# Joongheon Kim

Last update on August 18, 2021

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## Highlights

### Research Milestones

- **54 IEEE Journals**, including *25 Communications Society (ComSoc)*, *8 Computer Society*, and *7 Vehicular Technology Society (VTS)* journals
- **4244+ Citations** in Google Scholar Profile (H-index: 28+, i10-index: 98+)
- **5 Top-Tier Conference Papers**, i.e., *IEEE ICDCS (2020)*, *IJCAI (2019)*, *IEEE ICDCS (2018)*, *ACM Multimedia (2017)*, and *ACM MobiSys (2010)*
- **5 Awards from IEEE Journals, Conferences, and Contests**, i.e., *IEEE ICOIN Best Paper Award (2021)*, *IEEE Systems Journal Best Paper Award (2020)*, *IEEE Seoul Section Student Paper Contests (2020 and 2019)*, and *IEEE VTS Seoul Chapter Award (2019)*
- **5 Tutorials at IEEE Conferences**, i.e., *ICOIN (2022)*, *ICUFN (2021)*, *ICAIIC (2021)*, *ICOIN (2019)*, and *ICC (2018)*
- **55+ 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
- **11 Awards** from Local (Korean) Conferences and Contests

### Research Supervision and Teaching

- **Supervised 2 Postdoctoral Scholars**, now, tenure-track professors at Jeju Nat'l Univ. (Korea) and Hallym Univ. (Korea)
- **Supervised 1 Ph.D. and 5 M.S. Students**, now, researchers at LG Electronics, Hyundai, Naver, government agency, and startup
- **2 Best Teaching Awards at Korea University**, 1 award is for top 5% and 1 award is for top 20%

### IEEE Society Academic Activities

- **Senior Member of the IEEE** and IEEE Membership for 16+ years
- **Associate Editor**, *IEEE Transactions on Vehicular Technology*
- **Guest Editor (03/2022)**, *IEEE Communications Standards Magazine* – Special Issue on Recent and Future Evolution of Wi-Fi
- **17+ Organizing Committee (OC) Contributions** for IEEE Conferences
- **56+ Technical Program Committee (TPC) Contributions** for IEEE Conferences

## Positions

### Korea University

- ***Associate Professor – Faculty Member (09/2019–):* School of Electrical Engineering**
  – *Adjunct Professor (03/2021–):* Department of Semiconductor Engineering
  – *Adjunct Professor (09/2019–):* Department of Electrical and Computer Engineering (Graduate School)
  – *Assistant Professor (09/2019–02/2021):* School of Electrical Engineering
- *Dean (06/2021–):* Center for Teaching and Learning
- *Vice Director (10/2019–):* Artificial Intelligence Engineering Research Center
- *Organizing Committee (07/2021–06/2022):* Institute of Data Science (IDS)

### Academia

- *Senior Member (2018–)*, **IEEE**
- *Associate Editor (2020–)*, **IEEE Transactions on Vehicular Technology**

## Educational Backgrounds

- **University of Southern California (USC) – Viterbi School of Engineering**, Los Angeles, California, USA
  – Ph.D. (08/2009–08/2014) in Computer Science (Advisor: *Prof. Andreas F. Molisch*, Fellow of the IEEE)
  – M.S. (05/2014) in Computer Science with specialization in High Performance Computing and Simulations
  – M.S. (05/2012) in Electrical Engineering
- **Korea University**, Seoul, Republic of Korea
  – M.S. (03/2004–02/2006) in Computer Science and Engineering
  – B.S. (03/1999–02/2004) in Computer Science and Engineering

## Awards and Honors

### Research and Academic Excellence (International)

- **Best Paper Award** – *2021 IEEE International Conference on Information Networking (ICOIN)* 01/2021
  "Infrastructure-Assisted Cooperative Multi-UAV Deep Reinforcement Energy Trading Learning for Big-Data Processing"
- **Bronze Paper Award** – *2020 IEEE Seoul Section Student Paper Contest* 12/2020
  "Reliable Offloading Target Selection using Deep Reinforcement Learning for Large Fire Accident"
- **IEEE Systems Journal Best Paper Award (Top 7 among 793 accepted papers in 2019: 0.88%)** – *IEEE Systems Council* 03/2020
  "Towards Characterizing Blockchain-based Cryptocurrencies for Highly-Accurate Predictions"

- **Gold Paper Award** – *2019 IEEE Seoul Section Student Paper Contest* 12/2019
  "Stabilized Super-Resolution Deep Learning Adaptation for UAV-Assisted Mobile Edges: A Lyapunov Optimization Approach"
- **IEEE Vehicular Technology Society (VTS) Seoul Chapter Award** – *2019 IEEE Asia Pacific Wireless Communications Symposium* 08/2019
  "Joint Offloading and Streaming in Mobile Edges: A Deep Reinforcement Learning Approach"
- **Next Generation and Standards (NGS) Division Recognition Award** – *Intel Corporation* Q1/2015
  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** – *University of Southern California* 02/2009
  Awarded with Ph.D. Admission – 4 Year Full Scholarship ($30,000/year for 4 years, i.e., $120,000)

