

CHAKCHAI SO-IN

C. So-In, Ph.D., Professor of Computer Science (IEEE/ACM SMs – Scholar H-Index 32)

Affiliation: Department of Computer Science, College of Computing, Khon Kaen University

Address: 123 Mitaparb Rd., Naimaung, Maung, Khon Kaen, 40002 Thailand

Email: chakso@kku.ac.th, so-in@ieee.org, chakchai@acm.org

Voice: (Office) 66-43-009700 ext. 44459, 44457

WWW: csperson.kku.ac.th/chakchai, computing.kku.ac.th, csperson.kku.ac.th/ant

ORCID: <https://orcid.org/0000-0003-1026-191X>

EDUCATION

Doctor of Philosophy (Ph.D.), Computer Engineering, Washington University in St. Louis, MO, USA (08/2006 to 05/2010)

- Resource Allocation and Management in Computer Networks, Professor Raj Jain (WUSTL)

Master of Science (M.S.), Computer Engineering, Washington University in St. Louis, MO, USA (08/2004 to 05/2006)

- Loss Synchronization of TCP Connections at a Shared Bottleneck Link, Professor Sergey Gorinsky (IMDEA Networks Institute) - GPA 3.90

Master of Engineering (M.Eng.), Computer Engineering, Kasetsart University, Bangkok, Thailand (06/1999 to 11/2001)

- Traffic Analysis for a Web Cache Server, Professor Surasak Sanguanpong (KU) - GPA 3.78

Bachelor of Engineering (B.Eng.), Computer Engineering, Kasetsart University, Bangkok, Thailand (06/1995 to 03/1999)

- Building and Performance Evaluation of a Linux Firewall, Professor Surasak Sanguanpong (KU) - GPA 3.26

FIELD OF RESEARCH

- Computer Networks, Internet Technology, and Quantum Communications/Internet
- Wireless and Mobile Networking, Mobile Computing, Cellular Networks, and 5G/Beyond
- Cyber Physical Systems, Internet of Things, Wireless Sensor Networks, and Pervasive Computing
- High Performance Computing, Parallel and Distributed Systems, and Cloud/Edge Computing
- Cyber Security, Computer and Network Security, Cryptography, and Blockchain
- Computer and Network System and Architecture, Management, Modeling, and Analysis
- Applied Artificial Intelligence, Machine Learning, and Intelligent Systems

EMPLOYMENT HISTORY / POST GRADUATE EDUCATION AND TRAINING

Khon Kaen University, Khon Kaen, Thailand (08/2010 to Present)

- Full Professor of Computer Science (2018 to Present)
- IEEE/ACM Senior Members (2014/2015 to Present)
- Associate Professor of Computer Science (2015 to 2018)
- Assistant Professor of Computer Science (2012 to 2015)
- Deputy Department Head of Research Affair and Technology Transfer (2017 to 2018)
- Deputy Department Head of Research and Planning (2014)

- Deputy Department Head of Planning and International Affairs (2014)
- Deputy Department Head of Research Affair (2011 to 2014)

Bell Labs (Alcatel-Lucent Enterprise), New Jersey, USA (06/2010 to 08/2010)

- **Intern:** Designing the dropping policy for video transmission over 4G networks

WiMAX Forum, New Jersey, USA (06/2008 to 08/2008)

- **Intern:** Designing, maintaining, and implementing NS2-WiMAX simulation suits

Cisco Systems, California, USA (06/2006 to 08/2006)

- **Intern (Mobile IP Division):** Designing and implementing session persistence module on mobility agent

Washington University in St. Louis, Missouri, USA (04/2004 to 12/2009)

- **Graduate Teaching Assistant:** Network Security: Fall 2007 and Spring 2009 with Professor Raj Jain
- **Graduate Teaching Assistant:** Protocols in Computer Networks: Spring 2006 and Spring 2007 with Professor Sergey Gorinsky
- **Graduate Teaching Assistant:** Wireless and Mobile Networking: Spring 2006 and Spring 2008 with Professor Raj Jain
- **Graduate Teaching Assistant:** Computer System Analysis: Fall 2008 with Professor Raj Jain
- **Graduate Teaching Assistant:** Introduction to Computer Networking: Fall 2004, Fall 2005, and Fall 2009 with Professor Raj Jain and Professor Sergey Gorinsky
- **Technical Support Staff member (Humanities Digitizing Workshop):** Developing a web service for library system (PHP-based)

Thai Chamber of Commerce University, Bangkok, Thailand (04/2004 to 08/2004)

- **Instructor (Department of Computer Science):** Operating System Laboratory and Introduction to Computer Systems

Institute for Infocomm Research (Optoelectronics), Singapore (10/2002 to 05/2003)

- **Database Programmer:** Designing and creating MS-ACCESS database

Cisco Academy Training Center, Nanyang Technological University, Singapore (08/2002 to 07/2003)

- **Internetworking Scholar:** Trained in computer networking and telecommunication principles (e.g., remote access, routing, switching, and networking troubleshooting)

The Computer Center of Kasetsart University, Kasetsart University, Bangkok, Thailand (08/1999 to 08/2002)

- **Network Engineer:**
 - Operating, servicing, and implementing gigabit network infrastructure, wired and wireless, (Cisco Base Switching and Routing Policy) as a networking team
 - Implementing network logging and management system (CiscoWork, MRTG, Calamaris, and Netflow)
 - Setting up caching infrastructure and performance tuning (Squid and Nocache)
 - Studying VoIP, QOS, IP multicasting, and IP telephony network for four campuses
 - Designing and implementing security policy (Sunscreen and Router access-list)
 - Developing web-based programs and administer Linux and Solaris servers
 - Researching on computer cluster project (PIRUN Cluster)

ACADEMIC EXPERIENCE

Teaching Experience

- **Graduate:** Advanced Computer Network Technology, Wireless, Mobile, Internet of Things Technology, Mobile and Wireless Networking Technology, Research Methodology
- **Undergraduate:** Introduction to Computer Networking, Network I&II, Wireless and Mobile Communication Networks/ Wireless Networks/ Mobile and Wireless Technology, Information and Communication Technology Security, Computer Programming I/ Structural Programming for Computer Science, Research Methodology
- **High School:** Computer Programming in C

Commercial Certification

- **Huawei Instructor:** 5G (HCIA), 2022; Datacom (HCIA), 2021; WLAN (HCIA), 2021; Cloud Service (HCIA), 2021; Security (HCIA), 2021
- **Cisco Instructor:** CCNP Enterprise Core (Cisco CCNP Core), 2021; CyberOps, 2021; IT Essential, 2021; Security (CCNA Security), 2013; CCNA, 2011 to 2012
- **Microsoft:** Microsoft Certified System Engineer and Analysis (MCSE+MCSA 2003) Training, 2004; Microsoft Certified Professional (MCP-2004), 2004
- **Cisco:** Cisco Certified Design Associate and Professional (CCDA and CCDP), 2002; Cisco Certified Network Associate and Professional (CCNA and CCNP), 2001; CCNP 4 semesters program, Singapore, 2002 to 2003
- **CompTIA:** CompTIA Security, 2022
- **EC-Council:** EC-Council Certified Security Specialist, 2022
- **SUN (Solaris):** Solaris Admin II Training Course Certification, 2001

Student Activity

- Cisco Netrider (2010 to Present)
- Huawei ICT Competition (2022 to Present)
- Network Security Contest (NSC) (2010 to Present)
- National Software Contest (NSC) (2010 to Present)
- IT Princess (FRIT) (2010 to Present)
- Microsoft Imagine Cup (2010 to Present)
- Smart Innovation Award (2010 to Present)
- National Linux Competition (NLC) (2010 to Present)
- Thailand International Olympiad in Informatics (2010 to Present)

Computer Skill

- **Computer Programming Languages:** C, C++, JAVA, Pascal, TCL/TK, PERL, PHP-MYSQL, HTML, CGI, VHDL
- **OS Platforms:** Unix (Solaris and Linux) and Windows 2000/2003
- **Networking Protocols:** OSPF, RIP, BGP, IGMP, ICMP, TCP-UDP/IP; FTP, BOOTP, SMTP, HTTP, DNS
- **Simulation Platform:** NS2/NS3, Cadence, Open Network Laboratory (ONL), PLANETLAB, MATLAB, OPNET

PROFESSIONAL SERVICE

Editor Board Members

- IEEE Access (Computer and Information Science ISI/WOS) **IF=3.745** (2019 to Present)
- PLOS ONE (Computer and Information Science ISI/WOS) **IF=3.24** (2019 to Present)
- Wireless Networks Journal (ISI/WOS) **IF=2.602** (2022 to Present)
- WCMC (Wireless Communication and Mobile Computing ISI/WOS) **IF=2.336** (2021 to Present)
- PeerJ (Computer Science ISI/WOS) **IF=1.39** (2014 to Present) *Section Editor on Systems, Networks, and Communications*
- ECTI TRANSACTIONS ON COMPUTER AND INFORMATION TECHNOLOGY (ECTI-CIT Scopus) (2016 to Present)
- KKU Science Journal (Computer Science TCI) (2014 to Present)

- SpringerPlus (Computer Science ISI/WOS) **IF=1.13** (2015 to 2016)

Guest Editors

- Wireless Communications and Mobile Computing **IF=1.899**
(Multimedia Streaming Analysis in Internet-of-Things Era)
- Mobile Information Systems **IF=0.849**
(Machine Learning in Mobile Computing and Wireless Sensor Networks)
- IET Intelligent Transport Systems **IF=1.194**
(Big Traffic Data Analysis and Mining)

General Chair/Program Chair/Technical Program Chair (Co-Chairs)

- The 20th International Conference on Wireless and Mobile Computing, Networking and Communications (Wimob 2024)
- International Conference on Smart Trends for Information Technology and Computer Communications (SmartCom) (2019 to Present)
- International Conference on Knowledge and Smart Technology (KST) (2020 to Present)
- International Joint Conference on Computer Science and Software Engineering (JCSSE) (2018 to Present)
- International Computer Science and Engineering Conference (ICSEC) (2021 to Present)
- International Conference on Big Data and Smart Computing (BigComp) (2021)
- International Conference on Information System Design and Intelligent Applications (INDIA) (2018)

Committee and Reviewer

- **Journal:**
 - IEEE Transactions on Wireless Communications, IEEE/ACM Transactions on Networking, IEEE Transactions on Vehicular Technology, IEEE Transactions on Mobile Computing, IEEE Transactions on Computers, IEEE Transactions on Information Forensics and Security, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Broadcasting, IEEE Transactions on Industrial Informatics, IEEE Transactions on Network and Service Management, IEEE Transactions on Cognitive Communications and Networking, IEEE Transactions on Network Science and Engineering, IEEE Journal on Selected Areas in Communications, IEEE Internet of Things Journal, IEEE Network Magazine, IEEE Communication Magazine, IEEE Communication Letter, IEEE Wireless Communication Letter, IEEE Systems Journal, IEEE Access, IEEE/CAA Journal of Automatica Sinica
 - Computer Communications, Computer Networks, Journal of High-Speed Networks, International Journal of Communication Systems, Telecommunication Systems, International Journal of Communication Networks and Distributed Systems, Journal of Internet Technology, IEICE Transactions in Communication, IEICE Transactions in Information and Systems, ETRI (Electronics and Telecommunications Research Institute)
 - Mobile Networks and Applications, Wireless Networks, Wireless Personal Communications, Wireless Communications and Mobile Computing, International Journal of Distributed Sensor Networks, EURASIP Journal on Wireless Communications and Networking, Peer-to-Peer Networking and Applications, Sensors, International Journal of Ad Hoc and Ubiquitous Computing
 - Information Sciences, Performance Evaluation, Circuits, Systems & Signal Processing, Journal of Ambient Intelligence and Humanized Computing, IET Information Security, Management Science, Multimedia System, Computers and Electronics in Agriculture, BioMed Central, Information Fusion, Soft Computing, Pattern Recognition Letters, Measurement
 - Journal of Internet Services and Applications, International Journal of Systems, Control and Communications, International Journal of Innovation, Management and Technology, International Journal of Business and Engineering Research, Journal of Applied Science and Engineering, Songklanakarin Journal of Science and Technology, Engineering Journal, Journal of King Saud University, ECTI Transactions on Computer and Information

Technology, ECTI Transactions on Electrical Engineering, Electronics, and Communications, Recent Patents on Telecommunications

- **Proceeding:**
 - ICNP, WCNC, ICC, ICNC, ICCCN, PIMRC, IASTED, ICCBN, CIS, ISCC, ICAIT, ITC21, WINSYS, EDOC, DRCN, ADCOM, ISWTA, I4CT, APWCS, CCE, ISCAIE, ISIEA, PECON, APACE, ADVKIT, AINA, AICCSA, EMERGING, ACCESSNET, JCSSE, ICSEC, CyberC, ICCAIE, ICACCI, KST, ISCI, ISPC, AUCC, ICWiSe, RFM, CSNT, ICOCOE, CEAT, ieeCON, ISGT, ISTMET, MobiApp, CICN, ICNC, DPNOC, IBMSGs, ICACCI, SPICES, CSSE, TAFGEN, SYMINTECH, ICFST, IEEE Indicon, ADVKIT, CECNet, NCIT, NICS, AREITIC, ADIBUM, SigTelCom, ICPEICES, WASET Conferences, IARIA Conferences, AICIT Conferences
- **Technical Program Committee:**
 - ICC (2020 to Present), JCSSE (2019 to Present), VTC-Spring 2017-2018, Globecom (2016 to Present), ICNC 2015-2016, KST (2012 to Present), NBIS 2016, ICACIE 2016, SPIE Photonic West 2012-2016, ICCBN 2012-2015, ICCTD 2012-2015, CSEE 2015, AINTEC 2012-2013, DICTAP 2014, ICSIE 2014, WCIT 2012-2013, ICNI 2012-2013, ICSIM 2012-2013, ICIWE 2012-2013, AUCC 2013-2014, INSODE 2013-2014, ICCSIT 2012, AICIT Conferences 2013
- **Books (Chapter):**
 - Quality of Service Architecture for Wireless Networks

Guest/Invited Speaker

- **Invited Talk:** @SmartCom 2021, USA 2021: **C. So-In**, "AI meets IoT," April 2021.
- **Invited Talk:** @SmartCom 2020, Thailand 2020: **C. So-In**, "Wireless Sensor Networks: Challenge and Solutions," January 2020.
- **Invited Seminar Talk:** @Suranaree University of Technology, Thailand 2018: **C. So-In**, "Internet of Things: Overview and Applications," February 2018.
- **Invited Seminar Talk:** @Nanyang Technological University, Singapore 2017: **C. So-In**, "Coverage-aware Clustering-based Routing Schemes in Wireless Sensor Networks," March 2017.
- **Guest Speaker:** @WUNCA25 2012: **C. So-In**, "Future Internet Architecture: Overview and Update," August 2012.

Extracurricular Activity

- Vice Chair in IEEE Thailand (Computer Society Chapter) (2020 to Present)
- Member of Association for Computing Machinery (ACM), Washington University (2004)
- Member of Thailand Networking Infrastructure Inter-Universities (1999 to 2002)
- Technical Staff of Linux Demo Day and supervisor the Engineering Way exhibition (1999 to 2002)

HONOR AND AWARD

Academic Honor

- Silver medal for researcher @KKU 2020.
- **Best Paper Award:** @ICT-ISPC 2018: N. Klaokliang, P. Teawtim, P. Aimtongkham, **C. So-In**, and A. Niruntasukrat, "A Novel IoT Authorization Architecture on Hyperledger Fabric with Optimal Consensus using Genetic Algorithm," July 2018.
- **Best Paper Award:** @JCSSE 2016: W. Phusomsai, **C. So-In**, W. Punjaruk, C. Phaudphut, and C. Thammasakorn, "Brain Tumor Cell Recognition Schemes using Image Processing with Parallel ELM Classifications on GPU," July 2016.
- ACM Senior Member, December 2015.
- **Best Paper Award:** @IC2IT 2015: B. Srikudkao, T. Khundate, **C. So-In**, P. Horkaew, C. Phaudphut, and K. Rujirakul, "Flood Warning and Management Schemes with Drone Emulator using Ultrasonic and Image Processing," July 2015.
- IEEE Senior Member, August 2014.
- Senior Member of IACIST, September 2014.

- Khon Dee Sri Jampa (Student Development), Khon Kaen University, 2013.
- **Best Paper Award:** @JCSSE 2012: **C. So-In**, S. Arch-Int, C. Phaudphut, K. Rujirakul, and N. Weeramongkonlert, "A New Mobile Phone System Architecture for Navigational Travelling Blind," May 2012.
- Who's Who in the World @2012 by Marquis.
- WiMAX Forum Appreciation Award, May 2009.
- Master-Ph.D. Scholarship from the Royal Thai Government, 2004 to 2010.
- Thai Chamber of Commerce University Ph.D. Scholarship, 2004.
- CNAP Scholarship, Nanyang Technological University, Singapore, 08/2002 to 07/2003.
- Mitsubishi Thailand Scholarship, Kasetsart University, 1997 to 1998.
- High School Scholarship from Crown Prince of Thailand, Rachiwinit Bangkaew, 1994 and 1996.

Award and Competition

- "Flip: Parallel World for Adventure Game" - 3rd year CS@KKU student receiving the 2nd prize award for NSC 2019 competition (Educational Entertainment)
[Netiphong Kanyala, Akaradet Kaewmaneechot, and Wasasat Bungkarnjana]
- "Flying Sunny: 8-bits Style on Mobile Phone Game for Environmental Awareness" - 2nd year CS@KKU student receiving the honorable Mention Award for NSC 2018 competition (Educational Entertainment)
[Netiphong Kanyala, Akaradet Kaewmaneechot, and Wasasat Bungkarnjana]
- "Black Bunny: Mobile Phone Game for the Blind" - 1st year CS@KKU student receiving the best prize (2nd; no 1st) for NSC 2017 competition (Educational Edutainment)
[Netiphong Kanyala and Thanadet Khunkhainam]
- "Wild Ward: Wildfire Detection" - 3rd year CS@KKU student receiving the best prize (2nd; no 1st) for NSC 2015 competition (Science and Technology)
[Worawut Tungtrakul, Hemkorn Aekwaree, and Ratchanon Chompoobut]
- 3rd year CS@KKU student passing through the 2nd round of Thailand Cisco Netrider Contest 2014
[Naladtapron Aottiwech and Phoowadon Tachun]
- "Hug Safety" - 4th year CS@KKU student passing through the final round of NSC 2014
[Nathapon Sangkla, Krittaya Sangkhat, and Khomsan Taecho]
- "Pratom (Suksa) ABC" - 2nd year CS@KKU student passing through the final round of NSC 2014
[Heamakorn Aekvaree, Narongchai Wantongchai, and WorawutTungtakul]
- "Fun Statitics" - 2nd year CS@KKU student passing through the 2nd round of NSC 2014
[Chalerm Phengpit and Phruksasilp Wongsri]
- "Creative Digital Contest 2013" - 4th + 3rd year CS@KKU student receiving the 1st prize MSIG Web Design Contest
[Comdet Phaudphut, Thanapat Sojaya, and Kritsanapon Sangprachum]
- "The Contaminator" Team Elephant - 3rd year CS@KKU + 1st year EDU@KKU student passing through the 2nd round of 2013 Microsoft Thailand Imagine Cup + Win the Popular Vote (Game Design)
[Attavit Namrat, Theerapong Sirichana and Thitaporn Sanit]
- "3D Reconstruction Mobile Robot" - 4th year CS@KKU student passing through the final round of NSC 2013
[Comdet Phudput and Nutnicha Pocaphet]
- "Dr. Care" Team T-Rex - 4th year CS@KKU student passing through the 2nd round of 2013 Microsoft Thailand Imagine Cup (Software Design)
[Comdet Phudput and Nutnicha Pocaphet]
- "Mobile Taxi" - 3rd year CS@KKU student passing through the 2nd round of NSC 2013
[Chavalit Phanitchayanubarn, Thanyaluk Patsasai and Rungtiwa Ainthai]
- "Accident Prevention via Mobile Phone" - 1st year CS@KKU student passing through the 2nd round of NSC 2013
[Heamakorn Aekvaree, Narongchai Wantongchai and Warintorn Poosomsai]
- "HeartBeat" Team Kapom - 3rd year CS@KKU student receiving the 3rd prize for 2012 Microsoft Thailand Imagine Cup + Nokia Special Award (Software Design)
[Comdet phaudphut, Nathapon Sangkla, Krittaya Sangkhat, and Pannapa Nanposri]

- “SmartWheelChair with Kinect” Team Line Two - 4th year CS@KKU student passing through the 2nd round of Kinect Fun Lab 2012
[Sarayut Poolsanguan and Chatchai Poonriboon]
- “ThaiFloodWatch” Team KittyDev - 4th year CS@KKU student passing through the 2nd round of IT Princess Award 2012
[Kasidit Wijitsopon and Tipaporn Wongnam]
- “Zumm” Team KittyDev - 4th year CS@KKU student passing through the 2nd round of 2012 Microsoft Thailand Imagine Cup (Software Design)
[Kasidit Wijitsopon, Tipaporn Wongnam, Pairote Metula and Nutnicha Weeramongkonlert]
- “UAV KKU” Team Line Team - 3rd year CS@KKU student passing through the 2nd round of 2012 Microsoft Thailand Imagine Cup (Software Design)
[Sarayut Poolsanguan, Chatchai Poonriboon, Kanokwan Lahan and Lukkana Krongtong]
- “The Beginning of the Universe - Learning tool with Kinect” - 2nd year CS@KKU student passing through the 2nd round of NSC 2012
[Auttavit Namrach, Kritnaphon Sangprachum, and Kanokwan Laharn]
- “Automatic sub-title translation in Linux system” - 1st year CS@KKU student passing through the 2nd round of NSC 2012
[Tanawat Watjanasunthorn, Songyut Phermphon, and Suppakorn Rungwisai]
- “Flooding Simulation and Warning System with SMS” - 2nd year CS@KKU student passing through the 2nd round of NSC 2012
[Kornvika Poonlarb, Kanchit Surachon, and Benyathip Doungpang]
- “Mobile Temple” -4th year CS@KKU student passing through the 2nd round of NSC 2012
[Kanjana Konglasae and Tanapat Sojaeya]
- “Temple Service Reservation System” - 3rd year CS@KKU student passing through the 2nd round of NSC 2012
[Siriwat Pawapootanon, Piyatad Jampathip, and Apisak Liyekae]
- “KKU Information” - 3rd year CS@KKU student passing through the 2nd round of Smart Innovation Awards 2011
[Siriwat Pawapootanon, Nutawat Kumlar, Kasidit Wijitsopon, Tipaporn Wongnam, and Sarawut Nawasimma]
- “Mobile 3D Traveler Aid” - 2nd + 3rd year CS@KKU student passing through the 2nd round of Smart Innovation Awards 2011
[Authavit Namrat, Chawalit Panichayanubarn, and Sarayut Poolsanguan]
- “Blind Can Go with Cycops” - 2nd year CS@KKU student receiving KBank Special Award on Microsoft Thailand Imagine Cup 2011 (Software Design Category)
[Comdet Phaudphut, Taned Loskul, Paingruethai Intirot, and Monruetai Namsri]
- Kitty - 3rd year CS@KKU student passing through the 2nd round of Thailand Cisco Netrider Contest 2011
[Kasidit Wijitsopon and Nutnicha Weeramongkonlert]

