

# Vasaka Visoottiviseth

## Address

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## Research Interests

Internet Routing, Traffic Measurement and Classification, Cyber Security, Network/Mobile Security, Mobile and Wireless Communication

## Professional Experience

Program Director of Master in Cyber Security and Information Assurance program, Faculty of ICT, Mahidol University, 2018-present  
Associate Professor, Faculty of ICT, Mahidol University, 2015-present  
Assistant Professor, Faculty of ICT, Mahidol University, 2009-2015  
Assistant Professor, Department of Computer Science, Faculty of Science, Mahidol University, 2007-2009  
Lecturer, Department of Computer Science, Faculty of Science, Mahidol University, 2003-2007

## Education

Doctor of Philosophy (Computer Engineering)  
Nara Institute of Science and Technology (NAIST), Japan, March 2003.

Master of Engineering (Computer Engineering)  
Tokyo University of Agriculture and Technology (TUAT), Japan, March 1999.

Bachelor of Engineering (Computer Engineering)  
Tokyo University of Agriculture and Technology (TUAT), Japan, March 1997.

## Selected Honors

Thai Government Scholarship for Bachelor, Master, and Ph.D., 1992-2003  
Excellent Paper Award of SIGMOBILE, Information Processing Society of Japan (IPJS), Japan, 1998.  
Best Paper and Best Poster Award, ICT-ISPC2015  
Best paper awards, AINTEC2018  
Best paper awards, ICACT2019  
First Prize in Smart Innovation Award, 2008  
Third prizes in the category of RFID and the category of Software for Disabilities, National Software Contest 2010  
Second prize in the category of software for Education, National Software Contest 2011  
First prize in the category of Software for Disabilities, National Software Contest 2012  
First prize in Princess IT Awards, 2012  
First Prize in Open Source Category, National Software Contest 2017  
Second Prize in Mobile Application Category, National Software Contest 2019

## Selected Professional Service

Reviewer of Elsevier Computer Security Journal

Technical Program Committee of ICT-ISPC 2012-2018  
Technical Program Committee of AINTEC 2016-2020  
Technical Program Committee of COMPSAC 2019-present  
Technical Program Committee of JCSSE 2011, 2018

### **Selected Invited Talks and Keynote Addresses**

“Research on Android Malware Detection and Android Forensics”, Invited Talk, IWSEC2018, Sendai, Japan

“Threats and Research Trends of IoT and Mobile Security”, Invited Talk, IoT Security Forum 2020 (Japan), 15-17 Dec 2020

### **Doctoral Student Supervision**

Sophon Mongkolluksamee                      2016

### **Publication Statistics**

Journal Articles: 3

Conference Papers: 56

Citations:            Google Scholar: 649 with h-index of 15

                              Scopus: 360 (excluding self-citations) with h-index of 12

### **Selected Publications**

Y. Katsura, P. Sakarin, N. Yamai, H. Kimiyama and V. Visoottiviseth, "Quick Blocking Operation of Firewall System Cooperating with IDS and SDN," 2022 24th International Conference on Advanced Communication Technology (ICACT), PyeongChang Kwangwoon\_Do, Korea, Republic of, 2022, pp. 393-398.

N. M. Min, V. Visoottiviseth, S. Teerakanok and N. Yamai, "OWASP IoT Top 10 based Attack Dataset for Machine Learning," 2022 24th International Conference on Advanced Communication Technology (ICACT), PyeongChang Kwangwoon\_Do, Korea, Republic of, 2022, pp. 317-322.

V. Visoottiviseth, T. Khengthong, K. Kesorn and J. Patcharadechathorn, "ASPAHI: Application for Security and Privacy Awareness Education for Home IoT Devices," 2021 25th International Computer Science and Engineering Conference (ICSEC), Chiang Rai, Thailand, 2021, pp. 388-393.

V. Visoottiviseth, T. Jongjariyangkul, P. Khambanguay and C. Toranathumkul, "ICNET: an Edutainment Web Application for Learning Computer Networks," 2021 25th International Computer Science and Engineering Conference (ICSEC), Chiang Rai, Thailand, 2021, pp. 206-211.