### Research and Academic Excellence (Korea Regional)

- **Haedong Paper Award – Encouragement Paper Award** – *2021 KICS Summer Conference* 06/2021
  "Neural Architectural Nonlinear Pre-Processing for mmWave Radar-based Human Gesture Perception in On-Driving Scenarios"
- **Encouragement Paper Award** – *2020 KICS Fall Conference* 11/2020
  "UAV Trajectory Optimization via Multi-Agent Deep Reinforcement Learning"
- **Encouragement Paper Award** – *2020 KICS Summer Conference* 08/2020
  "3D Modeling and WebVR Implementation Using Azure Kinect, Open3D, and Three.js"
- **Encouragement Paper Award** – *2020 KICS Winter Conference* 02/2020
  "Quantum Heuristic Solver using QAOA for the Maximum Independent Set Problem"
- **Encouragement Paper Award** – *2020 KICS Winter Conference* 02/2020
  "Multi-Drone Scheduling for High-Reliable and High-Performance UAV-based Surveillance Networking"
- **Outstanding Contribution Award** – *KICS* 11/2019
- **Haedong Young Scholar Award** – *KICS* and *Haedong Foundation* 12/2018
  For recognizing a researcher under the age of 40 who has made outstanding contributions to communication sciences R&D
- **Outstanding Research Paper Award** – *LG Electronics CTO Office, Multimedia Research Laboratory* 01/2008
- **RFID Expert Group President Award** – *The 3rd RFID/USN Research Paper Contest* 10/2007
- **ETRI President Award** – *The 2nd RFID/USN Research Paper Contest* 11/2006
- **Korea Association of RFID/USN (KARUS) President Award** – *The 1st RFID/USN Research Paper Contest* 10/2005
- **Scholarships for Academic Excellence** – *Korea University* Fall 1999, Fall 2000

### Teaching and Supervision Excellence

- **Best Teaching Award (Top 20%)** – *Korea University* (Computer Language and Laboratory, EGRN151) Fall 2020
- **Granite Tower (Seok-Tap) Best Teaching Award (Top 5%)** – *Korea University* (Computer Language and Laboratory, EGRN151) Fall 2019

## R&D Positions

### Full-Time Positions

- **Korea University – College of Engineering**, Seoul, Republic of Korea
  – *Associate Professor (03/2021–)* and *Assistant Professor (09/2019–02/2021)*, School of Electrical Engineering
  – *Adjunct Professor (03/2021–)*, Department of Semiconductor Engineering
  – *Vice Director (10/2020–)*, Artificial Intelligence Engineering Research Center
- **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), California, 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, California, USA
  – *Annenberg Graduate Fellow (08/2009)*, Awarded with Ph.D. admission from USC (2009)
  – *Ph.D. Research Assistant (01/2011–08/2014)*, Communication Sciences Institute (Advised by Prof. Andreas F. Molisch)
- **InterDigital**, San Diego, California, USA
  – *Intern (05/2012–08/2012)*, 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

### 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

## R&D Projects

### University/Center-Level Projects

- **Nano UAV Intelligence Systems Research Lab (NUiSRL)** 10/2020–12/2022
  Funded by *Agency for Defense Development (ADD)*
  – **ADD Military Special Research Center**, PI: Kwangwoon University (Korea)
- **5G/Unmanned Vehicle Research Center (5G/UV-RC)** 06/2020–12/2022
  Funded by *Institute for Information and Communications Technology Promotion (IITP)*
  – **University IT Research Center (ITRC)**, PI: Hanyang University (Korea)
- **Human Resource Development for the Biomedical Unstructured Big Data Analysis** 08/2018–12/2021
  Funded by *Institute for Information and Communications Technology Promotion (IITP)* [2018-0-01833; Co-PI]
  – **University IT Research Center (ITRC)**, PI: Seoul National University Hospital (Korea)

- **Intelligent Internet of Energy (IoE) Data Research Center** 02/2020–05/2020
  Funded by *Institute for Information and Communications Technology Promotion (IITP)*
  – **University IT Research Center (ITRC)**, PI: Kookmin University (Korea)

## Government-Funded Projects

- **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: $150,000; 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 Information and Communications Technology Promotion (IITP)* [2018-0-00170, Grant: $300,000; 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 *M inistry of Science and ICT* [2019M3E4A1080391, Grant: $258,500; Primary-PI]
- **Distributed Secure Platform for Scalable Clinical OMOP CDM Models** 04/2019–03/2022
  Funded by *Ministry of Health and Welfare* [HI19C0572, Grant: $90,000; Co-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)** 06/2018–05/2021
  Funded by *Institute for Information and Communications Technology Promotion (IITP)* [2018-0-00170, Grant: $246,464; 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]
- **Feasibility Study of 60 GHz IEEE 802.11ad for Virtual Reality (VR) Platforms** 04/2017–12/2017
  Funded by *Institute for Information and Communications Technology Promotion (IITP)* [Grant: $33,333; Primary-PI]

## Industry-Funded Projects

- **Mapping between Real World and Virtual Reality (VR) for End-Edged Cloud Real-Time VR Servers** 09/2020–09/2021
  Funded by *Samsung Electroncis – Samsung Advanced Institute of Technology* [Grant: $71,500; Primary-PI]
- **Super-Resolution Performance Optimization in Mobile Platforms** 05/2020–08/2020
  Funded by *Samsung SDS* [Grant: $15,000; Primary-PI]
- **Deep Learning Algorithms for mVOC Concentration Analysis** 03/2020–06/2020
  Funded by *Samsung Electronics* [Grant: $12,000; Primary-PI]
- **Visual Recognition Software Implementation using Deep Learning Tools** 05/2019–11/2019
  Funded by *Hyundai NGV* and *Hyundai/Kia Motors Company* [Grant: $59,500; Primary-PI]
- **A Priori Techniques Research for Efficient Multi-Edge Computing** 06/2017–12/2017
  Funded by *Samsung Electronics Software Center* [Grant: $80,000; Co-PI]

