

WORAWIT TEPSAN, Ph.D.

Work: Lecturer, International College of Digital Innovation (ICDI)

Chiang Mai University, Chiang Mai, Thailand

Research Interests: Data Analysis, Machine Learning, Artificial Intelligence,

Digital Technology, Applied Mathematics

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PUBLICATIONS

- Phiphatkunamon, P., Phanuphak, N., Janamnuyasook, R., Tran, D., Neo, B.-L., & Tepsan, W. (2025). Comprehensive Analysis and Leveraging Online Innovations to Improve HIV and STI Prevention and Treatment Services in Major Cities of Thailand. *AIDS Behav.* <https://doi.org/10.1007/s10461-025-04714-x> 2025
- Tepsan, W., Sooksatra, S., Lueangwichajaroen, P., & Watcharapinchai, S. (2024). Adaptive body part ROI with triple stream approach for human action recognition. In *Proceedings of the 2024 21st International Joint Conference on Computer Science and Software Engineering (JCSSE)* (pp. 79-85). <https://doi.org/10.1109/JCSSE61278.2024.10613745> 2024
- Shu, H., Dawod, A.Y., Tepsan, W., Mou, L., & Tang, Z. (2024). Multi-channel Microseismic Signal Classification with Convolutional Neural Networks. **IAES International Journal of Artificial Intelligence (IJ-AI)**, 13(1), 1038-1049. <https://doi.org/10.11591/ijai.v13.i1.pp1038-1049> 2024
- Shu, H., Dawod, A.Y., Mu, L., & Tepsan, W. (2023). A Survey of Machine Learning Applications in Microseismic Signal Recognition and Classification. In **2023 15th International Conference on Software, Knowledge, Information Management and Applications (SKIMA)**, Kuala Lumpur, Malaysia, pp. 18-23. <https://doi.org/10.1109/SKIMA59232.2023.10387351> 2023
- Ran, X., Zhou, X., Lei, M., Tepsan, W., & Deng, W. (2021). A Novel K-Means Clustering Algorithm with a Noise Algorithm for Capturing Urban Hotspots. **Applied Sciences**, 11(23), 11202. <https://doi.org/10.3390/app112311202> 2021
- Blecher, D.P., & Tepsan, W. (2021). Real Operator Algebras and Real Positive Maps. **Integral Equations and Operator Theory**, 93, 49. <https://doi.org/10.1007/s00020-021-02665-1> 2021

ACADEMIC EXPERIENCES

- AI agent for personalized PrEP (Pre-Exposure Prophylaxis) recommendations Now
- Research on Human Action Recognition Project using Skeleton Database with NECTEC Now
- Training in Super AI Engineer Season Program organized by Artificial Intelligence Association of Thailand (AIAT) [certificate: <https://aiat.or.th/cert/files/SuperAIEngineer2021/EN-SuperAI2-019.png>] Nov 2021-Aug 2022
- Training in Agricultural Data Scientist Program organized by Faculty of Science and Industrial Technology, Prince of Songkla University, Surat Thani Campus July 2022
- Co-Researcher: The study of growth poles of the Northern Economic Corridor Project, Thailand (Grant from the Ministry of Higher Education, Science, Research and Innovation, Thailand) 2021
- PhD Thesis: Real Operator Spaces, Real Operator Algebras and Real Jordan Operator Algebras 2020
- Master's degree Thesis: Triangular Mean-Value Functional Equation 2012
- Senior Research: Algorithms for Solving Periodic Pentadiagonal Linear System and Inverting Periodic Pentadiagonal Matrices 2010
- Mini Project: Algorithm for Finding Shortest path in Chiang Mai City 2008

EMPLOYMENT

- Lecturer at International College of Digital Innovation, Chiang Mai University, Thailand Dec 2020 - Current
- Special Expert at International College of Digital Innovation, Chiang Mai University, Thailand Aug 2020 - Dec2020
- Teaching Assistance at University of Houston, TX, USA 2015- 2020
- Tutor (Self Employed) for secondary and high school students in Math, BKK, Thailand 2010- 2013

- Teaching assistance in Real Analysis (2010 term 1), Numerical Analysis (2010 term 2), and Calculus (2012 summer) at Chulalongkorn University, BKK, Thailand 2010, 2012

EDUCATION

- PhD in Mathematics from University of Houston, Texas, USA 2015-2020
- Studied for PhD in Mathematics but then moved to University of Houston Ohio University, Ohio, USA (did not graduate) 2013-2015
- Master of Science in Mathematics from Chulalongkorn University, Bangkok, Thailand 2010-2013
- Bachelor of Science in Mathematics (Minor in Computer Science) from Chiang Mai University, Chiang Mai, Thailand 2006-2010

HONORS AND AWARDS

- Abroad fellowship from the Institute for the Promotion of Teaching Science and Technology Project (DPST), Ministry of Education, Thailand 2013-2018
- Scholarship from Development and Promotion of Science and Technology Talents Project (DPST), Ministry of Education, Thailand 2003-2013
- Scholarship from Junior Scientist Talent Project (JSTP), Thailand 2007

SKILLS

Python and JavaScript, with experience in PyTorch, FastAPI, machine learning model training, and building generative AI applications using LLMs, including API integration, backend development, and deployment.