Vasaka Visoottiviseth, Pranpariya Sakarin, Jetnipat Thongwilai, Thanakrit Choobanjong, "Signature-based and Behavior-based Attack Detection with Machine Learning for Home IoT Devices," TENCON 2020 - 2020 IEEE Region 10 Conference, Osaka, Japan, 2020. (Virtual Conference due to Covid-19)

Vasaka Visoottiviseth, Gannasut Chutaporn, Sorakrit Kungvanruttana, Jirapas Paisarnduangjan, "PITI: Protecting Internet of Things via Intrusion Detection System on Raspberry Pi," The 11th International Conference on ICT Convergence (ICTC 2020), October 21-23, 2020, Ramada Plaza Hotel, Jeju Island, Korea. (Virtual Conference due to Covid-19)

Sirasit Prinyavitit, Vasaka Visoottiviset, Jason Haga, Ryousei Takano, "Digital Poster Management System on SAGE2," IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE 2020), 18-19 April 2020, Penang, Malaysia. (Virtual Conference due to Covid-19)

Vorameth Reantongcome, Vasaka Visoottiviset, Wudhichart Sawangphol, Assadarat Khurat, Doudou Fall, Shigeru Kashiara, "Securing and Trustworthy Blockchain-based Multi-Tenant Cloud Computing", IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE 2020), 18-19 April 2020, Penang, Malaysia. (Virtual Conference due to Covid-19)

Nualrath Pojsomphong, Vasaka Visoottiviset, Wudhichart Sawangphol, Assadarat Khurat, Doudou Fall, Shigeru Kashiara, "Investigation of Drone Vulnerability and its Countermeasure," IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE 2020), 18-19 April 2020, Penang, Malaysia. (Virtual Conference due to Covid-19)

Chayapon Puakalong, Vasaka Visoottiviset, Assadarat Khurat, Wudhichart Sawangphol and Ryousei Takano, "A Bandwidth Limitation for the DEMU Network Emulator", IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE 2020), 18-19 April 2020, Penang, Malaysia. (Virtual Conference due to Covid-19)

Purit Phan-Udom, Vasaka Visoottiviset and Ryousei Takano, "Intercontinental Disk-to-Disk Data Transfer Experiment with a Lightweight DTN Software Stack," 2020 22nd International Conference on Advanced Communication Technology (ICACT), Phoenix Park, PyeongChang,, Korea (South), 2020, pp. 485-490.

Vasaka Visoottiviset, Chatchawan Kotarasu, Niramit Cheunpranusorn, Thitiwut Chamornmarn, "A Mobile Application for Security Assessment towards the Internet of Thing devices", the 6th Asian Conference on Defence Technology 2019 (ACDT 2019), 13-15 November 2019, Bali, Indonesia.

Vasaka Visoottiviset and Krit Poonsiri, "The Study of DNSSEC Deployment Status in Thailand", the 6th Asian Conference on Defence Technology 2019 (ACDT 2019), 13-15 November 2019, Bali, Indonesia.

Navaporn Chockwanich and Vasaka Visoottiviset, "Intrusion Detection by Deep Learning with TensorFlow," in Proceeding of IEEE International Conference on Advanced Communication Technology 2019 (ICACT 2019), 17-20 February 2019, Phoenix Park, South Korea.

Sophon Mongkolluksamee, Vasaka Visoottiviset, Kensuke Fukuda, "Robust Peer to Peer Mobile Botnet Detection by Using Communication Patterns," The 14th Asian Internet Engineering Conference 2018 (AINTEC2018), ACM, 12-14 November 2018, Bangkok, Thailand.

Noppanat Phumkaew and Vasaka Visoottiviset, "Android Forensic and Security Assessment for Hospital and Stock-and-Trade Applications in Thailand," The 15th International Joint Conference on Computer Science and Software Engineering (JCSSE2018), 11-13 July 2018, Mahidol University, Nakhon Prathom, Thailand.

Vasaka Visoottiviset, Pongnaphat Jutadhammakorn, Natthamon Pongchanchai and Pongjarun Kosolyudhthasarn, "Firmaster: Analysis Tool for Home Router Firmware", the 15th International Joint Conference on Computer Science and Software Engineering (JCSSE2018), 11-13 July 2018, Mahidol University, Nakhon Prathom, Thailand.

