## Thanwadee T. Sunetnanta

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#### **Research Interests**

Requirement Engineering, Software Process Improvement, Quantitative Approaches to Software Quality, Software Engineering for Machine Learning Applications, Software Engineering Education

# **Professional Experience**

Assistant Professor, Faculty of Information and Communication Technology, Mahidol University since May 2009.

Deputy Dean for Administration and System Development, Faculty of Information and Communication Technology, Mahidol University, May 2009 – October 2014.

Assistant Professor, Department of Computer Science, Faculty of Science, Mahidol University, July 2005 – May 2009.

Lecturer, Department of Computer Science, Faculty of Science, Mahidol University, April 1999 – July 2005.

Deputy Director, Mahidol University Computer Center, February 2005 – May 2009.

Head of Division of System Analysis and Design, Mahidol University Computer Center, 2000 – May 2009.

#### Education

Ph.D. in Distributed Software Engineering, Department of Computing, Imperial College, University of London, UK, February, 1999.

M.Sc. in Foundation of Advanced Information Technology, Department of Computing, Imperial College, University of London, UK, 1993.

B.Sc. in Computer Science, Department of Computer Science, Faculty of Science and Technology, Thammasat University, Thailand, 1991.

### **Selected Honors**

Award from Mahidol University in the category of highly cited research paper from Scopus database between year 2010-2014 in the area of information technology, August 2017.

IBM Faculty Award 2010, Research Project "Quantitative CMMI Assessment with Rational Tools on Jazz for Remote Project Health Monitoring".

## **Selected Professional Service**

Technical Advisory Team for Information Communication Technology, Central Institute of Forensic Science, Ministry of Justice, Thailand, 2018-2019.

Consultant for ISO/IEC 29110 under the project by Information Technology Industry Group, Federation of Thai Industry, and Digital Economy Promotion Agency (DEPA) (formerly named as Software Industry Promotion Agency - SIPA), Thailand, 2014-2019.

Co-chair of workshop series "International Workshop on Quantitative Approaches to Software Quality (QuASoQ)", co-located with APSEC conferences, 2013-2018.

Technical Team to Design an Integration System for Biometrics Databases (Fingerprints), Thai BioHub Project, Central Institute of Forensic Science, Ministry of Justice, August 2017 – February 2018.

Committees for ISO/IEC 29110 and ISO/IEC 20000 under the Software Industry Promotion Agency (SIPA) Thailand, 2015.

### **Selected Research Grants**

Principle Investigator, Development of Quantitative Prototype Tool for Measuring Benefits of Software Process Improvement Using ISO/IEC 29110 Standard, granted by Information Technology Industry Group, The Federation of Thai Industries, 2017.

Co-researcher, Implementation of ISO/IEC 29110 Systems and software engineering -- Lifecycle profiles for Very Small Entities (VSEs) for Startups, granted by Information Technology Industry Group, The Federation of Thai Industries, 2017.

Co-researcher, Data Analysis to Support Strategic Planning for the Development of Digital Cluster in Thailand, granted by Information Technology Industry Group, The Federation of Thai Industries, 2016.

Principle Investigator, Retail Display Management Support System for True Shop, granted by True Innovation Center, True Corporations Public Company Limited, 2014.

Principle Investigator, Improving Call Centers Performance Using Ontological Case-Based Reasoning for Issue Management System, granted by True Innovation Center, True Corporations Public Company Limited, 2013.

Principle Investigator, Research Survey of Popular E-Book, granted by True Innovation Center, True Corporations Public Company Limited, 2013.

Principle Investigator, Software Application Development for E-Book Reader, granted by True Innovation Center, True Corporations Public Company Limited, 2013.

Principle Investigator, Software Application Development for True Academy Application System, granted by True Innovation Center, True Corporations Public Company Limited, 2013.

Co-researcher, Global Software Development Project 2008 (http://atlantis.seidenberg.pace.edu/wiki/gsd2008/Home)

Researcher, Applying Multiperspectives for Web System Engineering, New Researcher Grant, Mahidol University, 2003.

