PERSONAL DATA

Name : ASST.PROF.DR. KWANKAMON DITTAKAN
Position : Lecturer
Email : kwankamon.d@phuket.psu.ac.th
Phone : +6676 276 712

PUBLICATIONS SUMMARY

12	1	12	1	1	4
International Journal	National Journal	International. Proceedings	National. Proceedings	Chapters	Research Grants

Total Publications: 31

EDUCATION

Ph.D. Degree	2016	Ph.D in Computer Science University of Liverpool, United Kingdom
Master Degree	2550	วท.ม วิทยาการคอมพิวเตอร์ มหาวิทยาลัยสงขลานครินทร์ ประเทศไทย
Bachelor Degree	2544	วท.บ วิทยาการคอมพิวเตอร์ มหาวิทยาลัยสงขลานครินทร์ ประเทศไทย

RESEARCH INTERESTS

Data Science, Data Analytics

Database Application Development

Image Understanding

Knowledge Discovery from Data

Medical Image Analysis

Signal Analysis

RESEARCH PROJECTS

Medical Image Analysis and Mining
Image Processing and Understanding Applications
Signal and Image Mining for Agriculture
Population Estimation Mining From Satellite Imagery

TEACHING

Database Systems (Undergraduate level), 2006-now
Database Development (Undergraduate level), 2012-2015
Database Systems Management, 2016
Advanced Database Systems (Undergraduate level), 2005-2011
Data Mining (Undergraduate level and Graduate level), 2009-now
Information Retrieval (Undergraduate level), 2003-2004
Image Processing (Graduate level), 2017
Graphic Design and Applied Art (Undergraduate level), 2006-2008

TRAINING

Big Data Analytic with Microsoft Azure, 2016
Big Data on HADOOP August, Prince of Songkla University, 2016
Training Program on Instructors for ITEE in Thailand (THITEE), NSTDA Thailand, 2011
E-Marketing, Tourism Authority of Thailand (TAT) and Software Park Thailand, 2010
Oracle Trainer in Thailand University 2009, Oracle Thailand
3D Animation (Train the Trainer) Blender, Software Industry Promotion Agency, 2009
Microsoft Certified Solution Developer (MCSD), 2008
Microsoft Certified Application Developer (MCAD), 2007
Marine Meteorology, Thailand Meteorological Department, 2006

INTERNATIONAL JOURNAL ARTICLES

Kwankamon Dittakan, Jirawat Thaenthong, Sulakkana Rodkuen, Phutphisit Thungklang (2026). Fungus Classification in Peanuts from Smart Lens Imagery Using Convolutional Neural Network. CURRENT APPLIED SCIENCE AND TECHNOLOGY, Vol 25, No 4. pp.e0265905. https://doi.org/10.55003/cast.2025.265905.

https://li01.tci-thaijo.org/index.php/cast/article/view/265905

5/2026 *Scopus*

Sujittra Sa-ngiem, Kwankamon Dittakan, Saroch Boonsiripant, " RoadSCNet: Road Surface Condition Detection Network," International Journal of Advanced Computer Science and Applications, Vol 16, No 12, December 2025, pp940-951.http://dx.doi.org/10.14569/IJACSA.2025.0161290.

https://thesai.org/Downloads/Volume16No12/Paper_90-RoadSCNet_Road_Surface_Condition_Detection_Network.pdf

12/2025 *Scopus*

Sujittra Sa-ngiem, Kwankamon Dittakan, Saroch Boonsiripant, "The road conditions detection using the convolutional neural network," Indonesian Journal of Electrical Engineering and Computer Science (IJEECS), (2025), Vol 40, No 1, October 2025, pp327-345, DOI: 10.11591/ijeecs.v40.i1.pp327-345

https://ijeecs.iaescore.com/index.php/IJEECS/article/view/40188

10/2025 IJEECS

Kwankamon Dittakan, Jirawat Thaenthong; Thanakorn Prasomkit, A Comparative Study on Thai License Plate Recognition: Object Detection and Transformer Learning Approaches, in IEEE Access, vol. 13, pp. 99802-99815, 2025, doi: 10.1109/ACCESS.2025.3575811

https://ieeexplore.ieee.org/document/11021500

6/2025 Scopus Q1 Top 10%, image analysis, License Plate Detection, Transformer Learning, Object Detection

