PERSONAL DATA

Name : Associate Professor AZIZ NANTHAAMORNPHONG
Position : Dean of College of Computing
Email : aziz.n@phuket.psu.ac.th
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ORCID : 0000-0002-1618-6001
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EDUCATION

Ph.D. Degree	2014	Computer Science (Ph.D.), The University of Alabama, USA
Master Degree	2002	Information Technology (M.Sc.), Kasetsart University, Bangkok, Thailand
Bachelor Degree	1999	Industrial Engineering (B.Eng.), Thammasat University, Bangkok, Thailand

RESEARCH INTERESTS

I am particularly interested in data science in software engineering, including software analytics, data analytics in open source software, social analytics. I also do research on software engineering practices in scientific software development. For example, agile methods, test-driven development, design patterns. My research extends to empirical software engineering, software quality, software maintenance, software development process, software architecture, and reverse engineering.

Data Science in Software Engineering

Empirical Software Engineering

Software Quality

Agile Methodologies

RESEARCH PROJECTS

Marketing Channel Development for Wellness Spa in Southern Thailand
Aziz Nanthaamornohong, http://southernspa.info/home/login
City Data Platform (CDP) - Phuket Smarty City Platform
Co-working with City Data Analytics Co., Ltd. and Digital Economy Promotion Agency (depa)

ForUML – Extraction the UML diagrams from Modern FORTRAN.
Nanthaamornphong, A., Carver, J., Morris, K., & Filippone, S. (2015). Extracting UML class diagrams from object-oriented Fortran: ForUML Scientific Programming, 2015
Nanthaamornphong, A., & Leatongkam, A. (2017). Modern Fortran Transformation Rules for UML Sequence Diagrams. Journal of Telecommunication, Electronic and Computer Engineering (JTEC), 9(3-4), 131-136.
Squirrel – The code snippet repository system
Nanthaamornphong, A., Pomwong, S., Klebkaew, K., & Jindamanee, N. (2017). Squirrel: A Code Snippet Repository. Journal of Telecommunication, Electronic and Computer Engineering (JTEC), 9(3-3), 73-77.
OSS Analytic – Analyze the code smell in OSS projects
Nanthaamornphong, A., & Chaisutanon, A. (2016, September). Empirical evaluation of code smells in open source projects: preliminary results. In Proceedings of the 1st International Workshop on Software Refactoring (pp. 5-8). ACM.
ZSmell – The code smell detection tool integrated with GitHub

Research Projects

APPOINTMENT

Dean of College of Computing (October 2021 - Present)
Vice-Dean of Research, Post-Graduate, and Academic Services (June 2018 - Present)
Chair of Master of Science in Information Technology Degree Program (May 2014 - 17 October 2018)

TEACHING

Lecturer
• **Service Oriented Architecture** (Undergraduate level) - 2018 (1st semester)
• **R Programming** (Graduate level) - 2018 (2nd semester)
• **Statistics for Information Technology** (Graduate level) - 2015 (1st semester), 2016 (1st semester), 2017 (1st semester)
• **Advanced Empirical Software Engineering** (Graduate level) - 2015 (2nd semester), 2016 (2nd semester)
• **Software Construction and Maintenance** (Undergraduate level) - 2014 (1st semester), 2015 (1st semester), 2016 (1st semester)
• **Advanced Object-Oriented Programming** (Undergraduate level) - 2014 (2nd semester), 2015 (2nd semester)
• **Software Architecture** (Undergraduate level) - 2014 (2nd semester), 2016 (2nd semester)
• **Component-Based Software Development** C(Undergraduate level) - 2014 (2nd semester), 2017 (1st semester)
Guest Lecturer
• **Software Quality Assurance** (Undergraduate level) - 2009 (1st semester)
• **Object-Oriented Analysis and Design** (Undergraduate level) - 2007 (1st semester) 2008 (1st semester)
• **Software Architecture** (Undergraduate level) - 2007 (2nd semester), 2008 (2nd semester)

MSc/PhD Students

PhD Students
• Kulsiri Jirayoot (current)
• Nichapat Sangkaew (current)
• Sawitree Srianan (current)
• Nattapat Luenglertpaiboon (current)

Master Students
• Apatta Chaisutanon (graduated 5/2017)
• Suchada Pongphom (graduated 5/2017)
• Thanyarat Kitpanich (graduated 7/2018)
• Anawat Leatongkam (graduated 7/2018)
• Ton Jaitong (graduated 7/2022)