Co-researcher, Visual Application Generator for Small Real Time Embedded Systems Project, National Electronics and Computer Technology Center (NECTEC), granted no. NT-06-4D-16-2015, 2000.

## **Selected Invited Talks and Keynote Addresses**

Agile/Scrum Methodology with ISO/IEC 29110, ISO/IEC 29110 Standard Class, by Information Technology Industry Group, The Federation of Thai Industries, January 9, 2019.

# **Doctoral Student Supervision**

NameYear Graduated, UniversityNamfon Assawamekin2009, Mahidol UniversitySuppasit Roongsangjancurrent student

### **Publication Statistics**

Monographs: 1 Journal Articles: 6 Conference Papers: 38 Workshop Papers: 9

Citations: Google Scholar: 239 with h-index of 9

Scopus: 111 (excluding self-citations) with h-index of 7

### **Selected Publications**

Supatsara Wattanakriengkrai, Rungroj Maipradit, Hideaki Hata, Morakot Choetkiertikul, Thanwadee Sunetnanta, and Kenichi Matsumoto (2018), "Identifying Design and Requirement Self-Admitted Technical Debt Using N-Gram IDF", Proceedings of the 9th IEEE International Workshop on Empirical Software Engineering in Practice (IWESEP2018), Nara, Japan, December 4. (Best Paper Award)

Suppasit Roongsangjan, Thanwadee Sunetnanta, and Pattanasak Mongkolwat (2017), "Multi-Level Compliance Measurements for Software Process Appraisal", Proceedings of the 5th International Workshop on Quantitative Approaches to Software Quality (QuASoQ2017), Nanjing, China, December 4.

Suppasit Roongsangjan, Thanwadee Sunetnanta, and Pattanasak Mongkolwat (2017), "Structuring the Knowledge for Software Process Appraisal towards Semi-Automated Support", Proceedings of the 24th Asia-Pacific Software Engineering Conference (APSEC2017), Nanjing, China, December 4-8.

Suppasit Roongsangjan, Thanwadee Sunetnanta and Pattanasak Mongkolwat (2017), "Using FCA Implication to Determine the Compliance of Model Practice Implementation for Software Process". Proceedings of 2017 International Conference on Management Engineering, Software Engineering and Service Sciences (ICMSS 2017), Wuhan, China, January 14-16.

Thanwadee T. Sunetnanta, Sujimarn Suwannaroj and Prakit Sangpar (2016), "ISO/IEC 29110 for Competitiveness - Challenges of Digital Cluster Development in Thailand". 10th Anniversary Overview of Accomplishments, ISO/IEC JTC 1 SC 7 Working Group 24.

Morakot Choetkiertikul, Hoa Khanh Dam, Aditya Ghose and Thanwadee Sunetnanta (2014). "A CMMI-Based Automated Risk Assessment Framework". Proceedings of the 2nd International Workshop on Quantitative Approaches to Software Quality (QuASoQ2014), in conjunction with the 21st Asia Pacific Software Engineering Conference (APSEC2014), Jeju Ramada Plaza Hotel, Jeju, Korea, December 1.

Thanwadee Sunetnanta and Morakot Choetkiertikul (2012). "Quantitative CMMI Assessment for Software Process Quality and Risk Monitoring in Software Process Improvement". International Journal of Digital Content Technology and its Applications, 11/2012; 6:95-102 (ISSN: 1975-9339).

Morakot Choetkiertikul and Thanwadee Sunetnanta (2012). "A Risk Assessment Tool Using a CMMI Quantitative Approach". IACSIT International Journal of Engineering and Technology, Vol. 4, No. 4, August 2012, 352-353 (ISSN: 1793-8236).