Sopit Sittiphan, Apiradee Lim, Haris Khurram, Nurin Dureh and **Kwankamon Dittakan** (2025). Epidemiology of reported serious adverse drug reactions due to anti-infectives using nationwide database of Thailand. PLoS One. 2025 Feb 25;20(2):e0318597. doi: 10.1371/journal.pone.0318597. PMID: 39999099; PMCID: PMC11856502.
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https://pubmed.ncbi.nlm.nih.gov/39999099/

2/2025 Scopus, Web of Science

Kwankamon Dittakan and Sorawit Nookong (2024). Burn Wound Severity Detection using Segmentation Model: A Comparative Study Between U-NET and YOLOv8. *Journal of Applied Informatics and Technology*, *7*(1), 153–173. retrieved from

https://ph01.tci-thaijo.org/index.php/jait/article/view/255064

7/2024 TCI

Kwankamon Dittakan, Kamontorn Prompitak, Phutphisit Thungklang, and Chatchawan Wongwattanakit, Image caption generation using transformer learning methods: a case study on Instagram image. Multimed Tools Appl (2023). https://doi.org/10.1007/s11042-023-17275-9.

https://doi.org/10.1007/s11042-023-17275-9.

10/2023 Scopus, Web of Science, image Captioning

Kahabodee Prakobchat, Kwankamon Dittakan, Salang Musikasuwan, A Comparative Study on Vehicle Physical Appearance Identification Using Transfer Learning Methods, Engineering Access, VOL. 9, NO. 2, JULY-DECEMBER 2023, pp154-167 (Indexed in Scopus).

https://www.researchgate.net/publication/361615396_Vehicle_Make_Detection_Using_the_Transfer_Learning_Approach

7/2023 Scopus, image analysis

Tassanee Hattiya, Kwankamon Dittakan and Salang Musikasuwan, “Diabetic Retinopathy Detection using Convolutional Neural Network: A Comparative Study on Different Architectures”, The Mahasarakham International Journal of Engineering Technology, vol. 7, no. 1, pp. 50-60, 2021 (Scopus)

https://www.researchgate.net/publication/343373780_Diabetic_Retinopathy_Detection_Using_Convolutional_Neural_Network-A_Study

1/2021 Medical image analysis

Sophal Chan, Kwankamon Dittakan and Subhieh El Salhi, Osteoarthritis detection by Applying Quad-tree Analysis to Human Joint Knee X-ray imagery, International Journal of Computers and Applications, Taylor & Francis, 2020, pp 1-8. (Indexed in Scopus, CiteScore: 1.3, Quartile 4) DOI: 10.1080/1206212X.2020.1838145

11/2020 Scopus, Medical image analysis, Osteoarthritis detection

Sophal Chan, Kwankamon Dittakan and Matias Garcia-Constantino, Image Texture Analysis for Medical Image Mining: A comparative study direct to Osteoarthritis Classification using Knee X-ray Image, International Journal on Advanced Science, Engineering and Information Technology, Vol 10, No 6, 2020, pp2189-2199. (Indexed in Scopus, CiteScore: 1.31, Quartile 2).

7/2020 Scopus

Sujittra Sa-ngiem, Kwankamon Dittakan, Kanya Temkiatvises, Sirisak Yaisoongnern and Kongkiat Kespechara, Cerebral Microbleed Detection by Extracting Area and Number from Susceptibility Weighted Imagery using Convolutional Neural Network, May 2019, Journal of Physics: Conference Series, Volume 1229, pp 012038. (Indexed in Scopus, CiteScore: 0.7). DOI: 10.1088/1742-6596/1229/1/012038

5/2019 Deep learning, CMB Detection, Medical image analysis, Cerebral micro-bleeding, Convolutional Neural Network, Scopus

