Joongheon Kim

Associate Professor, Korea University – School of Electrical Engineering, Seoul, Republic of Korea
Distinguished Lecturer (2022–2023), *IEEE Communications Society*
Associate Editor (2020–), *IEEE Transactions on Vehicular Technology*
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Highlights

Research Milestones

- **58 IEEE Journals**, including *25 Communications Society (ComSoc)*, *8 Computer Society*, and *9 Vehicular Technology Society (VTS)* journals
- **6 Top-Tier Conference Papers**, i.e., IEEE INFOCOM (2022), IEEE ICDCS (2020), IJCAI (2019), IEEE ICDCS (2018), ACM Multimedia (2017), and ACM MobiSys (2010)
- **4390+ Citations** in Google Scholar Profile (H-index: 31+, i10-index 101+)
- **IEEE Systems Journal Best Paper Award (2020)**, Top 7 among 793 accepted papers in 2019 (0.88%)
- **6 Awards from IEEE Conferences and Contests**, i.e., IEEE ICOIN Best Paper Award (2021), IEEE Seoul Section Student Paper Contests (2020 and 2019), and IEEE VTS Seoul Chapter Awards (2 in 2021 and 1 in 2019)
- **5 Tutorials at IEEE Conferences**, i.e., *ICOIN (2022)*, *ICUFN (2021)*, *ICAIIC (2021)*, *ICOIN (2019)*, and *ICC (2018)*
- **61+ 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
- **15 Awards** from Local (Korean) Conferences and Contests
- **Research Funds (since March 2016):** 3,557,670 USD ≈ 3,557,670,000 KRW (except University Internal Funds)

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

- **Supervised 3 Postdoctoral Scholars**, now, tenure-track professors at Kyung Hee University (Korea) and Hallym University (Korea); and a postdoctoral scholar at the University of Southern California (United States, jointly advised by Prof. Andreas F. Molisch)
- **Supervised 1 Ph.D. and 5 M.S. Students**, now, researchers at LG Electronics, Hyundai, Naver, government agency, and startup
- **4 Best Teaching Awards at Korea University**, 2 awards are for top 5% (*Granite Tower (Seok-Tap) Best Teaching Award*) and 2 awards are for top 20% (*Best Teaching Award*)

IEEE Society Academic Activities

- **IEEE Communications Society (ComSoc) Distinguished Lecturer** (class of 2022–2023)
- **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
- **IEEE Vehicular Technology Society (VTS)**, Seoul Chapter Secretary for 3 years (2020–2022)
- **21+ Organizing Committee (OC) Contributions** for IEEE Conferences
- **57+ Technical Program Committee (TPC) Contributions** for IEEE Conferences

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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

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R&D Positions

Full-Time Positions

- **Korea University – College of Engineering**, Seoul, Republic of Korea   09/2019–Present
  – *Associate Professor (03/2021–Present)*, School of Electrical Engineering
  – *Adjunct Professor (03/2023–Present)*, Department of Communication Engineering (Founded by **Samsung Electronics**)
  – *Adjunct Professor (03/2021–02/2023)*, Department of Semiconductor Engineering (Founded by **SK Hynix**)
  – *Assistant Professor (09/2019–02/2021)*, School of Electrical Engineering
  – R&D Appointments
    * *Vice Director (10/2020–Present)*, Artificial Intelligence Engineering Research Center (KU-AIER)
  – Administrative Appointments
    * *Dean (06/2021–Present)*, Center for Teaching and Learning (CTL)
    * *Deputy Vice President of Academic Affairs (02/2022–Present)*, Office of Academic Affairs
    * *Steering Committee (02/2022–Present)*, Department of Communication Engineering
    * *Steering Committee (07/2020–06/2022)*, Institute of Data Science (IDS)
    * *Steering Committee (06/2021–03/2022)*, Committee for Academic Affairs and Planning
- **Chung-Ang University – College of Computer Science and Software**, Seoul, Republic of Korea   03/2016–08/2019
  – *Assistant Professor (03/2016–08/2019)*, School of Computer Science and Engineering

- **Intel Corporation – Platform Engineering Group**, Silicon Valley (Santa Clara), CA, USA   09/2013–02/2016
  - *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   08/2009–08/2014
  - *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 (Advised by Prof. Andreas F. Molisch)
  - *Teaching Assistant (01/2012–05/2013)*, Computer Science and Electrical Engineering Departments (CSCI455x and EE579)
- **InterDigital**, San Diego, CA, USA   05/2012–08/2012
  - *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   01/2006–08/2009
  - *Research Engineer (01/2006–08/2009)*, Multimedia Research Laboratory, Seocho R&D Campus

