# **Curriculum Vitae**

# Teerapong Leelanupab, B.Eng., M.Sc., Ph.D.

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School of Electrical Engineering and Computer Science (EECS) Building 78 General Purpose South, Staff House Road The University of Queensland, St Lucia QLD 4072, Australia - (Office)



# **EXPERIENCES**

# **Working Experiences**

2023 – Present

# Senior Research Fellow, Queensland Digital Health Research Centre (QDHeC), School of Electrical Engineering and Computer Science, The University of Queensland (UQ), Australia

As a member of the Queensland Digital Health Centre (QDHeC), generate leading and cutting-edge research and discover translational opportunities of knowledge in Information Retrieval (IR) and Machine Learning on Medical and Multimedia Data to improve Australian healthcare. QDHeC is funded by the Health Research Accelerator (HERA) initiative.

# 2022 – Present IT and Data Science Director, Thaibiogenix International (TBI) Co., Thailand

Continue to lead and manage teams for developing Al-centred applications and delivering data science solutions such as Modgut's B2B system and TBI business systems. Modgut and TBI are two sibling start-up companies under the BGIC holding company. Modgut's B2B system consists of two web-based applications that provide a complete solution to operate gut microbiome test services for corporate customers, such as hospitals, wellness centres, and clinics. One of the two systems is a partner portal application used to generate the other customizable web application for each partner according to its workflow. Examples of TBI business systems are a World Economic Forum-like knowledge graph visualization application, called Transformation Map and a smart agricultural platform, FreshQ, which features traceability and a supply chain of high-value fruits from farms to customers using IoT and Blockchain technologies.

# 2022 – 2023 IT and Data Science Director, Modgut Co., Thailand

Continue a successful project from the Talent Mobility Program at BGIC. Lead and manage application development to develop a Modgut platform. Design and develop a set of six applications for smart workflow to operate the services of gut microbiome tests for retail customers and for academic and industrial researchers interested in doing research related to gut microbiomes. Examples of research projects are to identify biomarkers from human host genes and gut microbiomes for hepatocellular carcinoma.

# 2019 - 2023 Associate Professor in Information Technology, School of Information Technology, King Mongkut's Institute of Technology Ladkrabang (*KMITL*), Thailand

Research in Information Retrieval (IR), Machine Learning on Medical and Multimedia Data (e.g., Myocardial Perfusion Imaging (MPI)), Text Mining and Applied Natural Language Processing (e.g., Latent Dirichlet Allocation (LDA) and Text Graph Convolutional Networks (TGCN)), and Data & Computer Science Education (e.g., Remote Pair Programming); Lecture for the undergraduate and graduate students in the following subjects: *i*) Data Science for Business, *ii*) Information Retrieval and Text Analytics, *iii*) Machine Learning Blended Course, *iv*) Software Engineering, *v*) Information System Analysis and Design, *vi*), Object-Oriented Programming and Design Patterns

# 2021 – 2022 Data Science Assistant Director, Bio Global Innovation Co., Ltd. (BGIC)

As part of a Talent Mobility Program, lead Data Science, Data Warehouse and Data Engineering teams for data-driven business solutions and their architecture on cloud for building bio and health business platforms. Also, manage several projects in developing information systems from e-commerce to laboratory management with the goal to create new data business in the biotechnology domain.

#### **EXPERIENCES - Continue**

#### June – July 2021 Invited Special Lecturer, ExxonMobil Co., Ltd.

Lecture for Data Science Special Course. This 6-week intensive course covers several essential topics, including Feature Engineering, Data Science Pipeline, Data Imputation and Sampling, Machine Learning Experimental Setup and Evaluation, Nested Cross Validation, Explainable AI Using Shapley, Gradient Descent, Fraud/Anomaly Detection, Time Series Analysis and Forecasting

### 2014 – 2019 Assistant Professor in Information Technology, Faculty of Information Technology, King Mongkut's Institute of Technology Ladkrabang (*KMITL*), Thailand

