Joongheon Kim

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Highlights

Research Milestones

- 137 Journals (among them, 106 IEEE Journals), https://sites.google.com/view/aimlab-kuee/publications/journals 111 Published/Accepted (among them, 80 IEEE), 14 Under-Revision, and 12 Under-Review Journals
- 7328+ Citations (H-index: 41+, i10-index 171+), obtained from Google Scholar Profile (as of January 21, 2024)
- IEEE MMTC Best Journal Paper Award (2021), IEEE Communications Society
- IEEE MMTC Outstanding Young Researcher Award (2020), IEEE Communications Society
- IEEE Systems Journal Best Paper Award (2020), Top 7 among 793 accepted papers in 2019 (0.88%)
- 10 Awards from IEEE Conferences and Contests, i.e., IEEE ICTC Best Paper Award (2022), IEEE ICOIN Best Paper Award (2021), 3 IEEE Seoul Section Student Paper Contest Awards, and 5 IEEE VTS Seoul Chapter Awards
- 6 Tutorials at IEEE Conferences, i.e., ICUFN (2022), ICOIN (2022), ICUFN (2021), ICAIIC (2021), ICOIN (2019), and ICC (2018)
- 71+ Patents are granted, and among them, 46 Granted Patents are successfully adopted by 60 GHz Millimeter-Wave IEEE 802.11 Standards, i.e., IEEE 802.11ad and IEEE 802.11ay
- Research Funds (since March 2016): 6,800,784 USD ≈ 6,800,784,000 KRW (except University Internal Funds)

Research Supervision and Teaching (As a faculty member since March 2016)

- 3 Tenure-Track Professors (formerly supervised by Prof. Joongheon Kim (Ph.D., M.S., Postdoctoral, Interns))
 - Ph.D. Alumni: Soohyun Park (Sookmyung Women's Univ., Korea)
 - Postdoctoral Scholars: Minseok Choi (Kyung Hee Univ., Korea), Soyi Jung (Ajou Univ., Korea)
- 8 Best Teaching Awards at Korea University, i.e.,
 - 4 awards are for top 5% (*Granite Tower Best Teaching Award*) and 4 awards are for top 20% (*Best Teaching Award*)

IEEE Society Academic Activities

- Senior Member of the IEEE (2018–) and IEEE Membership (2005–) for 18+ years
- Distinguished Lecturer, IEEE Communications Society (ComSoc) (class of 2022–2023)

IEEE ComSoc

• Distinguished Lecturer, IEEE Systems Council (class of 2022–2024)

IEEE Systems Council IEEE ComSoc, Computer Society, Sensors Council

• **Editor (2023–)**, *IEEE Internet of Things Journal*

IEEE VTS

- **Associate Editor (2020–)**, *IEEE Transactions on Vehicular Technology*
- Guest Editor (06/2022), IEEE Communications Standards Magazine (S.I. on Recent and Future Evolution of Wi-Fi) IEEE ComSoc
- IEEE Vehicular Technology Society (VTS), Seoul Chapter Treasurer for 4 years (2020–2023)
- IEEE VTS
- 99+ Technical Program Committee (TPC) and 26+ Organizing Committee (OC) Contributions for IEEE Conferences

Educational Backgrounds

- University of Southern California (USC) Viterbi School of Engineering, Los Angeles, California, USA
 - Ph.D. (08/2009–08/2014) in Computer Science, Thomas Lord Department of Computer Science
 (Advisor: Prof. Andreas F. Molisch (Fellow of the IEEE), Ming Hsieh Department of Electrical and Computer Engineering)
 Research Assistant, Communications, Information, Learning, and Quantum (CILQ) Group
 - M.S. (05/2014) in Computer Science with specialization in High Performance Computing and Simulations
 - M.S. (05/2012) in **Electrical Engineering**
- Korea University College of Informatics, Seoul, Republic of Korea
 - M.S. (03/2004–02/2006) in Computer Science and Engineering
 - (Advisor: Prof. Wonjun Lee (Fellow of the IEEE), Department of Cyber Defense and Future Network Center)
 - B.S. (03/1999–02/2004) in Computer Science and Engineering

R&D Positions

Full-Time Positions

- Korea University, Seoul, Republic of Korea
 - Associate Professor (03/2021-Present), Assistant Professor (09/2019-02/2021), School of Electrical Engineering
 - Adjunct Professor (03/2023–02/2028 (Expected)), Department of Communications Engineering (with Samsung Electronics)
 - Adjunct Professor (11/2022–02/2028 (Expected)), Department of Future Science and Technology Business (Graduate School)
 - Adjunct Professor (03/2021–02/2026 (Expected)), Department of Semiconductor Engineering (with SK Hynix)
 - R&D Positions and Leadership
 - * Vice Director (10/2020–Present), Artificial Intelligence Engineering Research Center (KU-AIER)
 - Administrative Positions
 - * Deputy Vice President (02/2022–Present), Office of Academic Affairs
 - * Dean (06/2021–08/2023), Center for Teaching and Learning (CTL)

- * Steering Committee Member (03/2023–Present), Department of Communications Engineering
- Chung-Ang University College of Computer Science and Software, Seoul, Republic of Korea
 - Assistant Professor (03/2016–08/2019), School of Computer Science and Engineering
- Intel Corporation Platform Engineering Group, Silicon Valley (Santa Clara), CA, USA
 - Systems Engineer (09/2013-02/2016), mmWave Standards and Advanced Technology (mSAT) Team (with Dr. Ali S. Sadri)
- University of Southern California (USC) Viterbi School of Engineering, Los Angeles, CA, USA
 - Annenberg Graduate Fellow (08/2009), Awarded with Ph.D. admission in Computer Science from USC (2009)
 - Ph.D. Research Assistant (01/2011–08/2014), Communication Sciences Institute (CSI) (Advised by Prof. Andreas F. Molisch)
 CSI is now re-organized as Communications, Information, Learning, and Quantum (CILQ) Group
 - Teaching Assistant (01/2012–05/2013), Computer Science and Electrical Engineering Departments (CSCI455x and EE579)
- InterDigital, San Diego, CA, USA
 - *Intern* (05/2012–08/2012), Wireless Systems Evolution Department
 - Subject Matter Expert in IEEE 802.11ad (01/2012–02/2012), Wireless Systems Evolution Department
- LG Electronics CTO Office, Seoul, Republic of Korea
 - Research Engineer (01/2006-08/2009), Multimedia Research Laboratory, Seocho R&D Campus

Industry, Advisory, and Consulting Positions

• Samsung Electronics (C-Lab), Seoul National University R&D Center, Seoul, Republic of Korea *Advisory Professor* (02/2020–08/2020), Nonlinear Regression Deep Learning Algorithm Design and Implementation

Academia (Membership, Editorial Boards, and Services)

- IEEE
 - Senior Member (2018–), Member (2006–2017)
 - Distinguished Lecturer (2022–2023), IEEE Communications Society
 - Editor (2023–), IEEE Internet of Things Journal
 - Associate Editor (2020-), **IEEE Transactions on Vehicular Technology** (Area: Vehicular Electronics and Systems)
 - Guest Editor (03/2022), IEEE Communications Standards Magazine (S.I. on Recent and Future Evolution of Wi-Fi)
 - IEEE Vehicular Technology Society (VTS) Seoul Chapter
 - * Chapter Assistant Administrator for Planning (2024–), Chapter Treasurer (2022–2023, 2020–2021)
 - * IEEE VTS APWCS Organizing Committee: Finance Co-Chair (2023), Finance Chair (2022), Finance Co-Chair (2021)
- Elsevier/Wilev
 - *Editor* (2021–), **ICT Express** (Area: AI for ICT Applications)
 - Guest Editor (2022), ETRI Journal (S.I. on Autonomous Unmanned Aerial/Ground Vehicles and their Applications)
 - Guest Editor (2022), Computer Networks (S.I. on ML and AI for the Internet of Things, 5G, and Beyond)
 - Guest Editor (2022), ICT Express (S.I. on Artificial Intelligence and Machine Learning Approaches to Communication)
 - Guest Editor (2021), ICT Express (S.I. on Mobile and Edge Computing Systems)

Awards and Honors

Research and Academic Excellence (International)

- IEEE VTS Seoul Chapter Award (2023) IEEE Vehicular Technology Society (w/ S. Park)
 - "Quantum reinforcement learning for large-scale multi-agent decision-making in autonomous aerial networks"
- IEEE Seoul Section Student Paper Contest, Bronze Paper Award (12/2023) (w/G.S. Kim, J. Chung, S.B. Son, H. Lee, H. Baek, S. Park) "Aircraft taxi routing using reinforcement learning at Hartsfield Jackson Atlanta international airport"
- **Best Editor Award (2023)** *ICT Express (Elsevier) (07/2023)*
- Finalist (Top 25), AAAI Student Abstract and Poster Session Oral Presentation Contest (2023) (w H. Baek, et al)
 "FV-Train: Quantum convolutional neural network training with a finite number of qubits by extracting diverse features"
- **IEEE ICTC Best Paper Award (2022)** *IEEE Communications Society (w J.-H. Lee, D.P. Selvam, A.F. Molisch)* "Reinforcement learning empowered massive IoT access in LEO-based non-terrestrial networks"
- IEEE VTS Seoul Chapter Award (2022) IEEE Vehicular Technology Society (w/ H. Lee, S. Jung, J.-H. Kim, et al)
 "DDPG-based deep reinforcement learning for loitering munition mobility control: Algorithm design and visualization"
- **Spotlight, Oral Presentation (2022)** *ICML Workshop on Dynamic Neural Networks* (2022) (w/ S. Jung, J. Park, M. Bennis, et al) "Slimmable quantum federated learning"
- IEEE MMTC Best Journal Paper Award (2021) IEEE Communications Society
 - M. Choi, A.F. Molisch, and J. Kim, "Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks," *IEEE Transactions on Wireless Communications*, 19(12):7810-7824, December 2020.
- **IEEE VTS Seoul Chapter Award (2021)** *IEEE Vehicular Technology Society (w/ S. Jung, J.-H. Kim, et al)* "Quantum scheduling for millimeter-wave observation satellite constellation"
- **IEEE VTS Seoul Chapter Award (2021)** *IEEE Vehicular Technology Society (w/ S. Jung, et al)* "Distributed and autonomous aerial data collection in smart city surveillance applications"
- IEEE ICOIN Best Paper Award (2021) IEEE Computer Society (w/S. Jung, J.-H. Kim, et al)
 "Infrastructure-assisted cooperative multi-UAV deep reinforcement energy trading learning for big-data processing"
- IEEE MMTC Outstanding Young Researcher Award (2020) IEEE Communications Society