## Government-Funded Research Institute Projects

- **Research on Intelligent Agent-based CPS Security and Reliability** 05/2021–11/2021
  Funded by *Telecommunications Technology Association (TTA)* [xxx, Grant: $50,000; Primary-PI]
- **Multi-GPU based Automotive HPC Platform Development (A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information)** 04/2020–10/2020
  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 (Human-Agent Cooperation Algorithm Design in Multi-Agent Environment)** 04/2020–08/2020
  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]
- **Measurement and Analysis of Multi-Task GPU Scheduling Delays (A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information)** 05/2019–10/2019
  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 (A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information)** 05/2018–10/2018
  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 (Development of HPC System for Accelerating Large-Scale Deep Learning)** 04/2018–10/2018
  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 (A Development of Driving Decision Engine for Autonomous Driving using Driving Experience Information)** 09/2017–11/2017
  Funded by *Electronics and Telecommunications Research Institute* [17HS2720 (IITP 2017-0-00068), Grant: $40,000; Primary-PI]

## 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)

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## Selected Publications

- Citation: 4244+, H-Index: 28+, i10-Index: 98+; obtained from Google Scholar Profile (as of August 18, 2021)

### 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.

#### Book Chapters

- S. Park, D. Kim, and J. Kim, "Dynamic Decision-Making for Stabilized Deep Learning Software Platforms," *Advances and Applications in Deep Learning*, IntechOpen, September 2020., (Editor: M.A. Aceves-Fernandez)
- A.F. Molisch, M. Ji, J. Kim, D. Burghal, and A.S. Tehrani, "Device-to-Device Communications," *Towards 5G: Applications, Requirements and Candidate Technologies*, Wiley, January 2017., (Editors: R. Vannithamby, S. Talwar)
- J. Kim, "Millimeter-Wave (mmWave) Medium Access Control: A Survey," *Opportunities in 5G Networks: A Research and Development Perspective*, CRC Press Taylor and Francis Group, April 2016., (Editor: F. Hu)
- J. Kim, "Millimeter-Wave (mmWave) Radio Propagation Characteristics," *Opportunities in 5G Networks: A Research and Development Perspective*, CRC Press Taylor and Francis Group, April 2016., (Editor: F. Hu)
- J. Kim, E. Kim, W. Lee, D. Kim, J. Choi, J. Jung, and C.K. Shin, "Weighted Localized Clustering: A Coverage-Aware Reader Collision Arbitration Protocol in RFID Networks," *Handbook on Mobile and Ubiquitous Computing: Status and Perspective*, CRC Press Taylor and Francis Group, October 2012., (Editors: L.T. Yang, E. Syukur, S.W. Loke)
- J. Kim, W. Lee, E. Kim, and T.K. Shih, "Coverage-Time Optimized Dynamic Clustering for Two-Tiered WM2Nets," *Wireless Mesh Networking*, McGraw-Hill, August 2008., (Editor: G. Aggelou)

### Magazines and Journals

■ **IEEE,** ***58 publications***

[TII.major] W.J. Yun, S. Park, J. Kim, M. Shin, S. Jung, D. Mohaisen, and J.-H. Kim, "(Reliability and Security for Intelligent Wireless Sensing and Control Systems)," *IEEE Transactions on Industrial Informatics*, v(n):ppp–ppp, Month Year.

[Access.major] Y.J. Ha, M. Yoo, G. Lee, S. Jung, S.W. Choi, J. Kim, and S. Yoo, "Spatio-Temporal Split Learning for Privacy-Preserving Medical Platforms: Case Studies with COVID-19 CT, X-Ray, and Cholesterol Data," *IEEE Access*, v:pppppp–pppppp, Month Year.

[TITS.major] W.J. Yun, S. Park, J. Kim, and D. Mohaisen, "Self-Configurable Stabilized Real-Time Detection Learning for Autonomous Driving Applications," *IEEE Transactions on Intelligent Transportation Systems*, v(n):ppp–ppp, Month Year.

[TVT.major] W.J. Yun, D. Kwon, M. Choi, J. Kim, G. Caire, and A.F. Molisch, "Quality-Aware Deep Reinforcement Learning for Streaming in Infrastructure-Assisted Connected Vehicles," *IEEE Transactions on Vehicular Technology*, v(n):ppp–ppp, Month Year.

[ISJ.accept] N.-N. Dao, T. Phan, U. Sa'ad, J. Kim, T. Bauschert, D.-T. Do, and S. Cho, "Securing Heterogeneous IoT with Intelligent DDoS Attack Behavior Learning," *IEEE Systems Journal*, v(n):ppp–ppp, Month Year.

[TMC.accept] J. Yi, S. Kim, J. Kim, and S. Choi, "Supremo: Cloud-Assisted Low-Latency Super-Resolution in Mobile Devices," *IEEE Transactions on Mobile Computing*, v(n):ppp–ppp, Month Year.

[ISJ.accept] E. Boo, J. Kim, and J. Ko, "LiteZKP: Lightening Zero-Knowledge Proof-based Blockchains for IoT and Edge Platforms," *IEEE Systems Journal*, v(n):ppp–ppp, Month Year.

[ISJ'21.09] S. Jung, J. Kim, and J.-H. Kim, "Intelligent Active Queue Management for Stabilized QoS Guarantees in 5G Mobile Networks," *IEEE Systems Journal*, 15(3):ppp–ppp, September 2021.

[TVT'21.08] S. Jung, J. Kim, M. Levorato, C. Cordeiro, and J.-H. Kim, "Infrastructure-Assisted On-Driving Experience Sharing for Millimeter-Wave Connected Vehicles," *IEEE Transactions on Vehicular Technology*, 70(8):7307–7321, August 2021.

[TMC'21.06] A. Malik, K.S. Kim, J. Kim, and W.-Y. Shin, "A Personalized Preference Learning Framework for Caching in Mobile Networks," *IEEE Transactions on Mobile Computing*, 20(6):2124–2139, June 2021.