INTERNATIONAL JOURNAL ARTICLES

Kumar, A., Sarveswara Rao, T., K. T., C., Chakravarty, S., Gaur, N. & **Nanthaamornphong, A.** (2025). Analysis of software-defined radio for optical networking. *Journal of Optical Communications*.

https://doi.org/10.1515/joc-2024-0274

1/2025 *Journal of Optical Communications, Q 3*

Kumar, A., Sarveswara Rao, T., C.N., G., Gaur, N. & **Nanthaamornphong, A.** (2025). Analysis of PAPR reduction algorithms for optical OFDM 5G radio waveform system for visible light communication. *Journal of Optical Communications*.

https://doi.org/10.1515/joc-2024-0276

1/2025 *Journal of Optical Communications, Q 3*

Kumar A, Gaur N, **Nanthaamornphong A**. PAPR reduction using model-driven hybrid algorithms in the 6G NOMA waveform. *Internet Technology Letters*. 2024; 7(6):e515.

https://doi.org/10.1002/itl2.515

1/2025 *Internet Technology Letters, Q 3*

Kumar, A., Sarveswara Rao, T., Kumar Mishra, A., Kumar Swarnkar, S. & **Nanthaamornphong, A.** (2025). Lowering the PAPR by using the PTS method for high-speed optical OTFS systems. *Journal of Optical Communications*.

https://doi.org/10.1515/joc-2024-0287

2/2025 *Journal of Optical Communications, Q3*

Kumar, A., & **Nanthaamornphong, A.** (2025). Analysis of 6G and B5G waveforms using hybrid MF-ED and ECG-ED spectrum sensing techniques. *Automatika*, *66*(2), 133–153.

https://doi.org/10.1080/00051144.2025.2460879

2/2025 *Automatika, Q2*

Kumar, A., Gaur, N. and **Nanthaamornphong, A.** (2025), Detection of Beyond 5G Signal Detection Using Hybrid Method. Internet Technology Letters e655.

https://doi.org/10.1002/itl2.655

2/2025 *Internet Technology Letters, Q3*

Kumar, A., Gaur, N., **& Nanthaamornphong, A. (2025).** A SIC and ML approach for MIMO non-orthogonal multiple access signal detection. *Results in Optics, 18*, 100792.

https://doi.org/10.1016/j.rio.2025.100792

2/2025 *Results in Optics, Q3*

Padhi, J., Mishra, K., Ratha, A. K., Behera, S. K., Sethy, P. K., & **Nanthaamornphong, A.** (2025). Enhancing paddy leaf disease diagnosis: A hybrid CNN model using simulated thermal imaging. *Smart Agricultural Technology, 10*, 100814.

https://doi.org/10.1016/j.atech.2025.100814

2/2025 *Q1*

Kumar, A., Gaur, N., & Nanthaamornphong, A. (2025). Hybrid Spectrum Sensing Using Neural Network–Based MF and ED for Enhanced Detection in Rayleigh Channel. *Journal of Electrical and Computer Engineering*, *2025*(1), 9506922.

https://doi.org/10.1155/jece/9506922

3/2025 *Journal of Electrical and Computer Engineering, Q2*

Srianan, S., **Nanthaamornphong, A.**, & Phucharoen, C. (2025, March 27). Analyzing emotional experiences through UGC: Insights from Bali and Phuket. *Journal of Quality Assurance in Hospitality & Tourism*.

https://doi.org/10.1080/1528008X.2025.2484576

3/2025 *Q1, Journal of Quality Assurance in Hospitality & Tourism*

Kumar, A., Piruthiviraj, Chakravarty, S., Sharma, S., Nithin Kumar, N. R., & **Nanthaamornphong, A.** (2025). Physical layer analysis of optical MIMO NOMA waveform for 64-QAM in visible light communications. *Journal of Optical Communications*.

https://doi.org/10.1515/joc-2025-0052

3/2025 *Q3, Journal of Optical Communications*

Dale, M., Kamble, V. H., Dhumale, R. B., & N**anthaamornphong, A.** (2025). Open Switch Fault Diagnosis in Three-Phase Voltage Source Inverters Using Single Neuron Implementation. *Processes*, *13*(4), 1070.

https://doi.org/10.3390/pr13041070

4/2025 *Processes, Q2*

Kumar, A., & **Nanthaamornphong, A.** (2025). Reducing the peak to average power ratio in optical NOMA waveform using Airy-special function based PTS algorithm. *Infocommunications Journal, 17*(1), 11–18.

https://doi.org/10.36244/ICJ.2025.1.2

4/2025 *Infocommunications Journal, Q3*

Kumar A, Masud M, Alsharif MH, Gaur N and **Nanthaamornphong A** (2025) Integrating 6G technology in smart hospitals: challenges and opportunities for enhanced healthcare services. *Front. Med.* 12:1534551.