Olly Gotel, Vidya Kulkarni, Moniphal Say, Chritelle Scharff and Thanwadee Sunetnanta (2010). "Quality indicators on Global Software Development Projects: Does 'Getting to Know You' really matter?". Journal of Software Maintenance and Evolution: Research and Practice, June. (Also appeared in Proceedings of the IEE Conference on Global Software Engineering (ICGSE 2009), Limerick, Ireland, July 13 – 16, 2009. (Best Paper Award))

Thanwadee Sunetnanta, Olly Gotel, Vidya Kulkarni, Moniphal Say, and Chirstelle Scharff (2009). "Role-Based Meets Problem-Based for Software Engineering Learning". Proceedings of the first

International Conference on Higher Education Research and Development (IHERD) 2009, Bangkok, Thailand, July 9-11.

Thanwadee Sunetnanta, Nion Nobprapai, and Olly Gotel (2009). "Quantitative CMMI Assessment for Offshoring Through the Analysis of Project Management Repositories". Software Engineering Approaches for Offshore and Outsourced Development, Proceedings of the 3rd International Conference on Software Engineering Approaches For Offshore and Outsourced Development (SEAFOOD), Edited Volume by Olly Gotel, Mathai Joseph, Bertrand Meyer, Lecture Notes in Business Information Processing, LNBIP, Volume 35, Springer.

Woraluck Puttrangkul, and Thanwadee Sunetnanta (2009). "Wrapping Legacy Information System into Web Services, A Case Study of Electronic Banking". Proceedings of the 6th International Joint Conference on Computer Science and Software Engineering (JCSSE 2009), Phuket, Thailand.

Olly Gotel, Vidya Kulkarni, Moniphal Say, Chirstelle Scharff and Thanwadee Sunetnanta (2009). "A Global and Competition-based Model for Fostering Technical and Soft Skills in Software Engineering Education". Proceedings of the Conference on Software Engineering Education and Training (CSEET 2009), Hyderabad, India, February 17 - 19.

Olly Gotel, Vidya Kulkarni, Moniphal Say, Chirstelle Scharff, and Thanwadee Sunetnanta (2009). "A Global and Competition-based Model for Fostering Technical and Soft Skills in Software Engineering Education". Proceedings of the 22nd IEEE-CS Conference on Software Engineering Education and Training (CSEE&T'09), Hyderabad, India.

Namfon Assawamekin, Thanwadee Sunetnanta, and Charnyote Pluempitiwiriyawej (2009). "MUPRET: An Ontology-Driven Traceability Tool for Multiperspective Requirements Artifacts". Proceedings of the 8th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2009), Shanghai, China.

Namfon Assawamekin, Thanwadee Sunetnanta, and Charnyote Pluempitiwiriyawej (2009). "Deriving Traceability Relationships of Multiperspective Software Artifacts from Ontology Matching". Proceedings of the 10th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2009), Catholic University of Daegu, Daegu, Korea.

Namfon Assawamekin, Thanwadee Sunetnanta, and Charnyote Pluempitiwiriyawej (2009). "Ontology-Based Multiperspective Requirements Traceability Framework". Knowledge and Information Systems (KAIS) Journal, October.

Namfon Assawamekin, Thanwadee Sunetnanta, and Charnyote Pluempitiwiriyawej (2008). "Resolving Multiperspective Requirements Traceability Through Ontology Integration". Proceedings of the 2nd IEEE International Conference on Semantic Computing (IEEE-ICSC2008), August, 4-7, Santa Clara, CA, USA, 2008.

Namfon Assawamekin, Thanwadee Sunetnanta, and Charnyote Pluempitiwiriyawej (2008). "Automated Multiperspective Requirements Traceability Using Ontology Matching Technique". Proceedings of the 12th International Conference on Software Engineering and Knowledge Engineering (SEKE'08), July 1-3, Hotel Sofitel, Redwood City, California, USA.

Olly Gotel, Christelle Scharff, Andrew Wildenberg, Mamadou Bousso, Chim Bunthoeurn, Phal Des, Vidya Kulkarni, Srisupa Palakvangsa Na Ayudhya, Cheikh Sarr and Thanwadee Sunetnanta (2008). "Global Perceptions on the Use of WeBWorK as an Online Tutor for Computer Science". Proceedings of the 38th Annual Frontiers in Education Conference: Racing Toward Innovation in Engineering Education (FIE'08), October 22-25, Saratoga Springs, New York, USA.