LIST OF PUBLICATION

(International) Published Paper

Accepted Papers

1. [Journal] C. Kim, **C. So-In**, Y. Kongsorot, and P. Aimtongkham, “FLSec-RPL: A Fuzzy Logic-Based Intrusion Detection Scheme for Securing RPL-Based IoT Networks against DIO Neighbor Suppression Attacks,” *Cybersecurity (Springer)*, February 2024. **(Scopus)**

2024

2. [Journal] J. Ghosh, N. Kumar, K. A. Al-Utaibi, S. M. Sait, V. N. Vo, and **C. So-In**, “Reliable data transmission for a VANET-IoT architecture: A DNN approach,” *Internet of Things (Netherlands)*, vol. 25, 101129, April 2024. **(SCI-E/ISI) (IF=5.9)**

3. [Journal] S. Phoemphon, N. Leelathakul, and **C. So-In**, "An enhanced node segmentation and distance estimation scheme with improved PSO for obstacle-aware wireless sensor network localization," *Journal of Network and Computer Applications*, vol. 221, 103783, January 2024. **(SCI-E/ISI) (IF=8.7)**

2023

4. [Journal] J. Ghosh, C. Vargas-Rosales, L. Mendes, I. Ra, V. V. Nhan, P. Aimtongkham, and **C. So-In**, "A Novel Transceiver and an Asynchronous Mode for the Hybrid Multiple-Access HetNet Architecture," *IEEE Access*, vol. 11, pp. 135609-135625, November 2023. **(SCI-E/ISI) (IF=3.9)**
5. [Journal] Y. Kongsorot, P. Musikawan, P. Aimtongkham, I. You, A. Benslimane, and **C. So-In**, "An Intrusion Detection and Identification System for Internet of Things Networks using a Hybrid Ensemble Deep Learning Framework," *IEEE Transactions on Sustainable Computing*, vol. 11, no. 4, pp. 596-613, Oct.-December 2023. **(SCI-E/ISI) (IF=3.9)**
6. [Journal] A-N. Nguyen, D-B. Ha, V-T. Truong, V. N. Vo, S. Sanguanpong, and **C. So-In**, "Secrecy Performance Analysis and Optimization for UAV-Relay-Enabled WPT and Cooperative NOMA MEC in IoT Networks," *IEEE Access*, vol. 11, pp. 127800-127816, November 2023. **(SCI-E/ISI) (IF=3.9)**
7. [Journal] P. Musikawan, Y. Kongsorot, I. You, and **C. So-In**, "An Enhanced Deep Learning Neural Network for the Detection and Identification of Android Malware," *IEEE Internet of Things*, vol. 10, no. 10, pp. 8560-8577, 2023. **(SCI-E/ISI) (IF=10.238)**
8. [Journal] P. Kompunt, S. Yongjoh, P. Aimtongkham, P. Muneesawang, K. Faksri, and **C. So-In**, "A Hybrid LSTM and MLP Scheme for COVID-19 prediction: A case study in Thailand," *Trends in Sciences*, vol. 20, no. 10, pp. 1-16, 2023. **(Scopus)**
9. [Journal] B. Bhola, R. Kumar, I. Priyadarshini, **C. So-In**, T. Padhy, A. Slowik, and A. H. Gandomi, "Internet of Things based Sensor Module for Respiratory Tracking System," *IEEE Sensors Journal*, vol. 23, no. 16, pp. 18664-18674, August 2023. **(SCI-E/ISI) (IF=4.325)**
10. [Journal] V. N. Vo, L-M-D. Nguyen, H. Tran, V-H. Dang, D. Niyato, D. N. Cuong, N. C. Luong, and **C. So-In**, "Outage Probability Minimization in Secure NOMA Cognitive Radio Systems with UAV Relay: A Machine Learning Approach," *IEEE Transactions on Cognitive Communications and Networking*, vol. 9, no. 2., pp. 435-451, 2023. **(SCI-E/ISI) (IF=6.359)**
11. [Journal] V.N. Vo, V-H. Dang, H. Tran, D-B. Ha, C. Le, T. D. Ho, and **C. So-In**, "Secondary Network Throughput Optimization of NOMA Cognitive Radio Networks Under Power and Secure Constraints," *IEEE Access*, vol. 11, pp. 33826-33838, 2023. **(SCI-E/ISI) (IF=3.476)**
12. [Journal] V-H. D., L-M-D. Nguyen, V. N. Vo, H. Tran, T. D. Ho, **C. So-In**, and S. Sanguanpong "Throughput Optimization for NOMA Energy Harvesting Cognitive Radio with Multi-UAV-Assisted Relaying under Security Constraints," *IEEE Transactions on Cognitive Communications and Networking*, vol. 9, no. 1, pp. 82-98, 2023. **(SCI-E/ISI) (IF=6.359)**
13. [Journal] W. Wunnasri, P. Musikawan, and **C. So-In**, "A Two-Phase Ensemble-Based Method for Predicting Learners' Grade in MOOCs," *Applied Sciences*, vol. 13, no. 3, 2023. **(SCI-E/ISI) (IF=2.838)**
14. [Journal] S. Khoeurt, **C. So-In**, P. Musikawan, and P. Aimtongkham, "Multidirectional Trust-Based Security Mechanisms for Sinkhole Attack Detection in the RPL Routing Protocol for Internet of Things," *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications*, vol. 14, no. 3, pp. 48-76, September 2023. **(Scopus)**
15. [Journal] S. Heng, P. Aimtongkham, and **C. So-In**, "A Novel Video-on-Demand Caching Scheme using Hybrid Fuzzy Logic Least Frequency and Recently Used with Support Vector Machine," *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications*, vol. 14, no. 1, pp. 15-36, March 2023. **(Scopus)**
16. [Proceedings] K. Chitavisutthivong, **C. So-In**, and S. Supittayapornpong, "Designing Optimal Compact Oblivious Routing for Datacenter Networks in Polynomial Time," in *Proceedings of IEEE Conference on Computer Communications (INFOCOM 2023)*, vol. 2023, May 2023.

2022

17. [Journal] Y. Kongsorot, P. Musikawan, P. Muneesawang, and **C. So-In**, "An enhanced fuzzy-based clustering protocol with an improved shuffled frog leaping algorithm for WSNs," *Expert System With Application*, vol. 198, July 2022. **(SCI-E/ISI) (IF=6.954)**

18. [Journal] S. Loukil, L. C. Fourati, A. Nayyar, and **C. So-In**, "Investigation on Security Risk of LoRaWAN: Compatibility Scenarios," *IEEE Access*, vol. 10, pp. 101825-101843, 2022. **(SCI-E/ISI) (IF=3.476)**
19. [Journal] S. Kravenkit and **C. So-In**, "Blockchain-based Traceability System for Product Recall," *IEEE Access*, vol. 10, pp. 95132-95150, 2022. **(SCI-E/ISI) (IF=3.476)**
20. [Journal] W. Yookwan, K. Chinnasarn, **C. So-In**, and P. Horkaew, "Multimodal Fusion of Deeply Inferred Point Clouds for 3D Scene Reconstruction Using Cross-Entropy ICP," *IEEE Access*, vol. 10, pp. 77123-77136, 2022. **(SCI-E/ISI) (IF=3.476)**
21. [Journal] J. Ghosh, H. Haci, N. Kumar, K. A. Al-utaibi, S. M. Sait, and C. So-In, "A novel channel model and optimal power control schemes for mobile mmWave two-tier networks," *IEEE Access*, vol. 10, pp. 54445-54458, 2022. **(SCI-E/ISI) (IF=3.367)**
22. [Journal] V-T. Truong, V. N. Vo, D-B, Ha, and **C. So-In**, "On the System Performance of Mobile Edge Computing in an Uplink NOMA WSN with a Multiantenna Access Point over Nakagami-m Fading," *IEEE/CAA Journal of Automatica Sinica*, vol. 9, no. 4, pp. 668-685, 2022. **(SCI-E/ISI) (IF=6.171)**
23. [Journal] A-N. Nhuyen, D-B. Ha, V. N. Vo, T. V. Truong, and D-T. Do, and **C. So-In**, "Performance Analysis and Optimization for IoT Mobile Edge Computing Networks with RF Energy Harvesting and UAV Relaying," *IEEE Access*, vol. 10, pp. 21526-21540, 2022. **(SCI-E/ISI) (IF=3.476)**
24. [Journal] P. Musikawan, Y. Kongsorot, P. Muneesawang, **C. So-In**, "An Enhanced Obstacle-Aware Deployment Scheme with an Opposition-based Competitive Swarm Optimizer for Mobile WSNs," *Expert System With Application (ESWA)*, vol. 189, 116035, March 2022. **(SCI-E/ISI) (IF=6.954)**
25. [Journal] I. Priyadarshini, B. Bhola, R. Kumar, and **C. So-In**, "A Novel Cloud Architecture for Internet of Space Things (IoST)," *IEEE Access*, vol. 10, pp. 15118-15134, January 2022. **(SCI-E/ISI) (IF=3.476)**
26. [Proceedings] A-N. Nguyen, D-B. Ha, V-T. Truong, **C. So-In**, P. Aimtongkham, C. Sakunrasrisuay, and C. Punriboon, "On Secrecy Analysis of UAV-enabled Relaying NOMA Systems with RF Energy Harvesting," in *Proceedings of International Conference on Industrial Networks and Intelligent Systems (INISCOM 2021)*, pp. 267-281, April 2022.
27. [Proceedings] S. Gupta, V. Bhateja, S. Verma, S. Singh, Z. Omar, and **C. So-In**, "Analysis of Blood Smear Images using Dark Contrast Algorithm and Morphological Filters," in *Proceedings of International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2022)*, pp. 611-619, June 2022.

2021

28. [Journal] T. Nguyen, T. P. Van, D. Hoang, T. N. Nguyen, and **C. So-In**, "Federated Deep Reinforcement Learning for Traffic Monitoring in SDN-Based IoT Networks," *IEEE Transactions on Cognitive Communications and Networking*, vol. 7, no. 4, pp. 1048-1065, December 2021. **(SCI-E/ISI) (IF=4.341)**
29. [Journal] V. N. Vo, H. Tran, and **C. So-In**, "Enhanced Intrusion Detection System for an EH IoT Architecture using a Cooperative UAV Relay and Friendly UAV Jammer," *IEEE/CAA Journal of Automatica Sinica*, vol. 8, no. 11, pp. 1786-1799, 2021. **(SCI-E/ISI) (IF=6.171)**
30. [Journal] S. Yongjoh, **C. So-In**, P. Kompunt, P. Muneesawang, and R. I. Morien, "Development of an Internet-of-Healthcare System Using Blockchain," *IEEE Access*, vol. 9, pp. 113017-113031, 2021. **(SCI-E/ISI) (IF=3.367)**
31. [Journal] L-M-D. Nguyen, V. N. Vo, **C. So-In**, and V-H. Dang, "Throughput Analysis and Optimization for NOMA Multi-UAV Assisted Disaster Communication using CMA-ES," *Wireless Networks (WN)*, vol. 27, pp. 4889-4902, 2021. **(SCI-E/ISI) (IF=2.602)**
32. [Journal] T-T. T. Nguyen, D-T. Do, Y-C. Chen, **C. So-In**, and Md. A. Rahman, "New Look on Relay Selection Strategies for Full-Duplex Multiple-Relay NOMA over Nakagami-m Fading Channels," *Wireless Networks (WN)*, vol. 27, pp. 3827-3843, 2021. **(SCI-E/ISI) (IF=2.602)**
33. [Journal] C. Punriboon, **C. So-In**, P. Aimtongkham, and N. Leelathakul, "Fuzzy Logic-Based Path Planning for Data Gathering Mobile Sinks in WSNs," *IEEE Access*, vol. 9, pp. 96002-96020, 2021. **(SCI-E/ISI) (IF=3.745)**
34. [Journal] S. Phoemphon, **C. So-In**, and N. Leelathakul, "Improved Distance Estimation with Node Selection Localization and Particle Swarm Optimization for Obstacle-Aware Wireless Sensor

Networks,” *Expert System with Application (ESWA)*, vol. 175, 2021, 114773. **(SCI-E/ISI) (IF=6.954)**

35. **[Journal]** P. Aimtongkham, P. Horkaew, and **C. So-In**, “An enhanced CoAP scheme using fuzzy logic with adaptive timeout for IoT congestion control,” *IEEE Access*, vol. 9, pp. 58967-58981, 2021. **(SCI-E/ISI) (IF=3.745)**
36. **[Journal]** S. Phoemphon, **C. So-In**, P. Aimtongkham, and T. G. Nguyen, “An Energy-efficient Fuzzy-based Scheme for Unequal Multihop Clustering in Wireless Sensor Networks,” *Journal of Ambient Intelligence and Humanized Computing (JAIHC)*, vol. 12, no. 1, pp. 873-895, 2021. **(SCI-E/ISI) (IF=4.594)**
37. **[Journal]** P. Aimtongkham, P. Horkaew, and **C. So-In**, “Multistage Fuzzy Logic Congestion Aware Routing with Dual-Stage Notification and Relative Barring Distance in Wireless Sensor Networks,” *Wireless Networks (WN)*, vol. 27, no. 1, pp. 1287-1308, 2021. **(SCI-E/ISI) (IF=2.659)**
38. **[Journal]** T. G. Nguyen, T. V. Phan, H. H. Nguyen, P. Aimtongkham, and **C. So-In**, “An Efficient Distributed Algorithm for Target-Coverage Preservation in Wireless Sensor Networks,” *Peer to Peer Network and Application (PPNA)*, vol. 14, no. 1, pp. 453-466, 2021. **(SCI-E/ISI) (IF=2.793)**
39. **[Journal]** A-N. Nguyen, V. N. Vo, **C. So-In**, and D-B. Ha, “System Performance Analysis for an Energy Harvesting IoT System using a DF/AF UAV-enabled Relay with Downlink NOMA under Nakagami-m Fading,” *Sensors*, vol. 21, no. 1, 285, 2021. **(SCI-E/ISI) (IF=3.275)**
40. **[Lecture Notes]** T. G. Nguyen, T. V. Phan, H. Dinh, T. Nguyen, and **C. So-In**, “Efficient SDN-based Traffic Monitoring in IoT Networks with Double Deep Q-Network,” *Lecture Notes in Computer Science (CSoNet)*, vol. 12575, pp 26-38, 2021.
41. **[Proceedings]** A-N. Nguyen, V. N. Vo, D-B. Ha, **C. So-In**, and T. V. Truong, “Performance Analysis in UAV-enabled Relay with NOMA under Nakagami-m Fading Considering Adaptive Power Splitting,” in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 1-6, 2021.
42. **[Proceedings]** V. N. Vo, N. Q. Long, V. Dang, **C. So-In**, A. Nguyen, and H. Tran, “Physical Layer Security in Cognitive Radio Networks for IoT Using UAV With Reconfigurable Intelligent Surfaces,” in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 1-5, 2021.
43. **[Proceedings]** S. H. Ong, D. Niyato, **C. So-In**, and T. Friedrichs, “Accelerating Low-Cost Edge-Based Real-Time Video Analytics Using Task Scheduling,” in *Proceedings of IEEE World Forum on The Internet of Things (WF-IoT 2021)*, pp. 598-603, April 2021.
44. **[Proceedings]** C. Punriboon, P. Aimtongkham, N. Leelathakul, and **C. So-In**, “A Heuristic-Based Efficient Path Planning Scheme for Data Gathering WSNs Using Mobile Sinks,” in *Proceedings of International Computer Science and Engineering Conference (ICSEC 2021)*, pp. 87-92, 2021.
45. **[Proceedings]** C. Sakunrasrisuay, P. Musikawan, A-N. Nguyen, Y. Kongsorot, P. Aimtongkham, and **C. So-In**, “Tomato Maturity Classification: A Transfer Learning Approach,” in *Proceedings of International Computer Science and Engineering Conference (ICSEC 2021)*, pp. 411-416, 2021.

2020

46. **[Journal]** V. N. Vo, **C. So-In**, H. Tran, D. D. Tran, and T. P. Huu, “Performance Analysis of an Energy-Harvesting IoT System Using a UAV Friendly Jammer and NOMA under Cooperative Attack,” *IEEE Access*, vol. 8, pp. 221986-222000, 2020. **(SCI-E/ISI) (IF=3.745)**
47. **[Journal]** V. N. Vo, H. Tran, V. L. Dao, **C. So-In**, D. D. Tran, and E. Uhlemann, “On Communication Performance in Energy Harvesting WSNs Under a Cooperative Jamming Attack,” *IEEE Systems Journal*, vol. 14, no. 4, pp. 4955-4966, 2020. **(SCI-E/ISI) (IF=3.987)**
48. **[Journal]** S. Heng, P. Aimtongkham, V. N. Vo, T. G. Nguyen, and **C. So-In**, “Fuzzy Adaptive-Sampling Block Compressed Sensing for Wireless Multimedia Sensor Networks,” *Sensors*, vol. 20, no. 21, 6217, 2020. **(SCI-E/ISI) (IF=3.275)**
49. **[Journal]** Z. B. Baig, S. Sanguanpong, S. N. Firdous, V. N. Vo, T. G. Nguyen, and **C. So-In**, “Averaged Dependence Estimators for DoS Attack Detection in IoT Networks,” *Future Generation Computer Systems (FGCS)*, vol. 102, pp. 198-209, 2020. **(SCI-E/ISI) (IF=6.125)**
50. **[Journal]** S. Phoemphon, **C. So-In**, and N. Leelathakul, “A Hybrid Localization Model using Node Segmentation and Improved Particle Swarm Optimization with Obstacle-awareness for Wireless

Sensor Networks,” *Expert System with Application (ESWA)*, vol. 143, April 2020. **(SCI-E/ISI) (IF=5.452)**

51. **[Journal]** V. N. Vo, T. G. Nguyen, **C. So-In**, H. Trung, and S. Sanguanpong, “Secrecy Performance in the Internet of Things: Optimal Energy Harvesting Time Under Constraints of Sensors and Eavesdroppers,” *Mobile Network and Application (MONET)*, vol. 25, pp. 193-210, 2020. **(SCI-E/ISI) (IF=2.602)**
52. **[Journal]** V. N. Vo, T. G. Nguyen, **C. So-In**, and H. Trung, “Outage Performance Analysis of Energy Harvesting Wireless Sensor Networks for NOMA Transmissions,” *Mobile Network and Application (MONET)*, vol. 25, pp. 23-41, 2020. **(SCI-E/ISI) (IF=2.602)**
53. **[Journal]** P. Aimtongkham, S. Heng, P. Horkaew, T. G. Nguyen, and **C. So-In**, “Fuzzy Logic Rate Adjustment Controls Using a Circuit Breaker for Persistent Congestion in Wireless Sensor Networks,” *Wireless Networks (WN)*, vol. 26, pp. 3603-3627, 2020. **(SCI-E/ISI) (IF=2.659)**

2019

54. **[Journal]** V. N. Vo, **C. So-In**, H. Tran, D. D. Tran, Sovannarith H., P. Aimtongkham, and A. N. Nguyen, “On Security and Throughput for Energy Harvesting Untrusted Relays in IoT Systems using NOMA,” *IEEE Access*, vol. 7, no. 1, pp. 149341-149354, 2019. **(SCI-E/ISI) (IF=4.098)**
55. **[Journal]** V. N. Vo, **C. So-In**, D. D. Tran, H. Trung, “Optimal System Performance in Multihop Energy Harvesting WSNs using Cooperative NOMA and Friendly Jammers,” *IEEE Access*, vol. 7, no. 1, pp. 125494-125510, 2019. **(SCI-E/ISI) (IF=4.098)**
56. **[Journal]** A. N. Nguyen, V. N. Vo, **C. So-In**, D. B. Ha, S. Sanguanpong, and Z. A. Baig, “On Secure Wireless Sensor Networks with Cooperative Energy Harvesting Relaying” *IEEE Access*, vol. 7, no. 1, pp. 139212-139225, 2019. **(SCI-E/ISI) (IF=4.098)**
57. **[Journal]** T. G. Nguyen, T. V. Phan, B. T. Nguyen, **C. So-In**, Z. A. Baig, and S. Sanguanpong, “SeArch: A Collaborative and Intelligent NIDS Architecture for SDN-based Cloud IoT Networks” *IEEE Access*, vol. 7, no. 1, pp. 107678-107694, 2019. **(SCI-E/ISI) (IF=4.098)**
58. **[Journal]** **C. So-In**, T. G. Nguyen, and N. Nguyen, “An efficient coverage hole-healing algorithm for area-coverage improvements in mobile sensor networks,” *Peer to Peer Networking and Application (PPNA)*, vol. 12, no. 3, pp 541-552, 2019. **(SCI-E/ISI) (IF=2.397)**
59. **[Journal]** K. Rujirakul and **C. So-In**, “Parallel Optimized Pearson Correlation Condition (PO-PCC) for Robust Cosmetic Makeup Facial Recognition,” *International Arab Journal of Information Technology (IAJIT)*, vol. 16, no. 3, pp. 442-453, May 2019. **(SCI-E/ISI) (IF=0.724)**
60. **[Journal]** C. Poonriboon, **C. So-In**, P. Aimtongkham, and K. Rujirakul, “A Bio-Inspired Capacitated Vehicle-Routing Problem Scheme Using Artificial Bee Colony with Crossover Optimizations,” *Journal of Internet Services and Information Security (JISIS)*, vol. 9, no. 3, pp. 21-40, August 2019. **(Scopus)**
61. **[Proceedings]** V. N. Vo, H. Tran, E. Uhlemann, Q. X. Truong, **C. So-In**, and A. Balador, “Reliable Communication Performance for Energy Harvesting Wireless Sensor Networks,” in *Proceedings of IEEE 89th Vehicular Technology Conference (VTC-Spring)*, pp. 1-6, May 2019.
62. **[Proceedings]** P. Preamthaisong, A. Auyorntrakool, P. Aimtongkham, T. Sriwuttisap, and **C. So-In**, “Enhanced DDoS Detection using Hybrid Genetic Algorithm and Decision Tree for SDN,” in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 152-157, June 2019.