NATIONAL JOURNAL ARTICLES

ขวัญกมล ดิฐกัญจน์, ปิยะวัฒน์ หนูเล็ก และ กรวิทย์ พฤษชัยนิมมิต,
"วินิจฉัยมะเร็งผิวหนังจากภาพถ่ายโทรศัพท์ด้วยโครงข่ายประสาทเทียมสังวัตนาการ", Journal of Information Science and Technology(JIST),Volume 12, NO 2 | JUL – DEC 2022 | pp: 73-86.

https://ph02.tci-thaijo.org/index.php/JIST/article/view/247825

7/2022 *Medical image analysis*

INTERNATIONAL PROCEEDINGS

Siddoo, Veeraporn, Kwankamon Dittakan, and Kamontorn Prompitak. A Dual Methodology for Evaluating Medical Tourism Websites," *2024 8th International Conference on Information Technology (InCIT)*, Chonburi, Thailand, 2024, pp. 215-220, doi: 10.1109/InCIT63192.2024.10810519.

https://ieeexplore.ieee.org/document/10810519

10/2024 *IEEE*

Nattanon Saetan and Kwankamon Dittakan, Conference on Digital Arts, Media and Technology with ECTI Northern Section Conference on Electrical, Electronics, Computer and Telecommunications Engineering (ECTI DAMT & NCON), Chiangmai, Thailand, 2024, pp. 243-248, doi: 10.1109/ECTIDAMTNCON60518.2024. 10480091.

https://ieeexplore.ieee.org/document/10480091/

2/2024 *IEEE*

Sophal Chan and Kwankamon Dittakan, Osteoarthritis Stages Classification to Human Joint Imagery using Texture Analysis: A Comparative Study on Ten Texture Descriptors, The Second International Conference on Recent Trends in Image Processing & Pattern Recognition (rtip2r 2018), Solapur, Maharastra State, India, 21-22 December 2018. Springer's Lecture Notes in Communications in Computer and Information Science: Volume 1036.

12/2018 *Image mining, Medical Image Analysis, Osteoarthritis Stages Classification, Springer*

Kwankmaon Dittakan, Nawanol Theera-Ampornpunt and Pattaporn Boodliam, Non-destructive Grading of Pattavia Pineapple using Texture Analysis, Wireless Personal Multimedia Communications 2018 (WPMC'18), Chiang Rai, Thailand, 25-28 November 2018, pp 144-149. IEEE 2018.

11/2018 *Pineapple Grading, Image mining, Agriculture Informatics, IEEE*

Kwankmaon Dittakan, Nawanol Theera-Ampornpunt, Pum-Riang Thai Silk Pattern Classification Using Texture Analysis. Proceedings of the Pacific Rim International Conferences on Artificial Intelligence (PRICAI). Nanjing, China. Page: 82-90. August 28-31, 2018, Springer's Lecture Notes in Artificial Intelligence: Volume 11012.

8/2018 *Image mining, Image processing, Image Analysis, Image Classification, Springer*

Kwankamon Dittakan, Nawanol Theera-Ampornpunt, Waraphon Witthayarat, Sararat Hinnoy, Supawit Klaiwan, and Thunyathorn Pratheep, Banana Cultivar Classification using Scale Invariant Shape Analysis. Proceedings of the 2nd International Conference on Information Technology (InCIT 2017). Nakhon Pathom, Thailand, 2-3 November 2017, Page: 171-176. IEEE 2017.

11/2017 *Image mining, Image processing, Image Analysis, Image Classification, IEEE*

Kwankamon Dittakan, Frans Coenen, Early Detection of Osteoarthritis Using Local Binary Patterns: A Study Directed at Human Joint Imagery, The 14th Pacific Rim International Conference on Artificial Intelligence (PRICAI 2016), Phuket, Thailand, 22-26 August 2016, Page: 93-105., Springer's Lecture Notes in Artificial Intelligence, volume 9810.