https://doi.org/10.3389/fmed.2025.1534551

4/2025 *Frontiers in Medicine, Q1*

Kumar, A., Gaur, N., & **Nanthaamornphong, A. (2025).** Reducing PAPR in NOMA waveforms using genetic-enhanced PTS and SLM: A low-complexity approach for improved throughput, power spectral density, and power efficiency. *Results in Engineering, 26*, 104893.

https://doi.org/10.1016/j.rineng.2025.104893

4/2025 *Results in Engineering, Q1*

Jat, N., Kumar, A., Gupta, M., & **Nanthaamornphong, A. (**2025). Natural fabric wearable high isolation fractal MIMO antenna for wireless communication and 5G uses. *Discover Applied Sciences, 7*(5), 365.

https://doi.org/10.1007/s42452-025-06906-5

4/2025 *Discover Applied Sciences, Q1*

Kamble, V. H., Dale, M., Dhumale, R. B., & **Nanthaamornphong, A.** (2025). Optimization of PID Controllers Using Groupers and Moray Eels Optimization with Dual-Stream Multi-Dependency Graph Neural Networks for Enhanced Dynamic Performance. *Energies*, *18*(8), 2034.

https://doi.org/10.3390/en18082034

4/2025 *Energies, Q1*

Ramudu, K., Udayakumar, A. K., Kumar, A., **Nanthaamornphong, A.**, & Gopinath, S. (2025). Optimized neuro-adaptive twin pulse-coupled estimators for efficient channel estimation in heterogeneous 5G MIMO-OFDM communication systems. *Internet Technology Letters, 8*(3), e70013.

https://doi.org/10.1002/itl2.70013

5/2025 *Internet Technology Letters, Q3*

Kumar, A., Radhakrishnan, P., Raja, C. & **Nanthaamornphong, A.** (2025). Throughput analysis of optical NOMA waveform through RNN and CNN neural networks with 256-QAM. *Journal of Optical Communications*.

https://doi.org/10.1515/joc-2025-0093

4/2025 *Journal of Optical Communications, Q3*

Kumar, A.**, & Nanthaamornphong, A.** (2025). Genetic algorithm-based PTS with CNN for PAPR and BER reduction in FBMC systems under fading channels. *Ain Shams Engineering Journal, 16*(7), 103434.

https://doi.org/10.1016/j.asej.2025.103434

4/2025 *Ain Shams Engineering, Q1 (Tier 1)*

Kumar, A., Gaur, N., & **Nanthaamornphong, A.** (2025). Hybrid signal algorithm detection in NOMA 5G waveform: Transforming smart healthcare connectivity by reducing latency. *Egyptian Informatics Journal, 30*, 100677.

https://doi.org/10.1016/j.eij.2025.100677

4/2025 *Egyptian Informatics Journal, Q1 (Tier 1)*

Kumar, A., Gaur, N., & **Nanthaamornphong, A.** (2025). A mathematical PAPR estimation of OTFS network using a machine learning SVM algorithm. *Results in Optics, 21*, 100834.

https://doi.org/10.1016/j.rio.2025.100834

4/2025 *Results in Optics, Q3*

Pal, K., Kumari, N., Akella, A. K., Gupta, M., Suanpang, P., & **Nanthaamornphong, A.** (2025). Machine learning-based image pattern recognition using histogram of oriented gradient for islanding detection. *IEEE Access, 13*, 74396–74416.

https://doi.org/10.1109/ACCESS.2025.3564145

5/2025 *IEEE Access, Q1 (Tier 1)*

Kumar, A., Chakravarty, S., Bobade, S. D., & **Nanthaamornphong, A. (**2025). Design and analysis of optical MIMO communications for 256-QAM for reconfigurable holographic surfaces. *Journal of Optical Communications*.

https://doi.org/10.1515/joc-2025-0114

5/2025 *Journal of Optical Communications, Q3*

Dash, S. K., Satyanarayana, K., Behera, S. K., Jena, S., Ratha, A. K., Sethy, P. K., & **Nanthaamornphong, A.** (2025). Ocular disease detection using fundus images: A hybrid approach of Grad-CAM and multiscale Retinex preprocessing with VGG16 deep features and fine KNN classification. *Applied Computational Intelligence and Soft Computing, 2025*(1), Article 6653543.