[TVT'21.06] S. Jung, W.J. Yun, M. Shin, J. Kim, and J.-H. Kim, "Orchestrated Scheduling and Multi-Agent Deep Reinforcement Learning for Cloud-Assisted Multi-UAV Charging Systems," *IEEE Transactions on Vehicular Technology*, 70(6):5362–5377, June 2021.

[Access'21.06] S. Park, M. Choi, W.-Y. Shin, and J. Kim, "Joint Mobile Charging and Coverage-Time Extension for Unmanned Aerial Vehicles," *IEEE Access*, 9:94053-94063, June 2016.

[PIEEE'21.05] J. Park, S. Samarakoon, A. Elgabli, J. Kim, M. Bennis, S.-L. Kim, and M. Debbah, "Communication-Efficient and Distributed Learning Over Wireless Networks: Principles and Applications," *Proceedings of the IEEE*, 109(5):796–819, May 2021.

[TWC'21.04] M. Choi, A.F. Molisch, D.-J. Han, D. Kim, J. Kim, and J. Moon, "Probabilistic Caching and Dynamic Delivery Policies for Categorized Contents and Consecutive User Demands," *IEEE Transactions on Wireless Communications*, 20(4):2685–2699, April 2021.

[JCN'21.04] D. Kim, S. Park, J. Kim, J.y. Bang, and S. Jung, "Stabilized Adaptive Sampling Control for Reliable Real-Time Learning-based Surveillance Systems," *IEEE/KICS Journal of Communications and Networks*, 23(2):129–137, April 2021.

[JCN'21.04] M. Choi, M. Shin, and J. Kim, "Dynamic Video Delivery using Deep Reinforcement Learning for Device-to-Device Underlaid Cache-Enabled Internet-of-Vehicle Networks," *IEEE/KICS Journal of Communications and Networks*, 23(2):117–128, April 2021.

[ISJ'21.03] D. Kim, D. Kwon, L. Park, J. Kim, and S. Cho, "Multiscale LSTM-Based Deep Learning for Very-Short-Term Photovoltaic Power Generation Forecasting in Smart City Energy Management," *IEEE Systems Journal*, 15(1):346–354, March 2021.

[TWC'20.12] 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.

[IOTJ'20.10] D. Kwon, J. Jeon, S. Park, J. Kim, and S. Cho, "Multiagent DDPG-Based Deep Learning for Smart Ocean Federated Learning IoT Networks," *IEEE Internet of Things Journal*, 7(10):9895–9903, October 2020.

[JCN'20.08] D. Kwon, J. Kim, D. Mohaisen, and W. Lee, "Self-Adaptive Power Control with Deep Reinforcement Learning for Millimeter-Wave Internet-of-Vehicles Video Caching," *IEEE/KICS Journal of Communications and Networks*, 22(4):326–337, August 2020.

[Access'20.06] M. Choi and J. Kim, "Blind Signal Classification Analysis and Impact on User Pairing and Power Allocation in Nonorthogonal Multiple Access," *IEEE Access*, 8:100916–100929, June 2020.

[TII'20.05] M. Shin, D.-H. Choi, and J. Kim, "Cooperative Management for PV/ESS-Enabled Electric-Vehicle Charging Stations: A Multiagent Deep Reinforcement Learning Approach," *IEEE Transactions on Industrial Informatics*, 16(5):3493–3503, May 2020.

[ISJ'20.03] 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 Systems Journal Best Paper Award, Top 7 among 793 accepted papers in 2019: 0.88%)***

[JCN'20.02] S. Han, J.-W. Choi, and J. Kim, "Numerical Approximation of Millimeter-Wave Frequency Sharing between Cellular Systems and Fixed Service Systems," *IEEE/KICS Journal of Communications and Networks*, 22(1):37–45, February 2020.

[TWC'19.12] M. Choi, A. No, M. Ji, and J. Kim, "Markov Decision Policies for Dynamic Video Delivery in Wireless Caching Networks," *IEEE Transactions on Wireless Communications*, 18(12):5705–5718, December 2019.

[TWC'19.10] M. Choi, J. Kim, and J. Moon, "Dynamic Power Allocation and User Scheduling for Power-Efficient and Delay-Constrained Multiple Access Networks," *IEEE Transactions on Wireless Communications*, 18(10):4846–4858, October 2019.

[IOTJ'19.10] L. Park, C. Lee, J. Kim, A. Mohaisen, and S. Cho, "Two-Stage IoT Device Scheduling with Dynamic Programming for Energy Internet Systems," *IEEE Internet of Things Journal*, 6(5):8782–8791, October 2019.

[TVT'19.10] M. Choi, D. Yoon, and J. Kim, "Blind Signal Classification for Non-Orthogonal Multiple Access in Vehicular Networks," *IEEE Transactions on Vehicular Technology*, 68(10):9722–9734, October 2019.

[TCAD'19.09] W. Lee, T. Kang, J.-J. Lee, K. Han, J. Kim, and M. Pedram, "TEI-ULP: Exploiting Body Biasing to Improve the TEI-Aware Ultra-Low Power Methods," *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 38(9):1758–1770, September 2019.

[TMC'19.07] J. Koo, J. Yi, J. Kim, M.A. Hoque, and S. Choi, "Seamless Dynamic Adaptive Streaming in LTE/Wi-Fi Integrated Network under Smartphone Resource Constraints," *IEEE Transactions on Mobile Computing*, 18(7):1647–1660, July 2019.

[TVT'19.05] M. Shin, J. Kim, and M. Levorato, "Auction-Based Charging Scheduling With Deep Learning Framework for Multi-Drone Networks," *IEEE Transactions on Vehicular Technology*, 68(5):4235–4248, May 2019.