8/2016 *Image mining, Image processing, Image Analysis, Image Classification, Springer*

Wen Yu, Frans Coenen, Michele Zito, Kwankamon Dittakan, Classification of 3D Surface Data Using the Concept of Vertex Unique Labelled Subgraphs, The 14th IEEE International Conference on Data Mining (ICDM Workshop 2014), 14-17 December 2014, Page: 47-54.

12/2014 *Graph-Based, Graph mining, Image Analysis, IEEE*

Kwankamon Dittakan, Frans Coenen, Rob Christley, Maya Wardeh, A Comparative Study of Three Image Representations for Population Estimation Mining Using Remote Sensing Imagery, International Conference on Advanced Data Mining and Applications (ADMA 2013), Hangzhou, China, 14-16 December 2013, Page: 253-264.

12/2013 *Image mining, Image processing, Springer*

Kwankamon Dittakan, Frans Coenen, Rob Christley, Maya Wardeh, Population Estimation Mining Using Satellite Imagery, 15th International Conference on Data Warehousing and Knowledge Discovery (DaWak 2013), Prague, Czech Republic, 26-29 August 2013, Page: 285-296.

8/2013 *Image mining, Image processing, Image Analysis, Image Classification, Springer*

Kwankamon Dittakan, Frans Coenen, Rob Christley, Satellite Image Mining for Census Collection: A Comparative Study with Respect to the Ethiopian Hinterland, International Conference on Machine Learning and Data Mining (MLDM 2013), New York, United State of America, 19-25 July 2013, Page: 260-274.

7/2013 *Image mining, Texture analysis, Image processing, Springer*

Kwankamon Dittakan, Frans Coenen, Rob Christley, Towards The Collection of Census Data From Satellite Imagery Using Data Mining: A Study With Respect to the Ethiopian Hinterland, Thirty-Second SGAI International Conference on Artificial Intelligence (AI2012), Cambridge, United Kingdom, 11-13 December 2012, Page: 405-418.

12/2012 *Artificial Intelligence, Image processing, Image mining, Image Analysis, Image Classification, Springer*

NATIONAL PROCEEDINGS

ขวัญกมล ดิฐกัญจน์, ณัฏฐ์นรี นวลนิ่ม, ฐิติภรณ์ สว่างวงศ์และ ธัญธร ประทีม. 2560.
การนับเม็ดยาต่างขนาดและรูปร่างด้วยเทคนิคการประมวลผลภาพ, การประชุมวิชาการระดับประเทศด้านเทคโนโลยีสารสนเทศ (National Conference on Information Technology) ครั้งที่ 9, ศาลายา, นครปฐม. หน้า 51-56. 1 - 2 พฤศจิกายน พ.ศ. 2560

11/2017 *Image processing, Pill Counting*

CHAPTERS

Frans Coenen and Kwankamon Dittakan, Image Representation for Image Mining: A Study Focusing on Mining Satellite Images for Census Data Collection, *Knowledge Discovery, Knowledge Engineering and Knowledge Management*, Springer Communications in Computer and Information Science 914, pp3-27.

1/2019

RESEARCH GRANTS

Kwankamon Dittakan (PI), Aziz Nanthaamornphong (Co-PI), and Noppon Leardchoowongsa (Co-PI), Early detection of Alzheimer's Disease with Image Processing
funded by Bangkok Hospital, 2016 - 2020

2016

Kwankamon Dittakan (PI), Phuket Immigration Mining Service on Web Service Framework Phase II
funded by Software Promotion Agency, 2007

2007

Wasin Sangiemkul (PI), Esther Jaiwei (Co-PI), Kwankamon Dittakan (Co-PI), Quality Oriented Software Measurement and Evaluation for Education
funded by Software Promotion Agency, 2007

2007

Kwankamon Dittakan (PI), Phuket Immigration Mining Service on Web Service Framework Phase I
funded by Software Promotion Agency, 2006

2006

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COLLEGE OF COMPUTING
Prince of Songkla University Phuket Campus
80 M.1 Vichitsongkram Road Kathu, Phuket 83120
Email: coc@phuket.psu.ac.th
Website: computing.psu.ac.th