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CURRENT ADDRESS:
School of Information, Computer and Communication Technology (ICT)
SIIT at Bangkadi
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EDUCATION	**Cornell University**, Ithaca, New York
	Doctor of Philosophy in Electrical and Computer Engineering (ECE), Aug 2008.
	GPA: 4.24/4.00. Minor in Mathematics.
	Master of Science in ECE, Jan 2006.
	GPA: 4.24/4.00. Minor in Mathematics.
	Bachelor of Science in ECE, Summa Cum Laude, May 2002.
	GPA: 4.27/4.00.

HONORS & AWARDS

Thammasat University **Outstanding Teacher (**ครูดีเด่น**) in Science and Technology** for the Academic Year 2018

SIIT **Distinguished Teacher Award**

SIIT **Best Teaching Awards** for the Academic Years 2009, 2013, and 2017

Thammasat University **Outstanding Young Researcher Award** (รางวัลนักวิจัยรุ่นใหม่ดีเด่นระดับคณะ ประเภทอาจารย์) 2013

SIIT **Research Award** for the Academic Year 2011

Graduated **Summa Cum Laude** from Cornell University in 2002.

Ranked 1st in engineering class.

1997-2002 recipient of the **King's Scholarship** from the Thai Government.

WORK EXPERIENCE

Chairperson of Electrical Engineering Program, Sirindhorn International Institute of Technology (SIIT), Thammasat University, Thailand

February 2023 – Present

July 2016 – November 2022

Associate Professor, Sirindhorn International Institute of Technology (SIIT)

Lecturer, Sirindhorn International Institute of Technology (SIIT)

Mathematics I	Summer/2008
Digital Circuits	1/2009
Basic Electrical Engineering	2/2009, 1/2010, 1/2013, 2/2014-2015
Mobile Communications	2/2009-2012, 2/2014, 2/2016, 2/2022
Probability and Random Processes	1/2010-2022, 1/2023-2024, 2/2024-2025
Principles of Communications	1/2011-2012, 1/2015-2025
Engineering Statistics	2/2011
Basic Electrical Engineering Lab	2/2008-2014, 1/2015
Applied Physics II (Magnetism)	2/2012
Digital Communication Systems	1/2013-2014, 2/2015-2022
Computer Applications for Engineers	2/2013

RESEARCH AREA

Wireless communication (การสื่อสารไร้สาย), digital communication theory (ทฤษฎีการสื่อสารแบบดิจิตอล), neuro-informational theory (ประสาทวิทยาศาสตร์เชิงทฤษฎีข้อมูล), computational neuroscience (ประสาท วิทยาศาสตร์เชิงการคำนวณ), Poisson process and Poisson convergence (การลู่เข้าสู่กระบวนการลุ่มแบบปัวส์ของ), probability theory (ทฤษฎีความน่าจะเป็น)

CONTRACTED RESEARCH SUPPORT

"Physical Layer OFDMA Based Wireless Communication Systems", Source: Telecommunications Research and Industrial Development Institute (TRIDI), NTC.

"Development of Research Laboratory for Center of Excellence in Wireless Communication, Network and Application Research", Source: TRIDI, NTC.

"Multidimensional Signal Processing for Multiuser Wireless Access", Source: TRIDI, NTC.

"Center for Intelligent Informatics," Source: National Research University (NRU) Project of Thailand's Office of the Higher Education Commission (OHEC)

"Visible Light Communication for the Disabled," Source: Thammasat University

"Research and Study of OTT (Over the Top) Technologies' Trend about Bandwidth Usage of Telecommunication Industry in Thailand," Source: NBTC

JOURNAL PAPERS

A. Khalid, and P. Suksompong , "*Application of maximum rank distance codes in designing of STBC-OFDM system for next-generation wireless communications,*" Digital Communications and Networks, Vol. 10, Issue 4, August 2024, pp. 1048-1056.

