

Wudhichart Sawangphol

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Research Interests

Automated Reasoning, Description Logic, Ontology, Constraint Programming, Machine Learning, Data analysis, and Data Visualisation.

Professional Experience

Lecturer, Faculty of Information and Communication Technology (ICT), Mahidol University, Nakhon Pathom, Thailand, since 2009

Assistant Dean for Academic Services, Faculty of Information and Communication Technology (ICT), Mahidol University, Nakhon Pathom, Thailand, since Oct 2018

Teaching Associate, Faculty of Information Technology, Monash University, Melbourne, Australia, 2012-2017

Education

Doctor of Philosophy in Information Technology
Faculty of Information Technology, Monash University, Clayton Campus, Australia, 2017

Master of Information Technology (Minor Thesis)
Faculty of Information Technology, Monash University, Caulfield Campus, Australia, 2012

Bachelor of Science in Information and Communication Technology, First Class Honours
Faculty of Science, Mahidol University, Salaya Campus, Thailand, 2008

Selected Honors

Best Paper Awards

Mitpanont, J., **Sawangphol, W.**, Chankong, C., Jitsuphap, A., & Wongkhumsin, N. (2018). I WISH: Integrated Well-Being IoT System for Healthiness. Paper presented at the 15th International Joint Conference on Computer Science and Software Engineering (JCSSE2018), Nakhon Pathom, Thailand.

Mitpanont, J., Roungsuriyaviboon, J., Sathapornwatanakul, T., **Sawangphol, W.**, Kobayashi, D., & Haga, J. H. (2017). Extending MedThaiVis-Thai Medical Research Visualization to SAGE2 Display Walls. Paper presented at the 2nd International Conference on Information Technology (InCIT2017), Nakhon Pathom, Thailand.

Selected Professional Service

Program Committee

The International Joint Conference on Computer Science and Software Engineering (JCSSE), 2018, 2019, 2020

The ICT International Student Project Conference (ICT-ISPC), 2018

The IEEE International Conference on Ubi-Media Computing, 2018

The International Conference on Information Technology (InCIT), 2017, 2019, 2020

Selected Research Grants

NRCT, “Policy communication and the development of public relations and information systems”, Oct 2019 – Sept 2020, 2,600,000 Baht

TSRI, “An Adaptation Strategy towards Reservoir Re-Operation for Long-Term Water Supply Management of Bhumibol Dam (Phase 1)”, Aug 2019 – Jul 2020, 4,082,840 Baht

Doctoral Student Supervision

Name	Year Graduated, University
Kanrawi Kitkhachonkunlaphat	Current Student, Mahidol University
KHIN MUYAR KYAW	Current Student, Mahidol University

Publication Statistics

Journal Articles: 1

Conference Papers: 12

Workshop Papers: 1

Citations: Google Scholar: 34 with h-index of 2

Scopus: 23 (excluding self-citations) with h-index of 2

Selected Publications

- Puakalong, C., Takano, R., Visoottiviseth, V., Khurat, A., & **Sawangphol, W.** (2020, April). A Network Bandwidth Limitation with the DEMU Network Emulator. In *2020 IEEE 10th Symposium on Computer Applications & Industrial Electronics (ISCAIE)* (pp. 151-154). IEEE.
- Pojsomphong, N., Visoottiviseth, V., **Sawangphol, W.**, Khurat, A., Kashihara, S., & Fall, D. (2020, April). Investigation of Drone Vulnerability and its Countermeasure. In *2020 IEEE 10th Symposium on Computer Applications & Industrial Electronics (ISCAIE)* (pp. 251-255). IEEE.
- Reantongcome, V., Visoottiviseth, V., **Sawangphol, W.**, Khurat, A., Kashihara, S., & Fall, D. (2020, April). Securing and Trustworthy Blockchain-based Multi-Tenant Cloud Computing. In *2020 IEEE 10th Symposium on Computer Applications & Industrial Electronics (ISCAIE)* (pp. 256-261). IEEE.
- Kang, Y. B., Krishnaswamy, S., **Sawangphol, W.**, Gao, L., & Li, Y. F. (2020). Understanding and improving ontology reasoning efficiency through learning and ranking. *Information Systems*.
- Khurat, A., & **Sawangphol, W.** (2019, July). An Ontology for SNORT Rule. In *2019 16th International Joint Conference on Computer Science and Software Engineering (JCSSE)* (pp. 49-55). IEEE.
- Taveekarn, W., Yimudom, C., Sukkanta, S., Lynden, S., **Sawangphol, W.**, & Tuarob, S. (2019, July). DATA++: An Automated Tool for Intelligent Data Augmentation Using Wikidata. In *2019 16th International Joint Conference on Computer Science and Software Engineering (JCSSE)* (pp. 91-96). IEEE.
- Mitranont, J., **Sawangphol, W.**, Roungsuriyaviboon, J., Sathapornwatanakul, T., Pillavas, T., Sangaroonsilp, P., & Haga, J. (2018, July). MedThaiSAGE: Decision Support System to Suggest Healthcare Policies using Rule Findings Technique. In *2018*

15th International Joint Conference on Computer Science and Software Engineering (JCSSE) (pp. 1-6). IEEE

- Mitranont, J., **Sawangphol, W.**, Chankong, C., Jitsuphap, A., & Wongkhumsin, N. (2018, July). I-WISH: Integrated Well-Being IoT System for Healthiness. In *2018 15th International Joint Conference on Computer Science and Software Engineering (JCSSE)* (pp. 1-6). IEEE.
- Mitranont, J., **Sawangphol, W.**, Vithantirawat, T., Paengkaew, S., & Suwannasing, P. (2018, July). K4ThaiHealth: A Prototype for Thai Routine Medical Research Knowledge Extraction Sharing. In *2018 Seventh ICT International Student Project Conference (ICT-ISPC)* (pp. 1-6). IEEE.
- Mitranont, J., Rongsuriyaviboon, J., Sathapornwatanakul, T., **Sawangphol, W.**, Kobayashi, D., & Haga, J. H. (2017, November). Extending MedThaiVis-Thai medical research visualization to SAGE2 display walls. In *2017 2nd International Conference on Information Technology (INCIT)* (pp. 1-6). IEEE.
- Mitranont, J., **Sawangphol, W.**, Vithantirawat, T., Paengkaew, S., Suwannasing, P., Daramas, A., & Chen, Y. C. (2017, November). A study on using Python vs Weka on dialysis data analysis. In *2017 2nd International Conference on Information Technology (INCIT)* (pp. 1-6). IEEE.
- **Sawangphol, W.**, Li, Y.-F., and Tack, G. (2016), CP4DL: Constraint-based Reasoning for Expressive Description Logics. In *The fifteenth International Workshop on Constraint Modelling and Reformulation (ModRef 2016)*., Toulouse, France.
- Kang, Y. B., Pan, J. Z., Krishnaswamy, S., **Sawangphol, W.**, & Li, Y. F. (2014, June). How long will it take? accurate prediction of ontology reasoning performance. In *Twenty-Eighth AAAI Conference on Artificial Intelligence*.