Research in Information Retrieval (IR), encompassing the subareas of Complex IR Evaluation Measures, Replicability & Reproducibility Evaluation Methodology and Protocol, and IR Interactive Search Systems; Lecture for the undergraduate and graduate students in the following subjects: *i*) Information Retrieval and Text Analytics, *ii*) Software Engineering, *iii*) Information System Analysis and Design, *iv*), Object-Oriented Programming and Design Patterns and *v*) Software Validation and Verification

# 2018 – 2019 Invited Special Lecturer, Department of Mathematics, Faculty of Science, King Mongkut's University of Technology Thonburi (KMUTT), Thailand

Lecture for the undergraduate students in the following subjects: Web Programming and Testing Using Laravel Framework 5.6 and Robot Framework

#### 2012 - 2018 Invited Special Lecturer, Faculty of Information and Communication Technology, Silpakorn University, Thailand

Lecture for the undergraduate students in the following subjects: *i*) Web Development Using PHP, JavaScript and jQuery and *ii*) Advanced Web Programming and Testing Using Laravel Framework 5.6 and Robot Framework

# 2012 - 2014 Lecturer and Researcher, Faculty of Information Technology, King Mongkut's Institute of Technology Ladkrabang (*KMITL*), Thailand

Lecture for the undergraduate and graduate students in the following subjects: *i*) Information Retrieval, *ii*) Software Engineering, *iii*) Information System Analysis and Design, *iv*), Object-Oriented Programming and Design Patterns, *v*) Software Validation and Verification and *vi*) Requirement Engineering

## 2003 - 2012 Part-time Self-Employed Web Application Developer

Java-based Web business application development.

# 2010 - 2011 Level 2 Tutor, School of Computing Science, University of Glasgow, United Kingdom

Tutor for the level-2 students in two subjects: i) Computer Science 2 and ii) Information Management 2.

# Mar. 2003 - July 2006 Traffic System Analyst and IT Support, Srithong Charoen Ltd., Thailand Analysis and deployment of traffic systems for Bangkok Metropolitan Administration. Design and implementation of web application for internal information management systems.

# Oct. 2002 - Dec. 2002 Web Application Developer, AMD Ltd., Thailand

Web application development for catastrophic prevention systems.

# EDUCATION

## 2008 - 2012 University of Glasgow, United Kingdom

Ph.D. in Computing Science - Information Retrieval, supervised by Professor Joemon M. Jose. Thesis research is centred on the Ranking Framework and Evaluation for Diversity-Based Retrieval

#### 2006 - 2007 University College London (UCL), United Kingdom

M.Sc. (*Distinction*) in Software Systems Engineering with a major in Financial Information System. Master's project on the development of cross-platform middleware to allow communication between financial front-end applications and multiple data-grid products, i.e. *Oracle Coherence* and *GemStone's GemFire*.

# 2006 - 2007 London Business School, United Kingdom

M.Sc. (Distinction) in Software Systems Engineering (joint degree with UCL).

### **1999 - 2003** King Mongkut's Institute of Technology Ladkrabang, Thailand B.Eng. in Computer Engineering, GPA 3.23 (4.00 scale). Most outstanding senior project award on eye-controlled mouse application.

QUALIFICATIONS

#### **TECHNICAL SKILLS**

- Professional Data Mining and Machine Learning
  - Python for Data Analytics
  - Tools for machine learning and data mining, such as Rapid Miner and Weka.
  - D3 for Data Visualization
  - R for statistical analysis
  - Parallel and distributed algorithm design (Hadoop MapReduce)
- Professional Software Engineering and Development
  - o Agile and Scrum Software Development Approach
  - o Test Driven Development and Unit Testing using JUnit, TestNG and Robot Framework
  - JAVA (10+ Years Experience), particularly Swing & AWT for developing rich interactive application interface.
  - o C/C++, Unix Script, Visual Basic, ASP
  - SQL relational databases: particularly Oracle 10 g and PL\SQL
  - Basic CASE tools (Subversion and bug tracking/ticketing)
  - Advanced Object Oriented Programming and Design Patterns
- Web Development
  - Laravel PHP Framework 5.5+
  - HTML, CSS, PHP, Javascript, jQuery and AJAX (4+ Years Experience)
  - Acceptance Test Driven Development using Robot Framework
- o Server Systems and Networking
  - Windows Server management
- Working Knowledge
  - o Tools for IR research, such as Lemur and Terrier.