- IEEE Systems Journal Best Paper Award (2020) IEEE Systems Council (Top 7 among 793 accepted papers in 2019 (Top 0.88%))
 - M. Saad, J. Choi, D. Nyang, J. Kim, and A. Mohaisen, "Towards Characterizing Blockchain-based Cryptocurrencies for Highly-Accurate Predictions," *IEEE Systems Journal*, 14(1):321-332, March 2020.
- IEEE Seoul Section Student Paper Contest, Bronze Paper Award (2020) (w/S. Park)

"Reliable offloading target selection using deep reinforcement learning for large fire accident"

- IEEE Seoul Section Student Paper Contest, Gold Paper Award (2019) (w/D. Kim, et al)
 - "Stabilized super-resolution deep learning adaptation for UAV-assisted mobile edges: A Lyapunov optimization approach"
- IEEE VTS Seoul Chapter Award (2019) IEEE Vehicular Technology Society (w/S. Park, D. Kwon, M. Shin)

"Joint offloading and streaming in mobile edges: A deep reinforcement learning approach"

- Next Generation and Standards (NGS) Division Recognition Award (Q1/2005) Intel Corporation
 For developing a 3-dual sector mmWave backhaul link software stack with mesh, relay, and load balancing capability for modular antenna array (MAA) proof-of-concept (POC)
- Annenberg Graduate Fellowship Award (2009) *University of Southern California* Awarded with Ph.D. Admission in Computer Science, Viterbi School of Engineering

Research and Academic Excellence (Korea Regional)

- HFR Paper Award (Area: Quantum Technologies and Quantum Communications) (11/2023) KICS (w/S. Park, H. Baek) "Quantum multi-agent reinforcement leaning for multi-metaverse adaptive streaming in hybrid quantum-classical networks"
- Korea Electronics Technology Institute (KETI) President Award (06/2023) 2023 KICS Summer Conference (w/ H. Lee, S. Park) "Grid environment design and grouping for optimal relay station placement"
- Haedong Paper Award (02/2023) KICS (w/S. Jung, J. Park, et al)
 - "Dynamic quantum federated learning framework at satellites and ground stations using slimmable quantum neural networks"
- Excellence Paper Award (02/2023) 2023 KICS Winter Conference (w/ H. Lee, S. Jung, J.-H. Kim, et al) "Self-learning-based hybrid MAC for military UAV networks"
- Insung Research Grant Award (01/2023) Korea University
 - For recognizing Korea University professors in research excellence during the first 3 years at Korea University (Top 5%)
- Excellence Paper Award (02/2022) 2022 KIISE Summer Workshop on Computer Communications (SWCC) (w/ H. Lee, S. Jung)
- Excellence Paper Award (02/2022) 2022 KICS Winter Conference (w/ Y.K. Lee, S. Jung, et al) "Trends in neural architecture search for object detection"
- Haedong Young Scholar Award (2018) KICS and Haedong Foundation

For recognizing a researcher under the age of 40 who has made outstanding contributions to communication sciences R&D

- Haedong Paper Award (06/2021) KICS (w/H. Baek, S. Jung, et al)
 - "Neural architectural nonlinear pre-processing for mmWave radar-based human gesture perception in on-driving scenarios"
- Excellence Paper Award (06/2021) 2021 KICS Summer Conference (w/ B. Lim, Y.-C. Ko, et al)

"Deep learning based non-orthogonal pilot design for massive MIMO"

- Excellence Paper Award (Undergraduate) (06/2021) 2021 KICS Summer Conference (w/S. Jung, et al)
 - "Deep reinforcement learning visualization and simulations using Unity-RL in an autonomous driving environment"
- Encouragement Paper Award (11/2020) 2020 KICS Fall Conference
 - "UAV trajectory optimization via multi-agent deep reinforcement learning"
- Encouragement Paper Award (06/2020) 2020 KICS Summer Conference
 - "3D modeling and WebVR implementation using Azure Kinect, Open3D, and Three.js"
- Encouragement Paper Award (02/2020) 2020 KICS Winter Conference
 - "Quantum heuristic solver using QAOA for the maximum independent set problem"
- Encouragement Paper Award (02/2020) 2020 KICS Winter Conference
 - "Multi-drone scheduling for high-reliable and high-performance UAV-based surveillance networking"
- Outstanding Paper Award (2008) LG Electronics CTO Office, Multimedia Research Laboratory
 - W. Lee, E. Kim, J. Kim, I. Lee, and C. Lee, "Movement-Aware Vertical Handoff of WLAN and Mobile WiMAX for Seamless Ubiquitous Access," *IEEE Transactions on Consumer Electronics*, 53(4):1268-1275, November 2007.
- RFID Expert Group President Award (2007) The 3rd RFID/USN Research Paper Contest
- ETRI President Award (2006) The 2nd RFID/USN Research Paper Contest
- Korea Association of RFID/USN (KARUS) President Award (2005) The 1st RFID/USN Research Paper Contest
- Scholarships for Academic Excellence (Fall 1999, Fall 2000) Korea University, Department of Computer Science and Engineering

Research and Academic Excellence of the Students under Joongheon Kim's Supervision

- Best Presentation Award (12/2022) A3 Foresight Program 2022 Workshop (awarded to Soohyun Park)
- ICT Express Best Reviewer Award (12/2021) ICT Express (Elsevier) (awarded to Soohyun Park)
- Best Presentation Award (02/2021) A3 Foresight Program 2021 Workshop (awarded to Hankyul Baek)

Teaching and Supervision Excellence

- Granite Tower Best Teaching Award (Top 5%) Korea University (Future Mobility Technology, GEQR075)
- Best Teaching Award (Top 20%) *Korea University* (Probability and Random Process, KECE209)
- Spring 2022 Spring 2022
- Granite Tower Best Teaching Award (Top 5%) Korea University (Computer Language and Lab, EGRN151)

 Best Teaching Award (Top 20%) – Korea University (Object Oriented Programming, SEMI104) Granite Tower Best Teaching Award (Top 5%) – Korea University (Introduction to Computers, SEMI103) Best Teaching Award (Top 20%) – Korea University (Probability and Random Process, KECE209) Best Teaching Award (Top 20%) – Korea University (Computer Language and Lab, EGRN151) Granite Tower Best Teaching Award (Top 5%) – Korea University (Computer Language and Lab, EGRN151) 	Spring 2021 Fall 2020
 Academic and University Services Outstanding Contribution Award – KIISE Information Network Society 2022 Best Chapter Award, IEEE Vehicular Technology Society Chapter (12/2022) – IEEE Seoul Section Awarded as a Treasure with Seung-Hoon Hwang, Byeonghyo Shim, Oh-Soon Shin, Junsu Kim Outstanding Contribution Award (02/2022) – KIISE Information Network Society Outstanding Contribution Award (12/2021) – Open Standards and ICT Association (OSIA) Outstanding Contribution Award (11/2021) – KICS Appreciation Recognition (10/2021) – Daegu Gyeongbuk Institute of Science and Technology (DGIST) Outstanding Contribution Award (11/2019) – KICS Fellow Employee Recognition [#3081146] (12/2014) – Intel Corporation Certificate of Appreciation (09/2010) – Department of Computer Science, University of Southern California 	02/2023
 Highly-Cited Publications (IEEE Magazines, Journals, and Conferences) Highly-Cited (100+ citations), as of January 21, 2024 (MobiSys'10) [650+] Energy-efficient rate-adaptive GPS-based positioning for smartphones (TON'16) [184+] Quality-aware streaming and scheduling for device-to-device video delivery (PIEEE'21) [169+] Communication-efficient and distributed learning over wireless networks: Principles and applicate (ISJ'20) [157+] Toward characterizing blockchain-based cryptocurrencies for highly accurate predictions, (Best Pa (TII'20) [149+] Cooperative management for PV/ESS-enabled electric vehicle charging stations (TVT'19) [134+] Auction-based charging scheduling with deep learning framework for multi-drone networks (TII'17) [125+] Residential demand response for renewable energy resources in smart grid systems (TCE'07) [115+] Movement-aware vertical handoff of WLAN and mobile WiMAX for seamless ubiquitous access (JCN'14) [113+] Fast millimeter-wave beam training with receive beamforming (IOTJ'18) [107+] Energy-efficient mobile charging for wireless power transfer in Internet of Things networks (IOTJ'20) [096+] Multiagent DDPG-based deep learning for smart ocean federated learning IoT networks 	
R&D Projects (Totally, 6,800,784 USD ≈ 6,800,784,000 KRW) Industry-Funded Projects	11 (0000 11 (000)
 Advancement Technology Development for Torpedo Deception Strategies in Submarines Funded by LIG Nex1 [Grant: \$700,000; Primary-PI] Advancement Technology Development for Submarine Target Identification and Engagement Support Intelligence Funded by LIG Nex1 [Grant: \$300,000; Primary-PI] Mapping between Real World and Virtual Reality (VR) for End-Edged Cloud Real-Time VR Servers Funded by Samsung Advanced Institute of Technology [Grant: \$286,000; Primary-PI] 	
 Quantum Machine Learning-based Objection Detection for Point Cloud and its Acceleration Funded by Hyundai Motors Group [Grant: \$110,000; Primary-PI] Routing Algorithms for LEO Satellite Networks 	12/2022-04/2024 12/2022-08/2023