Nuntapob Puttawong, Atit Phungphat, Pamanut Chantaraaumporn, Vasaka Visoottiviset and Jason Haga, "Lord of Secure: the Virtual Reality Game for Educating Network Security," the 2018 Seventh ICT International Student Project Conference (ICT-ISPC 2018), 11-13 July 2018, Mahidol University, Nakhon Prathom, Thailand.

Vasaka Visoottiviset, Rossarin Sainont, Thanatorn Boonnak and Vorapas Thammakulkrajang, "POMEGA: Security Game for Building Security Awareness," the 2018 Seventh ICT International Student Project Conference (ICT-ISPC 2018), 11-13 July 2018, Mahidol University, Nakhon Prathom, Thailand.

Natthamon Pongchanchai, Vasaka Visoottiviset, Kento Ou, Nariyoshi Yamai and Naoya Kitagawa, "Countermeasure against Spoofed E-mails Using Display Name as a User Authenticator", the 2018 Seventh ICT International Student Project Conference (ICT-ISPC 2018), 11-13 July 2018, Mahidol University, Nakhon Prathom, Thailand.

V. Visoottiviset, S. Lertviriyasawat, P. Suppiyatrakoon, P. Chitkornkitsil and N. Yamai, "REFLO: Reactive firewall system with OpenFlow and flow monitoring system," TENCON 2017 - 2017 IEEE Region 10 Conference, Penang, Malaysia, 2017, pp. 2273-2278.

V. Visoottiviset, P. Akarasiriwong, S. Chaiyasart and S. Chotivatunyu, "PENTOS: Penetration testing tool for Internet of Thing devices," TENCON 2017 - 2017 IEEE Region 10 Conference, Penang, Malaysia, 2017, pp. 2279-2284.

Poonyavee Kasemsuwan, Vasaka Visoottiviset, "OSV: OSPF Vulnerability Checking Tool," 14th International Joint Conference on Computer Science and Software Engineering (JCSSE2017), 12-14 July 2017, Nakhon Si Thammarat, Thailand.

Wiriyang Pipatsakulroj, Vasaka Visoottiviset, Ryousei Takano, "muMQ: A Lightweight and Scalable MQTT Broker," IEEE International Symposium on Local and Metropolitan Area Networks (LANMAN 2017), 12-14 June 2017, Osaka, Japan.

Chanin Tansettanakorn, Supachai Thongprasit, Siritam Thamkongka and Vasaka Visoottiviset, "ABIS: A Prototype of Android Botnet Identification System", in the Proceedings of the fifth ICT International Student Project Conference (ICT-ISPC2016), 27-28 May 2016, Mahidol University, Nakorn Pathom, Thailand. (the 2nd prize of software contest in Group A)

Ratchasit Amornpornwiwat, Pornchanan Piyachat, Varat Chawathaworncharoen, Vasaka Visoottiviset, Ryousei Takano, "MATEMA6: Machine Tele-Monitoring Assistance with 6LoWPAN", in the Proceedings of the fifth ICT International Student Project Conference (ICT-ISPC2016), 27-28 May 2016, Mahidol University, Nakorn Pathom, Thailand.

Sophon Mongkolluksamee, Vasaka Visoottiviset, Kensuke Fukuda, "Combining Communication Patterns & Traffic Patterns to Enhance Mobile Traffic Identification Performance", Journal of Information Processing (JIP), March 2016, Vol. 24, No.2.

Channary Thay, Vasaka Visoottiviset, Sophon Mongkolluksamee, "P2P Traffic Classification for Residential Network," in the Proceedings of the 19th International Computer science and Engineering Conference (ICSEC), 23-26 November 2015, Chiang Mai, Thailand.

Supachai Thongprasit, Vasaka Visoottiviset, Ryousei Takano, "Toward Fast and Scalable Key-Value Stores Based on User Space TCP/IP Stack", The 11th Asian Internet Engineering Conference 2015 (AINTEC2015), ACM, 18-20 November 2015, Bangkok, Thailand.