U. Khwakhali, P. Suksompong, S. Gordon, "*Midpoint relay selection using social trust and battery level to enhance throughput in cooperative device-to-device communications*", Sensors, Vol. 20, No. 21, November 2020, Article No. 6007, 32 p. (2020)

A. Bhattarai, P. Suksompong, C. Charoenlarpnopparut, "*Channel allocation policy for distributed wireless network: derivation and analysis of optimal interference*", Wireless Communications and Mobile Computing, Vol. 2020, 6 November 2020, Article ID 8868443, 11 p. (2020)

U. Shrestha Khwakhali, P. Suksompong, and S. Gordon, "*Base Station Assisted Relay Selection in Device-to-Device Communications*", International Journal of Ad Hoc and Ubiquitous Computing, 28 March 2018

R. Manandhar, P. Suksompong, and C. Charoenlarpnopparut (2018), "*Sidelobe reduction in a planar array using genetic algorithm under backlobe reduction condition*", ECTI Transactions on Electrical Engineering, Electronics, and Communications, Vol. 16, No. 1, February 2018, pp. 1-8.

Md. M. Rahman, C. Charoenlarpnopparut, P. Suksompong, and P. Toochinda (2017), "*Sensor array optimization for complexity reduction in electronic nose system*", ECTI Transactions on Electrical Engineering, Electronics, and Communications, Vol. 15, No. 1, February 2017, pp. 49-59.

Md. M. Rahman, C. Charoenlarpnopparut, P. Suksompong, P. Toochinda, and A. Taparugssanagorn (2017), "*A false alarm reduction method for a gas sensor based electronic nose*", Sensors, Vol. 17, No. 9, 12 September 2017, Article No.2089, 19 p.

Md. M. Rahman, C. Charoenlarpnopparut, P. Suksompong, and A. Taparugssanagorn (2016), "*Correlation coefficient based DVB-T continual pilot detection to identify spectrum hole for CR application*", Walailak Journal of Science and Technology, Vol. 13, No. 6 (Information Technology), June 2016, pp. 479-490.

A. Bhattarai, C. Charoenlarpnopparut, P. Suksompong, P. Komolkiti, "*Policies for Channel Allocation in Cognitive Radio Networks using Game Theory,*" ECTI Transactions on Electrical Engineering, Electronics, and Communications, Vol. 14, No. 1, 2016, pp. 36-48.

P. Hanpinitsak, C. Charoenlarpnopparut, and P. Suksompong, "2D interleaver design for image transmission over severe burst-error environment", ECTI Transactions on Electrical Engineering, Electronics, and Communications, Vol. 12, No. 2, 2014, pp. 55-63.

T. Bamrungkitjaroen, P. Suksompong, and C. Charoenlarpnopparut, "*Application of a Pipelining Technique in Concatenated Tomlinson Harashima Precoder for Downlink Multiuser MIMO Systems,*" Thammasat International Journal of Science and Technology, Volume 17, No. 2, pp. 1-12, April-June 2012

P. Suksompong and T. Berger, "*Capacity Analysis of Neurons with Descending Action Potential Thresholds*", Information Theory, IEEE Transactions on , vol.56, no.2, pp.838-851, Feb. 2010

CONFERENCE PAPERS

S. Atthaporn, C. Charoenlarpnopparut, P. Suksompong and J. Kudtongngam, "An Optimized Charging for EV using Numerical Method in Consideration of TOU," 2023 IEEE PES 15th Asia-Pacific Power and Energy Engineering Conference (APPEEC), Chiang Mai, Thailand, December 6-9, 2023, pp. 1-5

A. Khalid, P. Suksompong and C. Charoenlarpnopparut, "Performance Evaluation of Wavelet Transform Application in Maximum-Rank-Distance-Based STBC-OFDM System," TENCON 2023 - 2023 IEEE Region 10 Conference (TENCON), Chiang Mai, Thailand, October 31 and November 1-3, 2023, pp. 552-557.

S. Santiwongkarn, N. Kornworakarn, P. Suksompong, T. Choksatchawathi, T. Kaewlee and T. Wilaiprasitporn, "Autoencoder-Based PPG Compression for Resource-Constrained Device," 2023 IEEE Statistical Signal Processing Workshop (SSP), Hanoi, Vietnam, July 2-5, 2023 2023, pp. 676-680.

T. Sommart, V. Tuektaewskul and P. Suksompong, "Automatic Subtractive Clustering Algorithm Model (ASCAM) for Blind Identification of QAM Constellations," 2023 IEEE 13th International Conference on Pattern Recognition Systems (ICPRS), Guayaquil, Ecuador, July 4-7, 2023, pp. 1-7

W. Limpornchitwilai, P. Suksompong, C. Charoenlarpnopparut, L. Kovavisaruch, T. Sanpechuda, M. Nakatani, "*Improvement of the RF-Based and XGBoost-Based Visitor Data Prediction for Colocated Museums*", 19th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology, ECTI-CON 2022, May 24-27, 2022.