Industry-Funded	<u>l Projects</u>
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•	Advancement Technology Development for Torpedo Deception Strategies in Submarines	11/2022-11/2026
	Funded by LIG Nex1 [Grant: \$700,000; Primary-PI]	
•	Advancement Technology Development for Submarine Target Identification and	
	Engagement Support Intelligence	11/2022-11/2026
	Funded by LIG Nex1 [Grant: \$300,000; Primary-PI]	
•	Mapping between Real World and Virtual Reality (VR) for End-Edged Cloud Real-Time VR Servers	09/2020-08/2024
	Funded by Samsung Advanced Institute of Technology [Grant: \$286,000; Primary-PI]	
•	Quantum Machine Learning-based Objection Detection for Point Cloud and its Acceleration	12/2022-04/2024
	Funded by Hyundai Motors Group [Grant: \$110,000; Primary-PI]	
•	Routing Algorithms for LEO Satellite Networks	12/2022-08/2023
	Funded by Solvit System [Grant: \$27,500; Primary-PI]	
•	Optimal Positioning Algorithms for Wide-Area Relaying Networks	12/2022-08/2023
	Funded by Solvit System [Grant: \$22,000; Primary-PI]	
•	Distributed Learning Algorithms to Build AI Models with Multi-Center Clinical Data	11/2022-02/2023
	Funded by Cipherome [Grant: \$12,000; Primary-PI]	
•	Cellular/Wi-Fi Handover Technology Development	02/2022–12/2022
	Funded by LG Electronics CTO Division – Smart Mobility Lab., Advanced R&BD Center [Grant: \$88,000; Prin	
•	Research Trends in Digital Twin Applications to Autonomous Driving	03/2022-04/2022
	Funded by Hyundai NGV [Grant: \$1,000; Primary-PI]	00 /0000 00 /0000
•	Distributed Learning System Design and Implementation for Clinical Applications	02/2022-03/2022
	Funded by Cipherome [Grant: \$15,000; Primary-PI]	05 (0000 00 (0000
•	Super-Resolution Performance Optimization in Mobile Platforms	05/2020-08/2020
	Funded by Samsung SDS [Grant: \$15,000; Primary-PI]	02 /2020 07 /2020
•	Deep Learning Algorithms for mVOC Concentration Analysis	03/2020-06/2020
	Funded by Samsung Electronics (C-Lab) [Grant: \$12,000; Primary-PI]	OF /0010 11 /0010
•	Visual Recognition Software Implementation using Deep Learning Tools	05/2019–11/2019
	Funded by Hyundai Motors Company (Hyundai NGV) [Grant: \$59,500; Primary-PI]	06 /2017 12 /2017
•	A Priori Techniques Research for Efficient Multi-Edge Computing	06/2017–12/2017
	Funded by Samsung Electronics (Software Center) [Grant: \$80,000; Co-PI]	

University/Center-Level Projects Intelligent 6G Wireless Access System Research Center 04/2021-12/2025 Funded by Institute for ICT Promotion (IITP) [2021-0-00467, Grant: \$154,000 (2 yrs); Co-PI] Nano UAV Intelligence Systems Research Lab (NUiSRL) – ADD Military Special Research Center 10/2020-08/2023 Funded by Agency for Defense Development (ADD) [UD200027ED, Grant: \$130,000; Co-PI], PI: Kwangwoon University (Korea) 5G/Unmanned Vehicle Research Center (5G/UV-RC) – ITRC 06/2020-12/2022 Funded by Institute for ICT Promotion (IITP) [2020-0-01637, Grant: \$55,709; Co-PI], PI: Hanyang University (Korea) Human Resource Development for the Biomedical Unstructured Big Data Analysis – ITRC 08/2018-12/2021 Funded by Institute for ICT Promotion (IITP) [2018-0-01833; Co-PI], PI: Seoul National University Hospital (Korea) Intelligent Internet of Energy (IoE) Data Research Center – ITRC 02/2020-05/2020 Funded by Institute for ICT Promotion (IITP) [2018-0-01396; Co-PI], PI: Kookmin University (Korea) Government-Funded Projects AI Bots Collaborative Platform and Self-Organizing Artificial Intelligence Technology Development 04/2022–12/2026 Funded by Institute for ICT Promotion (IITP) [2022-0-00907, Grant: \$950,000; Co-PI] Quantum Hyper-Driving: Quantum-Inspired Hyper-Connected and Hyper-Sensing **Autonomous Mobility Technologies** 03/2022-02/2025 Funded by National Research Foundation of Korea [2022R1A2C2004869, Grant: \$600,000; Primary-PI] Korea-Japan Joint Seminar Project for Generative and Multi-Modal AI Technologies 10/2023-09/2024 Funded by National Research Foundation of Korea (International Research Collaboration) [Grant: \$50,000; PI] K-Starlink: Dynamic Reconfigurable and Intelligent Space-Terrestrial Networks 06/2021-05/2024 Funded by National Research Foundation of Korea (Basic Research Lab) [2021R1A4A1030775, Grant: \$251,000; Co-PI] Development of Integrated Development Framework that supports Automatic Neural Network Generation and Deployment optimized for Runtime Environment 04/2021-12/2023 Funded by Institute for ICT Promotion (IITP) [2018-0-00170, Grant: \$230,000; Co-PI] Integrated Perception Technology Developments for Public Safety Platforms 06/2019-05/2023 Funded by National Research Foundation of Korea [2019M3E3A1084054, Grant: \$400,000; Co-PI] Development of Quantum Deep Reinforcement Learning Algorithm using QAOA 10/2019-04/2022 Funded by Ministry of Science and ICT [2019M3E4A1080391, Grant: \$503,250; Primary-PI] mmWave Radar and Deep Reinforcement Learning based Optimal Policy Autonomous Driving 06/2019-02/2022 Funded by National Research Foundation of Korea [2019R1A2C4070663, Grant: \$275,000; Primary-PI] Development of Privacy-Reinforcing Distributed Transfer-Iterative Learning Algorithm 07/2019-12/2021 Funded by Ministry of Health and Welfare [HI19C0842, Grant: \$150,000; Co-PI] Virtual Presence in Moving Objects through 5G (PriMO-5G) 06/2018-06/2021 Funded by Institute for ICT Promotion (IITP) [2018-0-00170, Grant: \$246,464; Co-PI] • Distributed Secure Platform for Scalable Clinical OMOP CDM Models 04/2019-12/2020 Funded by Ministry of Health and Welfare [HI19C0572, Grant: \$90,000; Co-PI] Network Engineering: Development and Application of Novel Data Science Driven Framework for Efficient Network Design 06/2017-05/2020 Funded by National Research Foundation of Korea (Basic Research Lab) [2017R1A4A1015675, Grant: \$150,000; Co-PI] mmWave High-Speed Networking Platform Design for Next-Generation Convergence Services 06/2016-05/2019 Funded by National Research Foundation of Korea [2016R1C1B1015406, Grant: \$150,000; Primary-PI] Selected as Initial Innovation Lab [Grant: \$60,000] 04/2017-12/2017 Feasibility Study of 60 GHz IEEE 802.11ad for Virtual Reality (VR) Platforms Funded by *Institute for ICT Promotion (IITP)* [Grant: \$33,333; Primary-PI] Government-Funded Research Institute Projects NOMA-based Resource Allocation Research in Space-Air-Ground Integrated Networks 09/2023-11/2023 Funded by Electronics and Telecommunications Research Institute [Grant: \$20,900; Primary-PI] Autonomous Intelligent COA Search Methods for Cyber-Attacks 12/2021-11/2022 Funded by Agency for Defense Development (ADD) [UI210009XD, Grant: \$100,000; Primary-PI] Research on Intelligent Agent-based CPS Security and Reliability 05/2021-11/2021 Funded by *Telecommunications Technology Association (TTA)* [Grant: \$48,000; Primary-PI] Multi-GPU based Automotive HPC Platform Development 04/2020-10/2020 (A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information) Funded by Electronics and Telecommunications Research Institute [19HS2720 (IITP 2017-0-00068), Grant: \$20,000; Primary-PI] Cooperative Deep Reinforcement Learning for Online Game Multi-Agents 04/2020-08/2020 (Human-Agent Cooperation Algorithm Design in Multi-Agent Environment) Funded by Electronics and Telecommunications Research Institute [19YE1400, Grant: \$28,000; Primary-PI] Verification Testbed Implementation for Privacy-Preserving Trust Data Generation 10/2019-11/2019 Funded by Electronics and Telecommunications Research Institute [Grant: \$44,000; Co-PI] 05/2019-10/2019 Measurement and Analysis of Multi-Task GPU Scheduling Delays

(A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information)

Funded by Electronics and Telecommunications Research Institute [19HS2720 (IITP 2017-0-00068), Grant: \$40,000; Primary-PI]

 Probabilistic Decision Making and Econometric Methods for Micro-Grid 05/2017-04/2019 Funded by Korea Electric Power Corporation (KEPCO) Research Institute [R17XA05-41, Grant: \$143,128; Primary-PI]