Sophon Mongkolluksamee, Vasaka Visoottiviset, Kensuke Fukuda, "Enhancing the Performance of Mobile Traffic Identification with Communication Patterns", The 39th Annual International Computers, Software & Applications Conference (COMPSAC 2015), COMPSAC Symposium on Technologies and Applications of the Internet (TAIN), Taichung, Taiwan, July 1-5, 2015

Pawit Pornkitprasan, Siwat Pruksapanya, Natth Wetchapan and Vasaka Visoottiviset, "CAPTRAF: Cloud Assisted Per-User Traffic Management", The 4th ICT International Student Project Conference (ICT-ISPC 2015), 23-24 May 2015, Tokyo University of Agriculture and Technology, Tokyo, Japan. (Best Paper and Best Poster Award)

Pawit Pornkitprasan, Vasaka Visoottiviset, Ryousei Takano, "Engaging Hardware-Virtualized Network Devices in Cloud Data Centers", The 3rd ICT International Student Project Conference (ICT-ISPC 2014), 26-27 March 2014, Mahidol University, Nakorn Pathom, Thailand. (Best Paper Award)

Kantiya Junhom, Sirada Semkham, Paphawee Lumlert, Phapan Niampoonthong, Vasaka Visoottiviset, "Cloudbroid: An Android Mobile Application for CloudStack Management System", The 3rd ICT International Student Project Conference (ICT-ISPC 2014), 26-27 March 2014, Mahidol University, Nakorn Pathom, Thailand.

Tanasak Janpan, Vasaka Visoottiviset, Ryousei Takano, "Virtual Machine Consolidation Framework for CloudStack Platforms", in Proceedings of the International Conference on Information Networking 2014 (ICOIN 2014), 10-12 Feb 2014, Phuket, Thailand.

Chutima Chorrojprasert, Chonnikarn Nguanprasert, Tanva Phattanapanichkul, Vasaka Visoottiviset, "iRecovery: Muscle Exercising Game for Stroke Rehabilitation", The 2012 First ICT International Senior Project Conference (ISPC2012) and IEEE Thailand Senior Project Contest, Mahidol University, Nakorn Pathom, Thailand.

Chalee Vorakulpipat, Vasaka Visoottiviset, Siwaruk Siwamogsatham, Polite sender: A resource-saving spam Email countermeasure based on sender responsibilities and recipient Justifications, Computers & Security, Elsevier, Volume 31, Issue 3, May 2012, Pages 286-298.

Vasaka Visoottiviset, Akkasit Trunganont, and Siwaruk Siwamogsatham, "Cross-layer based adaptive wireless traffic control for per-flow and per-station fairness", EURASIP Journal on Wireless Communications and Networking 2011, 2011:97, doi:10.1186/1687-1499-2011-97

Vasaka Visoottiviset, Chaiwat Yanprasop, Panita Pongpaibool, "DAA: Distributed Address Auto-configuration for Mobile Ad Hoc Networks", the 1st Workshop on Ubiquitous Computing for Symbio-Information Processing (UCSIP) held in conjunction with 2011 Eighth International Joint Conference on Computer Science and Software Engineering (JCSSE), 11-13 May 2011, Nakhon Prathom, Thailand.

Vasaka Visoottiviset, Uttapol Jaralrunroj, Ekkachai Phoomrungraungsuk, Pongpak Kultanon, "Distributed Honeypot Log Management and Visualization of Attacker Geographical Distribution", 2011 Eighth International Joint Conference on Computer Science and Software Engineering (JCSSE), 11-13 May 2011, Nakhon Prathom, Thailand.

Vasaka Visoottiviset, Akkasit Trunganon, Siwaruk Siwamogsatham, "Adaptive Bandwidth Allocation for Per-Station Fairness on Wireless Access Router", the 10th International Symposium on Communication and Information Technology 2010 (ISCIT 2010), 26-29 October 2010, Tokyo, Japan.

Vasaka Visoottiviset, Pairat Ngamtura, "On the Performance of MIPv6 and FMIPv6 based on Real IPv6 applications over IEEE 802.11g Testbeds", the 10th International Symposium on Communication and Information Technology 2010 (ISCIT 2010), 26-29 October 2010, Tokyo, Japan.