U. Khwakhali, P. Suksompong and S. Gordon, "*Adaptive Midpoint Relay Selection: Enhancing Throughput in D2D Communications*", Studies in computational intelligence (Software engineering, artificial intelligence, networking and parallel/distributed computing, [IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2019), July 8-10, 2020, Toyama, Japan]), v. 850, 2020, pp. 191-207.

P. Loahavilai, P. Suksompong and C. Charoenlarpnopparut, *"Utilization of Distributed Computing in Exhaustive Search for Optimal Block Code"*, The 4th International Conference on Communication and Information Systems (ICCIS 2019), Wuhan, China, December 21-23, 2019.

T. Uten, C. Charoenlarpnopparut and P. Suksompong, *"Synchronization Control for Microgrid Seamless Reconnection"*, The 14th International Joint Symposium on Artificial Intelligence and Natural Language Processing (iSAI-NLP 2019), Chiang Mai, Thailand, October 30-31 and November 1, 2019

C. Varojpipath, P. Chaichanamongkol, P. Mahitthiburin, P. Suksompong, and C. Charoenlarpnopparut (2018), "*Enhancement of range-based 3D positioning via angle of arrival information*", The 11th International Conference on Embedded Systems and Intelligent Technology (ICESIT 2018) in cooperation with The 9th International Conference on Information and Communication Technology for Embedded Systems (IC-ICTES 2018), 7-9 May 2018.

U. S. Khwakhali, S. Gordon, and P. Suksompong (2017), "*Social-aware relay selection for device communications in cooperative cellular networks*", The 5th International Electrical Engineering Congress (iEECON2017), 8-10 March 2017.

P.Wangvongsathaphorn, C. Charoenlarpnopparut, P. Suksompong, H. Fujita, and J. Kudtongngam (2017), "*The operation of provincial electricity authority's SCADA*", The 8th International Conference of Information and Communication Technology for Embedded Systems (IC-ICTES 2017), 7-9 May 2017.

S. Sirithawornsant, A. Niyomgool, P. Suksompong, and C. Charoenlarpnopparut (2017), "*Fiber bragg grating FBG sensing temperature characteristic and application in water and air*", The 14th International Conference on Electrical Engineering/Electronics, Computer and Information Technology (ECTI-CON 2017), 27-30 June 2017.

A. Bhattarai, P. Suksompong, C. Charoenlarpnopparut, and P. Komolkiti (2017), "*Counter-intuitive channel allocation improvement in distributed cognitive radio networks by adding optimal interference in user's utility*", The 14th IEEE Annual Consumer Communications and Networking Conference (CCNC 2017), 8-11 January 2017.

W. Chantaweesomboon, C. Suwatthiku, S. Manatrinon, K. Athikulwongse, K. Kaemarungsi, R. Ranron, and P. Suksompong (2016),"*On performance study of UWB real time locating system*", The 2016 7th International Conference of Information and Communication Technology for Embedded Systems (IC-ICTES 2016), 20-22 March 2016.

Md. M. Rahman, C. Charoenlarpnopparut, P. Suksompong, "*Classification and pattern recognition algorithms applied to E-Nose,*" in Electrical Information and Communication Technology (EICT), 2015 2nd International Conference on , vol., no., pp.44-48, 10-12 Dec. 2015.

Md. M. Rahman, C. Charoenlarpnopparut, and P. Suksompong (2015). "*Signal processing for multi-sensor e-nose system: acquisition and classification,*" Proceedings of the 10th International Conference on Information, Communications and Signal Processing (ICICS 2015), 2-4 December 2015, Singapore.

S. Thananchai, P. Suksompong, C. Charoenlarpnopparut, A. Taparugssanagorn, and Y. Katsunori (2015). "*Application of reduced-complexity 3D indoor localization system in CDMA-based visible light communication system,*" Proceedings of the 2015 International Symposium on Multimedia and Communication Technology (ISMAC2015), 23-25 September 2015, Ayutthaya, Thailand, pp. 68-72.