2018

63. **[Journal]** S. Phoemphon, **C. So-In**, and N. Leelathakul, “Fuzzy Weighted Centroid Localization with Virtual Node Approximation in Wireless Sensor Networks,” *IEEE Internet of Things Journal (IEEE IoT)*, vol. 5, no. 6, pp. 4728-4752, 2018. **(SCI-E/ISI) (IF=7.596)**
64. **[Journal]** S. Phoemphon, **C. So-In**, and N. Leelathakul, “Optimized Hop Angle Relativity for DV-Hop Localization in Wireless Sensor Networks,” *IEEE Access*, vol. 6, pp. 78149-78172, 2018. **(SCI-E/ISI) (IF=3.557)**
65. **[Journal]** D. Tran, D. Ha, V. N. Vo, **C. So-In**, H. Trung, T. G. Nguyen, Z. A. Baig, and S. Sanguanpong, “Performance Analysis of DF/AF Cooperative MISO Wireless Sensor Networks with NOMA and SWIPT over Nakagami-m Fading,” *IEEE Access*, vol. 6, pp. 56142-56161, 2018. **(SCI-E/ISI) (IF=3.557)**

66. [Journal] V. N. Vo, D. D. Tran, **C. So-In**, and H. Trung, "Secrecy Performance Analysis for Fixed Gain Energy Harvesting in Internet of Things with Untrusted Relays," *IEEE Access*, vol. 6, pp. 48247-48258, 2018. **(SCI-E/ISI) (IF=3.557)**
67. [Journal] V. Nhan Vo, *et. al.*, "Secrecy Outage Performance Analysis for Energy Harvesting Sensor Networks with a Jammer Using Relay Selection Strategy," *IEEE Access*, vol. 6, pp. 23406-23419, 2018. **(SCI-E/ISI) (IF=3.557)**
68. [Journal] T. G. Nguyen and **C. So-In**, "Distributed Deployment Algorithm for Barrier Coverage in Mobile Sensor Networks," *IEEE Access*, vol. 6, pp. 21042-21052, 2018. **(SCI-E/ISI) (IF=3.557)**
69. [Journal] S. Phoemphon, **C. So-In**, and D. Niyato, "A Hybrid Model using Fuzzy Logic and an Extreme Learning Machine with Vector Particle Swarm Optimization for Wireless Sensor Network Localization," *Applied Soft Computing (ASOC)*, vol. 65, no. 4, pp. 101-120, 2018. **(SCI-E/ISI) (IF=3.541)**
70. [Journal] S. Phoemphon, **C. So-In**, and T. G. Nguyen, "An Enhanced Wireless Sensor Network Localization Scheme for Radio Irregularity Models using Hybrid Fuzzy Deep Extreme Learning Machines," *Wireless Networks (WN)*, vol. 24, no. 3, pp. 799-819, 2018. **(SCI-E/ISI) (IF=1.584)**
71. [Journal] P. Aimtongkham, T. G. Nguyen, and **C. So-In**, "Congestion Control and Prediction Schemes using Fuzzy Logic System with Adaptive Membership Function in Wireless Sensor Networks," *Wireless Communications and Mobile Computing (WCMC)*, vol. 2018, 19 pp., 2018. **(SCI-E/ISI) (IF=0.869)**
72. [Journal] P. Aimtongkham, **C. So-In**, S. Sanguanpong, and S. Permpol, "A Two-Level Intelligent Web Caching Scheme with Hybrid Extreme Learning Machine and Least Frequently Used," *Journal of Internet Technology (JIT)*, vol. 19, no. 3, pp. 725-740, 2018. **(SCI-E/ISI) (IF=1.930)**
73. [Journal] T. G. Nguyen and **C. So-In**, "An Energy-Efficient Point Coverage-Aware Clustering Protocol in Wireless Sensor Networks," *International Journal of Ad Hoc and Ubiquitous Computing (IJAHUC)*, vol. 28, no.3, pp. 148-167, 2018. **(SCI-E/ISI) (IF=0.554)**
74. [Proceedings] K. Rujirakul and **C. So-In**, "Histogram Equalized DeepPCA with ELM Classification for Expressive Face Recognition," in *Proceedings of International Workshop on Advanced Image Technology (IWAIT)*, pp. 1-4, January 2018.
75. [Proceedings] **Best Paper Award @ICT-ISPC 2018**: N. Klaokliang, P. Teawtim, P. Aimtongkham, **C. So-In**, and A. Niruntasokrat, "A Novel IoT Authorization Architecture on Hyperledger Fabric with Optimal Consensus using Genetic Algorithm," in *Proceedings of International Student Project (ICT-ISPC)*, pp. 1-5, July 2018.
76. [Lecture Notes] S. Poolsanguan, P. Aimtongkham, **C. So-In**, and D. Niyato, "Energy Transfer Optimizations with Mobile Charger in Wireless Sensor Networks," *Lecture Notes on Advanced Research in Engineering and Information Technology II*, pp. 59-64, January 2018.
77. [Lecture Notes] C. Phaudphut, P. Aimtongkham, **C. So-In**, and K. Rujirakul, "An ECG Recognition Scheme Using Deep Neural Networks," *Lecture Notes on Advanced Research in Engineering and Information Technology II*, pp. 65-71, January 2018.

2017

78. [Journal] V. N. Vo, T. G. Nguyen, **C. So-In**, and D. Ha, "Secrecy Performance Analysis of Energy Harvesting Wireless Sensor Networks with a Friendly Jammer," *IEEE Access*, vol. 5, pp. 25196-25206, 2017. **(SCI-E/ISI) (IF=3.244)**
79. [Journal] S. Heng, **C. So-In**, and T. G. Nguyen, "Distributed Image Compression Architecture over Wireless Multimedia Sensor Networks," *Wireless Communications and Mobile Computing (WCMC)*, vol. 2017, 21 pp., 2017. **(SCI-E/ISI) (IF=1.899)**
80. [Journal] T. G. Nguyen, **C. So-In**, N. Nguyen, and S. Phoemphon, "A Novel Energy-Efficient Clustering Protocol with Area Coverage Awareness for Wireless Sensor Networks," *Peer to Peer Networking and Application (PPNA)*, vol. 10, no. 3, pp 519-536, 2017. **(SCI-E/ISI) (IF=1.262)**
81. [Journal] T. G. Nguyen, **C. So-In**, and N. Nguyen, "Barrier Coverage Deployment Algorithms for Mobile Sensor Networks," *Journal of Internet Technology (JIT)*, (selected from JCSSE 2016), vol. 18, no.7, pp. 1689-1699, 2017. **(SCI-E/ISI) (IF=1.930)**
82. [Journal] A. Suttichaiya, Y. Sombatkiripaiboon, P. Aimtongkham, C. Poonriboon, P. Horkaew, and **C. So-In**, "Video Steganography with LSB Color Detection," *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)* (selected from ADVKIT 2015), vol. 9, no. 2-2, pp. 23-28, 2017. **(Scopus)**

83. [Journal] P. Kuttranont, K. Boonprakob, C. Phaudphut, S. Permpol, P. Aimtongkham, and **C. So-In**, "Parallel KNN and Neighborhood Classification Implementations on GPU for Network Intrusion Detection," *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)* (selected from ADVCIT 2015), vol. 9, no. 2-2, pp. 29-33, 2017. **(Scopus)**
84. [Journal] N. Sangkla, K. Sangkapat, T. Rattanachai, T. G. Nguyen, K. Rujirakul, C. Soomlek, and **C. So-In**, "Performance Analysis of Video Transmission over IEEE 802.11n Wireless Networks," *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)* (selected from ADVCIT 2015), vol. 9, no. 2-2, pp. 35-40, 2017. **(Scopus)**

2016

85. [Journal] **C. So-In**, S. Permpol, and K. Rujirakul, "Soft Computing-Based Localizations in Wireless Sensor Networks," *Pervasive and Mobile Computing (PMC)*, vol. 29, pp. 17-37, 2016. **(SCI-E/ISI) (IF=2.079)**
86. [Journal] **C. So-In** and K. Rujirakul, "wPFP-PCA: Weighted Parallel Fixed Point PCA Face Recognition," *International Arab Journal of Information Technology (IAJIT)*, vol. 13, no. 1, pp. 59-69, 2016. **(SCI-E/ISI) (IF=0.582)**
87. [Journal] T. G. Nguyen, **C. So-In**, and N. Nguyen, "Radio Irregularity Obstacles-Aware Models for Wireless Sensor Networks," *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)* (selected from ICOCOE 2015), vol. 8, no. 3, pp. 121-126, 2016. **(Scopus)**
88. [Journal] S. Permpol, K. Rujirakul, and **C. So-In**, "Adaptive Membership Selection Criteria Using Genetic Algorithms for Fuzzy Centroid Localizations in Wireless Sensor Networks," *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)* (selected from ICOCOE 2015), vol. 8, no. 6, pp. 113-118, 2016. **(Scopus)**
89. [Journal] S. Permpol, C. Thammasakorn, K. Rujirakul, and **C. So-In**, "Fuzzy Centroid Localization Schemes for Unbalanced Deployments of Wireless Sensor Networks," *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)* (selected from ICOCOE 2015), vol. 8, no. 6, pp. 55-59, 2016. **(Scopus)**
90. [Proceedings] T. G. Nguyen, **C. So-In**, and N. Nguyen, "Maximum Barrier Coverage Deployment Algorithms in Wireless Sensor Networks," in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 1-5, July 2016. **(IEEE Xplore)**
91. [Proceedings] P. Aimtongkham, **C. So-In**, and S. Sanguanpong, "A Novel Web Caching Scheme using Hybrid Least Frequently Used and Support Vector Machine," in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 1-6, July 2016. **(IEEE Xplore)**
92. [Proceedings] C. Phaudphut, **C. So-In**, and W. Phusomsai, "A Parallel Probabilistic Neural Network ECG Recognition Architecture over GPU Platforms," in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 1-7, July 2016. **(IEEE Xplore)**
93. [Proceedings] S. Poolsanguan, **C. So-In**, K. Rujirakul, and K. Udompongsuk, "An Enhanced Cluster Head Selection Criterion of LEACH in Wireless Sensor Networks," in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 1-7, July 2016. **(IEEE Xplore)**
94. [Proceedings] **Best Paper Award @JCSSE 2016**: W. Phusomsai, **C. So-In**, W. Punjaruk, C. Phaudphut, and C. Thammasakorn, "Brain Tumor Cell Recognition Schemes using Image Processing with Parallel ELM Classifications on GPU," in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 1-6, July 2016. **(IEEE Xplore)**
95. [Lecture Notes] C. Thammasakorn, **C. So-In**, W. Punjaruk, U. KoKaew, B. Waikham, S. Permpol, and P. Aimtongkham, "Brain Cancer Cell Detection Optimization Schemes Using Image Processing and Soft-Computing," *Lecture Notes in Electrical Engineering*, vol. 362, pp. 171-182, 2016. **(Springer)**

2015

96. [Journal] **C. So-In** and W. Katekaew, "Hybrid Fuzzy Centroid with MDV-Hop BAT Localization Algorithms in Wireless Sensor Networks," *International Journal of Distributed Sensor Networks (IJDSN)*, vol. 2015, 18 pp., 2015. **(SCI-E/ISI) (IF=0.665)**
97. [Journal] **C. So-In**, C. Phaudphut, and K. Rujirakul, "Real-Time ECG Noise Reduction with QRS Complex Detection for Mobile Health Services," *Arabian Journal for Science and Engineering (AJSE)*, vol. 40, no. 9, pp 2503-2514, 2015. **(SCI-E/ISI) (IF=0.367)**
98. [Proceedings] **Best Paper Award @IC2IT2015**: B. Srikudkao, T. Khundate, **C. So-In**, P. Horkaew, C. Phaudphut, and K. Rujirakul, "Flood Warning and Management Schemes with Drone Emulator using Ultrasonic and Image Processing," *Recent Advances in Information and Communication Technology*, pp. 107-116, July 2015. **(Springer)**
99. [Proceedings] C. Soomlek, N. Kaewchainam, T. Simano, and **C. So-In**, "Using Backpropagation Neural Networks for Flood Forecasting in PhraNakhon Si Ayutthaya, Thailand," in *Proceedings of International Computer Science and Engineering Conference (ICSEC)*, pp. 1-6, November 2015. **(IEEE Xplore)**
100. [Lecture Notes] K. Rujirakul and **C. So-In**, "P-PCC: Parallel Pearson Correlation Condition for Robust Cosmetic Makeup Face Recognitions," *Lecture Notes in Electrical Engineering*, vol. 339, pp. 259-266, 2015. **(Springer)**

2014

101. [Journal] **C. So-In**, S. Poolsanguan, and K. Rujirakul, "A Hybrid Mobile Environmental and Population Density Management System for Smart Poultry Farms," *Computer and Electronics in Agriculture (COMPAG)*, vol. 109, pp. 298-301, 2014. **(SCI-E/ISI) (IF=1.486)**
102. [Journal] K. Rujirakul, **C. So-In**, and B. Arnonkijpanich, "PEM-PCA: A Parallel Expectation-Maximization PCA Face Recognition Architecture," *The Scientific World Journal (TSWJ)*, vol. 2014, 16 pp., 2014. **(SCI-E/ISI) (IF=1.219)**
103. [Proceedings] T. G. Nguyen, **C. So-In**, and N. Nguyen, "Two Energy-Efficient Cluster Head Selection Techniques Based on Distance for Wireless Sensor Networks," in *Proceedings of International Computer Science and Engineering Conference (ICSEC)*, pp. 33-38, July 2014. **(IEEE Xplore)**
104. [Proceedings] K. Rujirakul, **C. So-In**, and B. Arnonkijpanich, "Weighted Histogram Equalized PEM-PCA Face Recognition," in *Proceedings of International Computer Science and Engineering Conference (ICSEC)*, pp. 144-150, July 2014. **(IEEE Xplore)**
105. [Proceedings] C. Poonriboon, **C. So-In**, S. Arch-Int, and K. Rujirakul, "An Optimized Genetic Routing Approach for Constrained Shortest Path Selections," in *Proceedings of International Conference on Digital Information and Communication Technology and its Applications (DICTAP)*, pp. 226-230, May 2014. **(IEEE Xplore)**
106. [Proceedings] **C. So-In**, N. Mongkonchai, P. Aimtongkham, K. Wijitsopon, and K. Rujirakul, "An Evaluation of Data Mining Classification Models for Network Intrusion Detection," in *Proceedings of International Conference on Digital Information and Communication Technology and its Applications (DICTAP)*, pp. 90-94, May 2014. **(IEEE Xplore)**
107. [Proceedings] W. Katekaew, **C. So-In**, K. Rujirakul and B. Waikham, "H-FCD: Hybrid Fuzzy Centroid and DV-Hop Localization Algorithm in Wireless Sensor Networks," in *Proceedings of International Conference on Intelligent Systems, Modelling and Simulation (ISMS)*, pp. 551-555, January 2014. **(IEEE Xplore)**
108. [Lecture Notes] K. Udompongsuk, **C. So-In**, C. Phaudphut, K. Rujirakul, C. Soomlek, and B. Waikham, "MAP: An Optimized Energy-Efficient Cluster Header Selection Technique for Wireless Sensor Networks," *Lecture Notes in Electrical Engineering*, vol. 279, pp. 191-199, 2014. **(Springer)**

2013

109. [Journal] **C. So-In**, C. Phaudphut, K. Rujirakul, N. Phokaped, S. Poolsanguan, and B. Waikham, "A Novel Architecture for Mobile ECG Recognition Systems Using Hybrid Wavelet Transform Feature Extraction Schemes," *Journal of Convergence Information Technology (JCIT)*, vol. 8, no. 11, pp. 471-484, 2013. **(Scimago, INSPEC)**

110. [Journal] **C. So-In**, S. Poolsanguan, C. Poonriboon, K. Rujirakul, Y. Phasuk, and T. Haitook, "Smart Mobile Poultry Farming Systems in Tmote Sky WSNs," *International Journal of Digital Content Technology and its Applications (JDCTA)*, vol. 7, no. 9, pp. 508-518, 2013. **(Scimago, INSPEC)**
111. [Journal] **C. So-In**, S. Poolsanguan, C. Poonriboon, K. Rujirakul, and C. Phaudphut, "Performance Evaluation of Parallel AES Implementations over CUDA GPU Framework," *International Journal of Digital Content Technology and its Applications (JDCTA)*, vol. 7, no. 5, pp. 501-511, 2013. **(Scimago, INSPEC)**
112. [Lecture Notes] **C. So-In**, K. Udompongsuk, C. Phaudphut, K. Rujirakul, and C. Khunboa, "Performance Evaluation of LEACH on Cluster Head Selection Techniques in Wireless Sensor Networks," *Advances in Intelligent Systems and Computing*, vol. 209, pp. 51-61, 2013. **(Springer)**
113. [Proceedings] K. Rujirakul, **C. So-In**, B. Amonkijpanich, K. Sunat, and S. Pualsanguan, "PFP-PCA: Parallel Fixed Point PCA Face Recognition," in *Proceedings of International Conference on Intelligent Systems, Modelling and Simulation (ISMS)*, pp. 409-414, January 2013. **(IEEE Xplore)**

2012

114. [Journal] **C. So-In**, R. Jain, S. Paul, and J. Pan, "Future Wireless Networks: Key Issues and Survey (ID/Locator Split Perspective)," *International Journal of Communication Network and Distributed Systems (IJCNDS), Special Issue on Wireless Internet*, vol. 8, no. 1/2, pp. 24-52, 2012. **(Scopus)**
115. [Journal] A. Al-Tamimi, R. Jain, and **C. So-In**, "High Definition Video Streams Analysis, Modeling and Prediction," *Advances in Multimedia*, vol. 2012, 2012. **(Scopus)**
116. [Proceedings] **C. So-In**, C. Phaudphut, S. Tesana, N. Weeramongkonlert, K. Wijitsopon, U. KoKaew, B. Waikham, and S. Saiyod, "Mobile Animal Tracking Systems Using Light Sensor for Efficient Power and Cost Saving Motion Detection," in *Proceedings of the 8th IEEE IET International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP)*, pp. 1-6, July 2012. **(IEEE Xplore)**
117. [Proceedings] **C. So-In**, N. Weeramongkonlert, C. Phaudphut, B. Waikham, C. Jaikaeo, and C. Khunboa, "Android OS Mobile Monitoring Systems Using an Efficient Transmission Technique Over Tmote Sky WSNs," in *Proceedings of the 8th IEEE IET International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP)*, pp. 1-6, July 2012. **(IEEE Xplore)**
118. [Proceedings] **Best Paper Award @JCSSE 2012: C. So-In**, S. Arch-Int, C. Phaudphut, K. Rujirakul, and N. Weeramongkonlert, "A New Mobile Phone System Architecture for Navigational Travelling Blind," in *Proceedings of International Joint Conference on Computer Science and Software Engineering (JCSSE)*, pp. 54-59, May 2012. **(IEEE Xplore)**

2011

119. [Journal] **C. So-In**, R. Jain, S. Paul, and J. Pan, "Virtualization architecture using the ID/Locator split concept for Future Wireless Networks (FWNs)," *Journal of Computer Networks (COMNETS), Special Issue on Recent Advanced in Wireless Networks*, vol. 55, no. 2, pp. 415-430, 2011. **(SCI-E/ISI) (IF=1.871)**
120. [Proceedings] **C. So-In**, C. Netphakdee, K. Wijitsopon, C. Panichayanubal, and P. Seresangtakul, "Web-based Automatic Network Discovery/Map Systems," in *Proceedings of IEEE International Conference on Computer Applications and Industrial Electronics (ICCAIE)*, pp. 421-425, December 2011. **(IEEE Xplore)**
121. [Proceedings] **C. So-In**, S. Poolsanguan, C. Poonriboon, and N. Veeramongkonleodn, "Ubiquitous Bus Mapping System on Mobile Phone Via Web Architecture," in *Proceedings of IEEE International Conference on Computer Applications and Industrial Electronics (ICCAIE)*, pp. 480-485, December 2011. **(IEEE Xplore)**

2010

122. [Journal] **C. So-In**, R. Jain, and A. Al-Tamimi, "A Scheduler for Unsolicited Grant Service (UGS) in IEEE 802.16e Mobile WiMAX Networks," *IEEE System Journal*, vol. 4, no. 4, pp. 487-494, December 2010. **(SCI-E/ISI) (IF=1.753)**
123. [Journal] **C. So-In**, R. Jain, and A. Al-Tamimi, "Deficit Round Robin with Fragmentation Scheduling to Achieve Generalized Weighted Fairness for Resource Allocation in IEEE 802.16e Mobile WiMAX

