy*", The Journal of Supercomputing, 2017. 4.(First Online). (SCI)
4. **Kok-Seng Wong** and Myung Ho Kim, "*Emerging Issues and Challenges for Cloud Data at the Edge*", International Journal of Web and Grid Services, Vol. 14, No. 2, pp. 123-145, 2018. 3. (SCIE)

5. Ao Zhou, Shanguang Wang, Robert Ching-Hsien Hsu, Myung Ho Kim, and **Kok-Seng Wong**, "*Network Failure-aware Redundant Virtual Machine Placement in a Cloud Data Center*", *Concurrency and Computation: Practice and Experience* (ISSN: 1532-0634), Vol. 29, No. 24, 2017. 12. (SCIE)
6. Yan Guo, Shanguang Wang, **Kok-Seng Wong**, and Myung Ho Kim, "*Skyline Service Selection Approach based on QoS Prediction*", *International Journal of Web and Grid Services*, (ISSN: 1741-1106), Vol. 13, No. 4, pp. 425-447, 2017. 10. (SCIE)
7. **Kok-Seng Wong** and Myung Ho Kim, "*Privacy Protection for Data-Driven Smart Manufacturing System*", *International Journal of Web Services Research*, Vol. 14, No. 3, pp. 17-32, 2017. 6. (SCIE)
8. **Kok-Seng Wong** and Myung Ho Kim, "*Secure Rank Correlation Computation for IoT Applications*", *International Journal of Services Technology and Management*, Vol. 23, No. ½, pp. 40-51, 2017. 2 (SCOPUS)
9. Qibo Sun, Shanguang Wang, Ning Lu, **Kok-Seng Wong**, Myung Ho Kim, "*SFADS: A SIP Flooding Attack Detection Scheme with the Internal and External Detection Features in IMS Networks*", *Journal of Internet Technology*, Vol. 17, No. 7, pp. 1327-1338, 2016. 12. (SCIE)
10. **Kok-Seng Wong** and Myung Ho Kim, "*An Enhanced User Authentication Solution for Mobile Payment Systems using Wearables*", *Security and Communication Networks Journal*, Vol. 9, Issue 17, pp. 4639-4649, 2016. 11. (SCIE)
11. **Kok-Seng Wong** and Myung Ho Kim, "*Towards a Respondent-Preferred k_i – Anonymity Model*", *Frontiers of Information Technology & Electronic Engineering*, Vol. 16, No. 9, pp. 720-731, 2015.9. (SCIE)
12. **Kok Seng Wong** and Myung Ho Kim, "*On Private Hamming Distance Computation*", *The Journal of Supercomputing*, Vol. 69, No. 3, pp. 1123-1138, 2014. 9. (SCI)
13. **Kok-Seng Wong** and Myung Ho Kim, "*Preserving Differential Privacy for Similarity Measurement in Smart Environments*", *The Scientific World Journal*, Vol. 2014, Article ID 581426, 9 pages, 2014. (SCIE)
14. **Kok-Seng Wong** and Myung Ho Kim, "*Towards Self-Awareness Privacy Protection for Internet of Things (IoT) Data Collection*", *Journal of Applied Mathematics*, Vol. 2014, Article ID 827959, 9 pages, 2014. (SCIE)

15. **Kok Seng Wong** and Myung Ho Kim, "*Privacy-Preserving Similarity Coefficients for Binary Data*", Computers & Mathematics with Applications, Vol. 65, No. 9, pp. 1280-1290, 2013.5. (SCI)
16. **Kok Seng Wong** and Myung Ho Kim, "*A Privacy-Preserving Biometric Authentication Protocol*", Advanced Science Letters, , Vol. 9, No. 1, pp.683-688, 2012.4. (SCIE)
17. **Kok Seng Wong** and Myung Ho Kim, "*Privacy Preserving Frequent Itemsets Mining via Secure Collaborative Framework*", Security and Communication Networks Journal, Vol. 5, No. 3, pp. 263-272, 2012. 3. (SCIE)
18. **Kok Seng Wong** and Myung Ho Kim, "*Semi-trusted Collaborative Framework for Multi-party Computation*", KSII Transactions on Internet and Information Systems, Vol. 4, No. 3, pp. 411-427, 2010.6. (SCIE)
19. **Wong Kok Seng**, Myung Ho Kim, Rosli Besar, Fazly Salleh, "*A Secure Model for Medical data Sharing*", International Journal of Database Theory and Application , Vol.1 No.1, 2008.11.

