

KEERATIBURT KANCHANASATIAN



Summary

I am an IoT developer with strong knowledge of both hardware and software. My main research interest is about making embedded or IoT systems more intelligent by integrating artificial intelligence as I have a Bachelor of Computer Engineering and a Master of Computer Science. I am well versed in finding solutions to a variety of problems because of being a supervisor for several undergraduate projects. I believe that I generally have a broad vision due to working with foreigners in Canada, Australia, Taiwan, Japan, German, Finland, and Indonesia.

Experience

Head of Department of IT RMUTT – Nov 2022 to Present

Lecturer & Researcher – Jan 2016 to Present

Department of Mathematics and Computer Science,

Rajamangala University of Technology Thanyaburi (RMUTT), THAILAND

- Head of Division of Computer Technology
- Teach in the subjects related to IT (see subject lists in page 3)
- Research in the fields of IoT, automation, AI, and Robotics
- Founder of the Ubiquitous Computing and Artificial Intelligence Research Group (UCARG)
- Work with both public and private sectors in developing IT-systems
- Head of Public Relation department of the faculty

Web Developer Freelancer– April 2012 to Jun 2015

Angel Spa (professional Massage) and Lahn Thai Restaurant

Toronto, CANADA and Brisbane, AUSTRALIA

- Used both CMS (WordPress and Joomla) and programming(HTML, CSS, JavaScript, PHP, and SQL) platforms to create website for displaying menus and promotions

Education

Master of Computer Science – 2015

The University of Queensland, Brisbane, AUSTRALIA

Bachelor of Technical Education (Computer Engineering) – 2010

RMUTT, Pathum-Thani, THAILAND

Patents

1. Person and Belongings Loss Prevention Device
 - Patent number: 17883 - granted date: 17 Jun 2021
2. Smart Water Flowmeter for water usage monitoring
 - Patent number: 20646 - granted date: 28 Dec 2022

Publications

- **“A Robot Companion Algorithm for Side-by-Side Object Tracking and Following”**
K. Kanchanasatian, "A Robot Companion Algorithm for Side-by-Side Object Tracking and Following," 2022 37th International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC), 2022, pp. 1-7, doi: 10.1109/ITC-CSCC55581.2022.9894891.
- **“IoT Approach in Preliminary Screening Process Avoiding a Risk of Infection During The COVID 19 Pandemic”**
C. Prasartkaew, K. Kanchanasatian and K. Maneesilp, "IoT Approach in Preliminary Screening Process Avoiding a Risk of Infection During The COVID 19 Pandemic," 2022 37th International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC), 2022, pp. 815-819, doi: 10.1109/ITC-CSCC55581.2022.9895002.

Contact

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Website

<https://www.sci.rmutt.ac.th/staff-it/>

Languages

Thai – Native speaker

English – Advanced

Skills as a uni lecturer

Interpersonal

Strong strategic decision making

Complex problem-solving capability

Design, innovative & critical thinking

Positive attitude

Negotiation, Teamwork & collaboration

Technical

Embedded Systems, IoT, AI, Robotics

Mobile & Web app development

React, Vue.js, Flutter

C++, Python, Js, PHP, Dart

Project Management

Publications (con.)

- **"Multi-sensor-based Environmental Forecasting System for Smart Durian Farms in Tropical Regions"**
Ping-Huan Kuo, Ren-Jean Liou, Pongpon Nilaphruek, Keeratiburt Kanchanasatian, Ting-Hao Chen, and Rong-Mao Lee, Published October 2021, Sensors and Materials, Vol. 33, No. 10 (2021) 3547–3561
- **"The Use of The Internet of Things for a More Effective and Efficient way of Growing Rice"**
C. Prasartkaew, N. Jongsawat, B. Prasartkaew and K. Kanchanasatian, "The Use of The Internet of Things for a More Effective and Efficient way of Growing Rice," 2020 18th International Conference on ICT and Knowledge Engineering (ICT&KE), 2020, pp. 1-4, doi: 10.1109/ICTKE50349.2020.9289892.
- **"Automatic Reminding Mailbox"**
The International Conference on Science and Technology 2019 November 22nd to 24th, 2019 National Pingtung University, Pingtung, Taiwan
- **"Automatic Cut-Off Electric Current Acts as a Circuit Breaker for Extension Cords and a Mobile Notification System: Smart Plug for IoT Approach"**
The International Conference on Science and Technology 2019 November 22nd to 24th, 2019 National Pingtung University, Pingtung, Taiwan
- **"A Prototype of Soil Monitoring and Notification System in Durian Farm: A Case Study of Bueng Ka Sam, Nong Suea, Pathum Thani"**
Published Jun 30, 2018, Research Journal RMUTT, p33-44
- **"Automatic Speed Control and Turning ON/OFF for Smart Fan by Temperature and Ultrasonic Sensor"**
Keeratiburt Kanchanasatian, published under licence by IOP Publishing Ltd, IOP Conference Series: Materials Science and Engineering, Volume 325, International Conference on Information Technology and Digital Applications (ICITDA 2017) 8–9 November 2017, Yogyakarta, Indonesia
- **"Smart Trashcan Using NodeMCU, Ultrasonic Sensor and an Android Mobile Application"**
The 2nd IEEE International Conference on Science and Technology 7-8 December 2017
- **"The Recommender System for Weight Loss Activity applying Ontological Knowledge-Based"**
Published Jun 2017, Research Journal RMUTK, p8-16

Research Interests and Theme

- Integrate Artificial Intelligence with embedded systems and IoT making them smarter based on data.
- Embedded systems, IoT, Artificial Intelligence, Robotics, and Data Analytics
- Teaching developments