• GPU Scheduling Performance Analysis under Queueing Delay Considerations 05/2018-10/2018 (A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information) Funded by Electronics and Telecommunications Research Institute [18HS1420 (IITP 2017-0-00068), Grant: \$40,000; Primary-PI]

 Improving Massive Deep Learning Training via Computation and Communication Acceleration 04/2018-10/2018 (Development of HPC System for Accelerating Large-Scale Deep Learning)

Funded by Electronics and Telecommunications Research Institute [18HS1710 (IITP 2016-0-00087), Grant: \$30,000; Primary-PI]

 Parsing Techniques for Artificial Neural Network (ANN) Data Processing 09/2017-11/2017 (A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information) Funded by Electronics and Telecommunications Research Institute [17HS2720 (IITP 2017-0-00068), Grant: \$40,000; Primary-PI]

Awards and Fellowship Funds

• Insung Research Grant Award (2023) – Korea University

03/2023-02/2024

08/2009-06/2013

For recognizing Korea University professors in research excellence during the first 3 years at Korea University (Top 5%) Awarded Project Title: Quantum Machine Learning for Autonomous Mobility Systems Awarded Project Fund: \$20,000

 Annenberg Graduate Fellowship Award (2009) – University of Southern California Awarded with Ph.D. Admission in Computer Science, Viterbi School of Engineering Awarded Fund: 4 Year Full Scholarship (Tuition Waiver and \$120,000 Stipend (\$30,000/year for 4 years))

University of Southern California (USC) – Viterbi School of Engineering (Ph.D. Research Projects)

• Video Aware Wireless Networks (VAWN) Research Program Funded by Intel Labs, Verizon Wireless, and Cisco Systems; Under the guidance of Prof. Andreas F. Molisch (University of Southern California, USA) and Prof. Giuseppe Caire (Technische Universität Berlin, Germany)

60 GHz Real-Time Wireless Video Broadcasting Supported by a Gift from *Disney Research Zürich*; Under the guidance of Prof. Andreas F. Molisch (University of Southern California, USA), Prof. Yafei Tian (Beihang Univ, China), and Dr. Stefan Mangold (Disney Research Zürich, Switzerland)

Selected Publications

- 7328+ Citations (H-index: 41+, i10-index 171+), obtained from Google Scholar Profile (as of January 21, 2024)
- Totally, 137 journals, https://sites.google.com/view/aimlab-kuee/publications/journals
 - 106 IEEE publications, among them, 73 publications are in IEEE Magazines and ComSoc/VTS Journals

Dissertation, Books, and Book Chapters

■ Ph.D. Dissertation

• Elements of Next-Generation Wireless Video Systems: Millimeter-Wave and Device-to-Device Algorithms Ph.D. Dissertation (Computer Science), University of Southern California (Los Angeles, California, USA, August 2014)

■ Books and Book Editing

Fundamentals of 6G Communications and Networking, Springer (2023). (Editors: X. Lin, J. Zhang, Y. Liu, J. Kim)

■ Book Chapters

- Network Security and Trustworthiness, Fundamentals of 6G Communications and Networking, Springer (2023). (S. Jung, S. Park, S.B. Son, H. Lee,
- Semantic Communications and Networking, Fundamentals of 6G Communications and Networking, Springer (2023). (W.J. Yun, S. Park, R. Lee, J. Park, Y.-C. Ko, J. Kim)
- Convergence of 6G and Wi-Fi Networks, Fundamentals of 6G Communications and Networking, Springer (2023). (H. Lee, S. Park, M. Yoo, C. Park,
- UAV Communications and Networks, Fundamentals of 6G Communications and Networking, Springer (2023). (S. Park, J.-H. Lee, S. Jung, J. Kim)
- AI-Native Network Algorithms and Architectures, Fundamentals of 6G Communications and Networking, Springer (2023). (H. Lee, S. Park, H. Baek, C. Park, S. Son, J. Park, J. Kim)
- AI-Native Communications, Fundamentals of 6G Communications and Networking, Springer (2023). (H. Baek, H. Lee, S. Park, H. Lee, J. Park, J. Kim)
- Network Disaggregation, Fundamentals of 6G Communications and Networking, Springer (2023). (S. Park, C. Park, J.P. Kim, M. Choi, J. Kim)
- Introduction to 6G Communications and Networking, Fundamentals of 6G Communications and Networking, Springer (2023). (X. Lin, J. Zhang, Y. Liu, J. Kim)
- Dynamic Decision-Making for Stabilized Deep Learning Software Platforms, Advances and Applications in Deep Learning, IntechOpen (2020). (S. Park, D. Kim, J. Kim)
- Device-to-Device Communications, Towards 5G: Applications, Requirements and Candidate Technologies, Wiley (2017). (A.F. Molisch, M. Ji, I. Kim, D. Burghal, A.S. Tehrani)
- Millimeter-Wave (mmWave) Medium Access Control: A Survey, Opportunities in 5G Networks: A Research and Development Perspective, CRC Press (2016). (<u>I. Kim</u>)
- Millimeter-Wave (mmWave) Radio Propagation Characteristics, Opportunities in 5G Networks: A Research and Development Perspective, CRC Press (2016). (J. Kim)
- Weighted Localized Clustering: A Coverage-Aware Reader Collision Arbitration Protocol in RFID Networks, Handbook on Mobile and Ubiquitous Computing: Status and Perspective, CRC Press (2012). (I. Kim, E. Kim, W. Lee, D. Kim, J. Choi, J. Jung, C.K. Shin)
- Coverage-Time Optimized Dynamic Clustering for Two-Tiered WM2Nets, Wireless Mesh Networking, McGraw-Hill (2008). (J. Kim, W. Lee, E. Kim, T.K. Shih)

Selected Papers

■ Conferences – Top-Tiers and Awarded/Honored

- [IJCAI'24] (Notification: 18-Mar-2024) (Double-Blind Review), IJCAI (2024). (H. Lee, G.S. Kim, H. Baek, S. Park, M. Choi, J. Kim)
- [IJCAI'24] (Notification: 18-Mar-2024) (Double-Blind Review), IJCAI (2024). (G.S. Kim, Y. Cho, H. Baek, S. Park, S. Jung, J. Kim)
- [IJCAI'24] (Notification: 18-Mar-2024) (Double-Blind Review), IJCAI (2024). (H. Baek, J.H. Chung, S. Park, J. Kim)
- [IJCAI'24] (Notification: 18-Mar-2024) (Double-Blind Review), IJCAI (2024). (S. Park, H. Baek, J. Park, M. Bennis, S. Jung, J. Kim)
- [IJCAI'24] (Notification: 18-Mar-2024) (Double-Blind Review), IJCAI (2024). (H. Baek, S. Park, J. Kim)
- [ICDCS'24] (Notification: 12-Apr-2024) (Double-Blind Review), ICDCS (2024). (S. Park, G.S. Kim, S. Jung, Z. Han, J. Kim)
- [CIKM'23] Quantum Split Learning for Privacy-Preserving Information Management, CIKM (2023). (S. Park, H. Baek, J. Kim)
- [CIKM'23] Logarithmic Dimension Reduction for Quantum Neural Networks, CIKM (2023). (H. Baek, S. Park, J. Kim)
- [APWCS'23] Quantum Reinforcement Learning for Large-Scale Multi-Agent Decision-Making in Autonomous Aerial Networks, APWCS (2023). (S. Park, J. Kim) (IEEE VTS Seoul Chapter Award)
- [ICDCS'23] EQuaTE: Efficient Quantum Train Engine Design and Demonstration for Dynamic Software Analysis, ICDCS (2023). (S. Park, H. Feng, W.J. Yun, C. Park, Y.K. Lee, S. Jung, J. Kim)
- [ICDCS'23] Multi-Site Clinical Federated Learning Using Recursive and Attentive Models and NVFlare, ICDCS (2023). (W.J. Yun, S. Kim, J. Kim)
- [AAAI'23] Quantum Multi-Agent Meta Reinforcement Learning, AAAI (2023). (W.J. Yun, J. Park, J. Kim)
- [AAAI'23] FV-Train: Quantum Convolutional Neural Network Training with a Finite Number of Qubits by Extracting Diverse Features, **AAAI Student Abstract and Poster (2023).** (H. Baek, W.J. Yun, J. Kim) (Finalist, Oral Presentation Contest)
- [CIKM'22] Hierarchical Reinforcement Learning using Gaussian Random Trajectory Generation in Autonomous Furniture Assembly, CIKM (2022). (W.J. Yun, D. Mohaisen, S. Jung, J.-K. Kim, J. Kim)
- [ICTC'22] Reinforcement Learning Empowered Massive IoT Access in LEO-based Non-Terrestrial Networks, ICTC (2022). (J.-H. Lee, D.P. Selvam, A.F. Molisch, J. Kim) (Best Paper Award)
- [WiOpt'22] Cooperative Video Quality Adaptation for Delay-Sensitive Dynamic Streaming using Adaptive Super-Resolution, WiOpt (2022). (M. Choi, W.J. Yun, J. Kim)
- [APWCS'22] DDPG-based Deep Reinforcement Learning for Loitering Munition Mobility Control: Algorithm Design and Visualization, APWCS (2022). (H. Lee, W.J. Yun, S. Jung, J.-H. Kim, J. Kim) (IEEE VTS Seoul Chapter Award)
 - [ICML'22] Slimmable Quantum Federated Learning, ICML Workshop on Dynamic Neural Networks (2022). (W.J. Yun, J.P. Kim, S. Jung, J. Park, M. Bennis, J. Kim) (Spotlight, Oral Presentation)
- [ICDCS'22] Quantum Multi-Agent Reinforcement Learning via Variational Quantum Circuit Design, ICDCS (2022). (W.J. Yun, Y. Kwak, J.P. Kim, H. Cho, S. Jung, J. Park, <u>I. Kim</u>)
- [INFOCOM'22] Joint Superposition Coding and Training for Federated Learning over Multi-Width Neural Networks, INFOCOM (2022). (H. Baek, W.J. Yun, Y. Kwak, S. Jung, M. Ji, M. Bennis, J. Park, J. Kim)
 - [APWCS'21] Quantum Scheduling for Millimeter-Wave Observation Satellite Constellation, **APWCS (2021)**. (*J. Kim, Y. Kwak, S. Jung, J.-H. Kim*) (IEEE VTS Seoul Chapter Award)
 - [APWCS'21] Distributed and Autonomous Aerial Data Collection in Smart City Surveillance Applications, **APWCS (2021)**. (H. Lee, S. Jung, J. Kim) (IEEE VTS Seoul Chapter Award)
 - [ICOIN'21] Infrastructure-Assisted Cooperative Multi-UAV Deep Reinforcement Energy Trading Learning for Big-Data Processing, ICOIN (2021). (S. Jung, W.J. Yun, J. Kim, J.-H. Kim) (Best Paper Award)
 - [ICDCS'20] Understanding the Potential Risks of Sharing Elevation Information on Fitness Applications, ICDCS (2020). (Ü. Meteriz, N.F. Yildiran, J. Kim, D. Mohaisen)
 - [APWCS'19] Joint Offloading and Streaming in Mobile Edges: A Deep Reinforcement Learning Approach, **APWCS (2019)**. (S. Park, J. Kim, D. Kwon, M. Shin, J. Kim) (IEEE VTS Seoul Chapter Award)
 - [IJCAI'19] Randomized Adversarial Imitation Learning for Autonomous Driving, IJCAI (2019). (M. Shin, J. Kim)
 - [ICDCS'18] ShmCaffe: A Distributed Deep Learning Platform with Shared Memory Buffer for HPC Architecture, ICDCS (2018). (S. Ahn, J. Kim, E. Lim, W. Choi, A. Mohaisen, S. Kang)
 - [MM'17] REQUEST: Seamless Dynamic Adaptive Streaming over HTTP for Multi-Homed Smartphone under Resource Constraints, Multimedia (2017). (J. Koo, J. Yi, J. Kim, M.A. Hoque, S. Choi)
 - [ITA'14] Joint Scheduling and Stochastic Streaming for Device-to-Device Video Delivery, **ITA Workshop (2014)**. (<u>I. Kim</u>, A. Turci, G. Caire, A.F. Molisch) (**ITA Graduation Day Talk**)
- [MobiCom'13] Adaptive Video Streaming for Device-to-Device Mobile Platforms, MobiCom (2013). (<u>J. Kim</u>, F. Meng, P. Chen, H.E. Egilmez, D. Bethanabhotla, A.F. Molisch, M.J. Neely, G. Caire, A. Ortega)
- [MobiSys'10] Energy-Efficient Rate-Adaptive GPS-based Positioning for Smartphones, MobiSys (2010). (J. Paek, J. Kim, R. Govindan)
- [ICCCN'05] Effect of Localized Optimal Clustering for Reader Anti-Collision in RFID Networks: Fairness Aspect to the Readers, ICCCN (2005). (J. Kim, W. Lee, J. Yu, J. Myung, E. Kim, C. Lee)

