

Selection Criteria

Jiradett Kerdsri, Ph.D.
for
UNIVERSITY OF NEWCASTLE

September 30, 2021

Expertise: Completed a doctoral or masters qualification or equivalent accreditation and standing in Statistics, Computer Science, Data Science or related area.

My educational background is in computer science and I received Ph.D. In Engineering and Technology with 10 years experience in data science research.

High-Quality Research: Demonstrated record of publication or non-traditional research output in high-quality outlets including evidence of international and national research collaborations and/or partnerships.

My publication records are as follows:

Journals

- [1] Jiradett Kerdsri and Tawiwat Veeraklaew. “Visualization of Spatial Distribution of Random Waypoint Mobility Models”. In: *Journal of Computers* 12.4 (2017), pp. 309–316.
- [2] Jiradett Kerdsri and Komwut Wipusitwarakun. “Dynamic Rendezvous Based Routing Algorithm on Sparse Opportunistic Network Environment”. In: *International Journal of Distributed Sensor Networks* 11.2 (2015), p. 819178. DOI: 10.1155/2015/819178.
- [3] Jiradett Kerdsri and Komwut Wipusitwarkun. “DORSI : Data-wise Opportunistic Routing with Spatial Information”. In: *Journal of Convergence Information Technology* 8.August (2013), pp. 91–103.
- [4] Jiradett Kerdsri, Tawiwat Veeraklaew, and Settapong Malisuwan. “Randomized Replication based on Multilevel of Security for Opportunistic Network”. In: *International Journal of Electronics and Electrical Engineering* 1.2 (2013), pp. 115–119. DOI: 10.12720/ijeee.1.2.115-119.
- [5] Jiradett K. and Ornin S. “The Safety of WiMAX Insolid Propellant Rocket Production”. In: *International Journal of Electronics and Communication Engineering* 5.6 (2011), pp. 747–749. ISSN: eISSN: 1307-6892. URL: <https://publications.waset.org/vol/54>.

Conference Proceedings

- [1] Jiradett Kertsri and Tawiwat Veeraklaew. “Opportunistic Network Informatics using Deep Learning”. In: *2018 International Conference on Information and Social Science*. Apr. 2018.
- [2] J. Kertsri et al. “A long-range low-power wireless sensor network based on U-LoRa technology for tactical troops tracking systems”. In: *2017 Third Asian Conference on Defence Technology (ACDT)*. Jan. 2017, pp. 32–35. DOI: 10.1109/ACDT.2017.7886152.
- [3] J. Kertsri and T. Veeraklaew. “Analysis of energy and mobility model on opportunistic routing algorithms”. In: *2015 11th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QSHINE)*. Aug. 2015, pp. 60–65.
- [4] Jiradett Kertsri and Komwut Wipusitwarkun. “Data-wise Routing in Virtualization Environment (DRIVE) with multiple level of security for tactical network”. In: *2012 IEEE/SICE International Symposium on System Integration (SII)*. IEEE, Dec. 2012, pp. 933–938. ISBN: 978-1-4673-1497-8. DOI: 10.1109/SII.2012.6427357.
- [5] J. Kertsri and K. Wipusitwarkun. “Data-wise Routing in Virtualization Environment (DRIVE) with multiple level of security for tactical network”. In: *2012 IEEE/SICE International Symposium on System Integration (SII)*. Dec. 2012, pp. 933–938. DOI: 10.1109/SII.2012.6427357.
- [6] J. Kertsri and K. Wipusitwarkun. “Network virtualization for military application: Review and initial development of conceptual design”. In: *2012 14th International Conference on Advanced Communication Technology (ICACT)*. Feb. 2012, pp. 61–66.
- [7] Jiradett K., Ornin S., and Teeranun S. “The use of RFID in solid propellant rocket production management system”. In: *publication description World Academy Science Engineering and Technology*. July 2010.

Books

- [1] *Wiki, Knowledge Management System*. SE-EDUCATION, 2007. ISBN: 9789749560136.
- [2] *SNMP over Wi-Fi wireless networks*. Storming Media, 2003. ISBN: 1423503287.

National Recognition: Demonstrated recent ability to achieve national recognition in their discipline and taking a chief investigator role (often in conjunction with more experienced researchers) in applications for external research funds.

I have been a director of a data communication laboratory and leading researcher project on many occasions with academic and industries partners such as:

- **Intelligence Data-Link Analysis for Checkpoint Operations:** This is a co-research project with the National Electronics and Computer Technology Center aiming to implement a graph database of analyzing terrorist activities developed on: Graph Database: Neo4j, Link Analysis: Python, Cypher (Neo4j graph query language), Graph Visualization: CytoScape, PostMan, WebApp2, JinJa2, Javascript, Bootstrap.

- **Common Operation Picture:** This research project is to develop a situational awareness application for the ministry of defense on C# and Google Map Enterprise with the Data Distribution Service (DDS) communication.
- **Unfit Banknote Classification:** This research project use Convolutional Neural Network (ConvNet/CNN) for modeling the machine learning classification to identify the unfit note for banknote production.
- **Computer Vision for Vehicle detection:** This research project is to develop a deep learning program to detect the vehicle (brand, model, color, and year) for CCTV using Python and TensorFlow.

I have been working as a chief data scientist at the Bank of Thailand and have been invited as a keynote speaker in many conferences including:

- **Chief Data Scientist Conference:** Enabling data generation to feed the need of machine learning, Bangkok, Thailand, 2020.
- **World AI Show:** Enabling Innovation Through Effective Digital Transformation, Intercontinental, Bangkok, Thailand, 2019.
- **Enterprise AI Conference:** Data Analytics for Central Bank, Grand Mercure Bangkok Fortune, 2019.
- **3rd Annual Analytics Leader Summit:** Data Analytics for Bank of Thailand, Ayana Mid Plaza, Jakarta, Indonesia 2019.
- **2nd Annual Analytics Leader Summit:** Data Analytics for Bank of Thailand, Mercure Manila, Philippines 2019.
- **1st Annual Analytics Leader Summit:** Military AI Research, Bangkok, Thailand, 2019.
- **SmartCom 2018 -The 5th International Workshop on Smart Wireless Communications:** Opportunistic Network Informatics using Deep Learning, Mandarin Hotel, Bangkok, Thailand, 2018.

Supervision: Skills in active supervision of honours, masters and/or Higher Degree by Research postgraduate research projects.

As a director of the data communication laboratory at Defense Technology Institute, I have supervised many Ph.D. Researchers on several research projects. Additionally, while teaching at Silpakorn International University, I have supervised students on several senior projects.

Quality Teaching: Demonstrate recent ability to achieve teaching quality as indicated by internal and external surveys and outcomes for students that will improve or innovate in response to feedback.

I have been an invited lecturer on information technology at Hotel & Tourism Business School, Silpakorn International University for five years. During those years, I have been supervised many students for senior research projects for a course on information technology for the hospitality business.

Curriculum Design: Demonstrate recent ability to contribute at undergraduate, honours and postgraduate levels, taking responsibility for the preparation and delivery of course modules and coordinating one or more courses, including collaboration in curriculum design and delivery where appropriate.

From my experience as an invited lecturer, I have been supporting in designing a curriculum for ICT students.

Engagement: Ability to efficiently perform in allocated internal roles, sharing academic service responsibilities, contributing to outcomes of internal committees, and developing external collaborations.

From my experience, I have been engaged in many roles such as basic research project manager, director of research, data scientist, or data engineer.