- Networks,” *Journal of Future Internet, Special Issue on QoS in Wired and Wireless IP networks*, vol. 2, no. 4, pp. 446-468, October 2010. **(Scimago, INSPEC)**
124. **[Journal]** **C. So-In**, R. Jain, S. Paul, and J. Pan, “Virtual ID: ID/Locator Split in a Mobile IP Environment for Mobility, Multihoming, and Location Privacy for the Next Generation Wireless Networks,” *International Journal of Internet Protocol Technology (IJIPT), Special Issue on Wireless Internet*, vol. 5, no.3, pp. 142-153, October 2010. **(Scopus)**
 125. **[Journal]** J. Pan, R. Jain, S. Paul, and **C. So-In**, “MLSA: A New Evolution-Oriented Architecture for Scalability, Mobility, and Multihoming for the Future Internet,” *IEEE Journal on Selected Areas in Communications (JSAC), Special Issue on Internet Routing Scalability*, vol. 28, no. 8, pp. 1344-1362, October 2010. **(SCI-E/ISI) (IF=4.138)**
 126. **[Journal]** **C. So-In**, R. Jain, and A. Al-Tamimi, “Capacity Evaluation for IEEE 802.16e Mobile WiMAX,” *Journal of Computer Systems, Networks, and Communications (JCSNC), Special Issue on WiMAX, LTE, and Wi-Fi Internetworking*, vol. 2010, April 2010. **(Scopus)**
 127. **[Journal]** A. Al-Tamimi, **C. So-In**, and R. Jain, “Modeling and Resource Allocation for Mobile Video over WiMAX Broadband Wireless Networks,” *IEEE Journal on Selected Areas in Communications (JSAC), Special Issue on Wireless Video Transmission*, vol. 28, no. 3, pp. 354-365, April 2010. **(SCI-E/ISI) (IF=4.138)**
 128. **[Letter]** A. Al-Tamimi, **C. So-In**, and R. Jain, “Modeling and Resource Allocation for HD Videos over WiMAX Broadband Wireless Networks,” *IEEE COMSOC MMTC E-Letter*, vol. 5, no.3, May 2010.
 129. **[Proceedings]** A. Al-Tamimi, R. Jain, and **C. So-In**, “Dynamic Resource Allocation Based on Online Traffic Prediction for Video Streams,” in *Proceedings of International Conference on Internet Multimedia Systems Architecture and Applications (IMSAA)*, pp. 1-6, December 2010. **(IEEE Xplore)**
 130. **[Proceedings]** A. Al-Tamimi, R. Jain, and **C. So-In**, “Statistical Analysis and Modeling of High Definition Video Traces,” in *Proceedings of International Conference on Multimedia & Expo (ICME)*, pp. 596-601, July 2010. **(IEEE Xplore)**
 131. **[Proceedings]** A. Al-Tamimi, R. Jain, and **C. So-In**, “Modeling and Prediction of High Definition Video Traffic: A Real-World Case Study,” in *Proceedings of Multimedia (MMEDIA)*, pp. 168-173, June 2010. **(IEEE Xplore)**
 132. **[Proceedings]** **C. So-In**, R. Jain, and A. Al-Tamimi, “Generalized Weighted Fairness and its Application for Resource Allocation in IEEE 802.16e Mobile WiMAX,” in *Proceedings of International Conference on Computer and Automation Engineering (ICCAE)*, pp. 784-788, February 2010. **(IEEE Xplore)**
 133. **[Proceedings]** **C. So-In**, R. Jain, S. Paul, and J. Pan, “A Policy Oriented Multi-Interface Selection Framework for Mobile IPv6 Using the ID/Locator Split Concepts in the Next Generation Wireless Networks,” in *Proceedings of International Conference on Computation and Automation Engineering (ICCAE)*, pp. 580-584, February 2010. **(IEEE Xplore)**
 134. **[Lecture Notes]** **C. So-In**, R. Jain, and A. Al-Tamimi, “SWIM: A Scheduler for Unsolicited Grant Service (UGS) in IEEE 802.16e Mobile WiMAX Networks,” *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, vol. 37, pp. 40-51, February 2010. **(Springer)**
 135. **[Proceedings]** **C. So-In**, R. Jain, S. Paul, and J. Pan, “Virtual ID: A Technique for Mobility, Multi-Homing, and Location Privacy in Next Generation Wireless Networks,” in *Proceedings of IEEE International Workshop on Mobile IPv6 and Network-based Localized Mobility Management (MobiWorld) (CCNC)*, pp. 1-5, January 2010. **(IEEE Xplore)**
 136. **[Proceedings]** A. Al-Tamimi, R. Jain, and **C. So-In**, “Modeling and Generation of AVC and SVC-TS Mobile Video Traces for Broadband Access Networks,” in *Proceedings of Multimedia Systems Conference (MMsys)*, pp. 89-98, January 2010. **(IEEE Xplore)**

2009

137. **[Journal]** B. Kim, **C. So-In**, R. Jain, J. Yun, Y. Hur, and A. Al-Tamimi, “Capacity Estimation and TCP Performance Enhancement over Mobile WiMAX Networks,” *IEEE Communication Magazine*, vol. 47, no. 8, pp. 132-141, June 2009. **(SCI-E/ISI) (IF=4.755)**
138. **[Journal]** **C. So-In**, R. Jain, and A. Al-Tamimi, “Scheduling in IEEE 802.16e Mobile WiMAX Networks: Key Issues and a Survey,” *IEEE Journal on Selected Areas in Communications (JSAC)*,

Special Issue on Broadband Access Networks: Architectures and Protocols, vol. 27, no. 2, pp. 156-171, Feb., 2009. **(SCI-E/ISI) (IF=4.138)**

139. [Proceedings] **C. So-In**, R. Jain, and A. Al-Tamimi, "eOCSA: An Algorithm for Burst Mapping with Strict QoS Requirements in IEEE 802.16e Mobile WiMAX Networks," in *Proceedings of IFIP Wireless Days (WD)*, pp. 1-5, December 2009. **(IEEE Xplore)**
140. [Proceedings] **C. So-In**, R. Jain, and A. Al-Tamimi, "OCSA: An Algorithm for Burst Mapping in IEEE 802.16e Mobile WiMAX Networks," in *Proceedings of the 15th Asia-Pacific Conference on Commun. (APCC)*, pp. 52-58, October 2009. **(IEEE Xplore)**
141. [Proceedings] **C. So-In**, R. Jain, and G. Dommety, "PETS: Persistent TCP using Simple Freeze," in *Proceedings of International Conference on Future Information Networks (ICFIN)*, pp. 97-102, October 2009. **(IEEE Xplore)**
142. [Proceedings] **C. So-In**, R. Jain, and A. Al-Tamimi, "A Deficit Round Robin with Fragmentation Scheduler for Mobile WiMAX," in *Proceedings of IEEE Sarnoff Symposium*, pp. 1-7, April 2009. **(IEEE Xplore)**

2008

143. [Journal] R. Jain, **C. So-In**, and A. Al-Tamimi, "System Level Modeling of IEEE 802.16e Mobile WiMAX Networks: Key Issues," *IEEE Wireless Communication Magazine*, vol. 15, no. 5, pp. 73-79, October 2008. **(SCI-E/ISI) (IF=5.123)**
144. [Proceedings] A. Al-Tamimi, R. Jain, and **C. So-In**, "SAM: Simplified Seasonal ARIMA Model for Wireless Broadband Access Enabled Mobile Devices," in *Proceedings of ISM Multimedia*, pp. 178-183, December 2008. **(IEEE Xplore)**
145. [Proceedings] **C. So-In**, J. Jiang, and R. Jain, "Enhanced Forward Explicit Congestion Notification (E-FECN) Scheme for Datacenter Ethernet Networks," in *Proceedings of Performance Evaluation of Computer and Telecommunication Systems (SPECTS)*, pp. 542-546, June 2008. **(IEEE Xplore)**
146. [Proceedings] J. Jiang, R. Jain, and **C. So-In**, "An Explicit Rate Control Framework for Lossless Ethernet Operation," in *Proceedings of IEEE International Conference on Communications (ICC)*, pp. 5914-5918, May 2008. **(IEEE Xplore)**

(National) Paper Publication

1. T. Leepongkul, K. Prayad, **C. So-In**, P. Imtongkhum, and C. Sakunrasisuay, "Development of Cross Platform Wheel Lock Management System," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, May 2021.
2. C. Verajarnyaparn, C. Dueangcharoen, **C. So-In**, P. Imtongkhum, and C. Sakunrasisuay, "Fresh Market Management Platform through Mobile Application," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, May 2021.
3. S. Saijung, A. Artaksorn, N. Khunnasut, **C. So-In**, P. Imtongkhum, and C. Sakunrasisuay, "Application Development of Khon Kaen Zoo with Augmented Reality Technology on the Android Operating System," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, May 2021.
4. T. Promta, L. Phasuk, **C. So-In**, P. Aimtongkham, and C. Sakunrasisuay, "Mobile Application Development of Natural History Museum Khon Kaen University with Augmented Reality Technology," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, May 2021.
5. N. Khantiweerawat, S. Buapan, P. Imtongkhum, T. Sriwuttisap, **C. So-In**, and C. Punriboon, "Indoor Positioning Systems using Bluetooth Signal Location Estimation," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, May 2020.
6. R. Nuritanont, P. Imtongkhum, **C. So-In**, and C. Punriboon, "Emotional recognition systems with image processing and machine learning," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, May 2020.
7. S. Liemphitak, S. Anunaua, **C. So-In**, P. Aimtongkham, T. Sriwuttisap, J. Jiwaganon, S. Porntrakulpipat, and C. Punriboon, "Pig Breeder Farming Management Systems," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, May 2020.
8. W. Khampromma, **C. So-In**, and P. Aimtongkham, "A Hybrid Sentiment Analysis Model for Thailand Hotel Review Using K-means and K-NN," in *Proceedings of National Conference on Informatics (NCIs)*, July 2019.

9. J. Jittiyapol, **C. So-In**, S. Arch-Int, and R. Chinnapatjeeras, "Risk Factor Analysis of Hypertension Disease for Diabetics Using Data Mining Techniques Case Study Srinagarind Hospital" in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2018.
10. N. Dokkham, **C. So-In**, S. Arch-Int, and R. Chinnapatjeeras, "A Performance Comparison of Sale Prediction for Real Estate Using Data Mining Techniques: A Case Study of ISAAN PIMAN GROUP. Co., Ltd.," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2018.
11. C. Sarawong, S. Somabu, P. Imtongkhum, C. Pimson, and **C. So-In**, "Notification, Validation, and Identification Systems of Lost Dog," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2018.
12. S. Sammathaniran, T. Sermsirikanjana, P. Aimthongkham, and **C. So-In**, "Intellectual Disability Management System in School," in *Proceedings of National Conference on Information Technology (NCIT)*, November 2017.
13. J. Gunteemoon, S. Mongkhonrat, P. Imtongkhum, and **C. So-In**, "Asean alphabet handwriting application on mobile device," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2017.
14. C. Punjunsing, P. Apisuwan, and **C. So-In**, "Alzheimer aiding application on early stage on mobile device," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2017.
15. K. Khotkaew, D. Suriyawong, P. Imtongkhum, and **C. So-In**, "Audio book management application for the blind on mobile device," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2017.
16. K. Khruewan, M. Wattana, **C. So-In**, and N. Benjamas, "Factor Analysis of Chronic Kidney Disease for Diabetics Using Data Mining Techniques," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2017.
17. C. Tawornrach, S. Saiyod, N. Arch-Int, **C. So-In**, and A. Chanlun, "Estrus Prediction in Dairy Cows using Fuzzy Logic," in *Proceedings of National Conference on Computer and Information Technology (NCCIT)*, July 2017.
18. **C. So-In**, S. Sanguanpong, and Y. Poworawan, "Traffic Analysis for a Web Cache Server," in *Proceedings of National Computer Science and Engineering Conference (NCSEC)*, pp. 139-148, November 2001.
19. **C. So-In** and S. Sanguanpong, "Building and Performance Evaluation of a Linux Firewall," in *Proceedings of Electrical Engineering Conference (EECON)*, pp. 1-4, December 1999.

Book / Chapter

International Book / Chapter

1. T. Senjyu, **C. So-In**, and A. Joshi (Eds), "Smart Trends in Computing and Communications," in *Proceedings of SmartCom 2023*, Springer, eBook 978-981-99-0769-4/ 978-981-99-0838-7, 842/ 867 pp., June 2023.
2. **C. So-In**, N. D. Londhe, N. Bhatt, and M. Kitsing (Eds), "Information Systems for Intelligent Systems," in *Proceedings of ISMS 2023*, Springer, eBook 978-981-99-8612-5, 514 pp., March 2024.
3. Y. Zhang, T. Senjyu, **C. So-In**, and A. Joshi (Eds), "Smart Trends in Computing and Communications," in *Proceedings of SmartCom 2022*, Springer, eBook 978-981-16-9967-2, 799 pp., July 2022.
4. **C. So-In**, N. D. Londhe, N. Bhatt, and M. Kitsing (Eds), "Information Systems for Intelligent Systems," in *Proceedings of ISMS 2022*, Springer, eBook 978-981-19-7447-2, 669 pp., March 2023.
5. Y. Zhang, T. Senjyu, **C. So-In**, and A. Joshi (Eds), "Smart Trends in Computing and Communications," in *Proceedings of SmartCom 2021*, Springer, eBook 978-981-16-4016-2, 762 pp., October 2021.
6. Y. Zhang, J. K. Mandal, **C. So-In**, and N. V. Thaku (Eds), "Smart Trends in Computing and Communications," in *Proceedings of SmartCom 2020*, Springer, eBook 978-981-150-076-3, 509 pp., July 2020.

7. **C. So-In**, R. Jain, and A. Al-Tamimi, "Resource Allocation in IEEE 802.16e Mobile WiMAX," *Orthogonal Frequency Division Multiple Access Fundamentals and Applications*, Editors: Tao Jiang; Lingyang Song; Yan Zhang, CRC Press, 978-142-008-824-3, 608 pp., April 2010.
8. **C. So-In**, "Resource Allocation and Management in Computer Networks," *LAP LAMBERT Academic Publishing*, 978-384-432-608-6, 212 pp, September 2011.

National Book / Chapter

9. **C. So-In**, et al., "Mobile and Wireless Networks Lab with IoT (Complete)," 978-616-487-091-8, *Infopress (IDC Premiere)*, 600 pp., May 2020.
10. **C. So-In**, "Computer Networks," 978-616-438-251-0, *Computer Science Division, Faculty of Science, Khon Kaen University*, 318 pp., May 2018.
11. **C. So-In**, P. Aimtongkham, and C. Phaudphut, "Computer Network Lab 2nd edition for Professional," 978-616-200-743-9, *Infopress (IDC Premiere)*, 448 pp., May 2017.
12. **C. So-In**, C. Thammasakorn, W. Poosomsai, N. Sangkla, C. Phudphut, and P. Aimtongkham, "Android Programming: CAI version," 978-616-204-598-1, *Provision (Se-ed)*, 552 pp., September 2016.
13. **C. So-In**, P. Aimtongkham, C. Phaudphut, C. Poonriboon, and S. Poolsanguan, "Network Security Lab (Thai Edition)," 978-616-200-686-9, *Infopress (IDC Premiere)*, 440 pp., June 2016.
14. **C. So-In**, P. Aimtongkham, and C. Phaudphut, "Computer Network Lab," 978-616-200-580, *Infopress (IDC Premiere)*, 512 pp., May 2015.
15. **C. So-In**, P. Janyoi, and N. Weeramongkonlert, "Android APP Professional Development," 978-616-200-320-2, *Infopress (IDC Premiere)*, 352 pp., November 2012.
16. **C. So-In**, P. Janyoi, and N. Weeramongkonlert, "Android APP Development (Complete)," 978-616-200-302-8, *Infopress (IDC Premiere)*, 360 pp., September 2012.
17. **C. So-In**, K. Wijitsopon, N. Weeramongkonlert, and S. Poolsanguan, "Window Phone APP Development for Beginner," 978-616-204-157-0, *Provision (Se-Ed)*, 232 pp., June 2012.; For KKU Class = "Basic Window Phone 7 Programming (Thai Edition)," 2011.
18. **C. So-In** and P. Janyoi, "Advance Android Programming," 978-616-223-146-9, *KKU Book Center*, 182 pp., April 2012; For KKU Class = "Advanced Android Programming: Learn by Example (Thai Edition)," 2011.
19. **C. So-In** and P. Janyoi, "Basic Android APP Development," 978-616-200-151-2, *Infopress (IDC Premier)*, 262 pp., August 2011.
20. **C. So-In** and U. Kanyasiri, Eds., "Setting up a Linux Internet Server," 974-534-073-1, *Se-Ed*, 2000.
21. **C. So-In**, "Network Fundamentals," 978-616-223-323-4, *KKU Book Center*, 250 pp., 2012-2013.
22. **C. So-In**, "Computer and Network Security," 978-616-223-280-0, *KKU Book Center*, 244 pp., 2011-2013.
23. **C. So-In**, "Computer Networks," 978-616-223-272-5, *KKU Book Center*, 218 pp., 2011-2013.
24. **C. So-In**, "Mobile and Wireless Networking Technology," 978-616-223-322-7, *KKU Book Center*, 214 pp., 2011-2013.

Technical Report

1. S. Paul, R. Jain, J. Pan, and **C. So-In**, "Multi-Tier Diversified Service Architecture for Internet 3.0: The Next Generation Internet," *WUSTL CSE Technical Report*, WUCSE-2010-31, June 23, 2010.
2. **C. So-In**, "Loss Synchronization of TCP Connections at a Shared Bottleneck Link," *WUSTL Technical Report*, 2006.

Technical Contribution

1. **C. So-In**, R. Jain*, and A. Al-Tamimi, "Scheduling in WiMAX: Baseline Multi-class Simulations," *WiMAX Forum Application Working Group meeting*, Washington DC, November 19-20, 2007.
2. A. Al-Tamimi, R. Jain*, and **C. So-In**, "Mobile TV Workload Characterization," *WiMAX Forum Application Working Group meeting*, Washington DC, November 19-20, 2007.
3. **C. So-In**, R. Jain*, and J. Jiang, "Enhanced Forward Explicit Congestion Notification for Data Center Ethernet Networks," *Contribution to IEEE 802.1au Interim meeting*, Geneva, May 30, 2007.
4. J. Jiang, R. Jain*, and **C. So-In**, "Forward Explicit Congestion Notification (FECN) for Data Center Networks," *IEEE 802.1au Congestion Notification Group Meeting*, Orlando, FL, March 12-15, 2007.
5. **C. So-In**, "A Survey of Network Traffic Monitoring and Analysis Tools," 2006.

6. **C. So-In**, "Mobile IP Survey," WUSTL, 2006.
7. **C. So-In**, "A Survey of Proxy Caching Mechanisms for Multimedia Data Streams," WUSTL, 2005.
8. **C. So-In**, "Understanding JPEG and Applications," WUSTL, 2004.

Petty Patent

1. **Panupong Chaisorn et al.**, Smart Cricket Farm (Automatic and Wireless Remote Monitoring and Control), 2003002224 (22872), 5 February 2563 (4 December 2566)
2. **Supawit Kongkum et al.**, Portable PM-2.5 Measurement Device, 2103003736 (22441), 4 February 2564 (12 September 2566)
3. **Jundee Sriburin et al.**, Greenhouse (Condo Strawberry), 2203000234 (20631), 5 February 2564 (20 December 2565)
4. **Kritaya Intpan et al.**, Dog Cage, 2003001941 (20636), 5 February 2563 (20 December 2565)
5. **Papada Pimpantakul et al.**, Automatic Food Mixer Machine (Pig), Thailand, 2003001778 (19250), 5 February 2563 (28 January 2565)
6. **Jiraporn Anekwaing et al.**, Automatic Portable Milling Machine, Thailand, 1803002544 (15288), 9 February 2561 (11 June 2562)
7. **Chananya Tabtamai et al.**, Moth Extractor, Thailand, 1803002401 (15506), 9 February 2561 (11 June 2562)

RESEARCH GRANT

Work in Progress

1. **Grant from Fundamental Fund National Research Council of Thailand (NRCT) 2022-2023.**
2. **Grant from Research Industry 2021-2023.**
= "Throughput Optimization for NOMA Energy Harvesting Cognitive Radio with Multi-UAV-Assisted Relaying under Security Constraints," *IEEE Transactions on Cognitive Communications and Networking*, November 2022. (IF=6.359)

Completed Research Project

3. **Grant from Research and Diagnostic Center for Emerging Infectious Diseases (RCEID), Khon Kaen University (2021-2023)**
= "A Hybrid LSTM and MLP Scheme for COVID-19 prediction: A case study in Thailand," *Trends in Sciences*, April 2023. (Scopus)
= "Development of an Internet-of-Healthcare System Using Blockchain," *IEEE Access*, vol. 9, pp. 113017-113031, 2021. (SCI-E/ISI) (IF=3.367)
4. **Grant from The Thailand Research Fund (International Research Network - IRN) (2018-2021/2022) (23 Journals + 6 Proceedings)**
= "Outage Probability Minimization in Secure NOMA Cognitive Radio Systems with UAV Relay: A Machine Learning Approach," *IEEE Transactions on Cognitive Communications and Networking*, November 2022. (IF=6.359)
= "An Enhanced Deep Learning Neural Network for the Detection and Identification of Android Malware," *IEEE Internet of Things*, July 2022. (IF=10.238)
= "Multimodal Fusion of Deeply Inferred Point Clouds for 3D Scene Reconstruction using Cross-Entropy ICP," *IEEE Access*, July 2022. (IF=3.476)
= "An enhanced fuzzy-based clustering protocol with an improved shuffled frog leaping algorithm for WSNs," *Expert Syst. With Appl. (ESWA)*, February 2022. (IF=6.954)
= "Performance Analysis and Optimization for IoT Mobile Edge Computing Networks with RF Energy Harvesting and UAV Relaying," *IEEE Access*, January 2022. (IF=3.745)
= "An Enhanced Obstacle-Aware Deployment Scheme with an Opposition-based Competitive Swarm Optimizer for Mobile WSNs," *Expert Syst. with Appl. (ESWA)*, October 2021. (IF=6.954)
= "Federated Deep Reinforcement Learning for Traffic Monitoring in SDN-Based IoT Networks," *IEEE Trans. on Cognitive Commun. and Netw.*, Aug. 2021. (IF=4.341)
= "Development of an Internet-of-Healthcare System Using Blockchain," *IEEE Access*, vol. 9, pp. 113017-113031, 2021. (IF=3.745)