E. Shinwasusin, C. Charoenlarpnopparut, P. Suksompong, and A. Taparugssanagorn (2015). "*Modulation performance for visible light communications*", The 6th International Conference on Information and Communication Technology for Embedded Systems (IC-ICTES 2015) [CD-ROM], Prachuap Khiri Khan, Thailand, 22-24 March 2015, pp. 61-64.

K. Yongvanit, P. Suksompong, A. Taparugssanagorn, C. Charoenlarpnopparut, and K. Fukawa, "*Near-Optimality of the One-Step-Max-Sum-Rate Precoder with MMSE Initialization for Large Downlink Multi-User MIMO Systems*", The 20th Asia-Pacific Conference on Communications (APCC2014), Pattaya, Thailand, October 1-3, 2014

R. Ranron, P. Suksompong, and K. Kaemarungsi, "*Deployment of ZigBee Wireless Sensor Network Localization System,*" The 29th International Technical Conference on Circuit/Systems Computers and Communications (ITC-CSCC 2014), Phuket, Thailand, July 1-4, 2014

A. Bhattarai, C. Charoenlarpnopparut, P. Suksompong, and Patrachart Komolkiti , "*Developing Policies for Channel Allocation in Cognitive Radio Networks using Game Theory,*" The 11th Annual International Conference on Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology (ECTI-CON 2014), Nakhon Ratchasima, Thailand, May 14-17, 2014

P. Prempree, P. Suksompong, C. Charoenlarpnopparut, and A. Taparugssanagorn, "*2-D Positioning based on passive RFID tags using multidimensional scaling*", 2014 Annual Conference on Engineering & Information Technology (ACEAIT 2014) [CD-ROM], March 28-30, 2014, Tokyo, Japan, 2014.

Md. M. Rahman, C. Charoenlarpnopparut, P. Suksompong, and A. Taparugssanagorn, "*Autocorrelation – MTM: A Compound Detector for Spectrum Hole Identification in Low SNR*", Proceedings of the 2013 International Conference on Electrical Communication and Information Technology (ECIT 2013), KUET, Khulna, Bangladesh, February 13-15, 2014.

Md. M. Rahman, C. Charoenlarpnopparut, P. Suksompong, and A. Taparugssanagorn, "*Spectrum Hole Identification in Multiple TV bands by Adaptive Threshold Multi-Taper Spectrum Estimator for Cognitive Radio*", Proceedings of the 2013 International Conference on Electrical Communication and Information Technology (ECIT 2013), KUET, Khulna, Bangladesh, February 13-15, 2014.

K. Yongvanit, P. Suksompong, A. Taparugssanagorn, C. Charoenlarpnopparut, and K. Fukawa, "*Performance Analysis of Iterative Max-Sum-Rate Algorithm in Massive MIMO Systems*", Proceedings of the International Conference on Information and Communication Technology for Embedded Systems (ICICTES 2014), Ayutthaya, Thailand, January 23-25, 2014

T. Sangyam, P. Suksompong and C. Charoenlarpnopparut, "*Capacity Maximization via Selection of Uniformly Distributed User for Uplink MIMO Communication over η-μ Fading Channel*", Proceedings of The Second Asian Conference on Information Systems (ACIS 2013), Phuket Thailand, Oct. 31-Nov. 2, 2013

T. Kiatdarakun, P. Suksompong, C. Chareonlarpnopparut, and A. Taparugssanagorn, "*3-D Localization Algorithm Using Double-Planar Passive RFID Arrays*", Proceedings of The 13th International Symposium on Communications and Information Technologies (ISCIT 2013), Samui Island, Thailand, Sep. 4-6, 2013.

T. Sansanayuth, P. Suksompong, C. Chareonlarpnopparut, and A. Taparugssanagorn, "*RFID 2D-Localization Improvement using Modified LANDMARC with Linear MMSE Estimation*", Proceedings of The 13th International Symposium on Communications and Information Technologies (ISCIT 2013), Samui Island, Thailand, Sep. 4-6, 2013.

P. Hanpinitsak, C. Charoenlarpnopparut, S. Thananchai, and P. Suksompong, "*2D MIMO-OFDM channel model with 2D interleaver*", The International Conference on Information and Communication Technology for Embedded Systems (ICICTES 2013), January 24-26. 2013.

