## PERSONAL DATA



Name: Dr. JAKAPAN SUABOOT

**Position**: Assistant Professor of Information Technology

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# **EDUCATION**

**Ph.D. Degree** 2021 PhD (Computer Science), RMIT University.

Master Degree 2010 Master of Engineering (Computer Engineering), Prince of Songkla University

Bachelor Degree 2007 Bachelor of Engineering (Computer Engineering), Prince of Songkla University

## **APPOINTMENT**

#### 2023 December - Present

Assistant Professor (Information Technology)

2022 April - 2023 April

Chairperson of Master of Science Program in Computing

2013 October - 2015 October

Associate Department Head for Student Affairs, Department of Computer Engineering, Faculty of Engineering, Prince of Songkla University, Phuket Campus

2010 May - 2013 September

Lecturer, Department of Computer Engineering, Faculty of Engineering, Prince of Songkla University, Phuket Campus

# **TEACHING**

### Current Teaching:

Cybersecurity
Hacking and Penetration Security Testing
Computer Operation Systems
Medical Digital Technology

### Courses in the past:

Introduction to Computer Programming
Data Structures and Computer Programming Techniques
Mathematics for Computer Engineering
Computer Security

Cybersecurity
Software Engineering
Software Development Methodologies
Client/Server Computing and Web Technologies
Supervisor of over 50 senior projects during 2011-2014

#### **Short Courses:**

Open source software for business using LibreOffice Full Stack Java Script Framework with MEAN (Mongo Express Angular Node)

## MSc/PhD Students

- 1. Mr. Tadiwa Vhito (2023 Present)
- 2. Mr. Kaung Khant Wai Yan (2024-Present)

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I am accepting master students, Master of Science (Computing). Please feel free to contact me if you are interested in doing research on the following topics:

- Malware detection
- Data leakage detection
- Memory forensics
- Penetration testing
- Sequential patterns mining
- Cybersecurity and machine learning.

For a scholarship, please apply here.

A research assistant position is available. Email me for details.

### INTERNATIONAL JOURNAL ARTICLES

W. Werapun, N. Boonpeam, E. Sangiamkul, **J. Suaboot**, "The Automated Arbitrage Strategy of Cross Cryptocurrency Exchanges," *International Journal of Information Technology & Decision Making (IJITDM)*, 2025. (Scopus Q1: Accepted 30 Jan 2025)

https://doi.org/10.1142/S0219622025500130

🗂 1/2025 🎤 Cryptocurrency, Arbitrage

V. Azhmyakov, W. Werapun, **J. Suaboot**, "On the Hamilton-Jacobi-Bellman Approach to the Relaxed Optimal Feedback Control Problems," Journal of the Franklin Institute, Vol. 362, Issue 7, pp.1-17, May, 2025, DOI: 10.1016/j.jfranklin.2025.107667. (Scopus Q1-tier1)

- ₱ https://doi.org/10.1016/j.jfranklin.2025.107667
- □ 5/2025 optimal feedback control, relexation techniques, HJB equation

N. Songsom, **J. Suaboot**, W. Werapun\*, "Resolving the Token Loss Vulnerability in the Ethereum ERC-20 Standard," Blockchain: Research and Applications, Jul 2025 (In Press).

- https://www.sciencedirect.com/journal/blockchain-research-and-applications/articles-in-press
- 🗂 7/2025 🕜 blockchain, ERC-20, Smart Contract

N. Rattanavipanon, J. Suaboot; W. Werapun, "A Toolchain for Assisting Migration of Software Executables Towards Post-Quantum Cryptography," *IEEE Access*, Vol. 13, 2025, pp.4368

- 4380. DOI: 10.1109/ACCESS.2024.3524309 (Scopus Q1-tier 1)
- ₱ https://ieeexplore.ieee.org/document/10819261
- 🟥 12/2024 🗳 quantum, cryptography

W. Werapun, J. Suaboot, P. Tantisarkhornkhet, and J. Thaenthong, "SVC-MST BWQLB Multicast over Software-Defined Networking," *Int. J. Internet Protocol Technology*, vol.16, issue 4, 2023, pp.204-216 (Scopus indexed)

- ₱ http://dx.doi.org/10.1504/JJIPT.2023.139339
- 🗂 7/2024 🎤 internet protocol, software define network, multimedia

W. Werapun, T. Karode, **J. Suaboot,** T. Arporntip, E. Sangiamkul, "NativeVRF: A Simplified Decentralized Random Number Generator on EVM Blockchains," *Systems*, Vol. 11, Issue 7:326, 25 June 2023, pp.1-23. [ISI Q1]