## LANGUAGES

- Thai (mother tongue)
- o English
  - Reading = Fluent, Writing = Good, Speaking = Fluent.
  - TOEFL Computer-based Test, total score: 240/587, essay rating: 4.5

#### REFERENCES

Professor Joemon M. Jose School of Computing Science, University of Glasgow, United Kingdom, G12 8RZ Telephone: +44 (0)141-330-1636 (jj@dcs.gla.ac.uk)

Professor David S. Rosenblum (*Previous Head of Software Systems Engineering Group, University College London*) Department of Computer Science, National University of Singapore, Singapore, 117417 Telephone: +65 (0)6516-6230 (david@comp.nus.edu.sq)

Associate Professor Kietikul Jearanaitanakij

Department of Computer Engineering, King Mongkut's Institute of Technology Ladkrabang, Thailand, 10520 Telephone: +66 (0)2-739-2400 (kjkietik@kmitl.ac.th)

# RESEARCH

#### **RESEARCH AREAS**

- Information Retrieval (IR)
  - Complex IR Effectiveness Measures
  - Replicability and Reproducibility Evaluation Methodology and Protocol
  - Diversity-Based Document Retrieval
  - Collaborative Search Interface
  - Clustering, Classification and Topic Modelling Techniques
  - Temporal IR
  - Multimodal Interactions for IR
  - o Multimedia Mining and Search
- ACADEMIC SERVICES
  - Technical Program Chair for ICITEE 2021
  - Reviewer for IEEE Transaction on Haptics 2018
  - Reviewer for SIGIR 2016-23
  - o Reviewer for ECIR 2014-2021
  - Reviewer for ICITEE 2016-2020
  - o Reviewer for JCSSE 2016
  - Co-Chair and Program Committee for AIRS 2015
  - Program Committee for ADCS 2015

- Local Organizer and Program Committee for ICITEE 2015
- Local Organizer and Track Chair for NCIT 2015
- o Reviewer for ECIT-CON 2013

• Mnemonic Keyword Generation

Human Computer Interaction

Crowdsourcing

Phonetic Encoding for Japanese Words

Non-visual and audial Feedback

o Interactive IR Evaluation through

Crowdsourced Human Intelligence

Personal Information Management

• Personal Information Context

• Thermal Feedback for the Hearing-Impaired

o Labelling Tasks with Quality Management

• Adaptive and Personalised Search Systems

- Program Committee for CIKM 2015
- Reviewer for SIGIR 2011-15 (Poster Session)
- Program Committee for AIRS 2012
- Reviewer for ICITEE 2013
- o Invited talks, Dublin City University, 2008

## **RESEARCH VISITS AND INTERNSHIPS**

#### June 2022

## XLIM Institut, University of Poitiers, France.

Research visit for giving a seminar presentation and attending meetings for collaborative research on artificial intelligence for medical imaging.

Invited and hosted by Assoc. Prof. Dr. Thierry Urruty.

#### Oct. 2011 Intelligence Agents Multimedia Group, University of Southampton, United Kingdom. Research for collaboration on the multimedia search toolkit, ImageTerrier.

Supervised by Dr. Jonathon Hare.

# Oct. 2011 Intelligence Agents Multimedia Group, University of Southampton, United Kingdom. Research visit for collaboration on the multimedia search toolkit, ImageTerrier. Supervised by Dr. Jonathon Hare.

# July 2011 Hadoop Hackathon, University of Edinburgh, United Kingdom.

Intense Summer School on Hadoop and Natural Language Processing.

Aug. 2009Summer School on Multimedia Semantics, University of Koblenz-Landau, Germany.Summer School on Multimedia Semantics 2009 (SSMS '09).

# June-Aug. 2008 Centre for Digital Video Processing, Dublin City University, Ireland.

Research visit for automatic annotation and retrieval of multimedia content, as part of K-Space project. Supervised by Professor Alan F. Smeaton and Dr. Hyowon Lee.