■ Journals and Magazines

■ Review ▶

- [TPDS.wip] (WIP, Review since 28-Feb-2024) SlimQFL: Slimmable Quantum Federated Learning with Pole-to-Angle Local Training and Trainable Measurement, IEEE Transactions on Parallel and Distributed Systems. (S. Park, H. Baek, H. Lee, S.B. Son, S. Jung, J. Park, M. Bennis, J. Kim)
- [TPDS.review] (Review since 19-Jan-2024) Joint Quantum Reinforcement Learning and Neural Myerson Auction for High-Quality Digital-Twin Services in Multi-Tier Networks, IEEE Transactions on Parallel and Distributed Systems. (S. Park, G.S. Kim, J. Kim) [Software.review] (Review since 18-Jan-2024) Analytics-driven User Assistance for Quantum Neural Network Software Validation, IEEE

- Software. (S. Park, H. Baek, J.W. Yoon, Y.K. Lee, <u>J. Kim</u>)
- [CM.review] (Review since 31-Dec-2023) Quantum Multi-Agent Reinforcement Learning is All You Need: Coordinated Global Access in Integrated TN/NTN Cube-Satellite Networks, IEEE Communications Magazine. (S. Park, G.S. Kim, Z. Han, J. Kim)
- [WC.review] (Review since 30-Dec-2023) Quantum Jump to Virtual Worlds: High-Quality Multiple Virtual Meta-Space Realization in Metaverse, IEEE Wireless Communications. (S. Park, J. Kim)
- [TNSM.review] (Review since 29-Nov-2023) Cooperative Multi-UAV Positioning for Aerial Internet Service Management: A Multi-Agent Deep Reinforcement Learning Approach, IEEE Transactions on Network and Service Management. (J. Kim, S. Park, S. Jung, C. Cordeiro)
- [Access.review] (Review since 20-Nov-2023) Dynamic Quantum Federated Learning for Satellite-Ground Integrated Systems using Slimmable Quantum Neural Networks, IEEE Access (IEEE Vehicular Technology Society Section). (S. Park, S. Jung, J. Kim)
- [TETCI.review] (Review since 14-Nov-2023) Joint Scalable Quantum Convolutional Neural Network and Reverse-Fidelity Training for High-Accurate Recognition, IEEE Transactions on Emerging Topics in Computational Intelligence. (H. Baek, S. Park, J. Kim)
- [TON.review] (Review since 02-Nov-2023) Spatio-Temporal Multi-Metaverse Dynamic Streaming for Hybrid Quantum-Classical Networks, IEEE/ACM Transactions on Networking. (S. Park, H. Baek, J. Kim)
- [TWC.review] (Review since 29-Oct-2023) Joint Control and Communications Framework for Mission-Critical Multi-UAV Networks, IEEE Transactions on Wireless Communications. (G.S. Kim, S. Park, S. Jung, D. Mohaisen, J. Kim)
- [JCN.review] (Review since 29-Oct-2023) Software Design and Visualization for Quantum Multi-Agent Reinforcement Learning in Multi-Drone Mobility Control, Journal of Communications and Networks. (S. Park, S. Jung, J. Kim)
- [WC.review] (Review since 15-Oct-2023) Sustainable Spatio-Temporal Quantum Multi-Agent Reinforcement Learning for Autonomous Networks, IEEE Wireless Communications. (S. Park, J. Kim)

■ Revision ▶

- [Access.revision] Quantum Reinforcement Learning for Spatio-Temporal Prioritization in Metaverse, IEEE Access. (S. Park, H. Baek, J. Kim)
 - [TIV.revision] Fast Quantum Convolution Neural Networks for Low-Complexity Object Detection in Autonomous Driving Applications, IEEE Transactions on Intelligent Vehicles. (H. Baek, D. Kim, J. Kim)
- [Access.revision] Sensing-to-Sky Intermittent Connectivity Realization for LTE-Enabled Drone Platforms: Embedded Design, Measurement Study, and Positioning Applications, *IEEE Access (IEEE Vehicular Technology Society Section)*. (J. Kim, S. Park, U. Jo, T. Kim, S. Jung, J. Kim)
 - [IOT].revision] Markov Decision Policies for Distributed Angular Routing in LEO Mobile Satellite Constellation Networks, IEEE Internet of Things Journal. (S. Park, G.S. Kim, S. Jung, J. Kim)
 - [IOT].revision] Intelligent Extra Resource Allocation for Cooperative Awareness Message Broadcasting in Cellular-V2X Networks, IEEE Internet of Things Journal. (S. Jung, J.-H. Kim, J. Kim)
 - [TVT.revision] Dynamic Quantum Federated Learning for Unmanned Aerial Vehicles in Autonomous Surveillance Applications, IEEE Transactions on Vehicular Technology. (S. Park, S.B. Son, S. Jung, J. Kim)
 - [TMC.revision] Joint Quantum Reinforcement Learning and Stabilized Control for Spatio-Temporal Coordination in Metaverse, *IEEE Transactions on Mobile Computing*. (S. Park, C. Park, S. Jung, M. Choi, S. Cho, J. Kim)
 - [TVT.revision] Age-of-Information Aware Caching and Delivery for Infrastructure-Assisted Connected Vehicles, *IEEE Transactions on Vehicular Technology*. (S. Park, C. Park, S. Jung, M. Choi, J. Kim)
- [Access.revision] Enhancing Cost-Effective 5G Virtualized RAN Pooling Gain on Clouds: An Intelligent Auto-Scaling Approach, *IEEE Access.* (K. Cho, J. Kim, S. Jung)
 - [TIV.revision] Adaptive Quantum Federated Learning for Autonomous Surveillance Multi-Drone Networks, *IEEE Transactions on Intelligent Vehicles*. (S. Park, C. Park, S. Jung, J. Kim)
 - [TIV.revision] Neural Myerson Auction for Truthful and Distributed Mobile Charging in UAV-Assisted Digital-Twin Networks, *IEEE Transactions on Intelligent Vehicles*. (S. Jung, H. Baek, J. Kim)
 - [CM.revision] Quantum Neural Network Software Testing, Analysis, and Code Optimization for Advanced IoT Systems: Design, Implementation, and Visualization, IEEE Communications Magazine. (S. Park, J. Kim)
 - [CM.revision] The Matrix: Quantum AI for Interacting Two Worlds in Prioritized Metaverse Spaces, *IEEE Communications Magazine*. (S. Park, H. Baek, J. Kim)
 - [ITSM.revision] Dynamic Software Testing for Run-Time Program Analysis in Quantum-based Autonomous Driving Applications, IEEE Intelligent Transportation Systems Magazine. (S. Park, C. Park, W.J. Yun, J. Kim)