A. Aksornsart and P. Suksompong. "*Performance gain of antenna selection for MRC over η-μ SIMO fading channel*", Proceedings of the International Conference on Information and Communication Technology for Embedded Systems (ICICTES 2013), January 24-26. 2013.

T. Kiatdarakun and P. Suksompong, "*Entropy Rate of Thai Text and Testing Author Authenticity Using Character Combination Distribution,*" Proceedings of the Second International Conference on Digital Information and Communication Technology and its Applications (DICTAP 2012), pp. 492-497, Thailand, May 16-18, 2012

T. Kiatdarakun and P. Suksompong, "*Testing Author Authenticity Using Character Combination Distribution,*" The 2012 First ICT International Senior Project Conference (ICT-ISPC 2012), Nakhon Pathom, Thailand, April 20, 2012

T. Bamrungkitjaroen, P. Suksompong, C. Charoenlarpnopparut, K. Kaemarungsi, and K. Fukawa, "*Application of Pipelining Technique in Concatenated Tomlinson Harashima Precoder for Downlink Multiuser MIMO Systems,*" Proceedings of the International Conference on Information and Communication Technology for Embedded Systems 2012 (ICICTES 2012), Bangkok, Thailand, March 22-24, 2012

T. Sangyam, C. Charoenlarpnopparut, P. Suksompong, K. Kaemarungsi, and K. Fukawa, "*Performance of Uplink Multi-User MIMO WiFi with Capacity Maximizing User Selection and Uniformly Distributed User Locations,*" Proceedings of the International Conference on Information and Communication Technology for Embedded Systems 2012 (ICICTES 2012), Bangkok, Thailand, March 22-24, 2012

N. Jira-aroon, N. Promdontree, and P. Suksompong, "*On the Effect of Subcarrier Initial Location in SC-FDMA with Localized FDMA Mapping,*" Proceedings of the International Conference on Information and Communication Technology for Embedded Systems 2012 (ICICTES 2012), Bangkok, Thailand, March 22-24, 2012

T. Bamrungkitjaroen, P. Suksompong, C. Charoenlarpnopparut, K. Sripimanwat, and K. Fukawa, "*Application of Pipelining Technique in Concatenated Tomlinson Harashima Precoder for Downlink MIMO Systems*", Proceedings of the Asia Simulation Conference 2011 (AsiaSim 2011), Seoul, Korea, November 16-18, 2011

P. Kanjanavirojkul, K. Keeratishananond, and P. Suksompong, "*Implementation of SU-MIMO and MU-MIMO GTD-System under Imperfect CSI Knowledge*", Proceedings of the International Conference on Signal Processing, Communications and Networking (ICSPCN 2011), Venice, Italy, April 27-29, 2011

T. Chanpokapaiboon, P. Puttawanchai, and P. Suksompong, "*Enhancing PAPR Performance of MIMO-OFDM Systems Using SLM Technique with Centering Phase Sequence Matrix*", Proceedings of the 8th Annual International Conference on Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology (ECTI-CON 2011), Khon Kaen, Thailand, May 17-19, 2011

P. Kanjanavirojkul, K. Keeratishananond, P. Suksompong, "*Implementation and Performance of Generalized Triangular Decomposition in Multi-user MIMO*", Proceedings of the International Conference on Information and Communication Technology for Embedded Systems 2011 (ICICTES 2011), pp. 130-134, Pattaya, Thailand, January 27-29, 2011.

S. Suppitux, S. Tangkachavana, T. Vinichhayakul, and P. Suksompong, "*Enhancing PAPR reduction for Tone Reservation Algorithms by Deep Clipping*", The 7th Annual International Conference on Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology (ECTI-CON 2010), Chiang Mai, Thailand, May 2010.

P. Suksompong and T. Berger, "*Jitter Analysis of Timing Codes for Neurons with Descending Action Potential Thresholds*", IEEE International Symposium on Information Theory (ISIT) 2006, July 11, 2006.

D. S. Chan, P. Suksompong, J. Chen, and T. Berger, "*Improving IEEE 802.11 Performance with Cross-Layer Design and Multipacket Reception via Multiuser Iterative Decoding,*" IEEE 802.11-05/0946r0, September 2005.

J. Chen, P. Suksompong, and T. Berger, "*Communication through a Finite-State Machine with Markov Property*", Conference on Information Sciences and Systems (CISS) 2004, January 1, 2004.