# **CURRENT AND PAST RESEARCH PROGRAMS/PROJECTS**

#### 2023-2024 Co-Principal Investigator of Research Project

"Multi-omics integration of host gene and microbiome to identify novel diagnostic biomarkers for NAFLD-related hepatocellular carcinoma" Budget: 4,807,000 THB, Granted by Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)

## 2023-2024 Co-Principal Investigator of Research Project

"The Development of Clinical Application of the Artificial Intelligence Assistant System for Diagnosing the Stenosis of Coronary Arteries from Myocardial Perfusion Imaging" Budget: 2,756,000 THB, Granted by Health Systems Research Institute (HSRI)

## 2020-2021 Principal Investigator of Research Project (Additional Funding)

"A Deep and Non-Deep Learning Framework for the Stenosis Classification of Coronary Artery Based-on Quantitative and Qualitative Analysis of Myocardial Perfusion Imaging" Budget: 200,000 THB, Granted by Thailand Toray Science Foundation (TTSF)

# 2020-2021 Principal Investigator of Research Project

"Innovative Teaching and Learning System Based on Active Learning for Remote Pair Programming" Budget: 900,000 THB, Granted by National Research Council of Thailand (NRCT)

## 2018-2020 Co-Principal Investigator of Research and Development Program

"The Development of Artificial Intelligent System for Mining Text Contents of Research Outcome" Budget: 4,237,750 THB (2,199,450 THB of My Sub Project), Granted by The Thailand Research Fund

# 2017-2018 Principal Investigator of Research Project

"A Study of Finding Topics in Tweets and their Related Users in Financial Market Domain" Budget: 100,000 THB, Granted by King Mongkut's Institute of Technology Ladkrabang (KMITL)

# 2014-2015 Principal Investigator of Research Project

"Lifelog Diary for Alzheimer and Old Users: The Passively Image-Capturing Mobile Application and Event Summarization"

Budget: 50,000 THB, Granted by King Mongkut's Institute of Technology Ladkrabang (KMITL)

## 2013-2015 Principal Investigator of Research Program

"Development of Thermal Notification and Feedback Devices for Hearing-Impaired" Budget 634,000 THB, Granted by National Research Council of Thailand (NRCT)

# 2013-2014 Principal Investigator of Research Project

"Development of Information Retrieval Framework and Evaluation for Diversified Search Results" Budget: 250,000 THB, Granted by National Science and Technology Development Agency ACHIEVEMENTS (Scholarships and Awards)

2019 The Consolation Prize Award in the Track of Programs for Mobile Application in the 21st National Software Contest (NSC), Thailand

Given by National Electronics and Computer Technology Center (NECTEC), Thailand

# 2018 The Third Prize Award in the Track of Programs for Science and Technology in the 20th National Software Contest (NSC), Thailand

Given by National Electronics and Computer Technology Center (NECTEC), Thailand

## 2017 The Best Paper Award,

Given by the 9th National Conference on Information Technology, NCIT 2017, Nakhon Pathom, Thailand. The paper was co-authored with my research advisees, Mr. Tanawat Kusungnoen, Thatchakon Jom-ud

#### 2016 The Honorable Fame Award 2016 for Outstanding Academic Staffs,

Delivered by King Mongkut's Institute of Technology Ladkrabang, Thailand.

## 2015 The Best Paper Award,

Given by the 7th International Conference on Information Technology and Electronical Engineering, ICITEE 2015, Chiang Mai, Thailand. The paper was co-authored with my research advisee, Ms. Orapin Anonthanasap

#### 2015 The Honorable Fame Award 2015 for Outstanding Academic Staffs,

Delivered by King Mongkut's Institute of Technology Ladkrabang, Thailand.

## 2015 The First Prize Microsoft's Imagine Cup Thailand 2015

Given by Microsoft Thailand, and nominated to the World's Final Round of the Imagine Cup competition. The director of the in-house research and development project, CoZpace.