◆ Accepted ▶

- [TIV.accepted] Intelligent Caching for Seamless High-Quality Streaming in Vehicular Networks: A Multi-Agent Reinforcement Learning Approach, *IEEE Transactions on Intelligent Vehicles*. (M. Choi, T. Xiang, <u>J. Kim</u>)
- [TNNLS.accepted] Hierarchical Deep Reinforcement Learning-based Propofol Infusion Assistant Framework in Anesthesia, *IEEE Transactions on Neural Networks and Learning Systems*. (W.J. Yun, M. Shin, D. Mohaisen, K. Lee, <u>J. Kim</u>)
- [MTAP.accepted] Stabilized Performance Maximization for GAN-based Real-Time Authentication Image Generation over Internet, Multimedia Tools and Applications (Springer). (J.Y. Shim, S. Jung, J. Kim, J.-K. Kim)
 - [CM.accepted] Quantum Multi-Agent Reinforcement Learning for Autonomous Mobility Cooperation, *IEEE Communications Magazine*. (S. Park, J.P. Kim, C. Park, S. Jung, <u>J. Kim</u>)
- [TWC.accepted] Joint User Clustering, Beamforming, and Power Allocation for mmWave-NOMA with Imperfect SIC, *IEEE Transactions on Wireless Communications*. (B. Lim, W.J. Yun, J. Kim, Y.-C. Ko)
- [TVT.accepted] Learning-based Cooperative Mobility Control for Autonomous Drone-Delivery, *IEEE Transactions on Vehicular Technology*. (S. Park, C. Park, J. Kim)
- [TGCN.accepted] Joint Delay-Sensitive and Power-Efficient Quality Control of Dynamic Video Streaming using Adaptive Super-Resolution, IEEE Transactions on Green Communications and Networking. (M. Choi, W.J. Yun, J. Kim)

◄ 2024 ►

[TMC'24.01] Learning Location from Shared Elevation Profiles in Fitness Apps: A Privacy Perspective, *IEEE Transactions on Mobile Computing*, 23(1):581–596 (2024). (U. Meteriz, N.F. Yildiran, J. Kim, D. Mohaisen)

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- [TON'23.12] SlimFL: Federated Learning with Superposition Coding over Slimmable Neural Networks, *IEEE/ACM Transactions on Networking*, 31(6):2499–2514 (2023). (W.J. Yun, Y. Kwak, H. Baek, S. Jung, M. Ji, M. Bennis, J. Park, J. Kim)
- [IET'23.12] Two-Stage Architectural Fine-Tuning for Neural Architecture Search in Efficient Transfer Learning, IET Electronics Letters, 59(24):e13066 (2023). (S. Park, S.B. Son, Y.K. Lee, S. Jung, J. Kim)
- [IOT]'23.11] Quantum Multiagent Actor–Critic Networks for Cooperative Mobile Access in Multi-UAV Systems, *IEEE Internet of Things Journal*, 10(22):20033–20048 (2023). (C. Park, W.J. Yun, J.P. Kim, S. Park, T.K. Rodrigues, S. Jung, J. Kim)
- [TVT'23.11] Two-Stage Self-Adaptive Task Outsourcing Decision Making for Edge-Assisted Multi-UAV Networks, *IEEE Transactions on Vehicular Technology*, 72(11):14889–14905 (2023). (S. Jung, C. Park, M. Levorato, J.-H. Kim, J. Kim)
- [ETRI'23.10] Joint Frame Rate Adaptation and Object Recognition Model Selection for Stabilized Unmanned Aerial Vehicle Surveillance, ETRI Journal (Wiley), 45(5):811–821 (2023). (G.S. Kim, H. Lee, S. Park, J. Kim)
- [ETRI'23.10] Two Tales of Platoon Intelligence for Autonomous Mobility Control: Enabling Deep Learning Recipes, ETRI Journal (Wiley), 45(5):735–745 (2023). (S. Park, H. Lee, C. Park, S. Jung, M. Choi, J. Kim) (Invited Article)
- [ETRI'23.10] Special Issue on Autonomous Unmanned Aerial/Ground Vehicles and their Applications, ETRI Journal (Wiley), 45(5):731–734 (2023). (J. Kim, Y-C. Lee, J.H. Lee, J.S. Choi)
- [IC'23.09-10] EQuaTE: Efficient Quantum Train Engine for Run-Time Dynamic Analysis and Visual Feedback in Autonomous Driving, IEEE Internet Computing, 27(5):24–31 (2023). (S. Park, H. Feng, C. Park, Y.K. Lee, S. Jung, J. Kim)
- [OJCS'23.09] Real-Time High-Quality Visualization for Volumetric Contents Rendering: A Lyapunov Optimization Framework, *IEEE Open Journal of the Computer Society*, 4:243–252 (2023). (H. Baek, R. Lee, S. Jung, J. Kim, S. Park)
- [TIV'23.08] Multi-Agent Reinforcement Learning for Cooperative Air Transportation Services in City-Wide Autonomous Urban Air Mobility, *IEEE Transactions on Intelligent Vehicles*, 8(8):4016–4030 (2023). (C. Park, G.S. Kim, S. Park, S. Jung, J. Kim)
- [NN'23.08] Stereoscopic Scalable Quantum Convolutional Neural Networks, Neural Networks (Elsevier), 165:860–867 (2023). (H. Baek, W.J. Yun, S. Park, <u>I. Kim</u>)
- [IOT]'23.06] Quantum Multiagent Actor-Critic Neural Networks for Internet-Connected Multirobot Coordination in Smart Factory Management, *IEEE Internet of Things Journal*, 10(11):9942–9952 (2023). (W.J. Yun, J.P. Kim, S. Jung, J.-H. Kim, J. Kim)
- [ICTE'23.06] Quantum Distributed Deep Learning Architectures: Models, Discussions, and Applications, ICT Express (Elsevier), 9(3):486–491 (2023). (Y. Kwak, W.J. Yun, J.P. Kim, H. Cho, J. Park, M. Choi, S. Jung, J. Kim)
- [Access'23.05] Entropy-Aware Similarity for Balanced Clustering: A Case Study with Melanoma Detection, *IEEE Access*, 11:46892–46902 (2023). (S.B. Son, S. Park, J. Kim)
- [ComNet'23.04] Self-Adaptive End-to-End Resource Management for Real-Time Monitoring in Cyber-Physical Systems, Computer Networks (Elsevier), 225:109669 (2023). (H.-C. Jo, H.-W. Jin, J. Kim)
- [ComNet'23.04] Truthful and Performance-Optimal Computation Outsourcing for Aerial Surveillance Platforms via Learning-based Auction, Computer Networks (Elsevier), 225:109651 (2023). (S. Jung, J.-H. Kim, D. Mohaisen, J. Kim)
 - [CIBM'23.04] Deep Reinforcement Learning-based Propofol Infusion with a 3,000-subject Dataset in Anesthesia, Computers in Biology and Medicine (Elsevier), 156:106739 (2023). (W.J. Yun, M. Shin, S. Jung, J. Ko, H.-C. Lee, <u>I. Kim</u>)
 - [Access'23.03] Audio-to-Visual Cross-Modal Generation of Birds, IEEE Access, 11:27719–27729 (2023). (J.Y. Shim, J. Kim, J.-K. Kim)
 - [Access'23.02] Workload-Aware Scheduling using Markov Decision Process for Infrastructure-Assisted Learning-Based Multi-UAV Surveillance Networks, *IEEE Access (IEEE Vehicular Technology Society Section)*, 11:16533–16548 (2023). (S. Park, C. Park, S. Jung, J.-H. Kim, J. Kim)
 - [TITS'23.01] Self-Configurable Stabilized Real-Time Detection Learning for Autonomous Driving Applications, *IEEE Transactions on Intelligent Transportation Systems*, 24(1):885–890 (2023). (W.J. Yun, S. Park, J. Kim, D. Mohaisen)