- https://www.mdpi.com/2079-8954/11/7/326
- ☐ 6/2023 

  blockchain, random number generator
- W. Werapun, T. Karode, T. Arpornthip, J. Suaboot, E. Sangiamkul, and P. Boonrat, "The Flash loan Attack Analysis (FAA) Framework -- A Case Study of the Warp Finance Exploitation," *Informatics*, Vol.10, Issue 1, December 2022, pp.1-22. [SCOPUS Q1-tier 1]
- ₱ http://dx.doi.org/10.3390/informatics10010003
- 🗯 12/2022 🎤 flash loan attacks, defi vulnerability, Cryptocurrency, equity
- **J. Suaboot**, A. Fahad, Z. Tari, J. Grundy, A.N. Mahmood, A. Almalawi, A.Y. Zomaya, and K. Drira. A taxonomy of supervised learning for IDSs in SCADAenvironments. *ACMComputing Surveys (CSUR)*, 53(2): 1–37, 2020. (A\* journal/Q1 tier 1)
- https://dl.acm.org/doi/10.1145/3379499
- **#** 4/2020
- **J. Suaboot**, Z. Tari, A.N. Mahmood, A.Y. Zomaya, and W. Li. Sub-curve HMM: A malware detection approach based on partial analysis of API call sequences. *Computers & Security*, 92: 1–15, 2020. (Rank 6th Google Scholar Metrics, Computer Security & Cryptography/ Q1-tier 1)
- https://doi.org/10.1016/j.cose.2020.101773
- **3/2020**

### INTERNATIONAL PROCEEDINGS

- S. Rattanabunno, W. Werapun, **J. Suaboot**, T. Karode, M. Puongmanee, "An EOA Identity Tracing System (AITS) on Ethereum Blockchain," in 2023 8th International Conference on Information and Network Technologies (ICINT 2023), Tokyo, Japan, May 19-21, 2023, pp.61-65.
- https://doi.org/10.1109/ICINT58947.2023.00019
- **5/2023**
- C. Jiamsuchon, **J. Suaboot** and N. Rattanavipanon, "From Characters to Chaos: On the Feasibility of Attacking Thai OCR with Adversarial Examples," *2023 20th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON)*, 9-12 May, Nakhon Phanom, Thailand, 2023, pp. 1-5, doi: 10.1109/ECTI-CON58255.2023.10153157.
- ₱ https://ieeexplore.ieee.org/document/10153157
- iii 5/2023
- T. Vhito, J. Suaboot, W. Werapun, T. Kliangsuwan, "Effects of Malware Detection Parameters on Classical vs Deep ML Techniques," in *The 7th International Conference on Information Technology (InCIT2023)*, 15-17 Nov. 2023, Chiang Rai, Thailand, pp. 440-445.
- # https://doi.org/10.1109/InCIT60207.2023.10413140
- 🛗 11/2023 🖋 malware, machine learning
- W. Werapun, N. Songsom, T. Khongfai, A. Intrapradit, J. Suaboot, "Andaman Token: A Feasibility Study of Blockchain Adoption in the Tourism Industry," in 2023 14th International Conference on Information and Communication Technology Convergence (ICTC 2023), 11-13 Oct. 2023, Jeju Island, Korea, pp. 681-686.
- # https://doi.org/10.1109/ICTC58733.2023.10392748
- iii 10/2023 ♥ token, Tourism , phuket
- N. Songsom, W. Werapun, J. Suaboot, N. Rattanavipanon, "The SWC-Based Security Analysis Tool for Smart Contract Vulnerability Detection," In the 6th International Conference on Information Technology (InCIT) 2022, 10-11 November 2022, Bangkok, Thailand, pp.74-77.
- # https://ieeexplore.ieee.org/document/10067759
- 🛗 11/2022 🖋 blockchain, swc
- S. Witosurapot and **J. Suaboot**, "Smart Grid Group Security for UPnP-based Smart Home Automation," in the 29th International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC 2014), July 1-4, 2014, Phuket, Thailand, pp. 610-611.
- **7/2014**
- W. Werapun and **J. Suaboot**, "Data Integrity for Energy Measurement of Sensor Nodes as Home Services," (to be published) in the 29th International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC 2014), July 1-4, 2014 Phuket, Thailand, pp. 829-830.
- iii 7/2014