Chaiwat Yanprasop, Vasaka Visoottiviset, Panita Pongpaibool, "Implementation of Fast IP Address Auto-configuration for Mobile Ad Hoc Networks", the 7th International Joint Conference on Computer Science and Software Engineering (JCSSE), May 12-14, 2010, Bangkok, Thailand.

Akkasit Trunganon, Vasaka Visoottiviset, "Adaptive Wireless Bandwidth Allocation for Per-Station Fairness", 9th International Symposium on Communication and Information Technology 2009 (ISCIT 2009), 28-30 September 2009, Incheon, Korea.

Samruay Kaoprakhon, Vasaka Visoottiviset, "Classification of Audio and Video Traffic over HTTP Protocol", 9th International Symposium on Communication and Information Technology 2009 (ISCIT 2009), 28-30 September 2009, Incheon, Korea.

V. Visoottiviset, T. Piroonsith, S. Siwamogsatham, "An Empirical Study on Achievable Throughputs of IEEE 802.11n Devices", in Proceedings of the 5th International workshop on Wireless Network Measurements (WinMee2009), ICST, 26 June 2009, Seoul, Korea.

S. Pukkawanna, P. Pongpaibool, V. Visoottiviset, "LD2: A System for Lightweight Detection of Denial-Of-Service Attacks", in Proceedings of MILCOM 2008, November 17-19, 2008, Conventional Center, San Diego, CA, USA.

V. Visoottiviset, N. Bureenok, "Performance Comparison of ISATAP Implementations on FreeBSD, RedHat, and Windows 2003", in Proceeding of the IEEE Fourth International Symposium on Frontiers in Networking with Applications (FINA2008), Okinawa, Japan, March 2008.

S. Mongkolluksamee, V. Visoottiviset, "Diffserv Conditionalized Handover for HMIPv6", in Proceeding of IEEE International Conference on Advanced Communication Technology 2008 (ICACT 2008), Phoenix Park, Korea, February 2008.

Pukkawanna, Vasaka Visoottiviset, Panita Pongpaibool, "Lightweight Detection of DoS Attack", In the Proceedings of IEEE ICON2007, 19-26 November 2007, Hyatt Regency Hotel, Adelaide, South Australia.

Sirikarn Pukkawanna, Vasaka Visoottiviset, Panita Pongpaibool, "Classification of web-based email traffic in Thailand", In the Proceedings of IEEE International Symposium on Communications and Information Technologies (ISCIT2006), 18-20 October 2006, Bangkok, Thailand.

V. Visoottiviset, H. Kido, K. Iida, Y. Kadobayashi, S. Yamaguchi, "Performance Study and Deployment Strategies on the Sender-Initiated Multicast", The Institute of Electronics, Information and Communication Engineers (IEICE), VOL.E88-B, No.4, Special Section on Internet Technology V, pp. 1395-1402, April 2005.

Vasaka Visoottiviset, "Sender-Initiated Multicast for small group communications", Nara Institute of Science and Technology, JAPAN, Ph.D. Thesis, Feb 2003.

V. Visoottiviset, H. Kido, Y. Kadobayashi, S. Yamaguchi, "Sender-initiated Multicast Forwarding Scheme", In Proceedings of the 10th International Conference on Telecommunications (ICT2003), IEEE, Tahiti, Feb 2003.

V. Visoottiviseth, Y. Kadobayashi, S. Yamaguchi, "SIM: An Efficient Multicast Forwarding Scheme for Small Group Communications", The Institute of Electronics, Information and Communication Engineers (IEICE), VOL.J85-B No.8, pp.1215--1226, August 2002.

V. Visoottiviseth, T. Mogami, N. Demizu, Y. Kadobayashi, S. Yamaguchi, "M/TCP: The Multicast-extension to Transmission Control Protocol", In Proceedings of ICACT 2001, pp. 89-94, Muju, Korea, Feb 2001.

V. Visoottiviseth, Y. Kadobayashi, S. Yamaguchi, "SIM: Sender Initiated Multicast for small group communications", In Proceedings of INET 2001, Stockholm, Sweden, June 2001.

V. Visoottiviseth, H. Kido, Y. Takahashi, N. Demizu, "draft-vasaka-xcast-sim-01.txt", The Internet Engineering Task Force (IETF), Internet draft, March 2003.

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