https://doi.org/10.1155/acis/6653543

5/2025 *Applied Computational Intelligence and Soft Computing, Q1*

Kumar, A., Chakravarty, S., & **Nanthaamornphong, A.** (2025). Investigation of the satellite internet of things and reinforcement learning via complex software defined network modeling. *International Journal of Electrical and Computer Engineering (IJECE)*, *15*(3), 3506.

http://doi.org/10.11591/ijece.v15i3.pp3506-3518

6/2025 *Q2*

Tupe-Waghmare, P., Ganvir, N., Dhumale, R. B., & **Nanthaamornphong, A**. (2025). Open-Circuit Fault Diagnosis in 3□ V/F-Controlled VSIs Under Variable Load Conditions at Different Frequencies Using Park's Vector Normalization and Extreme Gradient Boosting. *Processes*, *13*(5), 1313.

https://doi.org/10.3390/pr13051313

4/2025 *Q2, Processes*

Yewale, D., Patil, S., Date, A. R., & **Nanthaamornphong, A.** (2025). Heart disease prediction using ensemble methods, genetic algorithms, and data augmentation: A preliminary study. *Journal of Robotics and Control*, *6*(3), 1092.

https://doi.org/10.18196/jrc.v6i3.25144

5/2025 *Q2, Journal of Robotics and Control (JRC)*

Ratha, A. K., Devi, A. G., Sethy, P. K., Barpanda, N. K., Behera, S. K., & **Nanthaamornphong, A.** (2025). Deep learning-powered precision: A CNN-based approach for postharvest classification of Indian banana varieties in supermarket supply chains. *Food Science and Technology, 13*(2), 165–177.

https://doi.org/10.13189/fst.2025.130205

6/2025 *Food Science and Technology*

Mishra, K., Behera, S. K., Devi, A. G., Sethy, P. K., & **Nanthaamornphong, A.** (2025). Integrating shallow and deep features for precision evaluation of corn grain quality: A novel fusion approach. *International Journal of Computational Intelligence Systems, 18*(1), 156.

https://doi.org/10.1007/s44196-025-00889-2

6/2025 *Q1, International Journal of Computational Intelligence Systems*

Kumar, A., Gaur, N., & **Nanthaamornphong, A.** (2025). Optical OTFS waveform PAPR analysis for high order modulation employing CNN, DNN, and AE machine learning algorithms under a variety of channel scenarios. *Physics Open, 24*, 100284.

https://doi.org/10.1016/j.physo.2025.100284

6/2025 *Q3, Physics Open*

Kumar, A., **Nanthaamornphong, A**., & Gaur, N. (2025). Optimizing PAPR performance for 6G OTFS waveform using adaptive genetic PTS method for Rician fading channels. *EURASIP Journal on Advances in Signal Processing, 2025*(1), 22.

https://doi.org/10.1186/s13634-025-01234-7

7/2025 *Q2*

Pandey, A., Raja, R., Gupta, M., Alenizi, F. A., Suanpang, P., & Nanthaamornphong, A. (2025). Deep learning enabled garbage classification and detection by visual context for aerial images. *Applied Computational Intelligence and Soft Computing, 2025*(1), 9106130.

https://doi.org/10.1155/acis/9106130

7/2025 *Scopus Q1 Top 10%, Applied Computational Intelligence and Soft Computing*

Kumar, A., Gaur, N., & **Nanthaamornphong, A. (**2025). Signal detection of massive MIMO systems using LSTM-based signal detectors for beyond 5G radio. *Alexandria Engineering Journal, 127*, 760–770.

https://doi.org/10.1016/j.aej.2025.06.041

7/2025 *Alexandria Engineering Journal, Q 1 (top 10%)*

Kumar, A., Maashi, M., Alshahrani, H. M., Arasi, M. A., Yahya, A. E., **Nanthaamornphong, A.**, Aljabri, J., & Alzahrani, Y. (2024). Peak to average power computing and optimization of optical OTFS 5G waveform using hybrid fractal-based signal processing algorithm. Fractals, Article 2540040.

https://www.worldscientific.com/doi/10.1142/S0218348X25400407

10/2024 Fractals, Q1 (Tier 1)

Kumar, A., Gaur, N., & **Nanthaamornphong, A.** (2024). Signal detection of M-MIMO-orthogonal time frequency space modulation using hybrid algorithms: ZFE + MMSE and ZFE + MF. *Results in Engineering*, *24*, 103311. doi:10.1016/j.rineng.2024.103311

https://doi.org/10.1016/j.rineng.2024.103311

11/2024 Results in Engineering, Q 1

Kumar, A., Gaur, N., & Nanthaamornphong, A. (2024). Bi-LSTM based deep learning algorithm for NOMA-MIMO signal detection system. *National Academy Science Letters*.

