

PERSONAL DATA



Name : Dr. JIRAWAT THAENTHONG
Position : Lecturer
Email : jirawat.t@phukt.psu.ac.th
Phone : (66)7627 6498
Website : <http://www.computing.psu.ac.th/2017/academic-staff/>

EDUCATION

| | | |
|-----------------|------|--------------------------------------------------------------------------------------------|
| Ph.D. Degree | 2012 | Ph.D. (Technology), Sirindhorn International Institute of Technology, Thammasat University |
| Master Degree | 1998 | M.Sc. (Information Technology), King Mongkut's Institute of Technology Ladkrabang |
| Bachelor Degree | 1996 | B.Sc. (Computer Science), Prince of Songkla University |

RESEARCH INTERESTS

Vehicular Networks & Traffic Management
Mobile Ad-hoc Networks (Bluetooth Low Energy, LoRa, Wi-Fi)
Internet of Things for the Emergency alert system
Smart Health
AI Agent

Data Dissemination Models for Vehicular Networks



Emergency Alert System Platform



AI for Smart Health



Deep Learning for Wi-Fi CSI-Based Fall Detection



RESEARCH PROJECTS

ระบบแจ้งเตือนฉุกเฉินด้วยเครือข่าย LoRa แบบ Mesh (Emergency Alert System with LoRa Mesh Network), 2025
ประสิทธิภาพการใช้ข้อมูล CSI เพื่องานการตรวจจับการหกล้มสำหรับผู้สูงอายุ, 2024

แพลตฟอร์มการรับส่งข้อมูลสำหรับ Smart Farm ด้วยเทคโนโลยี LoRa และ Internet of Things, 2022
Emergency Alert Model with LoRa Mesh Network for Elevator, 2020
Observation of mobile device communication on the ad-hoc network by using Bluetooth Low Energy (BLE) technology, 2020
การพัฒนาและฟื้นฟูเศรษฐกิจชุมชนฐานรากเพื่อการท่องเที่ยวโดยชุมชนที่ได้รับผลกระทบจากสถานการณ์ covid – 19 ตามหลักปรัชญาเศรษฐกิจพอเพียง พื้นที่จังหวัดพังงา, 2563
การสร้างรายได้ให้ท่องเที่ยวชุมชนโดยการยกระดับผลิตภัณฑ์และสร้างอาชีพ ตามวิถีการท่องเที่ยวแบบ new normal จังหวัดภูเก็ต, 2563
Application of image processing and LoRa for waste management, 2019
Emergency notification with LoRa technology for the elevator, case studies of Prince of Songkla University Phuket Campus, 2019
Ambulance Navigation Model with Emergency Alert Message Using Cloud-based Platform-as-a-Service for the Internet of Things, 2019
Impact factors of Smart Bus service in Phuket Smart City, 2018
Cat feeder with IoT application, 2018
Interactive TV application development and evaluation for smart hospitals: Dibuk hospital case study, 2017
Mobile application development and evaluation instead of using baby and mom's memo: Dibuk hospital case study, 2017

TEACHING

968-230 Data Communications and Networking
140-330 Computer Networking and Management
977-321 Computer Networks and Management
140-430 Server Systems Administration
980-061G6 PSU VOLUNTEER AND SUSTAINABLE DEVELOPMENT GOALS
THE-101 Thesis 1
968-391 Project in Computing 1
968-491 Project in Computing 2
969-021G2A Financial Management
968-685 Seminar 1

MSc/PhD Students

Miss Kawinthida Kingkaew (M.Eng. in Artificial Intelligence and System Engineering)
Miss Sangduan Chootong (Doctor of Philosophy (Ecosystem Innovation Management for Sustainable Tourism))
Mr. Vatin Jaiboon (Graduation 2017)
Miss Sangduan Chootong (Graduation 2017)

INTERNATIONAL JOURNAL ARTICLES

K. Dittakan, J. Thaenthong, S. Rodkuen, and P. Thungklang, "Fungus Classification in Peanuts from Smart Lens Imagery Using Convolutional Neural Network", *Curr. Appl. Sci. Technol.*, p. e0265905, Oct. 2025.

🔗 <https://i01.tci-thaijo.org/index.php/cast/article/view/265905/180921>

📅 10/2025 📌 *Deep learning, Convolutional Neural Network, Image Processing, Classification Model*

K. Dittakan, J. Thaenthong and T. Prasomkit, "A Comparative Study on Thai License Plate Recognition: Object Detection and Transformer Learning Approaches," in *IEEE Access*, vol. 13, pp. 99802-99815, 2025, doi: 10.1109/ACCESS.2025.3575811.