- = "Fuzzy Logic-Based Path Planning for Data Gathering Mobile Sinks in WSNs," *IEEE Access*, vol. 9, pp. 96002-96020, 2021. (IF=3.745)
 - = "On the System Performance of Mobile Edge Computing in an Uplink NOMA WSN with a Multiantenna Access Point over Nakagami-m Fading," *IEEE/CAA J. of Automatica Sinica (JAS)*, June 2021. (IF=5.129)
 - = "Enhanced Intrusion Detection System for an EH IoT Architecture using a Cooperative UAV Relay and Friendly UAV Jammer," *IEEE/CAA J. of Automatica Sinica (JAS)*, May 2021. (IF=5.129)
 - = "An enhanced CoAP scheme using fuzzy logic with adaptive timeout for IoT congestion control," *IEEE Access*, vol. 9, pp. 58967-58981, 2021. (IF=3.745)
 - = "Improved Distance Estimation with Node Selection Localization and Particle Swarm Optimization for Obstacle-Aware Wireless Sensor Networks," *Expert Syst. with Appl. (ESWA)*, vol. 175, 2021, 114773. (IF=5.452)
 - = "Multistage Fuzzy Logic Congestion Aware Routing with Dual-Stage Notification and Relative Barring Distance in Wireless Sensor Networks," *Wirel. Netw. (WN)*, vol. 27, no. 1, pp. 1287-1308, 2021. (IF=2.659)
 - = "System Performance Analysis for an Energy Harvesting IoT System using a DF/AF UAV-enabled Relay with Downlink NOMA under Nakagami-m Fading," *Sensors*, vol. 21, no. 1, 285, 2021. (IF=3.275)
 - = "An Efficient Distributed Algorithm for Target-Coverage Preservation in Wireless Sensor Networks," *Peer to Peer Netw. and Appl. (PPNA)*, vol. 14, no. 1, pp. 453-466, 2021. (IF=2.793)
 - = "An Energy-efficient Fuzzy-based Scheme for Unequal Multihop Clustering in Wireless Sensor Networks," *J. of Ambient Intell. and Humanized Comput. (JAIHC)*, vol. 12, no. 1, pp. 873-895, 2021. (IF=4.594)
 - = "A Hybrid Localization Model using Node Segmentation and Improved Particle Swarm Optimization with Obstacle-awareness for Wireless Sensor Networks," *Expert Syst. with Appl. (ESWA)*, vol. 143, April 2020. (IF=5.452)
 - = "On Communication Performance in Energy Harvesting WSNs Under a Cooperative Jamming Attack," *IEEE Syst. J.*, vol. 14, no. 4, pp. 4955-4966, 2020. (IF=3.987)
 - = "Averaged Dependence Estimators for DoS Attack Detection in IoT Networks," *Future Generation Comput. Syst. (FGCS)*, vol. 102, pp. 198-209, 2020. (IF=6.125)
 - = "Optimal System Performance in Multihop Energy Harvesting WSNs using Cooperative NOMA and Friendly Jammers," *IEEE Access*, vol. 7, no. 1, pp. 125494-125510, 2019. (IF=4.098)
 - = "On Secure Wireless Sensor Networks with Cooperative Energy Harvesting Relaying" *IEEE Access*, vol. 7, no. 1, pp. 139212-139225, 2019. (IF=4.098)
 - = "SeArch: A Collaborative and Intelligent NIDS Architecture for SDN-based Cloud IoT Networks" *IEEE Access*, vol. 7, no. 1, pp. 107678-107694, 2019. (IF=4.098)
 - = "On Secrecy Analysis of UAV-enabled Relaying NOMA Systems with RF Energy Harvesting," *INISCOM*, December 2021.
 - = "A Heuristic-Based Efficient Path Planning Scheme for Data Gathering WSNs Using Mobile Sinks," *ICSEC*, Aug. 2021.
 - = "Efficient SDN-based Traffic Monitoring in IoT Networks with Double Deep Q-Network," *Lecture Notes in Comput. Sci. (CSoNet)*, vol. 12575, pp 26-38, 2021.
 - = "Accelerating Low-Cost Edge-Based Real-Time Video Analytics Using Task Scheduling," *WF-IoT*, pp. 598-603, April 2021.
 - = "Performance Analysis in UAV-enabled Relay with NOMA under Nakagami-m Fading Considering Adaptive Power Splitting," *JCSSE*, pp. 1-6, May 2021.
 - = "Physical Layer Security in Cognitive Radio Networks for IoT Using UAV With Reconfigurable Intelligent Surfaces," *JCSSE*, pp. 1-5, May 2021.
5. **Grant from KKU Scholarship for ASEAN and GMS Countries' Personnel, Khon Kaen University + Interdisciplinary Grant (CSKKU2559) from the Department of Computer Science, Khon Kaen University 2016-2023.**
- = "A Novel Video-on-Demand Caching Scheme using Hybrid Fuzzy Logic Least Frequency and Recently Used with Support Vector Machine," *J. of Wirel. Mobile Netw.s, Ubiquitous Comput., and Dependable Appl. (JoWUA)*

- = "A Novel Video-on-Demand Caching Scheme using Hybrid Fuzzy Logic Least Frequency and Recently Used with Support Vector Machine," *J. of Wirel. Mobile Netw.s, Ubiquitous Comput., and Dependable Appl. (JoWUA)*, vol. 14, no. 1, pp. 15-36, March 2023.
- = "Fuzzy Adaptive-Sampling Block Compressed Sensing for Wireless Multimedia Sensor Networks," *Sensors*, October 2020. (IF=3.275)
- = "Distributed Image Compression Architecture over Wireless Multimedia Sensor Networks," *Wirel. Commun. and Mobile Comput. (WCMC)*, vol. 2017, 21 pp., 2017. (IF=1.899)
- 6. **Grant from The Thailand Research Fund + Thai Network Information Center Foundation (2018-2021)**
 - = "Performance Analysis of an Energy-Harvesting IoT System Using a UAV Friendly Jammer and NOMA under Cooperative Attack," *IEEE Access*, vol. 8, pp. 221986-222000, 2020. (IF=3.745)
 - = "Secrecy Performance in the Internet of Things: Optimal Energy Harvesting Time Under Constraints of Sensors and Eavesdroppers," *Mobile Netw. and Appli. (MONET)*, vol. 25, pp. 193-210, 2020. (IF=2.602)
 - = "Secrecy Performance Analysis for Fixed Gain Energy Harvesting in Internet of Things with Untrusted Relays," *IEEE Access*, vol. 6, pp. 48247-48258, 2018. (IF=3.557)
 - = "On Security and Throughput for Energy Harvesting Untrusted Relays in IoT Systems using NOMA," *IEEE Access*, vol. 7, no. 1, pp. 149341-149354, 2019 (IF=4.098)
- 7. **Grant from Postdoctoral Research (Khon Kaen University) (2017-2020)**
 - = "An Efficient Distributed Algorithm for Target-Coverage Preservation in Wireless Sensor Networks," *Peer to Peer Netw. and Appl. (PPNA)*, vol. 14, no. 1, pp. 453-466, 2021. (IF=2.793)
 - = "Distributed Deployment Algorithm for Barrier Coverage in Mobile Sensor Networks," *IEEE Access*, vol. 6, pp. 21042-21052, 2018. (IF=3.244)
- 8. **Grant from TRF senior research scholar (TRF) under Chulalongkorn University Network (2018-2021)**
 - = "Fuzzy Adaptive-Sampling Block Compressed Sensing for Wireless Multimedia Sensor Networks," *Sensors*, October 2020. (IF=3.275)
 - = "Fuzzy Logic Rate Adjustment Controls Using a Circuit Breaker for Persistent Congestion in Wireless Sensor Networks," *Wirel. Netw. (WN)*, vol. 26, pp. 3603-3627, 2020. (IF=2.405)
 - = "Congestion Control and Prediction Schemes using Fuzzy Logic System with Adaptive Membership Function in Wireless Sensor Networks," *Wirel. Commun. and Mobile Comput. (WCMC)*, vol. 2018, 19 pp., 2018. (IF=1.899)
- 9. **Grant from Ph.D. RGJ-TRF (Research) (2016-2019)**
 - = "A Hybrid Localization Model using Node Segmentation and Improved Particle Swarm Optimization with Obstacle-awareness for Wireless Sensor Networks," *Expert Syst. with Appl. (ESWA)*, vol. 143, 2020. (IF=5.452)
 - = "Fuzzy Weighted Centroid Localization with Virtual Node Approximation in Wireless Sensor Networks," *IEEE Internet of Things (IEEE IoT)*, vol. 5, no. 6, pp. 4728-4752, 2018. (IF=7.596)
 - = "Optimized Hop Angle Relativity for DV-Hop Localization in Wireless Sensor Networks," *IEEE Access*, vol. 6, pp. 78149-78172, 2018. (IF=3.557)
 - = "An Enhanced Wireless Sensor Network Localization Scheme for Radio Irregularity Models using Hybrid Fuzzy Deep Extreme Learning Machines," *Wirel. Netw. (WN)*, vol. 24, no. 3, pp. 799-819, 2018. (IF=1.584)
- 10. **Grant from Research Industry (2017-2020)**
 - = "Averaged Dependence Estimators for DoS Attack Detection in IoT Networks," *Future Generation Comput. Syst. (FGCS)*, vol. 102, pp. 198-209, 2020. (IF=6.125)
 - = "On Secure Wireless Sensor Networks with Cooperative Energy Harvesting Relaying" *IEEE Access*, vol. 7, no. 1, pp. 139212-139225, 2019. (IF=4.098)
 - = "SeArch: A Collaborative and Intelligent NIDS Architecture for SDN-based Cloud IoT Networks," *IEEE Access*, vol. 7, no. 1, pp. 107678-107694, 2019. (IF=4.098)
 - = "Performance Analysis of DF/AF Cooperative MISO Wireless Sensor Networks with NOMA and SWIPT over Nakagami-m Fading," *IEEE Access*, vol. 6, pp. 56142-56161, 2018. (IF=3.557)
 - = "Secrecy Outage Performance Analysis for Energy Harvesting Sensor Networks with a Jammer Using Relay Selection Strategy," *IEEE Access*, vol. 6, pp. 23406-23419, 2018. (IF=3.244)

11. **Grant from KKU Scholarship for ASEAN and GMS Countries' Personnel, Khon Kaen University + Interdisciplinary Grant (CSKKU2560) from the Department of Computer Science, Khon Kaen University (2017-2020)**
 = "Outage Performance Analysis of Energy Harvesting Wireless Sensor Networks for NOMA Transmissions," *Mobile Netw. and Appli. (MONET)*, vol. 25, pp. 23-41, 2020. (IF=2.602)
 = "Optimal System Performance in Multihop Energy Harvesting WSNs using Cooperative NOMA and Friendly Jammers," *IEEE Access*, vol. 7, no. 1, pp. 125494-125510, 2019. (IF=4.098)
 = "Secrecy Performance Analysis of Energy Harvesting Wireless Sensor Networks with a Friendly Jammer," *IEEE Access*, pp. 23406-23419, 2018. (IF=3.557)
12. **Grant from NSTDA (Research Beginner) (2017-2018)**
 = "Federated Deep Reinforcement Learning for Traffic Monitoring in SDN-Based IoT Networks," *IEEE Trans. on Cognitive Commun. and Netw.*, Aug. 2021. (IF=4.341)
 = "An Energy-efficient Fuzzy-based Scheme for Unequal Multihop Clustering in Wireless Sensor Networks," *J. of Ambient Intell. and Humanized Comput. (JAIHC)*, vol. 12, no. 1, pp. 873-895, 2021. (IF=4.594)
13. **Grant from KKU Scholarship for ASEAN and GMS Countries' Personnel, Khon Kaen University + Interdisciplinary Grant (CSKKU2556) from the Department of Computer Science, Khon Kaen University (2014-2017)**
 = "A Novel Energy-Efficient Clustering Protocol with Area Coverage Awareness for Wireless Sensor Networks," *Peer to Peer Netw. and Appl. (PPNA)*, vol. 10, no. 3, pp 519-536, 2017. (IF=1.262)
 = "Barrier Coverage Deployment Algorithms for Mobile Sensor Networks," *J. of Int. Techno. (JIT)*, vol. 18, no.7, pp. 1689-1699, 2017. (IF=1.930)
 = "An Energy-Efficient Point Coverage-Aware Clustering Protocol in Wireless Sensor Networks," *Int. J. of Ad Hoc and Ubiquitous Comput. (IAHUC)*, vol. 28, no.3, pp. 148-167, 2018. (IF=0.554)
 = "Maximum Barrier Coverage Deployment Algorithms in Wireless Sensor Networks," *JCSSE*, July 2016.
 = "Radio Irregularity Obstacles-Aware Models for Wireless Sensor Networks," *J. of Telecommun., Elec. and Comput. Engr. (JTEC)*, vol. 8, no. 3, pp. 121-126, 2016.
14. **Grant from Faculty of Science (Research Cluster), Khon Kaen University (2016-2017)**
 = "An efficient coverage hole-healing algorithm for area-coverage improvements in mobile sensor networks," *Peer to Peer Netw. and Appl. (PPNA)*, vol. 12, no. 3, pp 541-552, 2019. (IF=2.397)
15. **Grant from Science@KKU Scholarship, Khon Kaen University (2015-2017)**
 = "A Novel Web Caching Scheme using Hybrid Least Frequently Used and Support Vector Machine," *JCSSE*, July 2016.
 = "A Two-Level Intelligent Web Caching Scheme with Hybrid Extreme Learning Machine and Least Frequently Used," *J. of Int. Techno. (JIT)*, vol. 19, no. 6, pp. 725-740, 2018. (IF=1.930)
16. **Interdisciplinary Grant (CSKKU2557) from the Department of Computer Science, Khon Kaen University (2014-2016)**
 = "A Hybrid Model using Fuzzy Logic and an Extreme Learning Machine with Vector Particle Swarm Optimization for Wireless Sensor Network Localization," *Applied Soft Comput. (ASOC)*, vol. 65, no. 4, pp. 101-120, 2018. (IF=3.541)
 = "Adaptive Membership Selection Criteria Using Genetic Algorithms for Fuzzy Centroid Localizations in Wireless Sensor Networks," *J. of Telecommun., Elec. and Comput. Engr. (JTEC)*, vol. 8, no. 6, pp. 113-118, 2016.
 = "Fuzzy Centroid Localization Schemes for Unbalanced Deployments of Wireless Sensor Networks," *J. of Telecommun., Elec. and Comput. Engr. (JTEC)*, vol. 8, no. 6, pp. 55-59, 2016.
17. **Grant (CSKKU2556#7) from the Department of Computer Science, Khon Kaen University (2013-2014)**
 = "wPFP-PCA: Weighted Parallel Fixed Point PCA Face Recognition," *Int. Arab J. of Infor. Technol. (IAJIT)*, January 2016. (IF=0.582)
18. **Interdisciplinary Grant (CSKKU2556) from the Department of Computer Science, Khon Kaen University (2013-2018)**
 = "An Enhanced Cluster Head Selection Criterion of LEACH in Wireless Sensor Networks," *JCSSE*, pp. 1-7, July 2016.

- = "Energy Transfer Optimizations with Mobile Charger in Wireless Sensor Networks," *AVAREIT*, pp. 59-64, January 2018.
19. **Grant from Ph.D. RRFMAG (Research Co-Industry) (2013-2016) (No Applicant)**
 20. **Grant from Graduate Study, Khon Kaen University (2013-2018)**
 = "A Parallel Probabilistic Neural Network ECG Recognition Architecture over GPU Platforms," *JCSSE*, pp. 1-7, July 2016.
 = "An ECG Recognition Scheme Using Deep Neural Networks," *AVAREIT*, pp. 65-71, January 2018.
 21. **Grant from TRFMAG (Research Co-Industry) (2012-2013)**
 = "A Bio-Inspired Capacitated Vehicle-Routing Problem Scheme Using Artificial Bee Colony with Crossover Optimizations," *J. of Int. Services and Infor. Sec. (JISIS)*, vol. 9, no. 3, pp. 21-40, Aug. 2019.
 = "An Optimized Genetic Routing Approach for Constrained Shortest Path Selections," *DICTAP*, May 2014.
 22. **Grant from Khon Kaen University (Research Incubation) (2012-2015)**
 = "MAP: An Optimized Energy-Efficient Cluster Header Selection Technique for Wireless Sensor Networks," *CSA*, December 2013.
 = "Android OS Mobile Monitoring Systems Using an Efficient Transmission Technique Over Tmote Sky WSNs," *CSNDSP*, July 2012.
 = "Soft Computing-Based Localizations in Wireless Sensor Networks," *Pervasive and Mobile Comput. (PMC)*, vol. 29, pp. 17-37, 2016. (IF=2.079)
 23. **Grant from Khon Kaen University via NRCT: Office of the National Research Council of Thailand (2012-2014)**
 = "A Hybrid Mobile Environmental and Population Density Management System for Smart Poultry Farms," *Comput. and Elec. in Agriculture (COMPAG)*, November 2014. (IF=1.486)
 = "Smart Mobile Poultry Farming Systems in Tmote Sky WSNs," *Int. J. of Digital Content Technol. and its Appli. (IJDCTA)*, May 2013.
 24. **Grant from Research and Academic Affairs Promotion Fund (Research Intermediate), Faculty of Science, Khon Kaen University, Fiscal year (RAAPF) (2012-2013)**
 = "Performance Evaluation of LEACH on Cluster Head Selection Techniques in Wireless Sensor Networks," *IC2IT*, May 2013.
 25. **Grant (CSKKU2555#3) from the Department of Computer Science, Khon Kaen University (2012-2013)**
 = "Mobile Animal Tracking Systems Using Light Sensor for Efficient Power and Cost Saving Motion Detection," *CSNDSP* July 2012.
 26. **Grant (KKU/2554#XX) from the new-Ph.D. fund (Research Beginner); Khon Kaen University (2011-2012)**
 = "A New Mobile Phone System Architecture for Navigational Travelling Blind" *JCSSE* May 2012.
 27. **Grant (CSKKU12/2554#8) from the Department of Computer Science, Khon Kaen University (2011-2012)**
 = "Web-based Automatic Network Discovery/Map Systems," *ICCAIE* December 2011.
 28. **Grant from Research and Academic Affairs Promotion Fund (Research Beginner), Faculty of Science, Khon Kaen University, Fiscal year (RAAPF) (2011-2012)**
 = "Ubiquitous Bus Mapping System on Mobile Phone Via Web Architecture," *ICCAIE* December 2011.

STUDENT / ALUMNI

Current Student

Post-Doctoral Scholar

Ph.D. Candidate

1. **Zsou Sun (Ph.D.):** IoT: Tiny Machine Learning (2023/1-Present);

- Co-Adviser:** Dr. Yanika Kongsorot + Dr. Phet Imtongkhum @KKU.AC.TH
2. **Joydev Ghosh (Ph.D.):** VANET and IoT: Architecture Optimization (2022/2-Present)
= "Reliable data transmission for a VANET-IoT architecture: A DNN approach," *Internet of Things (Netherlands)*, February 2024.
= "A Novel Transceiver and an Asynchronous Mode for the Hybrid Multiple-Access HetNet Architecture," *IEEE Access*, November 2023.
 3. **Chatchai Poonriboon (Ph.D.):** Wireless Sensor Networks: Routing and Planning (2019/1-Present); **Co-Adviser:** Dr. Nutthanon Leelathakul @BUU.AC.TH
= "Fuzzy Logic-Based Path Planning for Data Gathering Mobile Sinks in WSNs," *IEEE Access*, June 2021.
= "A Heuristic-Based Efficient Path Planning Scheme for Data Gathering WSNs Using Mobile Sinks," *ICSEC*, Aug. 2021.
 4. **Chinapat Sakunrasrisuay (Ph.D.):** Internet of Things: Smart Farm - Automation and Recognition (2020/1-Present); **Co-Adviser:** Dr. Pakarat Musikawan @KKU.AC.TH
= "Tomato Maturity Classification: A Transfer Learning Approach," *ICSEC*, November 2021.

Master Thesis

5. **Titaya Sriwuttisap (MSc.):** Wireless Sensor Networks/ Internet of Things: Security (2020/1-Present)

Undergrad Student

6. **Rommanee Thumsit and Apipath Kamput:** Wash Car (IoT)
7. **Pongsakorn Kamprom and Nakarin Praipaisan:** Pollen Cannabis Scope (IoT)
8. **Pawina Chapanya and Chartaporn Jullasri:** Phishing Detection
9. **Pongsatorn Rajchaplan and Theerasak Duangdaopharam:** Ransomware Detection using ML
10. **Weerachit Chaiwongkhom and Kanokpron Rodsomjit:** Cannabis Indoor
11. **Chidchanok Prayoonchan and Sudarat Amod:** Sewage Treatment Vessel (IoT)
12. **Seksan Phonwiset and Nattharida Rasri:** DDoS Attack Testbed

Alumni

Post-Doctoral Scholar

2023

1. **Songyut Phoemphon:** Wireless Sensor Networks: WSN Localization (2020/1-2023/2)
= "Improved Distance Estimation with Node Selection Localization and Particle Swarm Optimization for Obstacle-Aware Wireless Sensor Networks," *Expert System With Application (ESWA)*, February 2021.
= "An enhanced node segmentation and distance estimation scheme with improved PSO for obstacle-aware wireless sensor network localization," *Journal of Network and Computer Applications (JNCA)*, November 2023.
2. **Yanika Kongsorot:** Wireless Sensor Networks: WSN Routing/ Security Analysis (2020/2-2023/1)
= "An Intrusion Detection and Identification System for Internet of Things Networks using a Hybrid Ensemble Deep Learning Framework," *IEEE Transactions on Sustainable Computing*, August 2023.
= "An enhanced fuzzy-based clustering protocol with an improved shuffled frog leaping algorithm for WSNs," *Expert Syst. With Appl. (ESWA)*, February 2022.

2022

3. **Vo Nhan Van:** Internet of Things: UAV-aware Energy Harvesting and Secrecy (2020/1-2022/2)
"Outage Probability Minimization in Secure NOMA Cognitive Radio Systems with UAV Relay: A Machine Learning Approach," *IEEE Transactions on Cognitive Communications and Networking*, November 2022.
= "Enhanced Intrusion Detection System for an EH IoT Architecture using a Cooperative UAV Relay and Friendly UAV Jammer," *IEEE/CAA Journal of Automatica Sinica (JAS)*, May 2021.

= "Physical Layer Security in Cognitive Radio Networks for IoT Using UAV With Reconfigurable Intelligent Surfaces," *JCSSE*, May 2021.

4. **Pakarat Musikawan:** Wireless Sensor Networks: WSN Coverage and Deployment (2020/2-2022/1)
= "An Enhanced Deep Learning Neural Network for the Detection and Identification of Android Malware," *IEEE Internet of Things*, July 2022.
= "An Enhanced Obstacle-Aware Deployment Scheme with an Opposition-based Competitive Swarm Optimizer for Mobile WSNs," *Expert System With Application (ESWA)*, vol. 189, 116035, March 2022.