https://doi.org/10.1007/s40009-024-01516-y

11/2024 National Academy Science Letters, Q3

Nanthaamornphong, A., Kumar, A., Maashi, M., Maray, M., Ebad, S. A., Alshahrani, H. M., ... Sharma, S. (n.d.). FRACTAL PEAK POWER ANALYSIS ON NOMA WAVEFORMS USING THE PTS METHOD FOR DIFFERENT SUB-CARRIERS: APPLICATIONS IN 5G AND BEYOND. *Fractals*, *0*(0), 2540017.

https://doi.org/10.1142/S0218348X25400171

11/2024 Fractals, Q1 (Tier 1)

Sethy, P. K., Korada, L., Behera, S. K., Shirole, A., Amat, R., & **Nanthaamornphong, A.** (2024). Maximizing steel slice defect detection: Integrating ResNet101 deep features with SVM via Bayesian optimization. *Systems and Soft Computing*, *6*, 200170.

https://doi.org/10.1016/j.sasc.2024.200170

12/2024 Systems and Soft Computing, Q3

Dash, S. K., Sethy, P. K., Das, A., Jena, S., & **Nanthaamornphong, A.** (2024). Advancements in deep learning for automated diagnosis of ophthalmic diseases: A comprehensive review. *IEEE Access, 12*, 171221–171240.

https://doi.org/10.1109/ACCESS.2024.3496565

11/2024 IEEE Access, Q1 (Tier 1)

Pandey, A., Raja, R., Srivastava, S., Kumar, K., Gupta, M., Somthawinpongsai, C., & **Nanthaamornphong, A.** (2024). Bio-inspired object detection and tracking in aerial images: Harnessing northern goshawk optimization. *IEEE Access, 12,* 174028–174040.

https://doi.org/10.1109/ACCESS.2024.3502033

11/2024 Q1 (Tier 1), IEEE Access

Kumar, A., Gaur, N., Chakravarthy, S., & **Nanthaamornphong, A.** (2025). Enhancing satellite networks with deep reinforcement learning: A focus on IoT connectivity and dynamic resource management. *Results in Optics, 18*, 100765.

https://doi.org/10.1016/j.rio.2024.100765

11/2024 Results in Optics, Q3

Kumari, J., Behera, S. K., Sethy, P. K., & **Nanthaamornphong, A.** (2024). Enhanced Parkinson's disease diagnosis via MRI analysis: Integrating deep features from DenseNet201 with neural network techniques. *Applied Computational Intelligence and Soft Computing, 2024*(1), Article 5582371.

https://doi.org/10.1155/acis/5582371

12/2024 Applied Computational Intelligence and Soft Computing, Q 1

Dutta, A., Das, U. C., Chavalparit, O., Dutta, G., Limphitakphong, N., Gupta, M., & **Nanthaamornphong, A**. (2024). Optimizing prevention strategies for PM2.5-related health risks in Nakhon Ratchasima. Environmental and Sustainability Indicators, 21, 100328.

https://doi.org/10.1016/j.indic.2023.100328

2/2024 Environmental and Sustainability Indicators, Q1 (Tier 1)

Kumar, A., Chakravarty, S. & **Nanthaamornphong, A.** (2024). Analysis of PAPR reduction of optical-OTFS for 256-QAM using companding and clipping–filtering algorithms. *Journal of Optical Communications*.

https://doi.org/10.1515/joc-2023-0369

1/2024 Journal of Optical Communications, Q3

Dev, D. G., Bhatnagar, V., Bhati, B. S., Gupta, M., & **Nanthaamornphong, A.** (2024). LSTMCNN: A hybrid machine learning model to unmask fake news. *Heliyon*, *10*(3), e25244.

https://doi.org/10.1016/j.heliyon.2024.e25244

2/2024 Heliyon, Q1

Kumar, A., Gaur, N., Mallam, M. & **Nanthaamornphong, A.** (2024). Enhancing the power amplifier performance of an optical-OTFS modulation for optical communication system. *Journal of Optical*

Communications.

https://doi.org/10.1515/joc-2023-0378

2/2024 *Journal of Optical Communications, Q3*

Kumar, A. ., Gaur, N. ., & **Nanthaamornphong, A.** . (2024). Intelligent Signal Identification of NOMA Signal with 256-QAM Modulation Using SVM Algorithm. *International Journal of Intelligent Systems and Applications in Engineering*, *12*(13s), 257–264.

ttps://ijisae.org/index.php/IJISAE/article/view/4593

2/2024 *International Journal of Intelligent Systems and Applications in Engineering, Q3*