## 2015 Honourably Listed Within Top 400 Scientists in Thai Academic Institutions

Ranked according to the Google Scholar Citations (GSC) profile. The ranking list was published in the Ranking Web of Universities (Webometrics) and made under the project of European Commission 7<sup>th</sup> Framework, ACUMEN

#### 2014 The Second Prize Microsoft's Special Award in the 17<sup>th</sup> National Software Contest, Thailand

Given by Microsoft Thailand and co-organized by National Electronics and Computer Technology Center (NECTEC), Thailand

## 2014 The Honorable Fame Award 2014 for Outstanding Academic Staffs,

Delivered by King Mongkut's Institute of Technology Ladkrabang, Thailand.

## 2014 The Best Student Paper Award

Given by the 19th Australasian Document Computing Symposium, ADCS 2014, Melbourne, Australia. The paper was co-authored with my research advisee, Mr. Ake Tangsomboon

# 2014 The Second Prize Software Innovation Award

Given by the 3rd International Student Project Conference, ICT-ISPC 2014, Nakhon Pathom, Thailand.

## 2012 Fully Funded Scholarship for M.Sc. and Ph.D. Degrees.

Sponsored by Ministry of Science, the Royal Thai Government.

## 2012 SIGIR Student Travel Scholarship for ACM AM. Turing Centenary Celebration in San Francisco

Sponsored by ACM SIGIR, Special Interest Group on Information Retrieval.

## 2009 Student of the Month Award, November 2009.

European K-Space project, FP6-027026 (K- Space).

#### ACHIEVEMENTS (Scholarships and Awards - Continued)

#### 2008 Partial Ph.D. Research Grant.

European K-Space and SALERO projects, FP6-027026 (K- Space) and FP6-027122 (SALERO).

- **2005** Scholarship for Four-Month Training Program at Infosys Technologies Ltd., India. Sponsored by Thai-India Government.
- **2003** Scholarship for the New Investor Program (NIP3), Thailand. Organised by Thai Investors Association and Stock Exchange of Thailand (SET).
- 2003 Outstanding Senior Project Prize on ``Eye Controlled Mouse''. Awarded by Computer Engineering Dept., King Mongkut's Institute of Technology Ladkrabang, Thailand.

#### **ONGOING RESEARCH TOPICS OF INTEREST**

New Diversity and Novelty-Based Effectiveness Measures

- Theoretically defining user models for diversitybased document retrieval.
- Formulating a new evaluation measure that both intuitively and reliably assess result diversification of retrieval systems.

*Re-examining the Intuitiveness of Current Diversity-Based Evaluation Measures* 

- Understanding how current evaluation measures, e.g. intent-aware expected reciprocal rank and novelty-biased discounted cumulative gain, actually assess diversified search results.
- Deriving a theoretically sound solution to deal with the issues that cause the measures to behave counter-intuitively from the objectives of diversitybased document retrieval.

Temporal Effectiveness of Diversity-Based Document Retrieval in Stream Collection, e.g. Twitter

- Using temporal term statistics mined from timestamped collection to define event-driven topics in particular time intervals.
- Employing temporal locality mined from clickthrough data to determine temporally significant topics.

Evaluating Interactive Information Retrieval Systems using Crowdsourcing

 Crowdsourcing interactions, using crowdsourcing platforms to develop a new evaluation methodology for interactive information retrieval.

# Worker Trustworthiness in Crowdsourced Labelling

 Using a network to model co-worker and gold standard agreements, with a PageRank with Priors variant to assign trust based on available agreement evidence.