Industry, Advisory, and Consulting Positions as a Korea University Professor

- **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

Visiting Positions

- **California State University, Long Beach – College of Engineering**, Long Beach, CA, USA
  Visiting Scholar (01/2020), Department of Electrical Engineering (Host: Prof. Sean Kwon)
- **University of California, Irvine – Donald Bren School of Information and Computer Sciences**, Irvine, CA, USA
  Visiting Scholar (08/2018), Department of Computer Science (Host: Prof. Marco Levorato)

Academia (Membership, Editorial Boards, and Services)

- **IEEE**
  - *Senior Member (2018–)*, *Member (2006–2017)*
  - *Distinguished Lecturer (2022–2023)*, **IEEE Communications Society**
  - *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)
  - Administrative Appointments
    * *General Affair Manager (2022–Present)*, **IEEE Vehicular Technology Society (VTS) Seoul Chapter**
    * *General Affair Manager (2020–2021)*, **IEEE Vehicular Technology Society (VTS) Seoul Chapter**
- **Elsevier**
  - *Editor (2021–)*, **ICT Express** (Area: AI for ICT Applications)
  - *Guest Editor (10/2022)*, **Computer Networks** (S.I. on Machine Learning (ML) and Artificial Intelligence (AI) for the Internet of Things, 5G, and Beyond)
  - *Guest Editor (03/2022)*, **ICT Express** (S.I. on Artificial Intelligence and Machine Learning Approaches to Communication)
  - *Guest Editor (03/2021)*, **ICT Express** (S.I. on Mobile and Edge Computing Systems)
- **KICS (Korean Institute of Communications and Information Sciences)**
  - *Life Member (2018–)*
  - *Vice Executive Director (2021, 2022)*, International Conference 1 Division (IEEE ICTC)
  - *Vice Executive Director (2022)*, International Conference 3 Division (IEEE APCC)
  - *Vice Executive Director (2021)*, Intelligence Technology 2 Division
  - *Director (2020)*, Intelligence Technology 2 Division
  - *Director (2018, 2019)*, Intelligence Technology Division
  - *Director (2017)*, ICT Convergence Division
  - *Board Member (01/2017–)*, KICS Technical Committee on Mobile Communications
  - *Board Member (01/2017–)*, KICS Technical Committee on Communication Networking
  - *Board Member (01/2019–)*, KICS Technical Committee on Coding and Information Theory
  - *Board Member (01/2019–)*, KICS Technical Committee on Military Communication
  - *Board Member (06/2018–)*, KICS Technical Committee on Spectrum Sharing
  - *Editor*, **The Journal of Korean Institute of Communications and Information Sciences**
  - *Guest Editor (09/2019)*, **KICS Information and Communications Magazine** (S.I. on AI and Deep Learning)
  - **JCCI (Joint Conference on Communication and Information) Organizing Committee:** *General Affair Chair (2022)*, *Publication Chair (2021)*, *Publication Chair (2020)*, *Publication Chair (2019)*, *Publication Chair (2018)*
- **IEIE (Institute of Electronics and Information Engineers)**
  - *General Affair Manager (2022)*, Telecommunication Society
  - *Co-Director (2021)*
  - *Editor*, **Journal of the Institute of Electronics and Information Engineers** (Area: Telecommunication)
- **KIISE (Korean Institute of Information Scientists and Engineers)**
  - *General Affair Manager (2021)*, Information Network Society
  - *General Affair Manager in Academia (2020)*, Information Network Society
  - *Member*, Information Network Society
  - *Editor*, **Journal of KIISE** (Area: Information Network)
- **OSIA (Open Standards and ICT Association)**
  - *Vice President (2021–)*, *General Affair Manager (2020)*

Awards and Honors

Research and Academic Excellence (International)