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- [JCN'22.12] Parallelized and Randomized Adversarial Imitation Learning for Safety-Critical Self-Driving Vehicles, *Journal of Communications and Networks*, 24(6):710-721 (2022). (W.J. Yun, M. Shin, S. Jung, S. Kwon, J. Kim)
- [TII'22.10] Cooperative Multi-Agent Deep Reinforcement Learning for Reliable Surveillance via Autonomous Multi-UAV Control, *IEEE Transactions on Industrial Informatics*, 18(10):7086–7096 (2022). (W.J. Yun, S. Park, <u>I. Kim</u>, M. Shin, S. Jung, D. Mohaisen, J.-H. Kim)
- [ICTE'22.09] Trustworthy Handover in LEO Satellite Mobile Networks, ICT Express (Elsevier), 8(3):432–437 (2022). (S. Jung, M.-S. Lee, J. Kim, M.-Y. Yun, J. Kim, J.-H. Kim)
- [TVT'22.07] Joint Pilot Design and Channel Estimation using Deep Residual Learning for Multi-Cell Massive MIMO under Hardware Impairments, *IEEE Transactions on Vehicular Technology*, 71(7):7599–7612 (2022). (B. Lim, W.J. Yun, J. Kim, Y.-C. Ko)
- [ITU'22.07] Dynamic Resource Scheduling for Real-Time Group Broadcasting in 6G Cellular Vehicular Networks, ITU Journal on Future and Evolving Technologies, 3(1):81–88 (2022). (S. Jung, M. Levorato, J. Kim)
- [ISJ'22.06] Securing Heterogeneous IoT with Intelligent DDoS Attack Behavior Learning, *IEEE Systems Journal*, 16(2):1974–1983 (2022). (N.-N. Dao, T. Phan, U. Sa'ad, J. Kim, T. Bauschert, D.-T. Do, S. Cho)
- [CSM'22.06] Recent and Future Evolution of Wi-Fi, *IEEE Communications Standards Magazine*, 6(2):8–11 (2022). (E. Au, L. Wilhelmsson, T. Baykas, <u>I. Kim</u>)
- [TMC'22.05] Supremo: Cloud-Assisted Low-Latency Super-Resolution in Mobile Devices, *IEEE Transactions on Mobile Computing*, 21(5):1847–1860 (2022). (*J. Yi, S. Kim, J. Kim, S. Choi*)
- [TVT'22.05] Stabilized Detection Accuracy Maximization using Adaptive SAR Image Processing in LEO Networks, *IEEE Transactions*

- on Vehicular Technology, 71(5):5661–5665 (2022). (K. Kim, J.-H. Lee, S. Jung, <u>J. Kim</u>, J.-H. Kim)
- [ISJ'22.03] LiteZKP: Lightening Zero-Knowledge Proof-based Blockchains for IoT and Edge Platforms, *IEEE Systems Journal*, 16(1):112–123 (2022). (E. Boo, J. Kim, J. Ko)
- [TVT'22.02] Quality-Aware Deep Reinforcement Learning for Streaming in Infrastructure-Assisted Connected Vehicles, *IEEE Transactions on Vehicular Technology*, 71(2):2002–2017 (2022). (W.J. Yun, D. Kwon, M. Choi, J. Kim, G. Caire, A.F. Molisch)
 - [SR'22.01] Feasibility Study of Multi-Site Split Learning for Privacy-Preserving Medical Systems under Data Imbalance Constraints in COVID-19, X-Ray, and Cholesterol Dataset, *Scientific Reports (Nature)*, 12:1534 (2022). (Y.J. Ha, G. Lee, M. Yoo, S. Jung, S. Yoo, <u>J. Kim</u>)

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- [Access'21.09] Spatio-Temporal Split Learning for Privacy-Preserving Medical Platforms: Case Studies with COVID-19 CT, X-Ray, and Cholesterol Data, *IEEE Access*, 9:121046–121059 (2021). (Y.J. Ha, M. Yoo, G. Lee, S. Jung, S. Choi, J. Kim, S. Yoo)
 - [TVT'21.08] Infrastructure-Assisted On-Driving Experience Sharing for Millimeter-Wave Connected Vehicles, *IEEE Transactions on Vehicular Technology*, 70(8):7307–7321 (2021). (S. Jung, J. Kim, M. Levorato, C. Cordeiro, J.-H. Kim)
 - [TMC'21.06] A Personalized Preference Learning Framework for Caching in Mobile Networks, *IEEE Transactions on Mobile Computing*, 20(6):2124–2139 (2021). (A. Malik, K.S. Kim, <u>I. Kim</u>, W.-Y. Shin)
 - [TVT'21.06] Orchestrated Scheduling and Multi-Agent Deep Reinforcement Learning for Cloud-Assisted Multi-UAV Charging Systems, *IEEE Transactions on Vehicular Technology*, 70(6):5362–5377 (2021). (S. Jung, W.J. Yun, M. Shin, J. Kim, J.-H. Kim)
- [Access'21.06] Joint Mobile Charging and Coverage-Time Extension for Unmanned Aerial Vehicles, *IEEE Access*, 9:94053-94063 (2021). (S. Park, M. Choi, W.-Y. Shin, J. Kim)
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■ Conferences

- https://sites.google.com/view/aimlab-kuee/publications/conferences

Patents (Granted), totally, 71

- 21 US Patents: (US 10637154), (US 9973364), (US 9887755), (US 9786985), (US 9167562), (US 8842640), (US 8761063), (US 8738068), (US 8619741), (US 8605634), (US 8599731), (US 8565200), (US 8547889), (US 8503317), (US 8493949), (US 8493948), (US 8483171), (US 8422372), (US 8416782), (US 8411644), (US 8379612)
- 26 Korean Patents: (KR 102573880), (KR 102523056), (KR 102522930), (KR 102500352), (KR 102492736), (KR 102472809), (KR 102444449), (KR 102442891), (KR 102433897), (KR 102370599), (KR 102340895), (KR 102293287), (KR 102244380), (KR 102240442), (KR 102240425), (KR 102234007), (KR 102178895), (KR 102167344), (KR 102052835), (KR 102015429), (KR 101663613), (KR 101619964), (KR 101606951), (KR 101567829), (KR 101558017), (KR 100779165)
- 7 European Patents: (EP 3255730), (EP 2441203), (EP 2422578), (EP 2343836), (EP 2282601), (EP 2262342), (EP 2260669)
- 11 Chinese Patents: (CN 107634349), (CN 102461318), (CN 102461050), (CN 102388658), (CN 102349340), (CN 102342162), (CN 102318430), (CN 102318425), (CN 102204115), (CN 102132602), (CN 102057739)
- 6 Japanese Patents: (JP 5584209), (JP 5584205), (JP 5580308), (JP 5508403), (JP 5368573), (JP 5364785)

Teaching Experience and Research Supervision

Teaching Experience

- Korea University Graduate Courses, Faculty Member
 - IT R&D Policies 1 (ECE723): Fall 2020
 - Design and Analysis of Wireless Communication Systems (ECE721): Spring 2021
 - Sensor Networks (ECE662): Spring 2023
 - Advanced Network Theory (ECE657): Fall 2022
 - Smart Mobile Platform (ECE654): Fall 2023, Fall 2021, Fall 2020, Fall 2019
 - Advanced Topics in Socialware IT (ECE545): Spring 2022
 - Wireless and Mobile Networks (ECE522): Spring 2024, Spring 2020
 - Wireless Network 2 (ITH525): Fall 2022
 - Wireless Network 1 (ITH524): Spring 2021
- Korea University Undergraduate Courses, Faculty Member
 - Introduction to Artificial Intelligence (IWC420): Winter 2023-2024, Winter 2022-2023, Winter 2021-2022
 - Introduction to Computer Science (IWC293): Winter 2023-2024
 - Data Communications (KECE316): Fall 2020
 - Digital System Design and Laboratory (KECE210): Fall 2020

- Probability and Random Process (KECE209): Spring 2024, Spring 2023, Spring 2022 (Best Teaching Award, Top 20%), Spring 2021 (Best Teaching Award, Top 20%), Spring 2020
- Digital System (KECE207): Spring 2020
- Computer Language and Laboratory (EGRN151): Fall 2023, Fall 2022, Fall 2021 (Granite Tower Best Teaching Award, Top 5%), Fall 2020 (Best Teaching Award, Top 20%), Fall 2019 (Granite Tower Best Teaching Award, Top 5%)
- Introduction to Communication/Computing (COMM105): Spring 2024, Spring 2023
- Object-Oriented Programming (SEMI104): Fall 2021 (Best Teaching Award, Top 20%)
- Introduction to Computers (SEMI103): Spring 2021 (Granite Tower Best Teaching Award, Top 5%)
- Future Mobility Technology (GEQR075): Spring 2023, Spring 2022 (Granite Tower Best Teaching Award, Top 5%)

■ Chung-Ang University – College of Computer Science and Software, Faculty Member

- Optimal Design Theory and Applications (Graduate): Spring 2019, Spring 2018, Spring 2017
- Topics in Computer Science and Engineering (Graduate): Fall 2018, Fall 2017, Fall 2016
- Numerical Analysis (Undergraduate): Spring 2019
- Compiler Design (Undergraduate): Spring 2019, Spring 2018, Spring 2017
- Principles of Programming Languages (Undergraduate): Fall 2018, Fall 2017, Fall 2016
- Algorithm Analysis (Undergraduate): Fall 2016
- Operating Systems (Undergraduate): Spring 2017, Spring 2016
- Calculus (Undergraduate): Spring 2017, Spring 2016
- Mobile Application Development (Undergraduate): Fall 2018, Fall 2017

■ University of Southern California – Viterbi School of Engineering, Teaching Assistant

- Wireless and Mobile Networks Design and Lab [EE579] (Spring 2013), Lectured by Professor Murali Annavaram Graduate Course dedicated to Android Mobile Platform Research and Programming
- Programming Systems Design [CSci455x] (Spring 2012, Fall 2012)
 Undergraduate Course dedicated to Object-Oriented Programming (Java and C++) and Advanced Data Structures

Research Collaboration and Supervision

■ Ph.D. Students and Alumni

- Dr. Soohyun Park ('19.03–'23.08 (MS-PhD), '23.09–'24.02 (Postdoc)), Professor at Sookmyung Women's University, Seoul, Korea
 - Dissertation: Advanced Learning for Time-Average Optimization and Software Analysis in Quantum-based Multi-Agent Systems
- Dr. Hankyul Baek ('21.03-'24.02 (MS-PhD), '24.03-'25.08 (Postdoc)), Active Member
 - Dissertation: Adaptive Deep Neural Network Optimization: Algorithmic and Architectural Frameworks
- Hyunsoo Lee ('21.03-), Active Member
- Seok Bin Son ('22.09–), Active Member
- Gyu Seon Kim ('23.03-), Active Member
- Sungjoon Lee ('24.03–), Active Member
- Emily Jimin Roh ('24.03–), Active Member