[CM'19.03] L. Park, S. Jeong, D.S. Lakew, J. Kim, and S. Cho, "New Challenges of Wireless Power Transfer and Secured Billing for Internet of Electric Vehicles," *IEEE Communications Magazine*, 57(3):118–124, March 2019.

[TIE'19.02] L. Park, S. Jeong, J. Kim, and S. Cho, "Joint Geometric Unsupervised Learning and Truthful Auction for Local Energy Market," *IEEE Transactions on Industrial Electronics*, 66(2):1499–1508, February 2019.

[IOTJ'18.12] S. Jeong, W. Na, J. Kim, and S. Cho, "Internet of Things for Smart Manufacturing System: Trust Issues in Resource Allocation," *IEEE Internet of Things Journal*, 5(6):4418–4427, December 2018.

[JSAC'18.11] N.-N. Dao, D.-N. Vu, W. Na, J. Kim, and S. Cho, "SGCO: Stabilized Green Crosshaul Orchestration for Dense IoT Offloading Services," *IEEE Journal on Selected Areas in Communications*, 36(11):2538–2548, November 2018.

[JSAC'18.06] M. Choi, J. Kim, and J. Moon, "Wireless Video Caching and Dynamic Streaming under Differentiated Quality Requirements," *IEEE Journal on Selected Areas in Communications*, 36(6):1245–1257, June 2018.

[Access'18.05] S. Ahn, J. Kim, E. Lim, and S. Kang, "Soft Memory Box: A Virtual Shared Memory Framework for Fast Deep Neural Network Training in Distributed High Performance Computing," *IEEE Access*, 6:26493–26504, May 2018.

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[IOTJ'18.02] W. Na, J. Park, C. Lee, K. Park, J. Kim, and S. Cho, "Energy-Efficient Mobile Charging for Wireless Power Transfer in Internet of Things Networks," *IEEE Internet of Things Journal*, 5(1):79–92, February 2018.

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## Conference and R&D Event Contributions (Selected)

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[ICDCS'20] Ü. Meteriz, N.F. Yildiran, J. Kim, and D. Mohaisen, "Understanding the Potential Risks of Sharing Elevation Information on Fitness Applications," *IEEE ICDCS'20*. **(17.98%)**

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[MM'17] J. Koo, J. Yi, J. Kim, M.A. Hoque, and S. Choi, "REQUEST: Seamless Dynamic Adaptive Streaming over HTTP for Multi-Homed Smartphone under Resource Constraints," *ACM Multimedia'17*. **(27.63%)**

[MobiSys'10] J. Paek, J. Kim, and R. Govindan, "Energy-Efficient Rate-Adaptive GPS-based Positioning for Smartphones", *ACM MobiSys'10*. **(19.84%)**, ***(Citations: 600+)***

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## Patents (Granted), *totally 55*

- **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)
- **14 Korean Patents:** (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)
- **5 European Patents:** (EP 2422578), (EP 2343836), (EP 2282601), (EP 2262342), (EP 2260669)
- **9 Chinese Patents:** (CN 107634349), (CN 102461318), (CN 102461050), (CN 102388658), (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)

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## Teaching Experience and Research Supervision

### Teaching Experience

**Korea University – Graduate Courses (Department of Electrical and Computer Engineering), *Faculty Member***

- *Wireless and Mobile Networks (ECE522):* Spring 2020
- *Wireless Network 1 (ITH524), Graduate School of Engineering and Technology:* Spring 2021
- *Smart Mobile Platform (ECE654):* Fall 2021, Fall 2020, Fall 2019
- *Design and Analysis of Wireless Communication Systems (ECE721):* Spring 2021
- *IT R&D Policies 1 (ECE723):* Fall 2020

**Korea University – Undergraduate Courses (School of Electrical Engineering), *Faculty Member***

- *Computer Language and Laboratory (EGRN151):* Fall 2021, Fall 2020 ***(Best Teaching Award)***, Fall 2019 ***(Granite Tower (Seok-Top) Best Teaching Award)***
- *Object-Oriented Programming (SEMI104), Department of Semiconductor Engineering:* Fall 2021
- *Introduction to Computers (SEMI103), Department of Semiconductor Engineering:* Spring 2021
- *Digital System (KECE207):* Spring 2020
- *Probability and Random Process (KECE209):* Spring 2022, Spring 2021, Spring 2020
- *Digital System Design and Laboratory (KECE210):* Fall 2020
- *Data Communications (KECE316):* Fall 2020

**Chung-Ang University – Graduate Courses (College of Computer Science and Software), *Faculty Member***

- *Optimal Design Theory and Applications:* Spring 2019, Spring 2018, Spring 2017
- *Topics in Computer Science and Engineering:* Fall 2018, Fall 2017, Fall 2016

**Chung-Ang University – Undergraduate Courses (College of Computer Science and Software), *Faculty Member***

- *Numerical Analysis:* Spring 2019
- *Compiler Design:* Spring 2019, Spring 2018, Spring 2017
- *Principles of Programming Languages:* Fall 2018, Fall 2017, Fall 2016
- *Algorithm Analysis:* Fall 2016
- *Operating Systems:* Spring 2017, Spring 2016
- *Calculus:* Spring 2017, Spring 2016
- *Mobile Application Development:* 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