- **IEEE Communications Society (ComSoc) Distinguished Lecturer** (class of 2022–2023) — 12/2021
- **IEEE Vehicular Technology Society (VTS) Seoul Chapter Award** (with Y. Kwak, S. Jung, J.-H. Kim) — 08/2021
  "Quantum Scheduling for Millimeter-Wave Observation Satellite Constellation"
- **IEEE Vehicular Technology Society (VTS) Seoul Chapter Award** (with H. Lee, S. Jung) — 08/2021
  "Distributed and Autonomous Aerial Data Collection in Smart City Surveillance Applications"
- **Best Paper Award** – *2021 IEEE International Conference on Information Networking (ICOIN)* (with S. Jung, W.J. Yun, and J.-H. Kim) — 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* (with S. Park) — 12/2020
  "Reliable Offloading Target Selection using Deep Reinforcement Learning for Large Fire Accident"
- **IEEE Systems Journal Best Paper Award** – *IEEE Systems Council* (with M. Saad, J. Choi, D. Nyang, A. Mohaisen) — 03/2020
  "Towards Characterizing Blockchain-based Cryptocurrencies for Highly-Accurate Predictions"
- **Gold Paper Award** – *2019 IEEE Seoul Section Student Paper Contest* (with J. Yoo) — 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** (with S. Park, D. Kwon, M. Shin) — 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)

- **Excellence Paper Award** – *2021 KICS Summer Conference* (with B. Lim, W.J. Yun, Y.-C. Ko) — 06/2021
  "Deep Learning Based Non-Orthogonal Pilot Design for Massive MIMO"
- **Excellence Paper Award (Undergraduate)** – *2021 KICS Summer Conference* (with G. Lee, W.J. Yun, S. Jung) — 06/2021
  "Deep Reinforcement Learning Visualization and Simulations using Unity-RL in an Autonomous Driving Environment"
- **Haedong Paper Award – Encouragement Paper Award** – *2021 KICS Summer Conference* (with H. Baek, Y.J. Ha, M. Yoo, S. Jung) — 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* (with W.J. Yun) — 11/2020
  "UAV Trajectory Optimization via Multi-Agent Deep Reinforcement Learning"
- **Encouragement Paper Award** – *2020 KICS Summer Conference* (with W.J. Yun) — 08/2020
  "3D Modeling and WebVR Implementation Using Azure Kinect, Open3D, and Three.js"
- **Encouragement Paper Award** – *2020 KICS Winter Conference* (with S. Oh, J. Choi) — 02/2020
  "Quantum Heuristic Solver using QAOA for the Maximum Independent Set Problem"
- **Encouragement Paper Award** – *2020 KICS Winter Conference* (with J. Kim) — 02/2020
  "Multi-Drone Scheduling for High-Reliable and High-Performance UAV-based Surveillance Networking"
- **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

Academic and University Service Awards

- **Outstanding Contribution Award** – *KIISE Information Network Society* — 02/2022
- **Outstanding Contribution Award** – *KICS* — 12/2021
- **Outstanding Contribution Award** – *Open Standards and ICT Association (OSIA)* — 12/2021
- **Appreciation Recognition** – *Daegu Gyeongbuk Institute of Science and Technology (DGIST)* — 10/2021
- **Outstanding Contribution Award** – *KICS* — 11/2019
- **Fellow Employee Recognition [#3081146]** – *Intel Corporation* — 12/2014
- **Certificate of Appreciation** – *Department of Computer Science, University of Southern California* — 09/2010

Research and Academic Excellence for Students (while they are under Joongheon Kim's supervision)

- **2021 ICT Express Best Reviewer Award** – *ICT Express (Elsevier)* (Awarded to Soohyun Park) — 12/2021

Teaching and Supervision Excellence

- **Best Teaching Award (Top 20%)** – *Korea University* (Computer Language and Laboratory, EGRN151) — Fall 2021
- **Granite Tower (Seok-Tap) Best Teaching Award (Top 5%)** – *Korea University* (Introduction to Computers, SEMI103) — Spring 2021
- **Best Teaching Award (Top 20%)** – *Korea University* (Probability and Random Process, KECE209) — Spring 2021
- **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 Projects (Totally, 3,557,670 USD ≈ 3,557,670,000 KRW)