2021

5. **Phet Imtongkhum:** Internet of Things: Congestion Control (2020/2-2021/1)
= "An enhanced CoAP scheme using fuzzy logic with adaptive timeout for IoT congestion control," *IEEE Access*, vol. 9, pp. 58967-58981, 2021.
= "Multistage Fuzzy Logic Congestion Aware Routing with Dual-Stage Notification and Relative Barring Distance in Wireless Sensor Networks," *Wirel. Netw. (WN)*, vol. 27, no. 1, pp. 1287-1308, 2021.

2020

6. **Tri Nguan Gia:** Wireless Sensor Networks: Coverage and Deployment (2017/2-2020/1)
= "An Efficient Distributed Algorithm for Target-Coverage Preservation in Wireless Sensor Networks," *Peer to Peer Netw. and Appl. (PPNA)*, vol. 14, no. 1, pp. 453-466, 2021.
= "Distributed Deployment Algorithm for Barrier Coverage in Mobile Sensor Networks," *IEEE Access*, vol. 6, pp. 21042-21052, 2018.

Research Intern

2020

7. **Van-Truong Truong (Duy Tan University, VN):** Wireless Sensor Networks: Performance Analysis of MEC with NOMA (Summer 2020)
= "On the System Performance of Mobile Edge Computing in an Uplink NOMA WSN with a Multiantenna Access Point over Nakagami-m Fading," *IEEE/CAA Journal of Automatica Sinica*, June 2021.

2018

8. **Duc-Dung Tran (Duy Tan University, VN):** Wireless Sensor Networks: Performance Analysis with NOMA and SWIPT (Summer 2018)
= "Performance Analysis of DF/AF Cooperative MISO Wireless Sensor Networks with NOMA and SWIPT over Nakagami-m Fading," *IEEE Access*, vol. 6, pp. 56142-56161, 2018.

Graduate Student

2024

1. **Co-Adviser:** Chenset Kim (MSc.): Internet of Things: Attacks (2021/1-2024/1);
Main-Adviser: Dr. Phet Imtongkhum @KKU.AC.TH
= "FLSec-RPL: A Fuzzy Logic-Based Intrusion Detection Scheme for Securing RPL-Based IoT Networks against DIO Neighbor Suppression Attacks," *Cybersecurity (Springer)*, February 2024.

2023

2. **Co-Adviser:** Sopha Khoeurt (MSc.): Internet of Things: Attacks (2021/1-2023/2);
Main-Adviser: Dr. Phet Imtongkhum @KKU.AC.TH
= "Multidirectional Trust-Based Security Mechanisms for Sinkhole Attack Detection in the RPL Routing Protocol for Internet of Things," *J. of Wirel. Mobile Netw.s, Ubiquitous Comput., and Dependable Appl. (JoWUA)*, September 2023.
3. **Sovannarith Heng (Ph.D.):** Wireless Sensor Networks: Multimedia Networking (2016/1-2023/1)
[Currently work as a lecturer at Royal University of Phnom Penh, Phnom Penh.](#)

- = "A Novel Video-on-Demand Caching Scheme using Hybrid Fuzzy Logic Least Frequency and Recently Used with Support Vector Machine," *J. of Wirel. Mobile Netw.s, Ubiquitous Comput., and Dependable Appl. (JoWUA)*, vol. 14, no. 1, pp. 15-36, March 2023.
- = "Fuzzy Adaptive-Sampling Block Compressed Sensing for Wireless Multimedia Sensor Networks," *Sensors*, vol. 20, no. 21, 6217, 2020.
- = "Distributed Image Compression Architecture over Wireless Multimedia Sensor Networks," *Wirel. Commun. and Mobile Comput. (WCMC)*, vol. 2017, 21 pp., 2017.

2022

4. **Nhat Nguyen Anh (Ph.D.):** Wireless Sensor Networks: Rechargeable and Charger (2018/2-2022/2); **Co-Adviser:** Dr. Ha Dac Binh @DUYTAN.EDU.VN
[Currently work as a lecturer at FPT University, Vietnam.](#)
 - = "Secrecy Performance Analysis and Optimization for UAV-Relay-Enabled WPT and Cooperative NOMA MEC in IoT Networks," *IEEE Access*, November, 2023.
 - = "Performance Analysis and Optimization for IoT Mobile Edge Computing Networks with RF Energy Harvesting and UAV Relaying," *IEEE Access*, January 2022.
 - = "System Performance Analysis for an Energy Harvesting IoT System using a DF/AF UAV-enabled Relay with Downlink NOMA under Nakagami-m Fading," *Sensors*, vol. 21, no. 1, 285, 2021.
 - = "On Secrecy Analysis of UAV-enabled Relaying NOMA Systems with RF Energy Harvesting," *INISCOM*, December 2021.
 - = "Performance Analysis in UAV-enabled Relay with NOMA under Nakagami-m Fading Considering Adaptive Power Splitting," *JCSSE*, May 2021.

2020

5. **Phet Imtongkhum (Ph.D.):** Wireless Sensor Networks: Transport-aware Networking (2017/1-2020/1)
[Currently work as a lecturer at Department of Computer Science, Khon Kaen University, Thailand.](#)
 - = "Fuzzy Logic Rate Adjustment Controls Using a Circuit Breaker for Persistent Congestion in Wireless Sensor Networks," *Wirel. Netw. (WN)*, vol. 26, pp. 3603-3627, 2020.
 - = "Congestion Control and Prediction Schemes using Fuzzy Logic System with Adaptive Membership Function in Wireless Sensor Networks," *Wirel. Commun. and Mobile Comput. (WCMC)*, vol. 2018, 19 pp., 2018.
6. **Rathawit Nuritanont (MS IS):** Emotional Recognition (2018/1-2020/1)
 - = "Emotional recognition systems with image processing and machine learning," in *Proc. of National Conf. on Comput. and Info. Technol. (NCCIT)*, May 2020.

2019

7. **Songyut Phoemphon (Ph.D.):** Wireless Sensor Networks: Localization (2016/1-2020/1)
[Currently work as a lecturer at Department of Information Technology, Suranaree University of Technology, Thailand.](#)
 - = "A Hybrid Localization Model using Node Segmentation and Improved Particle Swarm Optimization with Obstacle-awareness for Wireless Sensor Networks," *Expert Syst. with Appl.*, vol. 143, 2020.
 - = "Fuzzy Weighted Centroid Localization with Virtual Node Approximation in Wireless Sensor Networks," *IEEE IoT*, vol. 5, no. 6, pp. 4728-4752, 2018.
 - = "Optimized Hop Angle Relativity for DV-Hop Localization in Wireless Sensor Networks," *IEEE Access*, vol. 6, pp. 78149-78172, 2018.
 - = "An Enhanced Wireless Sensor Network Localization Scheme for Radio Irregularity Models using Hybrid Fuzzy Deep Extreme Learning Machines," *Wirel. Netw. (WN)*, vol. 24, no. 3, pp. 799-819, 2018.
8. **Vo Nhan Van (Ph.D.):** Wireless Sensor Networks: Energy Harvesting Networking (2017/1-2019/1)
[Currently work as a lecturer at Faculty of Information Technology, Duy Tan University, Vietnam.](#)
 - = "Optimal System Performance in Multihop Energy Harvesting WSNs using Cooperative NOMA and Friendly Jammers," *IEEE Access*, vol. 7, no. 1, pp. 125494-125510, 2019.
 - = "Outage Performance Analysis of Energy Harvesting Wireless Sensor Networks for NOMA Transmissions," *Mobile Netw. and Appl.*, August 2018. (DOI: 10.1007/s11036-018-1188-7)

= "Secrecy Performance Analysis of Energy Harvesting Wireless Sensor Networks with a Friendly Jammer," *IEEE Access*, vol. 5, pp. 25196-25206, 2017.

9. **Watit Khampromma:** Sentiment Analysis (2016/1-2018/2)
= "A Hybrid Sentiment Analysis Model for Thailand Hotel Review Using K-means and K-NN," in *Proceedings of National Conference on Informatics (NCIs)*, July 2019.

2018

10. **Comdet Phudput (MS Thesis):** Signal Processing and Recognition (2013/1-2017/2)
= "A Parallel Probabilistic Neural Network ECG Recognition Architecture over GPU Platforms," in *Proc. Int. Joint Conf. on Comput. Sci. and Soft. Engr. (JCSSE)*, pp. 1-7, July 2016.
= "An ECG Recognition Scheme Using Deep Neural Networks," *Lecture Notes on Advanced Research in Engineering and Information Technology II*, pp. 65-71, January 2018.
11. **Sarayut Poolsanguan (MS Thesis):** Wireless Sensor Networks: Harvesting (2013/1-2017/2)
= "An Enhanced Cluster Head Selection Criterion of LEACH in Wireless Sensor Networks," in *Proc. Int. Joint Conf. on Comput. Sci. and Soft. Engr. (JCSSE)*, pp. 1-7, July 2016.
= "Energy Transfer Optimizations with Mobile Charger in Wireless Sensor Networks," *Lecture Notes on Advanced Research in Engineering and Information Technology II*, pp. 59-64, January 2018.
12. **Narong Dokkham (MS IS):** Data Mining: Real Estate (2016/1-/2017/2)
= "A Performance Comparison of Sale Prediction for Real Estate Using Data Mining Techniques: A Case Study of ISAAN PIMAN GROUP. Co., Ltd.," in *Proc. of National Conf. on Comput. and Infor. Technol. (NCCIT)*, July 2018.
13. **Jatupol Jittiyapol (MS IS):** Data Mining: Healthcare (2016/1-/2017/2)
= "Risk Factor Analysis of Hypertension Disease for Diabetics Using Data Mining Techniques Case Study Srinagarind Hospital" in *Proc. of National Conf. on Comput. and Infor. Technol. (NCCIT)*, July 2018.

Year 2017

14. **Tri Gia Nguyen (Ph.D.):** Wireless Sensor Networks: Networking Coverage (2014-2016/2)
[Currently work as a lecturer at Department of Computer Science, FPT University Danang, Vietnam.](#)
= "A Novel Energy-Efficient Clustering Protocol with Area Coverage Awareness for Wireless Sensor Networks," *Peer to Peer Netw. and Appl. (PPNA 2017)*, vol. 10, no. 3, pp. 519-536, 2017.
= "Barrier Coverage Deployment Algorithms for Mobile Sensor Networks," *J. of Internet Technol. (JIT 2017)* (selected from JCSSE 2016), vol. 18, no.7, pp. 1689-1699, 2017.
= "An Energy-Efficient Point Coverage-Aware Clustering Protocol in Wireless Sensor Networks," *Int. J. of Ad Hoc and Ubiquitous Comput. (IAHUC 2016)*, vol. 28, no.3, pp. 148-167, 2018.
= "Maximum Barrier Coverage Deployment Algorithms in Wireless Sensor Networks," in *Proc. Int. Joint Conf. on Comput. Sci. and Soft. Engr. (JCSSE 2016)*, pp. 1-5, July 2016.
= "Radio Irregularity Obstacles-Aware Models for Wireless Sensor Networks," *J. of Telecommun., Elec. and Comput. Engr. (JTEC 2016)* (selected from ICOCOE 2015), vol. 8, no. 3, pp. 121-126, 2016.
15. **Kanokmon Rujirakul (Ph.D.):** Parallel and Distributed Systems: Parallel Face Recognition Systems (2011-2016/2)
[Currently work at The Department of Business Computer, Faculty of Management Science, Nakhon Ratchasima Rajabhat University, Thailand.](#)
= "Parallel Optimized Pearson Correlation Condition (PO-PCC) for Robust Cosmetic Makeup Facial Recognition," *Int. Arab J. of Info. Techno. (IAJIT 2019)*, vol. 16, no. 3, pp. 442-453, May 2019.
= "P-PCC: Parallel Pearson Correlation Condition for Robust Cosmetic Makeup Face Recognitions," *Lecture Notes in Electrical Engineering*, vol. 339, pp. 259-266, 2015.
= "Weighted Histogram Equalized PEM-PCA Face Recognition," in *Proc. Int. Comput. Sci. and Eng. Conf. (ICSEC 2014)*, pp. 144-150, July 2014.
= "PEM-PCA: A Parallel Expectation-Maximization PCA Face Recognition Architecture," *The Scientific World J.*, vol. 2014, 16 pp., 2014.
= "PFP-PCA: Parallel Fixed Point PCA Face Recognition," in *Proc. Int. Conf. on Intel. Syst., Modelling and Simul. (ISMS 2013)*, pp. 409-414, January 2013.

2016

16. **Phet Aimtongkham (MS Thesis):** Content Delivery Networks: Analysis (2013/2-2016/1)
[Currently study Ph.D. at Department of Computer Science, Khon Kaen University, Thailand.](#)
= "A Novel Web Caching Scheme using Hybrid Least Frequently Used and Support Vector Machine," in *Proc. Int. Joint Conf. on Comput. Sci. and Soft. Engr. (JCSSE 2016)*, pp. 1-6, July 2016.
= "A Two-Level Intelligent Web Caching Scheme with Hybrid Extreme Learning Machine and Least Frequently Used," *J. of Internet Technol. (JIT 2018)*, vol. 19, no. 3, pp. 725-740, 2018.
17. **Songyut Permpol (MS Thesis):** Wireless Sensor Networks: Localization (2014/1-2015/2)
[Currently study Ph.D. at Department of Computer Science, Khon Kaen University, Thailand.](#)
= "A Hybrid Model using Fuzzy Logic and an Extreme Learning Machine with Vector Particle Swarm Optimization for Wireless Sensor Network Localization," *Applied Soft Comput. (ASOC 2018)*, vol. 65, no. 4, pp. 101-120, 2018.
= "Adaptive Membership Selection Criteria Using Genetic Algorithms for Fuzzy Centroid Localizations in Wireless Sensor Networks," *J. of Telecommun., Elec. and Comput. Engr. (JTEC 2016) (selected from ICOCOE 2015)*, vol. 8, no. 6, pp. 113-118, 2016.
= "Fuzzy Centroid Localization Schemes for Unbalanced Deployments of Wireless Sensor Networks," *J. of Telecommun., Elec. and Comput. Engr. (JTEC 2016) (selected from ICOCOE 2015)*, vol. 8, no. 6, pp. 55-59, 2016.
18. **Chatchai Poonriboon (MS Thesis):** Routing Optimization: Logistic Planning (2013/1-2015/2)
[Currently study Ph.D. at Department of Computer Science, Khon Kaen University, Thailand.](#)
= "A Bio-Inspired Capacitated Vehicle-Routing Problem Scheme Using Artificial Bee Colony with Crossover Optimizations," *Journal of Internet Services and Information Security (JISIS)*, vol. 9, no. 3, pp. 21-40, August 2019.
= "An Optimized Genetic Routing Approach for Constrained Shortest Path Selections," in *Proc. Int. Conf. on Digital Info. and Commun. Technol. and its Appl. (DICTAP 2014)*, pp. 226-230, May 2014.

2014

19. **Weerat Katekaew (MS IS):** Wireless Sensor Networks: Locationing (2012/1-2014/1)
= "H-FCD: Hybrid Fuzzy Centroid and DV-Hop Localization Algorithm in Wireless Sensor Networks," in *Proc. Int. Conf. on Intel. Syst., Modelling and Simul. (ISMS 2014)*, pp. 551-555, January 2014.
20. **Kanokporn Udompongsuk (MS IS):** Wireless Sensor Networks: Network Clustering (2011/1-2013/2)
= "MAP: An Optimized Energy-Efficient Cluster Header Selection Technique for Wireless Sensor Networks," *Advances in Comput. Sci. and its Appl., Lecture Notes in Electrical Eng.*, vol. 279, pp 191-199, 2014.

2012

21. **Chinnakorn Nedpakdee (MS IS):** Computer Networks: Intelligent Network Management Systems (2010/1-2011/2)
[Currently work at The Department of Information Technology, Provincial Police Region 4, Thailand.](#)
= "Web-based Automatic Network Discovery/Map Systems," in *Proc. IEEE Int. Conf. on Comput. Appl. and Industrial Electronics (ICCAIE 2011)*, pp. 421-425, December 2011.

Undergrad Student

2023

1. **Sirawit Subin:** Nong Khai Aquarium Application
2. **Sarunwit Sannoy and Oraphan Upawong:** Smart Seeding Robot
3. **Rattanan Sriwaranan and Kringsit Sittipaparpond:** Social Listening with Intelligence
4. **Yosapatr Petchsuwan and Thanaphon Butma:** Network Monitoring System for Mobile Application
5. **Siwatee Manchawong:** Khon Kaen Treasury Museum Application

2022

6. **Dulayawat Phonpangkwa:** Automatic Fish Feeding Donation Boat via Chat Bot
7. **Poowanai Chakratok and Sittichai Vareepin:** Disinfection Robot with UV-C
8. **Panchama Kasiean and Watcharaporn Bualakorn:** Automatic Fish Feeding Boat
9. **Jakkarin Aisiri and Panuwat Tobtane:** TB Risk Assessment Systems
10. **Prapassorn Daothaisong and Namthip Yupanich:** Umbrella Sharing Box
11. **Pornthaval Pawaphuchakae and Jirapat Buarod:** Elderly Walker

2021

12. **Tanyada Leepongkul and Kritsadakorn Prayad:** Wheel Lock on Mobile Phone
= "Development of Cross Platform Wheel Lock Management System," in *Proc. of National Conf. on Comput. and Info. Technol. (NCCIT 2021)*, May 2021.
13. **Aphinya Artaksorn, Supisara Saijung, Neeranut Khunnasut:** Khon Kaen Zoo: App
= "Application Development of Khon Kaen Zoo with Augmented Reality Technology on the Android Operating System," in *Proc. of National Conf. on Comput. and Info. Technol. (NCCIT 2021)*, May 2021.
14. **Lukkana Phasuk and Taywin Promta:** Natural History Museum: App
= "Mobile Application Development of Natural History Museum Khon Kaen University with Augmented Reality Technology," in *Proc. of National Conf. on Comput. and Info. Technol. (NCCIT 2021)*, May 2021.
15. **Charoen Duangcharoen and Chawanton Veerajarnyaparn:** Vegetable Market on Mobile Phone
= "Fresh Market Management Platform through Mobile Application," in *Proc. of National Conf. on Comput. and Info. Technol. (NCCIT 2021)*, May 2021.
16. **Lalitta Sriphuttha and Warissara Nachai:** Automatic Boat for Garbage Collector
= Passing through the 1st round NSC 2021 competition
17. **Chaiyapot Asekjunsakul and Dollatham Kraianupongsa:** Robot Helper for Elderly
= Passing through the 1st round NSC 2021 competition
18. **Kithsada Lakhm and Thanapon Sankhua:** Can and Bottle Crasher
= Passing through the 2nd round NSC 2021 competition
19. **Supawit Kongkum and Pongsatorn Sasimma:** IoT (Pollution Measurement Handheld)
= Passing through the 1st round NSC 2021 competition
20. **Kanyarat Kamsang and Kunanon Koonhom:** Automatic Corn Dropping Machine
= Passing through the 1st round NSC 2021 competition
21. **Jannee Sriburin and Bongkodwan Ninphai:** IoT (Strawberry Condo)
= Passing through the 1st round NSC 2021 competition
22. **Junlanee Ratchasee and Kiattiphum Suk-amphaichit:** Bird Recognition
= Passing through the 1st round NSC 2021 competition

2020

23. **Nopphakon Khantiweerawat and Suparuttanatee Buapan:** IoT - Indoor Positioning System
"Indoor Positioning Systems using Bluetooth Signal Location Estimation," in *Proc. of National Conf. on Comput. and Info. Technol. (NCCIT 2020)*, May 2020.
24. **Patipan Sakunwirunwong and Kultara Boontawee:** IoT - Smart Plug (Lobby)
= Passing through the 2nd round NSC 2020 competition
25. **Panupong Chaisorn and Kunyart Phoorisri:** IoT - Smart Cricket Farm
= Passing through the 2nd round NSC 2020 competition
26. **Natthawut Muhuana and Netiphong Kanyala:** Flip- Running Game
27. **Pawarisa Khamsum and Krittaya Ainpaen:** IoT - Smart Cage (Dog)
= Passing through the 2nd round NSC 2020 competition
28. **Supanut Liemphitak and Siwakorn Anunaua:** IoT - Pig Farm Management
= "Pig Breeder Farming Management Systems," in *Proc. of National Conf. on Comput. and Info. Technol. (NCCIT 2020)*, May 2020.
29. **Nawakhun saensen and Nattagan Wariyan:** IoT - Smart Watering Boat
= Passing through the 2nd round NSC 2020 competition

30. **Rungfa kaewwongsha and Paphada Pimphankul:** IoT - Smart Pig Mixer
= Passing through the 2nd round NSC 2020 competition

2019

31. **Kritsanee Saefong and Jarucha Aossaponpantu:** IoT - Smart Pig Feeder
= Passing through the 1st round NSC 2019 competition
32. **Patnaree Sangcharee and Dittawat Kaewseehabut:** IoT - Smart Dog Utility
= Passing through the 1st round NSC 2019 competition
33. **Pornpan Sitthinan and Jirayu Pharang:** Dhammar in Mobile
= Passing through the 1st round NSC 2019 competition
34. **Parinya Preamthaisong and Anucha Auyorntrakool:** IDS in SDN
= "Enhanced DDoS Detection using Hybrid Genetic Algorithm and Decision Tree for SDN," in *Proc. Int. Joint Conf. on Comput. Sci. and Softw. Eng. (JCSSE 2019)*, pp. 152-157, June 2019.