Computer Science and IT Senior Project Supervisor

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|---------------------|---|
| Nov 2022 – Mar 2024 | 1. "Wireless-controlled Robot for Hazardous Areas"
by Angvara Tuanted, Papon Jaitun, and Nattawut Pinsamneang |
| | 2. "A Web Application for Inventory Management of a company"
by Wanvisa Korponklang and Naratorn chuansonti |
| | 3. "2D Puzzle Adventure Game using RPG Maker"
by Wongsakorn Tirapongpaisan and Sedtasak Ruangrungrtipakorn |
| Nov 2021 – Mar 2023 | 1. "EVAP System for Mushroom and Monitoring via Mobile App: IoT Approach"
by Supisara Kerdjam and rujimas Piyamongkonchai |
| | 2. "An implementation of a knowledge-based data for human disease Symptoms for Patient Screening"
by Teeranard Sarakum, Nawaporn Sengkum, and Tanatchaya Leamtong |

- Nov 2018 – Mar 2020
1. **“Autonomous Companion Wheelchair by Image Processing Technique”**
by Sasivimon somsak and Thanakorn Prechumpai
 2. **“Precision Landing Using Image Processing for Autonomous Delivery Quadcopter”**
by Chanin Rattanagosum and Kittiya Boonyasirisri
- Nov 2017 - Mar 2019
1. **“Intruder Notification System for Mobile Application”**
by Nuttiwut Meesombat and Titikorn Sukantaros
 2. **“Water Metering System with Waterflow Sensor”**
by Vinyu Saosomphop and thitiwat Srasom
 3. **“Automatic Object Tracking Fan Controlled by Mobile Application”**
by Phonenatee Thongbai and Noppharit Rueangrit
 4. **“Water Management System for Aquaponics”**
by Sirirad Auanphoklang and Benjaluk Yenjai
- Nov 2016 – Mar 2018
1. **“Child Loss Prevention System Using Bluetooth”**
by Nuttapon Pesarika and Jakkawut Chaisiri
 2. **“Automatic Temperature, Humidity and Light Control in Evaporative Air-Cooling System Controlled by for Chicken Farm”**
by Pichamon Sawatdee and Sikawat Suksawat
 3. **“An Automatic Monitoring and Notification System for Soil Condition in Durian Farm”**
by Wuttichai Topuangam and Suphasini Matwantsang
- Aug 2016 – Dec 2017
1. **“Automatic Light Control System by PIR for Smart Home”**
by Auttapon Kladtuk and Alongkorn Dokrukklang
 2. **“Smart Fan Controlled by Temperature Sensor and Android Application”**
by Pawit Boonchokjirakorn and Katanpat Angkaprasertkul

Undergraduate Subjects that I taught/am teaching.

University/Institute	Curriculum	Subjects
Rajamangala University of Technology Thanyaburi (RMUTT)	Computer Science	<ol style="list-style-type: none"> 1. Internet of Things 2. Theory of Computation 3. Discrete Structure
	Information Technology and Digital Communication	<ol style="list-style-type: none"> 1. Web Programming (PHP, Vue.js, Angular) 2. Embedded System and Internet of Things Technology 3. Programming Fundamentals 4. Human-Computer Interaction 5. Information Technology for Decision Making 6. Information System Analysis and Design (SA) 7. Program Package for Multimedia 8. Project Management 9. Advanced Computer Programming 10. Mobile Application Development (Flutter)
King Mongkut's University of Technology Thonburi (KMUTT)	Computer Science	<ol style="list-style-type: none"> 1. Web Programming

Keynote Speaker, Expert and Lecturer

1. **“Internet of Things Workshop”**, at Rajamangala University of Technology Thanyaburi, 15 Sep. 2016
2. **“Internet of Things Workshop”**, at Chiang Mai University, 17-18 Feb. 2017
3. **“General Lecture on Internet of Things”** as Keynote Speaker at Department of Informatics Faculty of Industrial Technology, Universitas Islam Indonesia, INDONESIA, 2 Aug. 2017

Keynote Speaker, Expert and Lecturer

4. **"Arduino Programming Basic Course"**, at Department of Computer Science, RMUTT 21 Jan. 2018
5. **"Artificial Intelligence for Food Industry"**, at THAILAND INDUSTRIAL FAIR & FOOD PACK ASIA 2019, BITEC Bangna, 13 Feb. 2019
6. **"Sell online Using Lazada & Shopee"**, U2T , Pathum-Thani, 29 March 2021.
7. **"Embedded Systems and Further Approaches"**, Student Faculty Exchange Program between Rajamangala University of Technology (Thailand) and Patkar Varde college (India), 7-11 Mar 2022
8. **"How to Mobile eCommerce via Smartphone"**, U2T for BCG and Regional Development – Pathum-Thani, 25-27 Sep. 2022
9. **"Android Application Development with Cordova"**, Thailand Post headquarter office, 10 Nov. 2022
10. **"Sell online Using Lazada"**, Thanyaburi Subdistrict Municipality Office, 29 Mar. 2024
11. **"Mobile Development with Flutter"**, at RMUTT, 24-25 Jul. 2024

Training Attendance

1. **"Teaching and Learning in Higher Education"**, Project of development of Finland model teacher in higher education, RMUTT & Tampere University, Finland, from 15-24 Jun 2016
2. **"Thai Meister IT Training Program"**, RMUTT & Aachen University of Applied Science, Aachen, Germany, 15 Mar – 27 Apr 2019
3. **"Advance Finish University Pedagogy - Assessment for Academic Learning"**, RMUTT, 27-29 May 2019