🔗 <https://ieeexplore.ieee.org/document/11021500>

📅 6/2025 📌 *Object Detection, Deep learning, image analysis, Transformer Learning, License Plate Detection*

W. Werapun, J. Suaboot, P. Tantisarkhornkhet, and J. Thaenthong, "SVC-MST BWQLB Multicast over Software-Defined Networking," *International Journal of Internet Protocol Technology*, vol. 16, no. 1, pp. 53-69, 2023.

🔗 <http://dx.doi.org/10.1504/IJIPT.2023.10058807>

📅 1/2023 📌 *SDN, Multicast, Computer Networks*

J. Thaenthong and S. Chootong, "Enhanced Data Dissemination for Vehicular Content-Centric Networking (VCCN) using Cluster Maintenance System," *Science, Engineering and Health Studies*, vol. 15, April 2021.

https://1drv.ms/b/s!Ak_cn_uEqFxoG1r07M26FpEQzfEa?e=lyoCGi

4/2021 vehicular networks, data dissemination, content-centric networking

J. Thaenthong and S. Gordon, "Gateway selection architecture using multiple metrics for vehicular networking," *Inform. Technol. J.*, vol. 11, no. 7, pp. 840-849, 2012.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-84863218393&origin=resultslist&sort=plf->

[f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=2&citeCnt=0&searchTerm=](https://www.scopus.com/record/display.uri?eid=2-s2.0-84863218393&origin=resultslist&sort=plf-f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=2&citeCnt=0&searchTerm=)

1/2012 vehicular networks, mobile networks

J. Thaenthong and S. Gordon, "Performance of handovers between NEMO and mobile ad hoc networks using buffering," *IEICE Trans. Commun.*, vol. E94-B, no. 10, pp. 2763-2775, Oct. 2011.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-80053533912&origin=resultslist&sort=plf->

[f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=3&citeCnt=0&searchTerm=](https://www.scopus.com/record/display.uri?eid=2-s2.0-80053533912&origin=resultslist&sort=plf-f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=3&citeCnt=0&searchTerm=)

10/2011 vehicular networks, ad-hoc networks, mobile networks

NATIONAL JOURNAL ARTICLES

J. Thaenthong, S. Laemun and W. Duangdee, "Emergency Notification System with LoRa Technology for Elevator Case Study: Prince of Songkla University, Phuket Campus," *J. Sci. Ladkrabang*, vol. 29, no. 2, pp. 1-14, Jul.-Dec. 2563. 7/2020 Internet of Things, LoRa, Emergency Alert, Elevator

J. Thaenthong et al., "Mobile Application Development for Pet Feeder with using Microcontroller and Internet of things," *J. Inf. Sci. Technol.*, vol. 9, no. 1, pp. 28-40, 2562.

<https://www.tci-thaijo.org/index.php/JIST/issue/view/14588/Vol9No1>

6/2019 Internet of Things, Microcontroller, Mobile Application, Pet Feeder

INTERNATIONAL PROCEEDINGS

K. Kingkaew, J. Thaenthong, and T. Suwanapong, "A Comparative Analysis of Lightweight CNN Architectures for Wi-Fi CSI-Based Fall Detection," in *Proc. 20th Int. Joint Symp. Artificial Intelligence and Natural Language Processing (ISAI-NLP)*, Thailand, 2025, to be published.

11/2025 Wi-Fi CSI, Fall Detection, Deep Learning, Lightweight Convolutional Neural Network

J. Thaenthong, T. Pimsen and K. Chidchuea, "R-AODV: Reverse Ad-Hoc On-Demand Distance Vector Routing Algorithm With LoRa Mesh Based for Emergency Alert System," *2023 15th International Conference on Information Technology and Electrical Engineering (ICITEE)*, Chiang Mai, Thailand, 2023, pp. 143-148, doi: 10.1109/ICITEE59582.2023.10317648.

<https://ieeexplore.ieee.org/document/10317648>

11/2023 Micro-controllers, Ad-hoc networks, LoRa Mesh, LoRa MeshMesh networks

J. Thaenthong, V. Kwanjun and P. Charoensuk, "Microcontroller and Internet of Things Application for Smart Restroom," *2022 Research, Invention, and Innovation Congress: Innovative Electricals and Electronics (RI2C)*, 2022, pp. 165-169, doi: 10.1109/RI2C56397.2022.9910335.