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: $70,000 (1 yr); Co-PI]
- **Nano UAV Intelligence Systems Research Lab (NUiSRL)** – *ADD Military Special Research Center*   10/2020–12/2022
  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)** – *University ITRC Project*   06/2020–12/2022
  Funded by *Institute for ICT Promotion (IITP)* [2020-0-01637, Grant: $15,995; Co-PI], PI: Hanyang University (Korea)
- **Human Resource Development for the Biomedical Unstructured Big Data Analysis** – *University ITRC Project*   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** – *University ITRC Project*   02/2020–05/2020
  Funded by *Institute for ICT Promotion (IITP)* [2018-0-01396; Co-PI], 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: $78,000 (1 yr); 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: $258,500; 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: $503,250; 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]
- **Feasibility Study of 60 GHz IEEE 802.11ad for Virtual Reality (VR) Platforms**   04/2017–12/2017
  Funded by *Institute for ICT 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**   09/2020–09/2024
  Funded by *Samsung Electronics – Samsung Advanced Institute of Technology* [Grant: $286,000; Primary-PI]
- **LTE/WiFi Vertical Handover Design and Implementation**   02/2022–09/2022
  Funded by *LG Electronics CTO Division – Smart Mobility Lab., Advanced R&BD Center* [Grant: $xx,000; 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

- **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: $100,000 (1 yr); Co-PI]
- **Autonomous Intelligent COA Search Methods for Cyber-Attacks**   mm/2021–mm/2022
  Funded by *Agency for Defense Development (ADD)* [xxx, 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]
- **Measurement and Analysis of Multi-Task GPU Scheduling Delays**   05/2019–10/2019
  (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]

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

- Citation: 4390+, H-Index: 31+, i10-Index: 101+; obtained from Google Scholar Profile (as of February 6, 2022)

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**

- X. Lin, J. Zhang, Y. Liu, and <u>J. Kim</u>, *Fundamentals of 6G Communications and Networking*, Springer (Working in Progress).

■ **Book Translation (from English to Korean)**

- J. Choi, <u>J. Kim</u>, J. No, C. Sohn, D. Ahn, H. Ahn, H. Lee, and H. Jung, *Programming in ANSI C*, Haksan Media, January 2021 (8th Edition, ISBN: 979-1185294315)., Originally written by E. Balagurusamy (Publisher: McGraw Hill, ISBN: 978-9351343202, January 2019)

■ **Book Chapters**

- <u>J. Kim</u>, *et. al.*, "Convergence of 6G and Wi-Fi Networks," *Fundamentals of 6G Communications and Networking*, Springer., (Editors: X. Lin, J. Zhang, Y. Liu, J. Kim)
- <u>J. Kim</u>, *et. al.*, "UAV Networking," *Fundamentals of 6G Communications and Networking*, Springer., (Editors: X. Lin, J. Zhang, Y. Liu, J. Kim)
- <u>J. Kim</u>, *et. al.*, "AI-Native Network Architecture," *Fundamentals of 6G Communications and Networking*, Springer., (Editors: X. Lin, J. Zhang, Y. Liu, J. Kim)
- <u>J. Kim</u>, *et. al.*, "Semantic Communications and Networking," *Fundamentals of 6G Communications and Networking*, Springer., (Editors: X. Lin, J. Zhang, Y. Liu, J. Kim)
- <u>J. Kim</u>, *et. al.*, "Network Disaggregation," *Fundamentals of 6G Communications and Networking*, Springer., (Editors: X. Lin, J. Zhang, Y. Liu, J. Kim)
- S. Park, D. Kim, and <u>J. Kim</u>, "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, <u>J. Kim</u>, 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)
- <u>J. Kim</u>, "Millimeter-Wave (mmWave) Medium Access Control: A Survey," *Opportunities in 5G Networks: A Research and Development Perspective*, CRC Press, April 2016., (Editor: F. Hu)
- <u>J. Kim</u>, "Millimeter-Wave (mmWave) Radio Propagation Characteristics," *Opportunities in 5G Networks: A Research and Development Perspective*, CRC Press, April 2016., (Editor: F. Hu)
- <u>J. Kim</u>, 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, October 2012., (Editors: L.T. Yang, E. Syukur, S.W. Loke)
- <u>J. Kim</u>, 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)

Top-Tier Conferences and IEEE Journals/Magazines

■ **Top-Tier Conference Proceedings**

[IJCAI'22] W.J. Yun, M. Shin, D. Mohaisen, S. Jung, J.-K. Kim, and <u>J. Kim</u>, "(Under Double Blind Review)," **International Joint Conference on Artificial Intelligence and European Conference on Artificial Intelligence (IJCAI-ECAI)**, Vienna, Austria, July 2022.

[MMSys'22] M. Yoo, H. Baek, S. Jung, A.F. Molisch, and <u>J. Kim</u>, "(Under Review)," **ACM Multimedia Systems Conference (MM-Sys)**, Athlone, Ireland, June 2022.