- **J. Surbot** and S. Witosurapot, "A Collaboration Agent for Exploiting Legacy Phones in Assistive UPnP-based Home Environments," in *Proceeding of The 7th International Joint Conference on Computer Science and Software Engineering (JCSSE 2010)*, Bangkok, Thailand, May. 12-14, 2010.
- ${\it \# https://www.researchgate.net/publication/321161005\_A\_Collaboration\_Agent\_for\_Exploiting\_Legacy\_Phones\_in\_Assistive\_UPnP-based\_Home\_Environments$
- 5/2010
- **J. Surbot** and S. Witosurapot, "Integrating Group Key Distribution for Securing UPnP Services," in *Proceeding of The 2nd International Conference on Computer Engineering and Technology (ICCET 2010)*, Chengdu, China, Apr. 16-18, 2010, pp. 181-185.
- https://dx.doi.org/10.1109/iccet.2010.5485284
- **#** 4/2010

## NATIONAL PROCEEDINGS

**J. Surbot** and S. Witosurapot, "Discovering Secured Group Services among UPnP Networks," in *Proceeding of The 6th National Conference on Computing and Information Technology (NCCIT 2010)*, Bangkok, Thailand, Jun. 3-5, 2010.

*6/2010* 

### **BOOKS**

Z. Tari, N. Sohrabi, J. Samadi, **J. Suaboot**, Data Exfiltration Threats and Prevention Techniques: Machine Learning and Memory-Based Data Security, USA, Wiley-IEEE Press, 27 Jun. 2023, 272 pages, ISBN 1119898870, https://amzn.asia/d/cw0Sc0i

**7/2023** 

### TRAINING

Dec. 12-14, 2022: Participated in C3 Consensus, Concurrency & Cryptography Workshop.

Nov. 5-6, 2022: Participated in Red x Blue Pill 2022 by 2600 Thailand, Bangkok, Thailand.

Feb. 17-21, 2014: Participated in a training course: Mobile Application & Cloud Computing

Sep. 13-15, 2013: Participated in a training course Agile – an Alternative Software Development

Mar. 29-31, 2013: Participated in a training course: Oracle Database 11g Release 2: SQL Performance Tuning To High Speed SQL For DBA and Developer

Jul. 9-10, 2011: Participated in a training course: Android based Application Development

Mar. 31 – Apr.1, 2011: Participated in a training course: Windows Phone 7 Boot Camp

Aug. 29 – Nov.8, 2010: Participated in a training course and obtained the Personal Software Process: PSP (SEI Certified PSPSM Developer)

Nov. 11-12, 2008: Participated in "SAP SOA University Certification Program in Collaboration with PTT ICT" program and obtained the level 1: SAP SOA Technology Day.

Jul. 1 – Nov. 26, 2006: Participated in a training course and obtained the SUN CERTIFIED PROGRAMMER FOR THE JAVATM 2.

### **OTHERS**

#### Session chair

- The 21st International Joint Conference on Computer Science and Software Engineering (JCSSE 2024), 20 June, Phuket, Thailand, 2024.
- The 4th International Symposium on Asia AI (AI for Better Living & Environment), Phuket, Thailand, 2022.

#### Reviewer

Journals:

- -Scientific Reports (ISSN / eISSN 2045-2322, WoS SCIE, SJR Q1, IF 3.8)
- -International Journal of Information Security (E-ISSN:1615-5270 IF 2.5)
- -Discover Internet of Things (eISSN:2730-7239 CiteScore2023 7.5)
- -ACM Computing Surveys (ISSN:0360-0300 IF 16.6)
- -International Journal of Machine Learning and Cybernetics (eISSN: 1868-808X IF:5.6)
- -The Journal of Supercomputing (eISSN 1573-0484 IF3.0)
- -Journal of Information Science and Technology (JIST) (eISSN 2651-1053)

#### Proceedings

- ECTI-CON 2024: The 21st International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology
- JCSSE 2024 The 21st International Joint Conference on Computer Science and Software Engineering
- InCIT2023: The 7th International Conference on Information Technology
- The 2024 Asia Joint Conference on Computing (AJCC2024)
- 2023 20th International Joint Conference on Computer Science and Software Engineering (JCSSE)
- The 20th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), MAY 9-12, 2023
- The International Conference on Sustainable Environment and Energy 2022 (ICoSEE 2022)

## RESEARCH GRANTS

Beware of Quantum Threat: Detection of Vulnerable Software Binaries in Quantum World : 599,060 baht funded by Government Budget Grant, 2024

m 2024

INFAR (Information engineering for Andaman Region) Research Team

: 750,000 baht funded by College of Computing, Prince of Songkla University, 2022 - 2024

**2022** 

**BLOCK Research team** 

: 750,000 baht funded by College of Computing, Prince of Songkla University, 2020 - 2022

**2020** 

Cyber Security Grants from National Research Council of Thailand (NRCT) on project "Development of Secured Group Communication for UPnP Technology in Smart Grid-enabled Home Energy Management", 2013

**2013** 

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#### **COLLEGE OF COMPUTING**

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