# TRAINING EXPERIENCES

| _      | 2022 Good Clinical Practice, NIDA Clinical Trails Network<br>Certificate of Successful Completion on Clinical Trials with Human Participants, ir<br>International Ethical and Scientific Quality Standard  | n Compliance with The   |
|--------|--|-------------------------|
| July 2 | <b>2022</b> Microsoft Certified: Azure Al Fundamentals (AI-900)<br>Certificate of Successful Completion on "Azure Al Fundamentals", issued by Mi<br>earner's foundational knowledge of machine learning (ML) and artificial intellige<br>related Microsoft Azure services. | -                       |
| June 2 | e 2021 DEPA Digital Manpower Fund - Basic Data Engineeri<br>Certificate of Participation on Online Training of "Basic Data Engineering", issu<br>Computer Engineering. Faculty of Engineering. Prince of Songkla University  |                         |
| May 2  | <b>2020</b> UiPath Academic Alliance - Educator Readiness Prog<br>Certificate of Participation on Online Training of "RPA Design and Development v<br>Academic Alliance  | -                       |
| May 2  | <b>2020</b> UiPath Academic Alliance - Educator Readiness Prog<br>Diploma of Completion on "RPA Developer Foundation", issued by UiPath Acade  |                         |
| May 2  | <b>2020 UiPath RPA Developer Foundation</b><br>Certificate of Participation on Online Training of "RPA Design and Development Academic Alliance  | v1.0", issued by UiPath |
| Jan. 2 | 2020 Research Ethics Training Course<br>Certificate of Attendance on "Basic Research Ethics and a Review of Human Research and Innovation Services.  | arch Projects",         |
| Sep. 2 | 2018 Good Clinical Practice, NIDA Clinical Trails Network<br>Certificate of Successful Completion on Clinical Trials with Human Participants, in<br>International Ethical and Scientific Quality Standard  |                         |
| Mar. 2 | 2017 Google Ignite 2017, Thailand<br>Certificate of Achievement for the Successful Completion of Google AdWords Certificate AdWords Fundamentals and Video Advertising Exams   | ertification Exam, by   |
| Jan. 2 | 2016 Online Google Course<br>Certificate of Successful Completion on <i>the Power Searching with Google</i> course   |                         |
| June   | e 2015 Software Park, Thailand<br>Acceptance Test and Acceptance Test Driven Development with <i>Robot Framewor</i>  | ĸ                       |
| Nov. 2 | <ul> <li>2004 – Mar. 2005 Infosys Technologies Ltd., India</li> <li>Thai-India government scholarship for four-month comprehensive training program course in Computer Science, specializing in Internet Technology, with <i>outstandin subject</i>.</li> </ul>            |                         |
| Mar    | <b>AMD Ltd., Thailand</b><br>Web application developer for eCheckList System, collecting cases and problems  | in the production       |

#### PUBLICATIONS (16 first author publications, 65 co-authored publications)

#### 2024

[1] Embark on DenseQuest: A System for Selecting the Best Dense Retriever for a Custom Collection

E. Khramtsova, **T. Leelanupab**, S. Zhuang, M. Baktashmotlagh and G. Zuccon; In Proceedings of the 2024 ACM SIGIR Conference on Research and Development in Information Retrieval, SIGIR 2024, Washington D.C., USA

#### 2023

[2] Deep Neural Networks for the Qualitative Analysis of Myocardial Perfusion Emission Computed Tomography Images

N. Pruthipanyasakul, N. Kanungsukkasem, T. Urruty and **T. Leelanupab**; In Proceedings of the 15th International Conference on Information Technology and Electrical Engineering, ICITEE 2023, Chiang Mai, Thailand

[3] When are Latent Topics Useful for Text Mining?: Enriching Bag-of-Words Representations with Information Extraction in Thai News Articles

N. Kanungsukkasem, P. Chuangkrud, P. Pitichotchokphokhin, C. Damrongrat and **T. Leelanupab**; In Proceedings of the 15th Asian Conference on Intelligent Information and Database Systems, ACIIDS 2023, Phuket, Thailand

#### 2022

 [4] A Multi-sequences MRI Deep Framework Study Applied to Glioma Classification
 M. Coupet, T. Urruty, T. Leelanupab, M. Naudin, P. Bourdon, C. Fernandez-Maloigne, and R. Guillevin; An International Journal on Multimedia Tools and

Applications (MTAP) https://doi.org/10.1007/s11042-022-12316-1

#### 2021

[5] Keyword-Text Graph Representation for Short Text Classification

P. Chuangkrud, **T. Leelanupab**, C. Damrongrat, and N. Kanungsukkasem; in Proceedings of the 13th International Conference on Information Technology and Electronical Engineering, ICITEE 2021, Online Virtual Conference, Thailand

#### 2020

[6] An Empirical Study of Deep Neural Networks for Glioma Detection from MRI Sequences