■ M.S. Students and Alumni

Kyeongseon Kim ('17.09-'19.08, POSTECH), Dohyun Kwon ('18.03-'20.02, Hyundai Motors Group), Dohyun Kim ('18.03-'20.02, Naver), MyungJae Shin ('18.03-'20.02, Naver), Jaeho Choi ('19.03-'21.02, Korea Meteorological Administration), JaeHyun Chung ('23.09-, Active), Yeryeong Cho ('24.03-, Active), Chaemoon Im ('24.03-, Active)

■ Postdoctoral Scholars

- Dr. Minseok Choi ('18.09-'19.02), *Professor* at *Kyung Hee University*, Yong-In, Korea Joint Postdoctoral Research with Prof. Andreas F. Molisch (University of Southern California, Los Angeles, CA, USA)
- Dr. Soyi Jung ('21.03-'21.08), Professor at Ajou University, Suwon, Korea
 Joint Postdoctoral Research with Prof. Marco Levorato (University of California at Irvine, Irvine, CA, USA)

■ Ph.D. Students and Alumni (Tight Collaboration for Ph.D. Dissertation)

• Seungyo Ryu (Primary Advisor: Prof. Dongseung Kim at Korea University), Researcher at LG Electronics, Korea

■ Intel Corporation (Santa Clara, California, USA), Graduate Interns

- Minseok Choi, Ph.D. in EE from KAIST ('16.02-'16.07), now with Kyung Hee University, Korea
- Hidekazu Shimodaira, Ph.D. in EEE from Tokyo Institute of Technology ('15.07-'15.12), now with NTT DOCOMO, Japan

■ USC Viterbi School of Engineering (Los Angeles, California, USA), Graduate Students

- Feiyu Meng, M.S. in EE from USC (Summer 2013, Fall 2013), now with Apple, Silicon Valley, CA, USA
- Vivek Sankaravadivel, M.S. in EE from USC (Spring 2011, Fall 2011), now with Uber, Silicon Valley, CA, USA

Professional Academic Activities

Academic Conference, Workshop, Forum, Symposium Organization (Selected)

■ IEEE Workshop Organization Chair

- IEEE WiOpt 2022, Organizer, Caching, Computing and Delivery in Wireless Networks Workshop (CCDWN)
- IEEE ICASSP 2018, Special Session Organizing Chair, Special Session on Cybersecurity and Privacy
- IEEE GLOBECOM 2015, Organizer, Workshop on Millimeter-Wave Backhaul and Access

Talks and Presentations (Selected)

■ IEEE Distinguished Lectures

- Federated Learning for Medical and Mobile Platforms: Motivation, Challenges, and Potential Solutions
 California State University, Long Beach (Long Beach, CA, USA, 01/2020), Hosted by Prof. Sean Kwon and Prof. Henry Yeh IEEE Systems Council IEEE Coastal Los Angeles Section Chapter
- IEEE Conference Tutorials and Special Session Talks

• IEEE ICC 2018 Tutorial (Kansas City, MO, USA, 05/2018), Securing the Internet of Things: A Machine Learning Approach (Making Machine Learning Practical), Joint Presentation wih Prof. Aziz Mohaisen (University of Central Florida, Orlando, FL, USA)

■ Industry Presentations (Selected)

- <u>International:</u> Huawei Research Center (Text-Aware Image Understanding Workshop) (Online, 11/2021), Ericsson-LG (R&D Hackathon / AI Learning Challenge Keynote Speech) (Seoul, Korea, 05/2021), Huawei Research Center (Deep Learning/Machine Learning for Computer Vision) (Online, 09/2020), Huawei Research Center (Fundamental and Applied Problems of Machine Learning) (Nizhny Novgorod, Russia, 12/2019), City University of Hong Kong (Hong Kong, 11/2018), Intel Communications and Devices Group (iCDG) [Cellular Modem TechTalk] (Santa Clara, CA, USA, 01/2016), Nokia Research Center at Berkeley (Berkeley, CA, USA, 08/2014), Qualcomm Research Center (San Diego, CA, USA, 02/2014)
- <u>Korea:</u> LIG Nex1 (Pankyo), Solvit System (Seoul), Korea Institute of Machinery & Materials (Daejeon), Korea Meteorological Administration (Seoul), Hyundai NGV (Seoul), SK Telecom (SKT) (Seoul), Agency for Defense Development (ADD) (Seoul), SK Hynix (Icheon), Naver Labs Robotics Lab (Pankyo), ETRI (Daejeon), KT AI Tech Center (Seoul), LG Electronics (Seoul), Posco ICT (Pankyo), LG U+ (Seoul), SK Broadband (Seoul), Korea Electronics Technology Institute (KETI) (Pankyo), Korea Electric Power Corporation (KEPCO) Research Institute (Daejeon), Samsung Electronics (Hwasung)

■ Demonstration at Academic Conferences

- EQuaTE: Efficient Quantum Train Engine Design and Demonstration for Dynamic Software Analysis; IEEE ICDCS 2023 (Hong Kong, China)
- Multi-Site Clinical Federated Learning using NLP Models and NVFlare; IEEE ICDCS 2023 (Hong Kong, China)
- Quantum Multi-Agent Reinforcement Learning via Variational Quantum Circuit Design; IEEE ICDCS 2022 (Bologna, Italy)
- Visualization of Deep Reinforcement Autonomous Aerial Mobility Learning Simulations; IEEE INFOCOM 2021 (Online)
- Deep Multi-modal Unsupervised Pen Pressure Stylization; IEEE/CVF ICCV 2019 (Seoul, Korea)
- Light-Weight Programming Language for Blockchain; ACM MobiSys 2019 (Seoul, Korea)
- mmWave MAA Client Access & Backhaul Platform; IEEE GLOBECOM 2015 (Industry Demonstration ID-14) (San Diego, CA, USA)
- mmWave Modular Antenna Array for Next-Generation Wireless Networks; IEEE GLOBECOM 2014 (Expo) (Austin, TX, USA)
- Adaptive Video Streaming for Device-to-Device Mobile Platforms; ACM MobiCom 2013 (Miami, FL, USA)

■ Prototyping at Industry Exhibitions

- Mobile Edge mmWave Backhaul and Access; Mobile World Congress (MWC) 2016 (Barcelona, Spain, 02/2016)
- mmWave MAA Client Access & Backhaul Platform; Intel 360 degree 2016 (Anaheim, CA, 02/2016)
- mmWave Modular Antenna Array Client Access & Backhaul Platform; Intel Asia Innovation Summit 2015 (Taipei, Taiwan, 10/2015)
- Enabling 5G Densification; Intel Developer Forum (IDF) 2015 (San Francisco, CA, USA, 08/2015)
- Enabling 5G Densification; Intel Design and Test Technology Conference (DTTC) 2015 (Portland, OR, USA, 08/2015)
- Enabling 5G Densification; Mobile World Congress (MWC) 2015 (Barcelona, Spain, 03/2015)

Conference Activities and Services (Selected)

■ Organizing Committee (OC) Activities

- IEEE WiOpt: 2022 (Organizer, Caching, Computing and Delivery in Wireless Networks Workshop (CCDWN))
- IEEE GLOBECOM: 2015 (Organizer, Workshop on Millimeter-Wave Backhaul and Access (mmWave))
- IEEE ICC: 2022 (Patronage Chair)
- IEEE VTS APWCS: 2023 (Finance Co-Chair), 2022 (Finance Chair), 2021 (Finance Co-Chair), 2017 (Publication Vice Chair)
- IEEE ICASSP: 2018 (Special Session Organizing Chair, Special Session on Cybersecurity and Privacy)
- IEEE APCC: 2022 (Local Arrangement Chair)
- ACM CoNEXT: 2019 (Poster Session Chair)

■ Technical Program Committee (TPC) Chair-Level Activities

- CCNC: 2022 (Track Chair for T7 (Security, Privacy and Content Protection))
- NAS: 2019 (Track Co-Chair for Network Track)
- GLOBECOM: 2015 (TPC Chair for the Workshop on Millimeter-Wave Backhaul and Access)

■ Technical Program Committee (TPC) Non-Chair-Level Activities

- 2024:
- 2023: ICC (Wireless Communications Symposium), ICC (Integrated Sensing and Communication Track), ICC (Reconfigurable Intelligent Surfaces and Smart Environments Track), MASS, WCNC
- 2022: GLOBECOM (Selected Areas in Communications Machine Learning for Communications), MASS, ICC (Wireless Communications Symposium), WCNC, VTC-Fall, COMNETSAT, IPDPS (Heterogeneity in Computing Workshop), MSN (Track 3: Security, Privacy, Trust, and Blockchain)
- 2021: GLOBECOM (Selected Areas in Communications Machine Learning for Communications), GLOBECOM (IoTSN), ICC (Wireless Communications Symposium), MASS, ICCCN, MSN, COMNETSAT, WCNC, EuCAP
- 2020: GLOBECOM (Ad-hoc and Sensor Networks Symposium), WCNC, WCNC (Workshop on Aerial Communications in 5G and Beyond Networks), COMNETSAT
- 2019: VTC-Spring, ICDCS (Distributed Green Computing & Energy Management), NAS (Network Track), Blockchain, MobiHoc, EuCAP
- 2018: APWCS, AsiaCCS (Workshop on Security in Cloud Computing), ATC
- 2016: VTC-Spring
- 2015: VTC-Spring, EuCAP
- 2014: VTC-Fall
- 2012: MASS (Workshop on Internet of Things Technology and Architectures)

References

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