# COLLEGE OF COMPUTING
## Prince of Songkla University Phuket Campus

## 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, T. Karode, **J. Suaboot**, T. Arpornthip, E. Sangiamkul, "Exploring Risk and Return Profiles of Funding Rate Arbitrage on CEX and DEX," *Blockchain: Research and Applications*, 1 August 2025, pp.1-11 (In Press; ISSN:2096-7209; Scopus Q1-tier1).

   *https://doi.org/10.1016/j.bcra.2025.100354*

   *8/2025*   *Cryptocurrency, perpetual futures contract, funding rate arbitrage, risk and return profiles*

N. Songsom, **J. Suaboot**, W. Werapun, "FSA: A Framework for Analyzing Secondary Preimage Attacks on Merkle Proof-Based Airdrops," *Blockchain: Research and Applications*, (Accepted 23 Apr 2025) (In Press; ISSN:2096-7209; Scopus Q1-tier1).

   *https://doi.org/10.1016/j.bcra.2025.100368*

   *8/2025*

N. Songsom, **J. Suaboot**, W. Werapun, "Resolving the Token Loss Vulnerability in the Ethereum ERC-20 Standard," *Blockchain: Research and Applications*, 2 Jul 2025, pp.1-12 (In Press; ISSN:2096-7209; Scopus Q1-tier1).

   *https://doi.org/10.1016/j.bcra.2025.100329*

   *7/2025*   *blockchain, ERC-20, Smart Contract, Formal verification*

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.(ISSN 0016-0032; ISI-SCIE; Scopus Q1-tier1)

   *https://doi.org/10.1016/j.jfranklin.2025.107667*

   *5/2025*   *optimal feedback control, relexation techniques, HJB equation*

W. Werapun, N. Boonpeam, E. Sangiamkul, **J. Suaboot**, "The Automated Arbitrage Strategy of Cross Cryptocurrency Exchanges," *International Journal of Information Technology & Decision Making (IJITDM)*, Vol. 24, No. 05, Mar 22, 2025, pp. 1521-1537. (ISSN 0219-6220; ISI-SCIE; Scopus Q1)

   *https://doi.org/10.1142/S0219622025500130*

   *3/2025*   *Cryptocurrency, Arbitrage*

N. Rattanavipanon, **J. Suaboot**, W. Werapun, "A Toolchain for Assisting Migration of Software Executables

Towards Post-Quantum Cryptography," *IEEE Access*, Vol. 13, 2024, pp.4368 - 4380. (ISSN 2169-3536; ISI-SCIE; 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/IJIPT.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

K. K. W. Yan, **J. Suaboot**, M. Puongmanee, W. Werapun, "LiteXGNN: A Lightweight Explainable Graph Neural Network for Malware Detection with Control Flow Graph Explainability," in *The 9th International Conference on Information Technology (InCIT)*, 12-14 Nov., Phuket, Thailand, 2025, pp.658-664.

*https://doi.org/10.1109/InCIT66780.2025.11276013*

📅 *11/2025*  🏷 *malware, cfg, xai, memory forensics*

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*

📅 *10/2023*  🏷 *token, Tourism , phuket*

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*

📅 *5/2023*

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),* 10-11 Nov., Bangkok, Thailand, 2022, 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.

📅 *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.

🔗 *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

Oct. 28, 2025: Cybersecurity Professional Course by Thailand National Cyber Academy (THNCA), Online.
Oct. 28, 2025: Basic Cybersecurity lab by NCSA Mooc Cyber-Learning, Online.
Sep. 16-18, 2025: Participated in AI security for research by NCSA, Bangkok, Thailand
July. 22-23, 2024: Participated in International Workshop on Intelligent Embedded Security for Internet of Things Systems, NTU Singapore.
Aug. 24-25, 2023: Attended the Hack In The Box 2023 (HITB 2023 Phuket) conference.
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

### Invited Speaker
- "Malware Threat Analysis: From Research to Hands-On Defense," หลักสูตร Public Training โครงการพัฒนาศักยภาพด้านความมั่นคงปลอดภัยไซเบอร์ แก่บุคลากรด้านสาธารณสุข, 12 October 2025.
- "Malware Detection: Recent Advances, Analysis Approaches Through Memory Forensics, and Research Challenges, "Cybersec Asia X Thailand International Week 2025, Jan. 22, 2025.

### Session chair
- The 9th International Conference on Information Technology (InCIT 2025), 12 - 14 November, Phuket, Thailand, 2025.
- 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:
-ECTI Transactions on Computer and Information Technology (ECTI-CIT) (ISSN: 2286-9131, Scopus)
-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
- JCSSE 2026.
- InCIT 2025 + nCIT 2025.
- 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

Automated Seagrass Area Estimation Using Computer Vision and Machine Learning on Drone Imagery
: 391,000 baht  funded by Prince of Songkla University, 2025 - 2026
📅 *2025*

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

📅 *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*

Scan Me !!  CV Online

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