M. Coupet, T. Urruty, **T. Leelanupab**, M. Maudin, P. Bourdon, C. Fernandez-Maloigne, and R. Guillevin; in Proceedings of the 27th International Conference on Neural Information Processing, ICONIP 2020, Bangkok, Thailand

[7] Comparing Classifiers for the Prediction of the Stenosis of Coronary Artery

H. Sakkaraand, U. Maisueb and **T. Leelanupab**; in Proceedings of the 17<sup>th</sup> International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology, ECTI-CON 2020, Phuket, Thailand

- [8] Discover Underlying Topics in Thai News Articles: A Comparative Study of Probabilistic and Matrix Factorization Approaches P. Pitichotchokphokhin, P. Chuangkrud, K. Kalakan, B. Suntisrivaraporn, Τ. Leelanupab, and N. 17<sup>th</sup> Kanungsukkasem; in Proceedings of the International Conference Electrical on Engineering/Electronics, Computer, Telecommunications and Information Technology, ECTI-CON 2020, Phuket, Thailand
- [9] A Scalable Service Architecture with Request Queuing for Resource-Intensive Tasks
   K. Chaowvasin, P. Sutanchaiyanonta, N. Kanungsukkasem and **T. Leelanupab**; in Proceedings of the 17<sup>th</sup> International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology, ECTI-CON 2020, Phuket, Thailand

#### 2019

2022,

Multidisciplinary Open Access Journal, IEEE Access, volume 7, issue 1, pp. 71645-71664, Dec 2019, ISSN 2169-3536

[11] CodeBuddy (Collaborative Software Development Environment): In- and Out-Class Practice for Remote Pair-Programming with Monitoring Coding Students' Progress

**T. Leelanupab**, and T. Meephruek; in Proceedings of the 50th ACM Technical Symposium on Computer Science Education, SIGCSE 2019, Minneapolis, Minnesota, USA

 [12] Combining Multiple Models for Predicting the Risk of Diabetes Using Multi-kernel Learning
 C. Onsang, D. Tansirisernkul, and **T. Leelanupab**; in Proceedings of the 15<sup>th</sup> National Conference on Computing and Information Technology, NCCIT 2019, Bangkok, Thailand

 <sup>[10]</sup> Financial Latent Dirichlet Allocation (FinLDA): Feature extraction in text and data mining for financial time series prediction
 N. Kanungsukkasem and T. Leelanupab; The IEEE

#### **PUBLICATIONS** (continued)

#### 2018

[13] A Prototype of Decentralized Architecture Using Blockchain for Medical Records and Research: A Case Study of a Private Hospital Group in Thailand - Thai Article (Extended Article from NCIT 2017)

T. Traisenee, A. Mongkhonpreedarchai and **T. Leelanupab**; Journal of Science and Information Technology, JIST 2018

[14] The Development of Mobile Application for Requesting Emergency Assistance from Crowds - Thai Article (Extended Article from NCIT 2017)

**T. Leelanupab**, T. Kusungnoen and T. Jom-ud; Journal of Science and Information Technology, JIST 2018

#### 2017

- [15] Design and Implement a Decentralized Architecture of Access Control Manager to Health Records for a Hospital Group Using Private Blockchain - Thai Article T. Traisenee, A. Mongkhonpreedarchai and T. Leelanupab; in Proceedings of the 9th National Conference on Information Technology, NCIT 2017, Nakhon Pathom, Thailand
- [16] A Crowd-Based Mobile Application for Requesting Emergency Assistance - Thai Article
   T. Kusungnoen, T. Jom-ud and T. Leelanupab; in Proceedings of the 9th National Conference on Information Technology, NCIT 2017, Nakhon Pathom, Thailand (*The Best Paper Award*)
- [17] Software Development Environment for Remote Pair-Programming - Thai Article P. Thong-ngoen, T. Malaimarn and T. Leelanupab; in Proceedings of the 9th National Conference on Information Technology, NCIT 2017, Nakhon Pathom, Thailand
- [18] The IoT Devices, and Web and Mobile Applications for Tracking and Notification of Forgotten Children in Kindergarten Vans Using Cloud Service - Thai ArticleC. Seangchai, P. Sivawat, S. Suantawee, A. Songput, T. Leelanupab and A. Anuntachai; in Proceedings of the 9th National Conference on Information Technology, NCIT 2017, Nakhon Pathom, Thailand