Kumar, A., Gaur, N., Gupta, M., & **Nanthaamornphong, A.** (2024). Implementation of the deep learning method for signal detection in massive-MIMO-NOMA systems. *Heliyon*, *10*(3), e25374.

https://www.cell.com/heliyon/fulltext/S2405-8440(24)01405-1

2/2024 *Heliyon, Q1*

Tiwari, D., Nagpal, B., Bhati, B., Gupta, M., Suanpang, P., Butdisuwan, S., & **Nanthaamornphong, A.** (2024). SPSO-EFVM: A Particle Swarm Optimization-Based Ensemble Fusion Voting Model for Sentence-Level Sentiment Analysis*. IEEE Access, 12, 23707-23724.*

https://ieeexplore.ieee.org/document/10423637

2/2024 *IEEE Access, Q1 (Tier 1)*

Kumar, A., Gaur, N., Chakravarty, S., & **Nanthaamornphong, A**. (2023). Reducing the PAPR of OTFS modulation using hybrid PAPR algorithms. *Wireless Personal Communications*, *133*(4), 2503–2523.

https://doi.org/10.1007/s11277-024-10885-y

2/2024 *Wireless Personal Communications, Q2*

Kumar, A. ., Gaur, N. ., Chakravarthy, S. ., & **Nanthaamornphong, A.** . (2024). Performance Evaluation of 5G New Radio Physical Uplink Channels with LDPC and Polar Coding on AWGN Channels . *International Journal of Intelligent Systems and Applications in Engineering*, *12*(16s), 698–701.

https://ijisae.org/index.php/IJISAE/article/view/4916

2/2024 *International Journal of Intelligent Systems and Applications in Engineering, Q3*

Kumar, A., Yamini, A. P., Gaur, N., & **Nanthaamornphong, A.** (2024). A mathematical analysis of the PAPR in the NOMA waveform using SLM algorithm for 64-QAM. *Journal of Interdisciplinary Mathematics*, *27*(2), 223–232.

https://doi.org/10.47974/JIM-1815

3/2024 *Journal of Interdisciplinary Mathematics, Q2*

Kumar, A., Chakravarty, S., Sharma, M. K., & **Nanthaamornphong, A.** (2024). A mathematical analysis of teleoperator optimization using multiple sensors. *Journal of Interdisciplinary Mathematics*, *27*(2), 201–209.

https://doi.org/10.47974/JIM-1810

3/2024 *Journal of Interdisciplinary Mathematics, Q2*

Kumar, A., Gaur, N., & **Nanthaamornphong, A.** (2024). Improving the latency for 5G/B5G based smart healthcare connectivity in rural area. *Scientific Reports*, *14*(1), 6976.

https://doi.org/10.1038/s41598-024-57641-7

3/2024 *Scientific Reports, Q1 (Tier 1)*

Kumar, A. ., Yongo, M. D. ., Chakravarthy, S. ., & **Nanthaamornphong, A.** . (2024). Integrated Research on Coexistence of mm-Wave Radar Communication and Dense Multi-Access Point Environments: A Testbed Controller Approach. *International Journal of Intelligent Systems and Applications in Engineering*, *12*(19s), 479–484.

https://ijisae.org/index.php/IJISAE/article/view/5088

3/2024 *International Journal of Intelligent Systems and Applications in Engineering, Q3*

Elgandelwar, S. M., Bairagi, V., Vasekar, S. S., **Nanthamornphong, A**., & Tupe-Waghmare, P. (2024). Analyzing electroencephalograph signals for early Alzheimer's disease detection: deep learning vs. traditional machine learning approaches. *International Journal of Electrical and Computer Engineering (IJECE)*, 14(3), 2602–2615

https://doi.org/10.11591/ijece.v14i3.pp2602-2615

6/2024 *International Journal of Electrical and Computer Engineering, Q3*

Kumar, A., Sharma, H., Gaur, N., & **Nanthaamornphong, A.** (2024). PAPR analysis in OTFS using the centre phase sequence matrix based PTS method. *Results in Optics*, *15*, 100664.

https://doi.org/10.1016/j.rio.2024.100664

3/2024 *Results in Optics, Q3*

Kumar, A., Chakravarthy, S., Gaur, N., **Nanthamornphong, A.**, & Tupe-Waghmare, P. (2024). Ad hoc wireless network implementing BEE-LEACH. *International Journal of Electrical and Computer Engineering (IJECE)*, 14(3), 2945-2954

https://ijece.iaescore.com/index.php/IJECE/article/view/35203

6/2024 *International Journal of Electrical and Computer Engineering, Q2*

Kumar, A., Alshahrani, H. M., Alotaibi, F., & **Nanthaamornphong, A.** (2024). A hybrid detection algorithm for 5G OTFS waveform for 64 and 256 QAM with Rayleigh and Rician channels. *Open Engineering, 14*(1), Article 20240008.