Book Chapters

20. Yee Jian Chew, **Kok-Seng Wong** and Shih Yin Ooi, "*Privacy Protection in Machine Learning: The State-of-the-Art for a Private Decision Tree*," Chapter in "Security and Authentication: Perspectives, Management and Challenges", Edited by: Ong Thian Song, Tee Connie, and Shohel Sayeed (Editors), pp. 13-40, Nova Science Publisher, 2018, ISBN: 978-53612-943-4.
21. **Kok-Seng Wong** and Myung Ho Kim, "*A Collaborative Framework Design for Distributed Biometrics-based Authentication in the Cloud*," Chapter in "Biometric Security", Edited by: David Ngo, Andrew Teoh, and Jiankun Hu (Editors), pp. 351-380, Cambridge Scholars Publishing, 2015, ISBN: 1-4438-7183-4.
22. **Wong Kok Seng**, P. Sellappan, Nor Adnan Yahaya, "*Collaborative Support for Graphical-Based Design Tools*" Published in "Encyclopedia of Internet Technologies and Applications" (August 2007) Edited by: Mario Freire and Manuela Pereira, University of Beira Interior, Portugal (Information Science Reference), ISBN: 978-1-59140-993-9

Published/Accepted International Conference Papers

23. **Kok-Seng Wong** and Myung Ho Kim, "*Towards Autonomous Payments for Internet of Things*," in International Conference on IoT (S2 ICIOT), Zhangjiajie, China, 2016, pp. 88-92.
24. **Kok-Seng Wong** and Myung Ho Kim, "*Data Protection in the Industrial Internet of Things*," in International Conference on IoT (S2 ICIOT), Zhangjiajie, China, 2016, pp. 109-115.
25. **Kok-Seng Wong**, Minjie Seo and Myung Ho Kim, "*Secure Two-Party Rank Correlation Computations for Recommender Systems*," in IEEE Trustcom/BigDataSE/ISPAIEEE. Vol. 1, 2015, pp. 1022-1028.
26. **Kok-Seng Wong**, Minsu Kang, Sangjung Lee and Myung Ho Kim, "*Practical Biometrics On-Card Matching for Remote User Authentication Using Smart Cards*," in Computer Science and its Applications. vol. 330, J. J. Park, et al., Eds., ed: Springer Berlin Heidelberg, 2015, pp. 505-510.
27. **Kok Seng Wong** and Myung Ho Kim, "*Privacy-Preserving Data Collection with Self-Awareness Protection*", in Frontier and Innovation in Future Computing and Communications. vol. 301, J. J. Park, et al., Eds., ed: Springer Netherlands, 2014, pp. 365-371
28. **Kok Seng Wong** and Myung Ho Kim, "*Secure Biometric-Based Authentication for Cloud Computing*," in Cloud Computing and Services Science, vol. 367, I. Ivanov, et al., Eds., ed: Springer International Publishing, 2013, pp. 86-101. (revised selected paper of CLOSER2012)
29. **Kok Seng Wong** and Myung Ho Kim, "*Secure Re-publication of Dynamic Big Data*," in Cyberspace Safety and Security. vol. 8300, G. Wang, et al., Eds., ed: Springer International Publishing, 2013, pp. 468-477.
30. **Kok Seng Wong** and Myung Ho Kim, "*Personalized Privacy Protection on Strong Dependency Sensitive Attributes*", 6th International Conference on Information (Information2013), pp. 110-113, May 2013, Tokyo, Japan.
31. **Kok Seng Wong** and Myung Ho Kim, "A Privacy-Preserving Biometric Matching Protocol for Iris Codes Verification", 3rd FTRA International Conference on Mobile, Ubiquitous, and Intelligent Computing (MUSIC2012), pp. 120-125, June 2012, Vancouver, Canada.

