Preecha Tangworakitthaworn

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Research Interests

Technology Enhanced Learning, E-Learning System Engineering, Game-Based Learning and Gamification, Database and Knowledge Based System, Conceptual Modeling and Conceptual Reasoning

Professional Experience

- Assistant Professor, Faculty of ICT, Mahidol University, 2017 - Now
- Lecturer, Faculty of ICT, Mahidol University, Thailand, 2014 - Now
- Deputy Dean for Academic Administration, Faculty of ICT, Mahidol University, Thailand, 2015-2016

Education

- Doctor of Philosophy in Computer Science, School of Electronics and Computer Science (ECS), University of Southampton, United Kingdom, November 2014
- Master of Computer Science, Department of Computer Science, Faculty of Science, Mahidol University, 2006
- Bachelor of Computer Science, Department of Computer Science, Faculty of Science, Mahidol University, 1998

Selected Honors

- Merit Award, Thailand ICT Awards (TICTA), Tertiary Student Level (Advisor), 2019
- Recognition Level of Invention Award, from the "Invention and Innovation Contest", Fiscal year 2018-2019, held by the National Research Council of Thailand (NRCT)
- Bronze Award, Thailand Research Expo 2018, held by the National Research Council of Thailand (NRCT)
- Runner-Up of the Applications for Promoting Learning Skills Category, National Software Contest (NSC), 2017-2019

Selected Professional Service

Reviewer

- Journal of Information Science and Technology (JIST)
- International Joint Conference on Computer Science and Software Engineering (JCSSE)
- International Computer Science and Engineering Conference (ICSEC)
- International Conference on Information and Communication Technology (IcoICT)

- International Conference on Information Technology (InCIT)
- International Conference on Business and Industrial Research (ICBIR)
- ICT International Student Project Conference (ISPC)

Selected Research Grants
- Principal Investigator, Young Innovative Researcher funded by National Science and Technology Development Agency (NSTDA), Ministry of Higher Education, Science, Research and Innovation, for Fiscal Year of 2021
  - Funding agency: National Science and Technology Development Agency (NSTDA)
  - Project Name: An Ontological-Based Agricultural Data Acquisition System
  - Dates: April 2021 – May 2022
  - Amount: 250,000 THB
- Principal Investigator, Innovative Grant funded by Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society (DE), for Fiscal Year of 2019
  - Funding agency: Ministry of Digital Economy and Society (DE)
  - Project Name: MiniTECH: Smart Plant Pot and Game-Based Learning System for Plant Monitoring based on IoT Technology
  - Dates: September 2019 – October 2021
  - Amount: 1,078,000 THB
- Co-researcher, Artificial Intelligence (AI) Up-skill Platform funded by Office of the National Broadcasting and Telecommunications Commission (NBTC), for Fiscal Year of 2019
  - Funding agency: Office of the National Broadcasting and Telecommunications Commission (NBTC)
  - Project Name: Artificial Intelligence (AI) Up-skill Platform and Competition for Thai Industries
  - Dates: October 2019 – November 2021
  - Amount: 8,087,000 THB
- Principal Investigator, New Research Grant funded by Mahidol University for Fiscal Year of 2017
  - Funding agency: Mahidol University
  - Project name: iSense-Conception: An Exploratory Case of Using Conceptual Reasoning in Performing Self-Regulated Learning
  - Dates: 1 July 2017 – 31 March 2019
  - Amount: 200,000 THB
- Higher Education Grant funded by NSTDA, 2010-2014
  - Funding agency: National Science and Technology Development Agency (NSDA)
  - Date: October 2010 – September 2014
  - Amount: £85,000 GBP

Doctoral Student Supervision
- Mr. Phat Nguyen Huu (Ph.D. in Computer Science), Individual Learning Effectiveness Using Cognitive Taxonomy and Constructive Alignment, 2018 - Now

Publication Statistics
Journal Articles: 2
Conference Papers: 15
Citations:
       Google Scholar: 64 with h-index of 5
       Scopus: 34 (excluding self-citations) with h-index of 4