https://doi.org/10.1515/eng-2024-0008

4/2024 *Open Engineering, Q2*

Kumar, A., Gaur, N., Chakravarty, S., & **Nanthaamornphong, A.** (2024). Exploring PTS method in MIMO advanced waveform signal for 5G network security analysis. *Journal of Discrete Mathematical Sciences and Cryptography*, *27*(2-A), 261–268. Taru Publications.

https://doi.org/10.47974/jdmsc-1874

4/2024 *Journal of Discrete Mathematical Sciences and Cryptography, Q1 (Tier 1)*

Kumar, A., Gaur, N., Chaitra, S. N., Chakravarty, S., & **Nanthaamornphong, A.** (2024). Analyzing the role of spectrum sensing for security enhancement in beyond 5G waveforms using energy detection. In Journal of Discrete Mathematical Sciences and Cryptography (Vol. 27, Issues 2-A, pp. 215–222). Taru Publications.

https://doi.org/10.47974/jdmsc-1875

4/2024 *Journal of Discrete Mathematical Sciences and Cryptography, Q1 (Tier 1)*

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Aziz Nanthaamornphong, Jeffrey Carver, Design Patterns in Software Maintenance: An Experiment Replication at University of Alabama, The 2nd International Workshop on Replication in Empirical Software Engineering Research, pp. 15-24, Alberta, Canada

9/2011

NATIONAL PROCEEDINGS

Anawat Leatongkam and **Aziz Nanthaamornphong**, Modern Fortran Transformation Rules for UML Sequence Diagrams, The 13th National Conference on Computing and Information Technology (NCCIT 2017), pp.247-280, Bangkok, Thailand.

1/2017

Thanyarat Kitpanich and **Aziz Nanthaamornphong**, The Empirical Evidence on Software Maintainability in Open Source Projects, The 13th National Conference on Computing and Information Technology (NCCIT 2017), pp.267-273, Bangkok, Thailand.

1/2017

Aziz Nanthaamornphong, Weerayut Hongsa, Nimaslan Auseng, and Chanwit Julrod, The Log File Management with AirLog, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp. 292-297, Khon Kaen, Thailand

1/2016

Rattana Wetprasit and **Aziz Nanthaamornphong**, Phuket Smart City and the Needs of its Population, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp.599-604, Khon Kaen, Thailand

1/2016

Suchada Pongprom, **Aziz Nanthaamornphong**, and Rattana Wetprasit, Encouraging Students' Interest in Software Development by Test-Driven Development, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp.478-483, Khon Kaen, Thailand

1/2016

Apatta Chaisutanon, **Aziz Nanthaamornphong**, and Rattana Wetprasit, Code Smell Influences in the Code Review for Open Source Software Projects, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp.170-175, Khon Kaen, Thailand

1/2016

CHAPTERS

Gaur, N., Chakravarty, S., & **Nanthaamornphong, A.** (2024). 6G networks technology. In *Smart hospitals: An exhaustive survey* (pp. 235-256). Wiley Online Books. https://doi.org/10.1002/9781394275472.ch12

11/2024

Aziz Nanthaamornphong, and Rattana Wetprasit. "Thailand's Software Startup Ecosystem." In *Fundamentals of Software Startups*, pp. 195-213. Springer, Cham, 2020.

3/2020

TRAINING

- **Introduction to Data Science**, Bangkok, Thailand, June 2-3, 2016
- **Agile Workshop**, Bangkok, Thailand, 3-5 April, 2015
- **Object-Oriented Programming in Fortran**, University of California at Berkeley, California, USA, 03/2012
- **Evaluating Software Architecture**, Software Park, Bangkok, Thailand, 05/2008
- **Software Project Estimation and Measurement**, Software Park, Bangkok, Thailand, 11/2007
- **Project Management for CMM**, Compulink System Ltd., Pune, India, 06/2005

OTHERS

INDUSTRY WORK EXPERIENCE

Executive System Analyst, Software Industry Promotion Agency (SIPA), Ministry of Information and Communication Technology, Phuket branch, Thailand, 2005-2009
Project Leader, Northstar Infosys Co., Ltd., Bangkok, Thailand, 2002-2005
Junior Developer, Drumbeat Digital (Thailand) Co., Ltd., 2001-2002