<https://ieeexplore.ieee.org/document/9910335>

10/2022 Internet of Things, Smart Restroom, Micro-controllers

V. Jaiboon and J. Thaenthong, "Infotainment Data Dissemination Mechanism Using RSU Cloud Based for Vehicular Networks," *2017 9th International Conference on Information Technology and Electrical Engineering (ICITEE)*, Phuket, Thailand, October 12-13, 2017.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85049582929&origin=resultslist&sort=plf->

[f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=0&citeCnt=0&searchTerm=](https://www.scopus.com/record/display.uri?eid=2-s2.0-85049582929&origin=resultslist&sort=plf-f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=0&citeCnt=0&searchTerm=)

10/2017 vehicular networks, cloud computing

S. Chootong and J. Thaenthong, "Cache Replacement Mechanism with Content Popularity for Vehicular Content-Centric Networks (VCCN). *The 14th International Joint Conference on Computer Science and Software Engineering (JCSSE 2017)*. Nakhon Si Thammarat, Thailand, 12-17 July 2017.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85031718439&origin=resultslist&sort=plf->

[f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=1&citeCnt=0&searchTerm=](https://www.scopus.com/record/display.uri?eid=2-s2.0-85031718439&origin=resultslist&sort=plf-f&src=s&sid=36e1c0735962128860d1a5b250589273&sot=outdocs&sdt=outdocs&sl=18&s=AU-ID%2852364890600%29&relpos=1&citeCnt=0&searchTerm=)

NATIONAL PROCEEDINGS

J. Thaenthong, S. Takaew, and K. Sornphrakhanchai. Microcontroller and Sensors Application for Cat Feeder. *The 41st Electrical Engineering (EECON-41)*, pp. 141-144, Ubon Ratchathani, Thailand, 21-23 November 2018.

<https://drive.google.com/file/d/1izA38JzJZDq21ysr6gXtrg84hArRhh0f/view?usp=sharing>

11/2018 Micro-controllers, Internet of Things, Sensors

S. Petchamnan, J. Thaenthong, K. kunritkeav, and N. Pichairat. Flammable Gases Detection Application with Internet of Things. *The 14th National Conference on Computing and Information Technology (NCCIT 2018)*, pp. 618-623, Chiang Mai, Thailand, 5-6 July 2018.

7/2018 Internet of Things, Mobile Application, Gas Detection

V. Jaiboon and J. Thaenthong. Store-Carry-Broadcast-Cloud-Based. *The 8th National Conference on Information Technology (NCIT 2016)*, pp. 509-515, Krabi, Thailand, 26-27 October 2016.

10/2016 vehicular networks, cloud computing, routing technique, store-carry broadcast

S. Chootong and J. Thaenthong. Improving the efficiency of data delivery mechanisms on cluster-based for Content-Centric Networking in VANETs. *The 8th National Conference on Information Technology (NCIT 2016)*, pp. 516-521, Krabi, Thailand, 26-27 October 2016.

10/2016 content-centric networks, vehicular networks, clustering, k-means

W. Deklee, J. Tubtong, A. Wattanachai, and J. Thaenthong. Development of Navigation App Using AR Technology A Case Study: Prince of Songkla University, Phuket Campus. *The 11th National Conference on Computing and Information Technology (NCCIT 2015)*, pp. 143-148, Bangkok, Thailand, 2-3 July 2015.

7/2015 Augmented Reality, Mobile Application

TRAINING

CCNP Enterprise Core Networking (ENCOR) Trainer (2021)
Cisco Certified Network Associate (CCNA) Routing and Switching
Cisco ID: CSC013496256 (August 4, 2019 - August 4, 2022)
Practical Data Mining with RapidMiner Studio 9, 2018
OpenStack for Cloud Computing Training, 2017
Open Cabling Professional Design & Analysis, 2017
NETPIE Train the Trainer Workshop, 2016
OpenStack Training Workshop, 2016
Android Arduino Control Hardware and IoT Training Workshop, 2016
Java Train the Trainer, 2015

OTHERS

Executive Director, Prince of Songkla University Savings and Credit Cooperative, Limited
Introduction to computer networking and troubleshooting for AOT (Instructor)
System/Network Administration
Server Administration of BSD/Linux/Unix-based Systems
Analysis, Design and Implement in Computer Network of Phuket Community College/Faculty of Technology and Environment.
Advisor for Computing Networks
Former Committee of Basic Education, Phuket Kindergarten School
Former Committee of Basic Education, Satee Phuket School
Former Advisor of Information Technology Center, Satee Phuket School

RESEARCH GRANTS

Integration of VANETs and Cloud Computing Architecture for Smart City
, 2015 - 2017

📅 2015

A Named Data Mechanism for Mobile Application in Vehicular Ad-Hoc Networks
, 2015 - 2017

📅 2015

Scan Me !! CV Online



COLLEGE OF COMPUTING

Prince of Songkla University Phuket Campus
80 M.1 Vichitsongkram Road Kathu, Phuket 83120
Email : coc@phuket.psu.ac.th
Website : computing.psu.ac.th