[19] Web and Mobile Applications for Sharing and Co-Authoring Travel Experiences with Contextual Labeling - Thai Article

T. Thamrongthanyawong, T. Chomyad and **T.** Leelanupab; in Proceedings of the 9th National Conference on Information Technology, NCIT 2017, Nakhon Pathom, Thailand

- [20] Learning and Immediate Retention of Japanese Vocabulary Using Generated Mnemonic Keywords T. Leelanupab and O. Anonthanasap; in Proceedings of the 18th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing, SNPD 2017, Kanazawa, Japan
- [21] Evaluating a Thermal Icon for the Enhancement of Mobile Feedback Perception in Noisy and Bumpy Environments
   M. Ketna and **T. Leelanupab**; in Proceedings of the 7th IEEE World Haptics Conference, WHC 2017, Fürstenfeldbruck (Munich), Germany

#### 2016

- [22] A Per-Item Crowdfunding Website for Charity Projects

   Thai Article
   K. Muttamara, D. Worajirakan and T. Leelanupab; in Proceedings of the 8th National Conference on Information Technology, NCIT 2016, Krabi, Thailand
- [23] The Application of Augmented Reality to Enhance the Experience on Literary Work - Thai Article
   P. Jarujinda, D. Worajirakan and T. Leelanupab; in Proceedings of the 8th National Conference on Information Technology, NCIT 2016, Krabi, Thailand
- [24] Power of Crowdsourcing in Twitter to Find Similar/Related Users

N. Kanungsukkasem and **T. Leelanupab**; in Proceedings of the 13th International Joint Conference on Computer Science and Software Engineering, JCSSE 2016, Khon Kaen, Thailand

#### 2015

[25] Mnemonic Keyword Suggestion Using Phonetic Algorithm - Thai Article

O. Anonthanasap and **T. Leelanupab**; KMITL Journal of Information Technologies, volume 4, issue 1, 2015

[26] Snapboard: A Shared Space of Visual Snippets - A Study in Individual and Asynchronous Collaborative Web Search

**T. Leelanupab**, H. Kruajirayu, N. Kanungsukkasem; in Proceedings of Information Retrieval Technology - the 11th Asia Information Retrieval Societies Conference, AIRS 2015, Brisbane, Australia

[27] Automated English Mnemonic Keyword Suggestion for Learning Japanese Vocabulary

O. Anonthanasap and **T. Leelanupab**; in Proceedings of the 7th International Conference on Information Technology and Electronical Engineering, ICITEE 2015, Chiang Mai, Thailand (*The Best Paper Award*)

#### **PUBLICATIONS** (continued)

[28] On the Reliability of Diversity and Redundancy-Based Metrics

A. Tangsomboon and **T. Leelanupab**; in Proceedings of the 7th International Conference on Information Technology and Electronical Engineering, ICITEE 2015, Chiang Mai, Thailand

[29] Finding Potential Influencers of a Specific Financial Market in Twitter

N. Kanungsukkasem and **T. Leelanupab**; in Proceedings of the 7th International Conference on Information Technology and Electronical Engineering, ICITEE 2015, Chiang Mai, Thailand

[30] The Gesture-Control Application of Effects Loop Using Myo Armband - Thai Article

C. Tuntavanan, P. Chongkasampaiboon and **T.** Leelanupab; in Proceedings of the 7th National Conference on Information Technology, NCIT 2015, Chiang Mai, Thailand

[31] User Experiences and Perceptions of Thermal Feedback in the Tropics

K. Janjeng and **T. Leelanupab**; in Proceedings of the 20th International Society on Artificial Life and Robotics, AROB 2015, Beppu, Japan

[32] iMnem: Interactive Mnemonic Word Suggestion Using Phonetic Algorithms

O. Anonthanasap and **T. Leelanupab**; in Proceedings of the 20th International Society on Artificial Life and Robotics, AROB 2015, Beppu, Japan

[33] Extracting Visual Snippets for Query Suggestions in Collaborative Web Search

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