PROFESSIONAL ACTIVITIES

Conference Organizers

- Special Session Chair of the 18th Internation Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2021)
- Publication Chair of the 18th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2021)
- General Chairs of the 17th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2020)
- General Co-Chairs of the 23rd International Computer Science and Engineering Conference (ICSEC 2019)

Conference/Workshop Program Committees

- International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), 2020 - 2021
- International Computer Science and Engineering Conference (ICSEC), 2019
- The International Joint Conference on Computer Science and Software Engineering, 2018
- International Conference on Enterprise Architecture and Information Systems, 2018
- International Conference on Computing and Information Technology, 2018
- The 2nd International Conference on Information Technology, 2017
- The National Conference on Information Technology, 2015 - 2021
- The 2nd International Conference on Enterprise Architecture and Information Systems, 2017
- The National Conference on Computing and Information Technology, 2015 - 2018
- The 2015 Workshop on Software Engineering, 2015
- Empirical Software Engineering and Measurement, 2012-2014
- The 3rd Annual PSU Phuket International Conference, 2014
- Asia-Pacific Workshop on Software Engineering for Computational Science and Engineering, 2013
- International Symposium on Software Reliability Engineering, 2013
- International Workshop on Replication in Empirical Software Engineering Research, 2013
- The 50th ACM Southeast Conference, 2012

Conference/Workshop Session Moderator

- The 10th Malaysian Software Engineering Conference, 2017
- The 2015 Workshop on Software Engineering, 2015
- The 7th National Conference on Information Technology, 2015

Journal Reviewers

- IEEE Transaction on Software Engineering
- Software Quality Journal
- Journal of Software : Evolution and Process
- Information and Software Technology

• Computing in Science & Engineering
• Journal of Software: Practice and Experience
• Institute of Electronics, Information and Communication Engineers
• International Journal of Web Information Systems

RESEARCH GRANTS

Aziz Nanthaamornphong (PI), ***Marketing Channel Development for Wellness Spa in Southern Thailand***, Spearhead Funding
funded by Thailand Science Research and Innovation, 2018 - 2019

2018

Aziz Nanthaamornphong (PI), ***Code Smell Influences in the Code Review for Open Source Software Projects***
funded by National Science and Technology Development Agency, 2018

2018

Rattana Wetprasit (PI) and **Aziz Nanthaamornphong** (Co-PI), ***Status of Tech-Startup in Thailand***
funded by Faculty of Technology and Environment, 2017

2017

Kwankamon Dittakan (PI), **Aziz Nanthaamornphong** (Co-PI), and Noppon Leardchoowongsa (Co-PI), ***Early detection of Alzheimer's Disease with Image Processing***
funded by Bangkok Hospital, 2016

2016

Aziz Nanthaamornphong (PI) and Rattana Wetprasit(Co-PI), ***Effectiveness of Agile in Thailand***
funded by Factulty of Technology and Environment, 2014 - 2015

2014

AWARDS

• **Staff of the Year Award 2020**, *College of Computing, Prince of Songkla University, Phuket Campus*
• **Outstanding Researcher Award**, *PRIDE of PSU 2020*
• **Best Paper Award**, *The 17th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2020)*
• **Outstanding Researcher Award**, *PRIDE of PSU 2019*
• **Best Paper Award**, *The 23rd International Computer Science and Engineering Conference (ICSEC 2019)*
• **RGJ-PhD Scholarship** for Advisor 2018
• **Outstanding Researcher Award**, *PRIDE of PSU 2018*
• **Best Paper Award**, *The 10th Malaysian Software Engineering Conference (MySEC 2017)*
• **Outstanding Paper Award**, *The 10th Malaysian Software Engineering Conference (MySEC 2017)*
• **Best Paper Award**, *The 13th National Conference on Computing and Information Technology (NCCIT 2017)*
• **Travel Stipend**, *The 2017 International Workshop on Software Engineering for Science*
• **Travel Stipend**, *The National University of Singapore (NUS) SoC Research Workshop 2017*
• **Teacher nominated by Students as Beloved**, **and Faithful,** PRIDE of PSU 2017
• **Travel Stipend**, *The 4th International Workshop on Software Engineering for High-Performance Computing in Computational Science and Engineering, 2016*
• **Best Session Speaker**, *The 8th International Conference on Advanced Computer Science and Information Systems, 2016*
• **Best Paper Award**, *The 8th Malaysian Software Engineering (MySEC 2014)*
• **Royal Thai Government Scholarship** (Ph.D.program), 2008 - 2014
• **Outstanding Undergraduate Student**, *Faculty of Engineering, Thammasat University, 1997*

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