#### Postdoctoral Scholars

- **Dr. Minseok Choi** (09/2018–02/2019), jointly with **University of Southern California** (co-advised by Prof. Andreas F. Molisch)
  Currently, *Assistant Professor* at **Jeju National University**, Korea
- **Dr. Soyi Jung** (03/2021–08/2021), jointly with **University of California at Irvine** (co-advised by Prof. Marco Levorato)
  Currently, *Assistant Professor* at **Hallym University**, Korea
- **Dr. Ju-Hyung Lee** (08/2021–, Primary Advisor: Prof. Young-Chai Ko)

#### Ph.D. Course Students and Alumni

- **Soohyun Park** (03/2019–02/2023 (expected))
- **Haemin Lee** (09/2020–08/2023 (expected))
- **Hankyul Baek** (03/2021–)
- **Yoo Jeong (Anna) Ha** (03/2021–)
- **Yunseok Kwak** (03/2021–)
- **Hyunsoo Lee** (03/2021–)
- **Won Joon Yun** (03/2021–02/2024 (expected))
- **Dr. Seungyo Ryu** (09/2019–08/2020, Primary Advisor: Prof. Dongseung Kim), *Researcher* at **LG Electronics**, Korea
- **Joo Yong Shim** (11/2020–, Primary Advisor: Prof. Jong-Kook Kim)

#### M.S. Course Students and Alumni

- **Kyeongseon Kim** (09/2017–08/2019), *Researcher* at **LG Electronics**, Korea
- **Dohyun Kwon** (03/2018–02/2020), *Researcher* at **Hyundai**, Korea
- **Dohyun Kim** (03/2018–02/2020), *Researcher* at **Naver Corporation**, Korea
- **MyungJae Shin** (03/2018–02/2020), *Engineer* at **mofl**, Korea
- **Jaeho Choi** (03/2019–02/2021), *Researcher (Military Service Exception)* at **Korea Meteorological Administration**, Korea
- **Youngkee Kim** (03/2021–02/2023), *Researcher* at **Korea Electronics Technology Institute**, Korea
- **Minjae Yoo** (03/2021–02/2023)
- **Gusang Lee** (03/2022–)

#### Intel Corporation (Santa Clara, California, USA), *Graduate Interns*

- **Minseok Choi**, Ph.D. in EE from KAIST (02/2016–07/2016), now with **Jeju National University**, Jeju, Korea
- **Hidekazu Shimodaira**, Ph.D. in EEE from Tokyo Institute of Technology (07/2015–12/2015), now with **NTT DOCOMO**, Tokyo, 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

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## Professional Activities

### Academic Activities

#### Editorial Boards

- **Associate Editor (2020–)**, *IEEE Transactions on Vehicular Technology*
- **Editor (2021–2023)**, *Elsevier ICT Express*
- **Guest Editor (03/2022)**, *IEEE Communications Standards Magazine – Special Issue on Recent and Future Evolution of Wi-Fi*
- **Guest Editor (06/2021)**, *Elsevier ICT Express – Special Issue on Artificial Intelligence and Machine Learning Approaches to Communication*
- **Guest Editor (03/2022)**, *Elsevier ICT Express – Special Issue on Mobile and Edge Computing Systems*

### Talks and Presentations (Selected)

#### Tutorials and Special Session Talks in IEEE Conferences

- *Distributed and Split Deep Learning: Theory and Applications*
  **IEEE ICOIN 2022 Tutorial – IEEE Computer Society** (Online, 01/2022)
- *Distributed and Split Deep Learning: Theory and Applications*
  **IEEE ICUFN 2021 Tutorial – IEEE Communications Society** (Jeju, Korea, 08/2021)
- *Multi-Agent Deep Reinforcement Learning for Connected and Autonomous Vehicles*
  **IEEE ICAIIC 2021 Tutorial – IEEE Communications Society** (Online, 04/2021)
- *Advanced Deep Learning Methods and Their Applications to Distributed and Network Platforms*
  **IEEE ICTC 2019 Special Session Talk – IEEE Communications Society** (Jeju, Korea, 10/2019)
- *Distributed Platform Research for Emerging Deep Learning Applications*
  **IEEE ICOIN 2019 Tutorial – IEEE Computer Society** (Kuala Lumpur, Malaysia, 01/2019)
- *Securing the Internet of Things: A Machine Learning Approach (Making Machine Learning Practical)*
  **IEEE ICC 2018 Tutorial – IEEE Communications Society** (Kansas City, MO, USA, 05/2018)
  Joint Presentation wih Prof. Aziz Mohaisen (University of Central Florida, Orlando, FL, USA)

#### Invited Talks at World-Wide Universities and Research Institutes

- *AI/ML Technologies in Beyond 5G/6G*
  **Ericsson-LG (R&D Hackathon / AI Learning Challenge – Keynote Speech)** (Seoul, Korea, 05/2021)
- *XOR Mixup: Privacy-Preserving Data Augmentation for One-Shot Federated Learning*
  **Huawei Research Center (Deep Learning/Machine Learning for Computer Vision)** (Nizhny Novgorod, Russia, 09/2020)
- *Federated Learning for Medical and Mobile Platforms*
  **California State University Long Beach** (Long Beach, CA, USA, 01/2020), Hosted by Prof. Sean Kwon and Prof. Henry Yeh

- *Deep Reinforcement Learning Research and Its Applications to Networks*
  **Huawei Research Center (Fundamental and Applied Problems of Machine Learning)** (Nizhny Novgorod, Russia, 12/2019)
- *Enabling Delay-Sensitive Robust Distributed Blockchain Mining via Econometric Methods*
  **City University of Hong Kong** (Hong Kong, 11/2018), Hosted by Prof. Cong Wang
- *Frequency Sharing Study between 5G Micro-Cellular Systems and Fixed Service Systems in Millimeter-Wave Bands*
  **Intel Communications and Devices Group (iCDG) [Cellular Modem TechTalk]** (Santa Clara, CA, USA, 01/2016)
- *Status of Millimeter-Wave and Device-to-Device Research*
  **Nokia Research Center at Berkeley** (Berkeley, CA, USA, 08/2014)
- *Advanced Device-to-Device Video Streaming: Theory and Implementation*
  **Qualcomm Research Center** (San Diego, CA, USA, 02/2014)