Selected Publications
- Huu, P.N., **Tangworakitthaworn, P.**, and Gilbert, L., 2022, June. The Design and Development of an Adaptive Intelligent Tutoring System Based on Constructive Alignment and Cognitive Theories. In 2022 19th International Joint Conference on Computer Science and Software Engineering (JCSSE), pp. 1-6, June 2022.
- Huu, P. N., **Tangworakitthaworn, P.**, and Gilbert, L., Towards Self-Regulated Individual Learning Path Generation Using Outcome Taxonomies and Constructive Alignment, 2021 IEEE International Conference on Engineering, Technology & Education (TALE), 2021, pp. 465-472, doi: 10.1109/TALE52509.2021.9678777.
- Huu P.N., **Tangworakitthaworn P.**, and Gilbert L., Individual Learning Effectiveness Based on Cognitive Taxonomies and Constructive Alignment, 2020 IEEE Region 10 Conference (TENCON), 2020, pp. 1002-1006, doi: 10.1109/TENCON50793.2020.9293733.
- **Tangworakitthaworn P.**, Tengchaisri V., and Sudjaidee P., Serious Game Enhanced Learning for Agricultural Engineering Education: Two Games Development Based on IoT Technology, 2020 - 5th International Conference on Information Technology (InCIT), 2020, pp. 82-86, doi: 10.1109/InCIT50588.2020.9310786.
- **Tangworakitthaworn P.**, Gilbert L, and Maneerattanasak U. A Study of Students' Conception of Problem Situations: Using Conceptualization in Scenario-Based Learning. The 17th International Conference on Web-Based Learning 2018 (ICWL2018); 2018 August 22-24; ChiangMai, Thailand; 2018.
- **Tangworakitthaworn P**, Tengchaisri V, Rungsuptaweekoon K, and Samakit T. A Game-Based Learning System for Plant Monitoring Based on IoT Technology. The 15th International Joint Conference on Computer Science and Software Engineering (JCSSE2018); 2018 July 11-13; Nakhon Pathom, Thailand; 2018.
- **Tangworakitthaworn P.**, Towards a Conceptual Reasoning in Performing Pedagogical Activities for STEM disciplines. The 21st International Computer Science and Engineering Conference 2017 (ICSEC2017); 2017 November 15-18; Bangkok, Thailand; 2017.
- Chalermbuntai R, Kittipol R, Na Ranong, M, **Tangworakitthaworn P.**, The Design and Development of the Vocabulary Learning System for Second Language Learners using Word Association. Sixth ICT International Student Project Conference (ICTISPC); 2017 May 22-24; Nakhon Pathom, Thailand; 2017.
- Bubphasuwan N., Rattanachotparnich N., Kaewkum S., and **Tangworakitthaworn P.**, Serious Game Learning for Novice Practitioners in Psychomotor Domain, The Fifth ICT International Student Project Conference (ICT-ISPC 2016); May 2016; Nakhon Pathom, Thailand; 2016.

- Chanwijit J., Lomwongpaiboon W., Dowjam O., and **Tangworakitthaworn P.**, Decision Support System for Targeting Higher Education, The Fifth ICT International Student Project Conference (ICT-ISPC 2016); May 2016; Nakhon Pathom, Thailand; 2016.
- **Tangworakitthaworn, P.**, Gilbert, L., and Wills, G. (2015). Using Conceptualisation of Intended Learning Outcomes as Facilitators to Support Self-Regulated Learners in Indicating Learning Paths. Journal of Computer Assisted Learning (JCAL), Vol.31 (No.5), 393-404.
- **Tangworakitthaworn, P.**, Gilbert, L., and Wills, G. (2013). ILO Diagram: A Conceptual Model for Curriculum Development. IEEE Technology and Engineering Education (ITEE), Vol.8 (No.3), 12-19.
- **Tangworakitthaworn, P.**, Gilbert, L., and Wills, G. (2013). A Conceptual Model of Intended Learning Outcomes Supporting Curriculum Development. The 32nd International Conference on Conceptual Modelling (ER2013), 11-13 November 2013, Hong Kong, China.
- **Tangworakitthaworn, P.**, Gilbert, L., and Wills, G. (2013). Designing and Diagramming an Intended Learning Outcome Structure: A Case Study from the Instructors' Perspective. The 13th IEEE International Conference on Advanced Learning Technologies (ICALT2013), 15-18 July 2013, Beijing, China.
- **Tangworakitthaworn, P.**, Gilbert, L. and Wills, G. (2013). Facilitating Formative Assessment Through Learning Paths Extracted From a Logical Structure of Intended Learning Outcomes. International Computer Assisted Assessment Conference Research into E-Assessment (CAA2013), 9-10 July 2013, Southampton, UK.