2018

35. **Nuttapong Klaokliang and Padungpol Teawtim:** IoT - Authorization
= "A Novel IoT Authorization Architecture on Hyperledger Fabric with Optimal Consensus using Genetic Algorithm," in *Proc. Int. Student Proj. Conf. (ICT-ISPC 2018)*, pp. 1-5, July 2018. (**Best Paper Award**)
36. **Chatsakul Sombutpiboon and Nuttawut Krudminburee:** Estimated Pig Weighting System
= Passing through the 1st round NSC 2018 competition
37. **Jiraporn Anekwaing and Arisa Chasee:** IoT - Automatic Portable Milling Machine
= Passing through the 1st round NSC 2018 competition
38. **Chidchai Sarawong and Supitchaya Somabu:** Dog Recognition System
= Passing through the 1st round NSC 2018 competition
= "Notification, Validation, and Identification Systems of Lost Dog," in *Proc. National Conf. on Comput. and Info. Technol. (NCCIT 2018)*, July 2018.
39. **Yada Wisedpong and Chananya Tabtamai:** IoT - Moth Extractor
= Passing through the 1st round NSC 2018 competition
40. **Jureeporn Charin and Onanong Maneewong:** IoT - Corn Screening Machine
= Passing through the 1st round NSC 2018 competition
41. **Kattiya Sripundon, Teerapas Nilprapai, and Sataporn Donchum:** IoT - Internet of Chicken Farm
= Passing through the 1st round NSC 2018 competition

2017

42. **Jiruttigarn Gunteemoon and Supaluck Mongkhonrat:** Asian CAI
= Passing through the 1st round NSC 2017 competition
= "ASEAN alphabetic handwriting application on mobile device," in *Proc. National Conf. on Comput. and Info. Technol. (NCCIT 2017)*, July 2017.
43. **Chonnika Punjansing and Piyaporn Apisuwan:** Alzheimer Aid
= Passing through the 1st round NSC 2017 competition
= "Alzheimer aiding application in early stage on mobile device," in *Proc. National Conf. on Comput. and Info. Technol. (NCCIT 2017)*, July 2017.
44. **Donlaya Suriyawong and Kingkanjana Khotkaew:** Mobile KCU Daisy
= Passing through the final round NSC 2017 competition
= "Audio book management application for the blind on mobile device," in *Proc. National Conf. on Comput. and Info. Technol. (NCCIT 2017)*, July 2017.
45. **Chanon Julasilp and Nattakit Boonruang:** Automatic Feeding Machine (for Dog)
Honorable Mention Award for NSC 2017 competition (Internet of Thing)
46. **Thitaporn Sermsirikangana and Sompratthana Sammathanirun:** LD Aid
= Passing through the 1st round NSC 2017 competition
= "Intellectual Disability Management System in School," in *Proc. of National Conf. on Info. Technol. (NCIT 2017)*, November 2017.
47. **Oracha Sakuldumrongwi:** Autism Game
= Passing through the 1st round NSC 2017 competition

2016

48. **Warintorn Phusomsai:** Parallel Brain Tumor Recognition
= "Brain Tumor Cell Recognition Schemes using Image Processing with Parallel ELM Classifications on GPU," in *Proc. Int. Joint Conf. on Comput. Sci. and Soft. Engr. (JCSSE 2016)*, pp. 1-6, July 2016. (Best Paper Award)
49. **Siritorn Panjanand and Kanit Nontanawong:** Bike for Thailand Travel Games

2015

50. **Chudapa Thammasakorn:** Cancer Cell Recognition
= "Brain Cancer Cell Detection Optimization Schemes Using Image Processing and Soft-Computing," *Lecture Notes in Electrical Engineering*, vol. 362, pp. 171-182, 2016.
51. **Tataporn Rattanachai, Nutaphol sangkra, and Kritaya Sungkhapat:** Performance Evaluation of Video Transmission over Wireless Networks
= "Performance Analysis of Video Transmission over IEEE 802.11n Wireless Networks," *J. of Telecommun., Elec.and Comput. Engr. (JTEC 2017) (selected from ADVKIT 2015)*, vol. 9, no. 2-2, pp. 35-40, 2017.
52. **Arlada Suthichaya and Yuwarat Sombatkririphaiboon:** Video Steganography
= "Video Steganography with LSB Color Detection," *J. of Telecommun., Elec.and Comput. Engr. (JTEC 2017) (selected from ADVKIT 2015)*, vol. 9, no. 2-2, pp. 23-28, 2017.
53. **Kankulanut Charensuk, Kobkul Bunprakorb, and Pongpaka Kudtranon:** Performance Evaluation of Parallel Datamining Techniques on GPUs
= "Parallel KNN and Neighborhood Classification Implementations on GPU for Network Intrusion Detection," *J. of Telecommun., Elec.and Comput. Engr. (JTEC 2017) (selected from ADVKIT 2015)*, vol. 9, no. 2-2, pp. 29-33, 2017.
54. **Kwin Phonlakarn and Mathuros Somdee:** Asian Running Game using Unity
= Passing through the 2nd round NSC 2015 competition
55. **Sunsane Suwannachawee and Arisara Lodsukho:** Cat/Dog Lover on Mobile Phone
= Passing through the 2nd round NSC 2015 competition

2014

56. **Songyut Permpol and Tanawat Watchanasunthorn:** Mobile Indoor Positioning using WLAN
= The 1st prize for NSC 2014 competition (Mobile Application) + Honorable Mention for Oral Presentation @Science Conference KKU 2014
57. **Thanakit Khantadech and Bunchu Srikutkao:** Aerial Image Processing using Drone Emulator
= Passing through the 2nd round NSC 2014 competition + Honorable Mention for Poster Presentation @Science Conference KKU 2014
= "Flood Warning and Management Schemes with Drone Emulator using Ultrasonic and Image Processing," *Recent Advances in Information and Communication Technology*, pp. 107-116, July 2015. (Best Paper Award)
58. **Nutakarn Mongkonchai:** Network Intrusion Analysis using Data Mining Techniques
= Honorable Mention for Poster Presentation @Science Conference KKU 2014

2013

59. **Phet Aimtongkham, Prew Phonarsa, and Sakkaphon Palkul:** A Study of Robust Ad-hoc Routing Protocol on Android OS
= The third prize NSC 2013 (Environmental APP) + The 1st prize Oral Presentation at Science Week Conference, Khon Kaen University 2013
60. **Charearnrat Junmee and Chutima Dungphet:** SBMS: Smart Bus Management System on Mobile Phone
= Passing through the final round NSC 2013 competition
61. **Lukkana Krongtong:** A Prototype for Smart Wheelchair Using Brain Control
= Passing through the second round NSC 2013 competition
62. **Comdet Phaudphut and Nutnicha Pocaphet:** A study of ECG wave pattern recognition on mobile phone

63. **Sarayut Poolsanguan and Chatchai Poonriboon:** A Study of Parallel AES Encryption Implementation on GPU
64. **Narongdet Thensit and Thammasit Phondee:** A Study of Kinect Controlling Movement for Humanoid Survey Robot

2012

65. **Kata Pothisarn, Teerawat Nimmasupwongrat, and Kittima Nongharnpitak:** Siam String Musical Band on Mobile
= **The 1st prize for NSC 2012 competition (Mobile Application) + Princess IT award (Edutainment)**
66. **Nutnicha Weeramongkonlert:** Mobile Automatic Baby Care System Over Wireless Sensor Network
= Passing through the second round NSC 2012 competition
67. **Kanjana Konglasae and Parinya Udomwongmanee:** Emergency System on Mobile Ad hoc Network
= Passing through the second round NSC 2012 competition
68. **Sarawut Nawasimma:** Mobile Students Life University
= Passing through the second round NSC 2012 competition
69. **Kasidit Wijitsopon and Tipaporn Wongngam:** Mobile Network Monitoring and Management System
= **Win the Popular Vote for Poster Presentation at Science Week Conference, Khon Kaen University 2012 + Passing through the second round Esaan WP7 contest**

CLASS PROJECT / TOOL _____

Class Project

- **Wireless and Mobile Networks with Internet of Things (Spring24):**
1) Smart DoorBell, 2) Object Detection, 3) Wireless Presentation and File Transfer, 4) Gaslic: Gas Leak Alarm with MQTT, 5) Smart Fish Tank, 6) Automatic Hydroponic VET
- **Information and Communication Technology Security (Spring24):**
1) WinRAR (CVE-2023-38831) and Fudshell, 2) Wi-Fi Jammer and Detection, 3) Keylogger, 4) Game: Atbash, Pigpen, Vigenere Encryption Decryption, 5) Discord Keylogger, 6) Video Steganography, 7) Web Phishing Detection, 8) Trojan Veil, 9) Fake Login TRUE, 10) IDS, 11) Your Image is MINE, 12) SHOPPEE Phishing, 13) Digital Wallet Phishing, 14) Keycard Cloning, 15) Hash Generator
- **Introduction to Computer Networking (Fall23):**
1) APP: Bandwidth Monitoring, 2) TESTBED: Facebook Phishing, 3) IoT: Smart Plant IoT System, 4) APP: Chummy Chat, 5) Game: Air Hocky Game, 6) APP: CREATE FILE SHARING APP, 7) Game: Remember Card Game, 8) Game: LOVE-MONEY-SCISSORS, 9) Game: Shoot Dot, 10) IoT: Smart Fish Tank, 11) Game: Dual, 12) Game: Last Man Standing, 13) Game: MiniGolf 2D, 14) Game: Flappy Plane Game, 15) Game: Ping Pong, 16) Game: Eat Dot Game
- **Advanced Computer Network Technology (Fall23):**
1) IoT-Powered Water Control System with Voice Commands using Google Assistant
- **Information and Communication Technology Security (Spring23):**
1) Hack: Location and Webcam, 2) MEMZ Trojan, 3) Phishing: Discord Login, 5) AndroidRAT, 6) IoT Wi-Fi Interrupting, 7) Lockphish, 8) Quasar, 9) Morse Chat, 10) Keylogger Python, 11) Fake Captive Portal, 12) SlowHttpTest DOS Simulation, 13) CAMPHISH, 14) Jhnhtheripper, 15) TROJAN + PHISHING (Borat-RAT + Prorat), 16) Data Stealer (USB), 17) Phishing: Facebook, 18) Fake AP Wi-Fi, 19) Ransomeware, 20) Fingerprint Scanner, 21) DoS Simulation, 22) Virus: Plank, 23) Temperature Checker
- **Wireless and Mobile Networks with Internet of Things (Spring23):**
1) Keycard Lock, 2) UAV Box, 3) Smart Garden, 4) Alcohol Meter, 5) Cam with Intrusion Detection
- **Wireless, Mobile, Internet of Things Technology (Fall22):**
1) Water Level and pH Monitoring System

- **Introduction to Computer Networking (Fall22):**
- 1) Game: Grand Theft Auto, 2) Game: Run for Coins, 3) Game: Mice The Virus, 8) IoT: Auto Gel (COVID), 9) APP: Havechat, 10) Game: Baboon Coin, 11) Game: Guardian of The Dead, 12) IoT: Moss Send/Receive Kidbright, 13) Game: Pao Ying Shoop, 15) Game: Sausage Shooting, 16) Game: Cat N Dev, 17) Game: Frogs Game, 18) Game: Push Down, 19) Game: Glowing Pong, 20) IoT: Sensor Security, 22) IoT: Heartbeat Sensor, 23) IoT: Smart Farm, 29) IoT: Wi-Fi Jammer, 31) IoT: Measure the humidity and Temperature of Pets, 31_2) IoT: Automatic Light On/Off, 33) IoT: Shutter Car, 33) IoT: Key Finder
- **Information and Communication Technology Security (Spring22):**
- 1) Wi-Fi Password Hack, 2) NFT Bot, 3) Encryption Game, 4) Trojan (NJRAT + NGROK), 5) File Protection, 7) Spying: Quasar Rat, 8) Phishing: Lazada, 10) SQL Injection, 11) Virus Ransomware, 12) Two Factor Authentication, 13) Wi-Fi Jammer: MCU ESP 8266, 14) DNS Spoofing, 15) Morse Chat, 17) CCTV by Cam-Hacker, 18) Morse Code Communication with Arduino, 19) MS Office Code Hacker, 20) Hack Windows 10, 21) Key Locker for Safe, 22) Virus: Funny Mouse and Keyboard (Terabit), 23) Virus: JPS Virus Maker
- **Mobile and Wireless Technology (Spring22):**
- 1) Windows (On-Off) Automatic Control, 2) Tree Watering Car, 3) Automatic Tree Watering System, 4) Chat App, 5) Walking Automatic Bin, 6) Automatic Chicken Feeding System, 7) Automatic Feeding System, 8) Automatic Face Detection Alert via Line, 9) Automatic Tree Watering System, 10) Automatic Exploring Car, 11) Turning On/Off Light via Internet, 12) Intrusion Detection (Motion) Alert via Line, 13) Light Sign Automatic Control
- **Wireless, Mobile, Internet of Things Technology (Fall21):**
- 1) Smart capsule real-time humidity via Blynk IoT, 2) Gas Leak and Fire Detection Mobile Robot, 3) Pulse Oximeter, 4) Temperature, Humidity, and Soil Moisture Monitoring in Greenhouse Crop Environment
- **Introduction to Computer Networking (Fall21):**
- 1) Game: Ultimate Friendship, 2) Game: Animal Crush, 3) Game: Online Chess, 4) Game: Chicken Dodge, 5) APP: File Transmission, 6) APP: Super Internet (Shared Net), 7) Game: Catch Fish, 8) Game: Friend Shooter, 9) Game: Running Dino, 10) Game: Jack'o Adventure, 11) Game: Walk and Run Fighting, 12) IoT: Smart Pet Drinking Fountain, 13) APP: Covid Info. Chat Bot, 14) IoT: Spring Water Robot, 15) IoT: Light Controller via Mobile Phone, 16) Game: Morlum Esarn Music, 17) Game: Alien, 18) IoT: Light On/Off Warning via Mobile Phone, 19) IoT: Lightning Alert, 20) APP: Scan to Know, 21) IoT: Mail Box Alert, 22) Game: Dog and Cat, 23) APP: Chat Application, 24) IoT: Intelligent Fan, 25) Game: PopCat, 27) Game: Racing Car, 28) IoT: Light On/Off via Voice Control, 29) IoT: Fan Controller by Phone, 33) IoT: Intruder Sensor, 34) IoT: Feeding Machine (Cat/Dog), 37) Game: Tank Battle
- **Mobile and Wireless Technology (Spring21):**
- 1) Face Recognition with Raspberry Pi, 2) DISCRETE MATHEMATICS AND APPLICATIONS, 3) Body temp measurement box, 4) Delivery robot machine, 5) Robot Car with Blynk, 6) Robot Bit with Voice Recognition, 7) Intrusion detection via Line Notify, 8) Mobile robot COVID temp scanner, 9) ibot Beta
- **Information and Communication Technology Security (Spring21):**
- 1) Hack windows 7 with LLMNR/NBNS, 2) Red Trojan, 3) W11Play Virus, 4) Keylogger, 5) Trojan Beast, 6) Spying app, 7) EPPNKNLP virus, 8) Caesar Cipher game, 9) Wi-Fi Jammer, 10) CCTV Hacking, 11) Trapdoor on Android, 12) Phishing PW, 13) DDOS testbed, 14) Website Breaking Burp Suite, 15) Automatic door locker, 16) Magic stealer with USB, 17) Fake Wi-Fi, 18) Spy Everywhere, 19) Tm2b DDOS
- **Introduction to Computer Networking (Fall20):**
- 1) IoT: Automatic fan controlled by phone, 2) IoT: Automatic Garbage Bin, 3) IoT: The Hydroponic, 4) IoT: AQUARIUM ECHO, 5) Game: Flappy Nok, 6) Game: Tic Tac Toe, 7) Game: Spirit Bernhard, 8) IoT: Snack machine DIV, 9) Game: Gem Master Game, 10) Game: The Pack Survival, 11) Game: Stake, 12) Game: Re runner, 13) SN Secure Notify, 14) Game: Tank Shoot, 15) Game: Tipp B, 16) Game: Razza. M, 17) Game: Bunny Adventure, 18) Game: I feel like I became a zombie, 19) Game: Happy Vegetable, 20) IoT: Water Buyer Machine, 21) Game: Judo Run, 22) Game: Checking Stock, 23) Game: Shooting, 24) IoT: Small Robot Controller via Mobile Phone, 25) Game: Pao Ying Shoop, 26) Game: Speed Car, 27) IoT: Door Opening via Line, 28) GPS vis Link

- **Advanced Computer Networks (Fall20):**
1) Firewall Testbed: PFSense
- **Mobile and Wireless Technology (Spring20):**
1) Smart IoT Fan, 2) Smoke Detector, 3) Soil Analysis, 4) Water Dispenser via QR Code Payment, 5) Robot Corn Dropping, 6) Wireless Election Box, 7) Smart Eye-glass, 8) Identity Check with RFID and Face Recognition)
- **Information and Communication Technology Security (Spring20):**
1) USB Stealer, 2) Window Remote Login Hack, 3) Disrupt Camera, 4) CCTV Hacking, 5) Corona Virus, 6) Click Here Looper Virus, 7) Spynote Hack, 8) MKN2BT Virus and Trojan, 9) Cryptlock, 10) Wi-Fi Jammer, 11) Wallpaper Plank Virus, 12) Unblock Firewall, 13) Hack Wi-Fi, 14) Anti Theft Camera System, 15) Car Remote Jammer, 16) Ransomware and Endless Notepad
- **Introduction to Computer Networking (Fall19):**
1) Music App: Your Band, 2) Game: Apollo Pong, 3) IoT: Automatic Bin, 4) IoT: Easy Wi-Fi, 7) Game: Shooting Gun, 8) Game: Battle of Milk Tea, 9) School Check Online, 10) Game: Tank Shooter, 11) Tutor Sharing Online, 13) Digital Door Lock Systems, 14) Game: Last Bullet, 15) IoT: Automatic Lettuce Farm, 16) IoT: Perfect Home, 17) IoT: Smart Pig Feeder, 18) Game: Smart Magic Fight, 19) Game: Tank Dei, 20) Game: Pew Pew
- **Advanced Computer Networks (Fall19):**
1) User Authentication with Mikrotik, 2) Smart Home Network, 3) NETWORK MONITORING SYSTEM
- **Information and Communication Technology Security (Spring19):**
1) EARN SHARE LINKS HACKING, 2) Double Authentication, 3) Movement Detection using Sensors, 4) Hack Windows Password, 5) Virus (Stealer), 6) Eavesdropper (SDR), 7) Windows Hacking with CMD, 8) AP Phishing, 9) Wi-Fi Jamming, 10) Arduino HID Hackers, 11) Password Trap (RFID Door Reader), 12) Ransomware, 13) Path Traversal, 14) Hack Webcam, 15) Android Hack, 16) Android Hack (Spynote), 17) WPA Hacking, 20) Trojan Hack, 21) Phishing Hack (Line), 22) Ransomware, 23) Virus (change file extension), 24) Finger Scan, 25) Flashdrive (Folder) Locker, 26) Virus (CPU overloading), 27) Data hijacking using Flashdrive, 28) RFID Card Cloning
- **Mobile and Wireless Technology (Spring19):**
1) Quail smart farm box (Automatic), 2) Smart Home (Fan, Light, and TV Stand), 3) Bird Pan Iron smart farm box (Automatic), 4) Physical Shoes, 5) HOVERCRAFT CONTROLLED WITH VOICE, 6) PM2.5 Filter Box, 7) Robot Vacuum Cleaner (Automatic), 8) Smart Trash Bin (Automatic), 9) Smart letter box (Automatic)
- **Introduction to Computer Networking (Fall18):**
1) Game: Chess, 2) Game: Quiz Talent, 3) Game: UFO Adventure, 4) Game: Space Shooter, 5) Game: Ghost Battle, 6) Robot Arm, 7) Game: Jum Jum Jum, 8) Game: Fight for Future, 9) FTP File Transfer, 10) Game: Increase Area, 11) Game: Survival Shooter, 12) Game: Tank you, 13) Easy Exam, 14) Smart Home, 15) Game: Tug of War, 16) Remote Controller to PC, 17) Smart Light Switch, 18) Automatic Door Unlock, 19) Game: Drift Hell, 20) Game: Bounce Ball PVP, 21) Password Crack, 22) Game: Falling Ball, 23) Chatty, 24) IoT Testbed, 25) Calling System, 26) Cable Tester, 27) Game: Tic Tac Toe
- **Research Methodology (Fall18):**
1) A Survey of detection and classification using image processing to find a carpark 2) A Survey of Predict and Measure an Air Pollution Techniques 3) Features Selection to Optimization of Classification: A Survey 4) A Survey of Sentiment Analysis Techniques on Social Media Content
- **Advanced Computer Networks (Fall18):**
1) Hadoop Configuration and testbed
- **SCIUS: Computer Programming using C (Spring18):**
1) Sudoku Puzzle, 2) Crossword Puzzle, 3) ASCII Game, 4) Climbing The Rob Game, 5) Gravity Program, 6) Pac Man Game, 7) Survival Game, 8) Solution Preparation Calculator, 9) Shunt Flying Game, 10) Pao Ying Choob Game, 11) Light Out Game, 12) Push Box Game, 13) Get Point Game
- **Mobile and Wireless Technology (Spring18):**
1) IoT of Dog House (Automatic), 2) IoT of Aquaponic System (Automatic), 3) IoT of Cow Collar (Automatic), 4) IoT of Happy Cat House (Automatic), 5) IoT of Smart Aeroponic Strawberry (Automatic), 6) IoT of Smart Crayfish Breeder System (Automatic),
- **Information and Communication Technology Security (Spring18):**