32. **Kok Seng Wong** and Myung Ho Kim, "*Towards Biometric-based Authentication for Cloud Computing*", 2nd International Conference on Cloud Computing and Services Science (CLOSER2012), April 2012, Porto, Portugal.
33. **Kok Seng Wong** and Myung Ho Kim, "*A Privacy Preserved Protocol for Two-party Equality Test*", 26th International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC2011), pp. 831-834, June 2011, Gyeongju, South Korea.
34. **Wong Kok Seng**, Myung Ho Kim, Rosli Besar, Fazly Salleh, "*A Privacy Preserved Model for Medical Data Sharing in Telemedicine*" in *Advances in Communication and Networking*. vol. 27, T.-h. Kim, et al., Eds., ed: Springer Berlin Heidelberg, 2009, pp. 63-75.
35. **Wong Kok Seng**, Rosli Bin Besar, and Fazly Salleh Abas, "*Towards Medical Data Sharing in Malaysia*", 2nd International Conference on Informatics (INFORMATICS '07), November 27 – 28, 2007.
36. **Wong Kok Seng**, Rosli Bin Besar, and Fazly Salleh Abas, "*Collaborative Support for Medical Data Mining in Telemedicine*", 2nd International Conference on Information & Communication Technologies (ICTTA'06), April 24 – 28, 2006, pp. 689-690, Vol. 1, Damascus, Syria.
37. **Wong Kok Seng**, Tey Ek Wei, P. Sellappan, Nor Adnan Yahaya, "*Collaborative Graphical Based Design Environments Using Peer-to-Peer Architecture*", International Conference on Recent trends in Information Systems – (IRIS '06), January 6 - 8, 2006. pp. 712-720, K.R.Nagar, Kovlipatti, TamilNadu, India.
38. **Wong Kok Seng**, Sellappan Palaniappan, Nor Adnan Yahaya. "*A Framework for Collaborative Graphical Based Design Environment*", 16th International Workshop on Database and Expert Systems Applications (DEXA'05), August 22 – 26, 2005. pp. 646-650, Copenhagen, Denmark.

Thesis Reports

1. Doctorate's Degree

Thesis Title: Privacy-Preserving Protocols for Similarity Measure and Applications.

Institution: Soongsil University, South Korea

Supervisor: Professor Myung Ho Kim

2. **Master's Degree**

Thesis Title: A Collaborative Environment for Graphical Based Design Tools using Client Server Architecture (CSCE): A .NET Implementation.

Institution: Malaysia University of Science and Technology, Malaysia

Supervisor: Professor Sellappan Palaniappan

Co-Supervisor: Professor Nor Adnan Yahaya

3. **Bachelor's Degree**

Thesis Title: Smart Healthcare Information System.

Institution: University of Malaya, Malaysia

Supervisor: Professor Sellappan Palaniappan

Research Grants

1. Project Title: "*Temporal Classification in the Application of Anomaly Based Intrusion Detection Systems*", **External Collaborator**, Aug 2016- July 2019, FRGS, Malaysia, RM64,200 (Principle Investigator: Dr. Ooi Shih Yin, Multimedia University).
2. Project Title: "*Enhancing Recommendations in a Multi-Agent Environment Using Key Trust Components*", **External Expert**, 2015-2016, Sciencefund, Malaysia, RM68,500 (Principle Investigator: Dr. Vimala A/p Balakrishnan, University of Malaya).

Awards

- Visiting Scholar at State Key Laboratory of Networking and Switching Technology, Beijing University of Posts and Telecommunications (June, 2018)
- Best University Teaching Portfolio Award (2016).
- Visiting Scholar at State Key Laboratory of Networking and Switching Technology, Beijing University of Posts and Telecommunications (November, 2016)
- Visiting Scholar at State Key Laboratory of Networking and Switching Technology, Beijing University of Posts and Telecommunications (October, 2015).
- Best University Teaching Portfolio Award (2014).
- Visiting Professor to CRISES Research Group, University of Rovira i Virgil (July 2012).
- Best Paper Award (International Symposium on Advances in Cryptography, Security and Applications for Future Computing, ACSA 2011).
- Soongsil University 2009 Best Teaching Award.
- Received more than 10 letters of merits for teaching performance.
- Malaysian Fellowship in APRICOT 2004.

Professional Activities

Editorial Tasks:

- **Associate Editor:** International Journal of Web Science (IJWS)
- **Guest Editor:** Wireless Communications and Mobile Computing

Regular International Journals Reviewer for:

- Computers and Security
- Future Generation Computer Systems (FGCS)
- Computer and Electrical Engineering (CAEE)
- IEEE Transaction on Emerging Topics in Computing (TETC)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- Information Sciences (INS)
- The Journal of Supercomputing (JoS)