### Invited Talks at Korean Research Institutes

- *Deep Reinforcement Learning: Trends and Applications*; **SK Telecom (SKT)** (Seoul, Korea, 06/2021)
- *Trends in AI R&D for Edge/Mobile Platforms*; **SK Hynix** (Icheon, Korea, 09/2020)
- *Lyapunov Optimization and AI Applications to Mobility Platforms*; **Naver Labs - Robotics Lab** (Pankyo, Korea, 06/2020)
- *Distributed AI: Trends and Issues*; **ETRI** (Daejeon, Korea, 05/2020)
- *Federated Learning and Imitation Learning*; **ETRI** (Kwangju, Korea, 02/2020)
- *Federated and Imitation Learning*; **KT AI Tech Center** (Seoul, Korea, 12/2019)
- *Adversarial Imitation Learning and Federated Learning*; **ETRI** (Daejeon, Korea, 12/2019)
- *Distributed Learning and Deep Reinforcement Learning*; **ETRI** (Daejeon, Korea, 12/2019)
- *mmWave Radar and Sensors: Theory and Applications*; **LG Electronics** (Seoul, Korea, 11/2019)
- *Advanced Topics in Machine/Deep Learning*; **Posco ICT** (Pankyo, Korea, 11/2019)
- *mmWave Communications and Radar: Theory and Applications*; **ETRI** (Daejeon, Korea, 11/2019)
- *Network Performance Enhancement via Deep Reinforcement Learning*; **LG U+** (Seoul, Korea, 10/2019)
- *AI Seminar: Foundations and Business Cases*; **SK Broadband** (Seoul, Korea, 10/2019)
- *Deep Learning Methods for Advanced Networks*; **Korea Electronics Technology Institute (KETI)** (Pankyo, Korea, 02/2019)
- *Making Deep Neural Network Practical in Resource Constrained Computing Systems*; **ETRI** (Daejeon, Korea, 02/2018)
- *Dynamic Optimization for Reliable and Robust Deep Learning Systems*; **ETRI** (Daejeon, Korea, 02/2018)
- *Adaptive Lyapunov Control for Stabilized Learning Platforms*; **ETRI** (Daejeon, Korea, 07/2017)
- *GPU Computing Platforms and Software for Deep Learning*; **ETRI** (Daejeon, Korea, 07/2017)
- *Trends in Energy IT in Big-Data Era*; **Korea Electric Power Corporation (KEPCO) Research Institute** (Daejeon, Korea, 05/2017)
- *Stochastic Control of 60 GHz Links for Distributed Virtual Reality Network Platforms*; **ETRI** (Daejeon, Korea, 11/2016)
- *5G Wireless Platforms: Standards and Hardware/Software Prototyping*; **ETRI** (Daejeon, Korea, 10/2016)
- *Millimeter-Wave Radio Propagation, Beam Management, Systems, and Embedded Prototyping*; **ETRI** (Daejeon, Korea, 08/2016)
- *Intel's 5G Research with Millimeter-Wave Modular Antenna Arrays*; **ETRI** (Daejeon, Korea, 10/2014)
- *Issues and Solutions for Millimeter-Wave Network Technologies*; **Samsung Electronics - Memory Business** (Hwasung, Korea, 01/2013)

### Tutorials and Special Session Talks at Korean Research Societies

- *Multi-Agent Deep Reinforcement Learning for Autonomous Vehicles*; **2021 JCCI Mobile Machine Learning Special Session** (Online, 04/2021)
- *Trends in Multi-Agent Deep Reinforcement Learning for Distributed Computing*; **2020 KICS Fall Conference Tutorial** (Seoul, Korea, 11/2020)
- *Deep Learning Computation for Economic Theory and Its Applications*; **2020 KICS Summer Conference Tutorial** (Yong Pyong, Korea, 08/2020)
- *Deep Learning Applications to Computer Networking*; **2020 KICS Winter Conference Tutorial** (Yong Pyong, Korea, 02/2020)
- *Deep Neural Network Basics*; **2020 KICS Winter Conference Tutorial** (Yong Pyong, Korea, 02/2020)
- *Artificial Intelligence Methods for Networks*; **2019 KICS Fall Conference Special Session Talk** (Seoul, Korea, 11/2019)
- *Explainable AI (XAI) and Imitation Learning for Automotive Applications*; **2019 IEEK Hyundai Motors Special Session** (Jeju, Korea, 06/2019)
- *Deep Learning Basics and Representative Models*; **2019 KIPS Spring Conference Tutorial** (Seoul, Korea, 05/2019)
- *Deep Learning Methods for Advanced Network*; **2019 KICS Winter Conference Tutorial** (Yong Pyong, Korea, 01/2019)
- *GPU Computing Platforms and Software for Deep Learning*; **2017 KICS Summer Conference Tutorial** (Jeju, Korea, 06/2017)
- *Dynamic Control and Software for Next-Generation Distributed Platforms*; **2017 KCC Special Session on New Research** (Jeju, Korea, 06/2017)
- *Machine Learning Techniques for Mobile Computing*; **2017 KICS Winter Conference Tutorial** (Jungsun, Korea, 01/2017)