- 1) NodeMCU Wi-Fi Jamming and DNS Spoofing, 2) Android Unlock with waving hand, 3) Cut Internet connection on Wi-Fi (Kali), 4) NJRAT Hacking, 5) Ransomware and Endless notepad, 6) Cal Pad Virus, 7) Password Bypassing: Android Pattern Lock, 8) Windows backdoor, 11) Social Engineering Attacks, 12) Majin Virus, 13) Wi-Fi Spoofing, 14) Hack Android (Metasploit), 15) Fortune USB, 16) File Encryptor, 17) MDD Virus, 18) Trity Hack (Kali), 19) Password Stealing with USB, 20) Hack Android, 21) Hack Web Browser (Kali)
- **Introduction to Computer Networking (Fall17):**
 - 1) XO (2 Players) Game, 2) 2D Car Racing (2 Players) Game, 3) Pirate Tank Game, 4) Super Snake Game, 5) Tetris Game, 6) Tank War Game, 7) Fighting Ray Game, 8) 360 Battleship Game, 9) Crocodile Dentist Game, 10) Automatic Watering (IoT), 11) IT Chat and Talk, 12) Little Pirate Game, 13) Chat Room, 15) 1 to 10 Hey (Number Guessing) Game, 16) Tic Tac Toe Game, 17) On-Off The water valve through Wi-Fi, 18) Car Racing Game, 19) Connect 3 Game, 20) Automatic Fence Gate, 21) The Best Wi-Fi (Wi-Fi shopper)
- **Information and Communication Technology Security (Fall17):**
 - 1) Web DDoS Testbed (Break Security Doser), 2) HTTP Dos (Python), 3) Anti-Keylogger, 5) Password Capture on Kali, 6) Simple Bluetooth Hack, 7) Password Bypassing on Windows, 8) Spy-bot on Mobile Phone, 9) Cross Site Scripting Testbed, 13) SQL Injection, 14) CA Testbed, 15) Predator Logger, 16) DNS Spoofing, 18) WordPress Hook on Theme, 19) Hammer DDoS, 20) COIN Hive (Bitcoin Miner), 21) Bitcoin Reseller, 22) Simple Virus (MOS)
- **Research Methodology (Fall17):**
 - 1) Clustering method for recommendation of herbal medicine replacement base on similar Phytochemical compound, 2) Detecting Cluster Numbers based on Density Changes Using Density-index Enhanced Scale-Invariant Density-based Clustering Initialization Algorithm, 3) Oil Price News Analysis using Data Mining, 4) A Survey of Different Problem and Optimization base on Flower Pollination Algorithm, 5) Congestion Control in Wireless Sensor Networks: A Survey, 6) A Survey of Difference Data Mining Techniques and Learning Styles, 7) Predicting the Risk for Developing for Essential Hypertension.
- **Advanced Computer Networks (Fall17):**
 - 1) Streaming Video Comparison of Data Speed on Wi-Fi use HTTP and RTSP Protocol, 2) Monitoring System for Working Status and Server Performance
- **SCIUS: Computer Programming using C (Fall17):**
 - 1) Transiting Time of Sun Calculating Program, 2) World Clock, 3) Dessert Making Calculator, 4) SI Unit Convertor, 5) Otello (Bot) Game, 6) Rhythm Game, 7) Calculate the Probability of Genetic Diseases Program, 8) TAP IT Game, 9) Resistance Programming, 10) Simple Snake Game, 11) Finding Dormitory Program, 12) Geometric Calculator, 13) How many Moles?, 14) Energy Conservation, 15) Banking Management, 16) Tap-Racing, 17) The Weather Suggestion, 18) Analytic Geometry
- **Mobile and Wireless Technology (Spring17):**
 - 1) IoT of Chicken Farm (Automatic), 2) IoT of Mushroom Farm (Automatic), 3) IoT of Hamster House (Automatic), 4) IoT of Smart Farm (Automatic), 5) IoT of Cloth (Sun Bath) (Automatic), 6) IoT of Mouse Cleaning System (Automatic), 7) IoT of Fish Tank (Automatic), 8) IoT of Hydroponic (Automatic)
- **Research Methodology (Fall16):**
 - 1) Survey of Crop Pests Prediction by using Machine Learning Techniques, 2) A survey of Data Mining Techniques for Predictions of Diabetes, 3) Survey Paper: Using Data Mining To Find Factors Influence Dropout Students, 4) Survey of Class Registration for High School Student using Datamining Technique, 5) A Survey on Traffic Prediction based on Big Data Analytics
- **SCIUS: Computer Programming using C (Fall16):**
 - 1) Star Clock, 2) Mysterious number challenge, 3) Calculator of Risk of Genetics Disorder, 4) Smart Watch Rotator, 5) CatvsRat Maze Game, 6) Virtual Abacus, 7) Tower of Hanoi Game, 8) XO Game, 9) Battle Ship Game, 10) Energy Home Calculator, 11) Morse Code Calculator, 12) Nim Game, 13) Dinosaur Egg Shooting Game, 14) Yes or No with Hangman Game, 15) Flight Logistic Calculator.jpg, 16) Checker Bot Game, 17) Train Board Game with 24, 18) Epicenter Calculator, 19) Sharpen Mind Game, 20) Minesweeper Bot Game, 21) Maze Walker Game, 22) Braille Translator, 23) Crunching Number Game.pdf, 24) Genius Game, 25) Calculator Game, 26) School (Room) Schedule

- **Network I (Spring16):**
 - 1) Zombie Game, 2) Galaxy Apollo Game, 3) Katip Man Game, 4) Pong Game, 5) King of Button Games, 6) Killer Game, 7) Nai Ngai Game, 8) Kamen Rider Game, 10) Keep Box Game, 11) Remote Login, 12) Location War Game, 13) Mushroom Keeper Game, 14) Shared to You, 15) Timeout Game, 16) Video Chat Call, 17) Number Guessing Game, 18) Bingo Game, 19) Dots and Box Game, 20) Click Mania Game, 21) Running Config Game, 22) Fast hand Game, 23) Dice Fighter Game
- **Mobile and Wireless Technology (Spring16):**
 - 1) The Dog Hung Game, 2) Alzheimer Game, 3) Chao Por Mor (Dhamma), 4) The Explorer Tool, 5) Kud Number, 6) Dev Skill Game, 7) Student Pay with NFC
- **Information and Communication Technology Security (Fall15):**
 - 1) Android Lock Screen, 2) USB Virus, 3) Remote Desktop, 4) Blur on Camera, 5) Key Logger, 6) KKU Security Map Alert, 7) Anti NetCut, 8) 8) Simple Virus Destroyer, 9) Lunla Virus Computer, 10) Authentication Phishing Service, 11) Folder Locker, 12) Remote Shutdown, 13) Simple Virus Scanner, 14) Mers Virus Computer, 15) Simple Virus on Android, 16) Key Logger, 17) Safe Password, 18) Secure Protocol Inspector, 19) Android LockScreen,
- **Computer Networks (Fall15):**
 - 1) Performance Comparison Analysis of RIP and OSPF on Network Convergence using OPNET Simulator, 2) Performance Evaluation of Different WiMAX frame on Video Conference Transmission using OPNET Simulator
- **Network I (Spring15):**
 - 1) Checker Game, 2) Snake Raddle Game, 3) Plants vs. Zombies Game, 4) Animal Guessing Game, 5) XO Godman Games, 6) Connect4 Game, 7) Spare Head Game, 9) O.V.G Game, 10) Word Guessing Game, 11) Mario Eater Game, 12) Rapid Chat, 13) 24 Game, 14) Picture Matching Game, 15) Football Fun Game, 16) Fast Typing Game, 17) Video Chat, 18) Othello Game, 19) Bomber man Game
- **Mobile and Wireless Technology (Spring15):**
 - 1) Idiom Game, 2) Let's count Game, 3) A EASY Game, 4) ASEAN Game, 5) Food Funny Game
- **SCIUS: Computer Programming using C (Spring15):**
 - 1) Polynomial of Math, 2) KKU minibus routing, 3) Binary Converter, 4) Molecul Mass Calculator, 5) TriSquare Counting Game, 6) BTS Routing, 7) Tax Calculator, 8) Movie Ticket Reservation, 9) Polygon Counter, 10) English Hangman, 11) Moss Game, 12) Multi-Variable Equations, 13) Memory Matching Game, 14) Clock Tutorial Game, 15) Note Song Tutorial, 16) Resister Calculator, 17) Physic Formula, 18) Health Care Program, 19) Heat Calculator, 20) Home Cost Calculator, 21) Image Calculator, 22) Puzzle Game, 23) Checker Game, 24) Othello Game, 25) Astronomy Calculator, 26) Taxi Meter Calculator, 27) Typing Game, 28) Interest Calculator, 29) Khon Kaen Shuttle Bus, 30) Unit Calculator
- **SCIUS: Computer Programming using C (Fall14):**
 - 1) Book Store Stock, 2) Healthy Calculator, 3) Motion Calculator, 4) Profit or Lost Calculator, 5) Tile Calculator, 6) True or False Checker, 7) Vernier Calculator, 8) Book Loan, 9) Brain Game, 10) Physic Game
- **Information and Communication Technology Security (Fall14):**
 - 1) Master Key for Firefox Browser, 2) Mobile Phone Lock with SMS alert, 3) USB alert, 4) Message Bomb, 5) Ebola Virus Computer, 6) Key Logger on Android, 7) Phishing Testbed, 8) Mobile Phone Fall Detection, 9) Server Monitoring Alarm, 10) Alert Tag, 11) HTTP sniffer on Android, 12) NetCut on Android, 13) Mobile Phone Cam for Health Care, 14) 2D Virus Game, 15) NFC Unlock for Mobile Phone, 16) Mobile Phone Notepad with Password, 17) Camera App Care, 18) Password Generator using Mobile Phone Shaking, 19), 20) Android Application Locker
- **Computer Networks (Fall14):**
 - 1) Performance Analysis for Firewall on Mininet Openflow Simulator, 2) Performance Evaluation of Video Transmission over WiMAX on OPNET Simulator, 3) Performance Evaluation of Ad-Hoc routing protocols on NS2 Simulator, 4) Performance Evaluation of Voice over IP over 802.11n on NS3 Simulator
- **Network I (Fall13):**
 - 1) Connect4 Game, 2) Fruit Guessing Game, 3) Wireless Mouse Application on Android, 4) 27 Combo Games, 5) BoomBoomBoom Games, 6) Picture Guessing Game, 7) Image Painting, 8) Bot

Wars, 9) Turn On-Off Lights with Wireless Networking, 10) Multiplayer Games, 11) Chat and Internet Stat Checking, 12) Tic-Tac-Toe, 13) Hangman Games, 14) Tetris, 15) Photo Hunt, 16) Running Fight, 17) Community Chat, 18) Ha Fight Games, 19) Tricky Cups, 20) Matching Games

- **Wireless Networks (Fall13):**

1) Fun for Kids, 2) English for Kids, 3) Quick Think Math, 4) Vocabulary Lands, 5) Computer CAI, 6) Learning Thai Alphabet, 7) Imagine Painting

- **Computer Networks (Spring13):**

1) Performance Evaluation of Video Transmission on OPNET Simulator, 2) Performance Evaluation of Video Transmission on NS2 Simulator, 3) Performance Evaluation of Voice over IP on OPNET Simulator

- **Information and Communication Technology Security (Spring13):**

1) Censor camera security, 2) android sniffer, 3) NFC Checking In, 4) Unlock the door on smartphone, 5) KKU Criminal Alert on Facebook, 6) Android Unlock, 7) Password for Message, 8) Router on Raspberry PI, 9) Video Encoding with AR, 10) Fun Encrypt on Window Phone, 11) LAN-Discoverer, 12) Hashing: Case Study, 13) Safe Speed, 14) CoaLock on Android, 15) Text/Image Steganography over Video, 16) Lock@Heart, 17) Lookout security, 18) Key Logger, 19) Hug Safety, 20) SpyCam on Android

- **SCIUS: Computer Programming using C (Spring13):**

1) Saving Calculator, 2) Brain Practice, 3) Linear Solver, 4) Math Solver, 5) Matrix Calculator, 6) Electricity Meter Calculator, 7) Pressure Convertor, 8) Temp. Convertor, 9) Triangular Solver, 10) Vector Solver

- **Information and Communication Technology Security (Fall12):**

1) CAI (Computer and Network Security), 2) Flood Warning in WP7, 3) AR Security, 4) First Aid on Android Mobile, 5) Traffic Game on Android Mobile, 6) Virus Attack on Unity 3D, 7) Food Reminder on Android Mobile, 8) Green Hero Game on HTML5, 9) Drought Warning on WP7, 10) Image and Signature Steganography on Android Mobile, 11) Multi-Camera View on Android Mobile, 12) Android Watch, 13) Secure SMS on Android Mobile, 14) Lost Mobile Phone Tracking

1) Set up Virtual Machine (Vmware+virtualbox) + install window server + linux server + create member user/web php page + setup Web/Telnet/SSH server + reset admin/root password, 2) Set up window/linux server + create member user + use John the Ripper, Pwdump, Fgdump, etc to hack user and password, 3) Set up window/linux server + install Wireshark/Tcpdump + setup web server/HTTPS + use Wireshark/Tcpdump to capture packets of http://www.kku.ac.th, 4) Set up window/linux server + install Wireshark/Tcpdump + setup telnet/SSH server + create member user + use Wireshark/Tcpdump to capture packets of when telnet/ssh, 5) Set up window/linux server + create member user + use netstat, ipconfig, ifconfig, route, etc to test network command + use nmap, tcptrace or other networking map tools to find out active KKU hosts and open ports including topology, 6) Set up window/linux server + create member user + install OpenPGP and test secure email, 7) Set up window/linux server + create member user + install FTP + Secure FTP + and test (secure) FTP using Wireshark to capture user/password, 8) Set up window/linux server + create member user + set up IPSec + using Wireshark to capture Telnet user/pass with/without IPSec, 9) Set up window/linux server + setup opensource firewall Window/Linux (ipchain etc.) + setup rule not to allow www, 10) Write a simple program to encrypt/decrypt "text" over image/video, 11) Set up linux server + setup 2 networking cards + set up static routing /forwarding (ipchain etc.)+ setup linux firewall not to allow ping, 12) Set up linux server + setup 3 networking cards + set up static routing /forwarding (ipchain etc.) + setup NAT for 2 networks, 13) Write 3 virus programs and show how to protect them, 14) Set up opensource software router

- **Network I (Fall12):**

1) The Adventure Game on Android, 2) Pao Ying Shub Game on Android, 3) Count Unit Game on Android, 4) Bomb Game on Android Mobile, 5) Cat Fighter Game on Android Mobile, 6) Gold Rich Battleship Game on Android Mobile, 7) Matching Card Game on Android Mobile, 8) ABC Game on Android Mobile, 9) Blocking Fight Game on Android Mobile, 10) Supasit Game on Android Mobile, 11) Math Count Hangman on Android Mobile, 12) PacmanShoot Game on Android Mobile, 13) XO Game on Android Mobile, 14) Ball Attacker Game on Android Mobile, 15) Uno Game on Android Mobile, 16) Pacman Game on Android Mobile, 17) Pao Ying Shub Extra Game on Android Mobile,

18) Junk Collector Game on Android Mobile, 19) Smart Math Brain Game on Android Mobile, 20) Mobile Racing Car Controller

1) Lab Group 1, 2) Lab Group 2, 3) Lab Group 3, 4) Lab Group 4, 5) Lab Group 5, 6) Lab Group 6, 7) Lab Group 7, 8) Lab Group 8, 9) Lab Group 9, 10) Lab Group 10, 11) Lab Group 11, 12) Lab Group 12, 13) Lab Group 13, 14) Lab Group 14, 15) Lab Group 15, 16) Lab Group 16, 17) Lab Group 17, 18) Lab Group 18, 19) Lab Group 19, 20) Lab Group 20

- **Mobile and Wireless Networking Technology (Fall12):**

1) RFID in Health Service Survey, 2) Bus Routing Algorithm Survey, 3) Indoor Positioning Survey, 4) Beat Recognition Survey

1) Mobile RFID APP, 2) Bus Mapping Simulation, 3) Indoor Positioning Simulation, 4) Beat Counter on Unicorn Board

- **Structured Programming for Computer Science (Spring12):**

1) Humanoid Robot I, 2) Humanoid Robot II, 3) Humanoid Robot III, 4) Humanoid Robot IV, 5) Humanoid Robot V, 6) Robot Soccer (Popbot) I, 7) Robot Soccer (Popbot) II, 8) Robot Soccer (Popbot) III, 9) Robot Soccer (Popbot) IV, 9) Robot Soccer (Popbot) V

- **Computer Networks (Spring12):**

1) Long Term Evolution (LTE) Quality of Service (QoS) Multimedia, 2) A Survey of Mobile Cloud Computing Security, 3) A Survey Of Data Center Network Virtualization, 4) Authentication WiMAX Security, 5) Survey on OSPF Routing Protocol

- **Information and Communication Technology Security (Fall11):**

1) AndLock, 2) Blocking Wall, 3) Secure Camera, 4) Disaster Prevention, 5) Secure Dorm, 6) Elderly Protection, 7) File Protection, 8) Thai Firewall, 9) Secure Game, 10) HopeFlood, 11) Secure Login, 12) Mobile Magnet, 13) Secure Message, 14) Photo Lock, 15) Scan port, 16) Secure Signature, 17) Secure SMS, 18) Snort, 19) Security Tutorial, 20) Web Block, 21) Mobile Flooding

- **Mobile and Wireless Networking Technology (Fall11):**

1) A Survey of Handover Performance in Hierarchical Mobile IPv6, 2) A survey of Mobile Phone in Medical Usage, 3) Visual Navigation for Mobile Robots a Survey, 4) A Survey of Secure Routing Protocol in MANET, 5) Intrusion Detection System Base on Snort - A Survey, 6) Survey Energy Routing Protocol in WSN, 7) A Survey RFID on Tracking and Traceability System

1) AirSnort Setup, 2) HealthMe, 3) Mobile IPv6 Setup, 4) Android NFC, 5) Tmote Sky Light Sensor, 6) Wi-Fi Scanner

- **Research Methodology (Fall11):**

1) Survey Text Clustering Algorithm, 2) Face Recognition: A Survey of Research, 3) Survey Paper for Heuristic Search Algorithm, 4) Survey of solving TSP for by Ant System, Tabu Search and Genetic algorithm, 5) Greedy Randomized Adaptive Search

- **Wireless and Mobile Communication Networks (Spring11):**

1) Mobile Temple, 2) Angry Garuda Mobile Game, 3) Video Transmission over WSN, 4) Shamanking Mobile Game, 5) Mobile Zum, 6) Mobile News, 7) Siam String Instrument Musical, 8) Popbot Soccer, 9) Music Room Reservation on Mobile, 10) Magic Pad on Mobile

- **Computer Programming I (Spring11):**

1) Humanoid Robot I, 2) Humanoid Robot II, 3) Popbot, 4) Robot Soccer, 5) Micromouse, 6) Android Mobile, 7) AX-11, 8) Kinect, 9) Linux

- **Computer Networks (Spring11):**

1) A Survey of Green Networks and Communication, 2) A Survey of Delay Tolerant and Opportunistic Networking, 3) Survey: Future Internet, 4) A survey Video Over Wireless base on H.264, 5) Social Computing and Networking - A Survey

- **Research Methodology (Spring11):**

1) A Survey of Optimization: Energy-Aware AODV Routing Protocol, 2) Improve Identity Based Cryptography on Delay Tolerant Network, 3) Comparison of SCTP and TCP performance on BitTorrent, 4) Flooding Strategy Multicast Tree Delay IN Tolerant Networks, 5) QoS Routing Algorithm for Future Internet, 6) Mobile Social Network for Life, 7) Error Correction over Realtime Video H.264 on P2P mobile networks 8) Solution for Network Management of Future Internet, 9) Improving the quality of H.264 video transmission over wireless networks, 10) Solution of Error

Control Video (H.264) over Wireless transmission, 11) Real-time Botnet Detection using DNS-based and Mining based

- **Wireless and Mobile Communication Networks (Fall10):**
1) College Activity on Android, 2) Navigational Service for Blind on WP7, 3) College Service on Android, 4) Dhamma on Android, 5) Dot and Box Game on Android, 6) Android Chat, 7) Multi-User Game on Android, 8) College Guidance on Android, 9) Emergency System on Android, 10) Poker on Android, 11) Restaurant Management on Android, 12) KKU Campus Bus Map on WP7
- **Mobile and Wireless Networking Technology (Fall10):**
1) A Survey of Mobile Cloud Device, 2) A Survey of Wireless Sensor Networks for Medical Usage

Class Tool

- **Network I (Spring17):**
1) Airdrop, 2) Video Call, 3) IoT Light Controller, 4) Wireless Network Penetration Test, 5), 6) The Dude, 7) Team Speak, 8) Snort, 9), 10) Chat Application using UDP, 11) Airplay, 12) Classroom Controller, 13) Desktop Viewer and Chat, 14) Advanced IP Scanner with Wakeup on LAN, 15) Docker, 16) Vistron SM, 17) Iron Fist 2 Player Game, 18) Raspberry PI Scanner, 19) Port Scanner, 20) Hamachi VPN, 21) Folder Locker
- **Network I (Spring16):**
1) Wi-Fi Camera, 2) OWASP, 3) Angry IP Scanner, 4) Advanced IP Scanner, 5) Connectify, 6) MS Remote Desktop, 7) Team Viewer, 8) Remote Mouse, 9), 10) Colasoft Capsa, 11) Radmin, 12) Chrome Remote Desktop, 13) SpiceWorks, 14) Bee Beep, 15) Net Balancer, 16) mHotspot, 17) Multiplicity, 18) Fiddler, 19) Acrylic Wi-Fi, 20) NetCut, 21) Dirbuster, 22) Essential Nettools, 23) Axence Nvision
- **Computer Networks (Fall16):**
1) Voice over IP using SIP Testbed, 2) Video Streaming Testbed, 3) DNS Zone Transfer Testbed
- **Computer Networks (Fall15):**
1) colasoft_capsa, 2) cacti_linux
- **Computer Networks (Fall14):**
1) nagios, 2) spicework, 3) xirrus
- **Information and Communication Technology Security (Fall16):**
1) Registration Bot, 2) ActivTrak, 3) Cain and Abel, 4) Mee Pern Virus, 5) DLC Windows Recovery Password, 6) Virus 123, 7) The Fat Rat (Android Trojan), 8) DroidSQLi, 9) Spam Message in LINE, 10) Ransomware, 11) Virus Builder (Batch File), 12) Limit Speed, 13) Email Spammer, 14) Zip and RAR Password Unlock, 15) USB Stealer, 16) Charles Proxy, 17) Blue Botnet, 18.1) Virus Zika, 18.2) Havij SQL Injection, 19) Social Engineering Toolkit, 20) Nexpose and Metasploit
- **Information and Communication Technology Security (Fall15):**
1) inssider, 2) networkspoofer, 3) winlock, 4) ophcrack, 5) killBrontok, 6) softperfectnetworkscanner, 7) aircrack, 8) softperfect, 9) burp_suite, 10) jpasswordrecoverytool, 11) steganogaphy, 12) wirelesskeyview, 13) openstego, 14) nikto, 15) metasploit_hack_android, 16) lockify, 17) keepass, 18) subgraph_vega, 19) cain_and_abel
- **Information and Communication Technology Security (Fall14):**
1) active_system_locker, 2) airrack_windows, 3) sam_spade, 4) beast, 5) hiren, 6) cybergate, 7) ophcrack, 8) ardamax, 9) alchemy, 10) interceptor_proxy, 11) ddos, 12) aircrack_kali, 13) netbus, 14) encrypt, 15) vlc_portable, 16) ettercap, 17) dirbuster, 18) cain_abel
- **Mobile and Wireless Technology (Spring16):**
1) Wi-Fi File Transfer, 2) IP Tools for Mobile Phone, 3) Lockout, 4) Open Signal Map, 5) Wi-Fi Analyzer, 6) Ping Tools, 7) Cell Phone Coverage Map

REFERENCE (AS REQUESTED)