- Wireless Communications and Mobile Computing
- Vehicular Communications
- Peer-to-Peer Networking and Applications (PPNA)
- Scientific Programming
- Personal and Ubiquitous Computing (PUC)
- Security and Communication Networks (SCN)
- Sensors (MDPI)
- Multimedia Tools and Applications Journal (MTAP)
- International Journal of Network Security (IJNS)
- Maejo International Journal of Science and Technology (MIJST)
- The Computer Journal (COMPJ)
- IET Information Security Journal (IET)
- International Journal of Computer Science and Information Security (IJCSIS)
- Journal of Medical Systems (JOMS)
- KSII Transactions on Internet and Information Systems (TIIS)
- EURASIP Journal on Wireless Communications and Networking (WCN)
- Journal of Information Processing Systems (JIPS)
- Intelligent Automation and Soft Computing Journal (AUTOSOFT)
- Frontiers of Computer Science (FCS)

Organizing/Technical Program Committee:

- International Conference on Green and Human Information Technology (ICGHIT2018)
- International Workshop on Design and Performance of Networks on Chip (DPNoC2018)
- International Conference on Information and Communication Technology for Muslim World (ICT4M 2018)
- Asia Simulation Conference (AsiaSim 2017)
- International Conference on Information and Communication Technology (ICoICT 2017)
- IEEE-GCC Conference and Exhibition 2016 (IEEE-GCC 2016)
- International Conference on Electrical, Electronic, Communication and Control Engineering (ICEECC2016)
- EEAI International Conference on Collaborative Computing: Networking, Applications and Worksharing (COLLABORATECOM2016)
- International Symposium on Web of Things and Big Data (WoTBD2016)
- IEEE Industrial Electronics and Applications Conference (IEACon 2016-2017)

- IEEE Symposium on Signal Processing and Information Technology (ISSPIT-2015)
- International Conference on Advanced Technologies for Communications (ATC2015-2017)
- International Workshop on Mobile Applications (MobiApps 2015-2017)
- International Conference on IT Convergence and Security (ICITCS-2015, 2017)
- International Conference on Platform Technology and Service (PlatCon2015-2017)
- International Conference on Information Science and Applications (ICISA2015-2016)
- International Conference on Mobile and Wireless Technology (ICMWT2015-2016)
- International Biometrics and Smart Government Summit (IBMSGs 2015)
- IEEE Symposium on Industrial Electronics Applications (ISIEA2014)
- International Conference on Mobile Web Information Systems (MobiWIS 2014)
- International Conference on Future Networks and Communications (FNC2014)
- International Congress on Big Data (BigData2014)-Shenzhen Satellite Session
- International Conference on Network (ICN2014-2015)
- International Conference on Electronic Publishing and Information Technology (ICEPIT2014)
- IEEE Symposium on Computer Applications & Industrial (ISCAIE2014)
- IEEE Symposium on Computers & Informatics (ISCI2013)
- Symposium on Wireless Technology & Applications 2012 (ISWTA2012-2017)
- International Conference on Information Networking (ICOIN) (2011-2018)
- International Conference on Communication, Computing & Security (ICCCS2012)
- International Conference on Mobile, Ubiquitous, and Intelligent Computing (MUSIC2012)
- Symposium on Information & Computer Sciences 2011 (ICS 2011)
- International Conference on Ubiquitous Information Technologies & Applications (ICUT) (2009-2010)
- International Symposium on Information and Communications Technologies (MUSIC2005)

Session Chair

- The Sixth International Conference on Information 2013
- ACSA Conference 2010

Invited Talks and Others

- Invited talk at The Fourth Wuhan University International Forum for Interdisciplinary Sciences and Engineering organized by The International School of Software, Wuhan University, “*An Enhanced User Authentication Solution for Mobile Payment Systems*”, Wuhan, China, 15-16 April, 2017.
- Invited talk at Multimedia University (Cyberjaya) organized by Data Management and Knowledge Discovery SIG, “*Current Trends in Privacy Research*”, Cyberjaya Malaysia, 23 January 2017.
- External supervisor (student’s final year project) for University Tunku Abdul Rahman and Multimedia University.
- Invited talk at Multimedia University (Melaka) organized by Centre of Information Security (UCOE-iSec) and Centre for Ubiquitous Computing and Communication (CUCC), “*Towards Self-Awareness Privacy Protection in Online Social Networks*”, Melaka Malaysia, 16 August 2016.
- International Students Advisor for School of Computer Science and Engineering, 2014-current.
- Program coordinator for SSU-MMU Students Exchange Program, 2013-current.
- Speaker for Technology Workshop at MODENAS Malaysia, 2003.
- Speaker for industry-academia research workshop (Exsedia-MUST), 2003.