### Exhibition/Demonstration at Conferences and Public R&D Events

- *Visualization of Deep Reinforcement Autonomous Aerial Mobility Learning Simulations*; **IEEE INFOCOM 2021** (Online, 05/2021)
- *Deep Multi-modal Unsupervised Pen Pressure Stylization*; **IEEE/CVF ICCV 2019** (Seoul, Korea, 11/2019)
- *Light-Weight Programming Language for Blockchain*; **ACM MobiSys 2019** (Seoul, Korea, 06/2019)
- *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 MAA Client Access & Backhaul Platform*; **IEEE GLOBECOM 2015 (Industry Demonstration ID-14)** (San Diego, CA, 12/2015)
- *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)
- *mmWave Modular Antenna Array for Next-Generation Wireless Networks*; **IEEE GLOBECOM 2014 (Expo)** (Austin, TX, USA, 12/2014)
- *Adaptive Video Streaming for Device-to-Device Mobile Platforms*; **ACM MobiCom 2013** (Miami, FL, USA, 10/2013)

## Conference Activities and Services

### Organizing Committee (OC) Activities

- **IEEE GLOBECOM *(IEEE Communications Society)*:** 2015 (Organizer, *Workshop on Millimeter-Wave Backhaul and Access (mmWave)*)
- **IEEE ICC *(IEEE Communications Society)*:** 2022 (Patronage Chair)
- **IEEE ICTC *(IEEE Communications Society)*:** 2021 (Workshop Organizer, *workshop on KU-AIER (Korea University, A.I. Engineering Research*), 2021 (Secretary), 2020 (Secretary), 2020 (Special Session Organizing Chair, *Special Session on KU-AIER (Korea University, A.I. Engineering Research*), 2019 (Secretary), 2018 (Secretary)

- **IEEE ICUFN *(IEEE Communications Society)*:** 2021 (Workshop Chair), 2021 (Workshop Organizing Chair, *Artificial Intelligence Emerging Applications (AIEA) Workshop*)
- **IEEE ICAIIC *(IEEE Communications Society)*:** 2019 (Publication Chair)
- **IEEE VTS APWCS *(IEEE Vehicular Technology Soceity)*:** 2021 (Finance Co-Chair), 2017 (Publication Vice Chair)
- **IEEE ICOIN *(IEEE Computer Society)*:** 2021 (Workshop Organizing Chair, *Workshop on Artificial Intelligence and Mobility (AIM)*), 2020 (Workshop Organizing Chair, *Workshop on Artificial Intelligence and Mobility (AIM)*)
- **IEEE ICASSP *(IEEE Signal Processing Society)*:** 2018 (Special Session Organizing Chair, *Special Session on Cybersecurity and Privacy*)
- **ACM CoNEXT:** 2019 (Poster Session Chair)

**Technical Program Committee (TPC) Activities**

- **IEEE GLOBECOM *(IEEE Communications Society)*:** 2021, 2020, 2015 (Chair, *Workshop on Millimeter-Wave Backhaul and Access (mmWave)*)
- **IEEE ICC *(IEEE Communications Society)*:** 2022, 2021
- **IEEE CCNC *(IEEE Communications Society)*:** 2022 (Track Chair)
- **IEEE ICTC *(IEEE Communications Society)*:** 2021, 2021 (*Workshop on Intelligent 6G Communication Systems*), 2020, 2019, 2018
- **IEEE WCNC *(IEEE Communications Society)*:** 2022, 2021, 2020, 2020 (*Workshop on Aerial Communications in 5G and Beyond Networks (AERCOMM)*)
- **IEEE COMNETSAT *(IEEE Communications Society)*:** 2021
- **IEEE ICCC *(IEEE Communications Society)*:** 2021, 2019
- **IEEE IGESSC *(IEEE Communications Society)*:** 2021, 2020, 2019, 2018
- **IEEE ICAIIC *(IEEE Communications Society)*:** 2022 (Co-Chair), 2021 (Co-Chair), 2020 (Co-Chair), 2019 (Co-Chair)
- **IEEE ICUFN *(IEEE Communications Society)*:** 2022, 2021, 2020, 2019, 2018, 2016
- **IEEE WCSP *(IEEE Communications Society)*:** 2018
- **IEEE VTC *(IEEE Vehicular Technology Society)*:** 2019-Spring, 2016-Spring, 2015-Spring, 2014-Fall
- **IEEE VTS APWCS *(IEEE Vehicular Technology Society)*:** 2018
- **IEEE ICOIN *(IEEE Computer Society)*:** 2022, 2021 (Vice Co-Chair), 2020 (Vice Co-Chair), 2020 (*Workshop on Artificial Intelligence and Mobility (AIM)*), 2019 (Vice Co-Chair), 2018 (Vice Co-Chair)
- **IEEE ICDCS *(IEEE Computer Society)*:** 2019
- **IEEE MASS *(IEEE Computer Society)*:** 2021, 2012 (*Workshop on Internet of Things Technology and Architectures (IoTech)*)
- **IEEE NAS *(IEEE Computer Society)*:** 2019 (Co-Chair)
- **IEEE Blockchain *(IEEE Computer Society)*:** 2020, 2019
- **ACM MobiHoc:** 2019
- **ACM AsiaCCS:** 2018 (*Workshop on Security in Cloud Computing (SCC)*)
- **IEEE ITC-CSCC:** 2021
- **EuCAP:** 2021, 2019, 2015

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## References

- **Prof. Andreas F. Molisch *(Fellow of the IEEE)***, *Ph.D. Research and Dissertation Advisor*
  – Solomon Golomb – Andrew and Erna Viterbi Chair at the University of Southern California (Los Angeles, California, USA)
  – Professor of Electrical and Computer Engineering at the University of Southern California (Los Angeles, California, USA)
  – URL: `https://wides.usc.edu/founder.html`