

## PERSONAL DATA



Name : DR. KWANKAMON DITTAKAN

Position : Lecturer

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## 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

Medical Image Analysis



Image Understanding



Signal Analysis



Database Application Development



Knowledge Discovery from Data



Data Science, Data Analytics

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## RESEARCH PROJECTS

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Medical Image Analysis and Mining  
Image Processing and Understanding Applications  
Signal and Image Mining for Agriculture  
Population Estimation Mining From Satellite Imagery  
[Research Projects](#)

## TEACHING

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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

## MSc/PhD Students

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Mr.Sophal Chan  
Mrs.Sujittra Sangiem  
Ms.Tassanee Hatthiya

## INTERNATIONAL JOURNAL ARTICLES

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**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>.

 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).

 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)

 1/2021  Medical image analysis

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

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](https://doi.org/10.1080/1206212X.2020.1838145)

11/2020 Scopus, Medical image analysis, Osteoarthritis detection

Sujitra 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](https://doi.org/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 ดิษฐกัญจน์, ปิยะวัฒน์ หนูเล็ก และ กรวิทย์ พฤษชัยนิมิต,  
"วินิจฉัยมะเร็งผิวหนังจากภาพถ่ายโทรศัพท์ด้วยโครงข่ายประสาทเทียมสังวัตนาการ", Journal of Information Science and Technology (JUST ), Volume 12, NO 2 | JUL – DEC 2022 | pp: 73-86.

/2022 Medical image analysis

## INTERNATIONAL PROCEEDINGS

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/ECTIDAMTNCN60518.2024. 10480091.

2/2024 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

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

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, Maharashtra 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

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, 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, 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, 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, Towards The Collection of Census Data From Satellite Imagery Using Data Mining: A Study With Respect to the Ethiopian Hinterland, Thirty-Second SGA 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, ณัฐฐันนี นวลน้อม, จิตติภรณ์ สว่างวงศ์และ อัญธร 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.

## 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

## 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

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 II  
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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