[MMSys'22] H. Baek, J.-Y. Kim, S. Y.K. Lee, Jung, and J. Kim, "(Under Review)," **ACM Multimedia Systems Conference (MMSys)**, Athlone, Ireland, June 2022.

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[ICML'21] H. Baek, W.J. Yun, J. Park, S. Jung, J. Kim, M. Ji, and M. Bennis, "Communication and Energy Efficient Slimmable Federated Learning via Superposition Coding and Successive Decoding," *ICML'21 (Workshop on Federated Learning for User Privacy and Data Confidentiality)*.

[DSN'21] J. Kim, S. Park, S. Jung, and S. Yoo, "Spatio-Temporal Split Learning," *IEEE/IFIP DSN'21 (Supplemental Volume)*.

[INFOCOM'21] G. Lee, W.J. Yun, S. Jung, J. Kim, and J.-H. Kim, "Visualization of Deep Reinforcement Autonomous Aerial Mobility Learning Simulations," *IEEE INFOCOM'21 (Demo)*.

[ICPR'20] J.Y. Shim, J. Kim, and J.-K. Kim, "S2I-Bird: Sound-to-Image Generation of Bird Species using Generative Adversarial Networks," *IEEE ICPR'20*.

[QTML'20] J. Choi, S. Oh, S. Park, and J. Kim, "A Quantum Approach to the Minimum Dominating Set Problem," *QTML'20*.

[ICML'20] M. Shin, C. Hwang, J. Kim, J. Park, M. Bennis, and S.-L. Kim, "XOR Mixup: Privacy-Preserving Data Augmentation for One-Shot Federated Learning," *ICML'20 (Workshop on Federated Learning for User Privacy and Data Confidentiality)*.

[ICC'20] M. Choi, A.F. Molisch, and J. Kim, "User Scheduling and Power Allocation for Content Delivery in Caching Helper Networks," *IEEE ICC'20*.

[WCNC'20] M. Choi, A.F. Molisch, D.-J. Han, <u>J. Kim</u>, and J. Moon, "Cache Allocations for Consecutive Requests of Categorized Contents: Service Provider's Perspective," *IEEE WCNC'20*.

[GLOBECOM'19] D. Kwon and <u>J. Kim</u>, "Multi-Agent Deep Reinforcement Learning for Cooperative Connected Vehicles," *IEEE GLOBECOM'19*.

[ICCV'19] D. Kim and <u>J. Kim</u>, "Deep Multi-modal Unsupervised Pen Pressure Stylization," *IEEE ICCV'19 (Demo)*.

[QTML'19] J. Choi and <u>J. Kim</u>, "A Quantum Approach to Max-Weight Independent Set Problem," *QTML'19*.

[5GWF'19] K.W. Sung, E. Mutafungwa, R. Jantti, M. Choi, J. Jeon, D. Kim, <u>J. Kim</u>, J. Cost-Requena, A. Nordlow, S. Sharma, G. Destino, Y. Deng, T. Mahmoodi, M. Ullmann, A. Nahler, Y. Kyung, S. Kim, S. Seo, and S.-L. Kim, "PriMO-5G: Making Firefighting Smarter with Immersive Videos through 5G," *IEEE 5GWF'19*.

[APWCS'19] S. Park, J. Kim, D. Kwon, M. Shin, and <u>J. Kim</u>, "Joint Offloading and Streaming in Mobile Edges: A Deep Reinforcement Learning Approach," *IEEE APWCS'19*. *(IEEE Vehicular Technology Society (VTS) Seoul Chapter Award)*

[IJCNN'19] D. Kim, <u>J. Kim</u>, J. Kwon, and T.-H. Kim, "Depth-Controllable Very Deep Super-Resolution Network," *IEEE IJCNN'19*.

[IJCNN'19] M. Shin and <u>J. Kim</u>, "Adversarial Imitation Learning via Random Search," *IEEE IJCNN'19*.

[DSN'19] J. Jeon, J. Kim, <u>J. Kim</u>, K. Kim, A. Mohaisen, and J.-K. Kim, "Privacy-Preserving Deep Learning Computation for Geo-Distributed Medical Big-Data Platforms," *IEEE/IFIP DSN'19 (Supplemental Volume)*.

[MobiSys'19] D. Kwon, S. Park, and <u>J. Kim</u>, "Poster: Multi-Agent Deep Reinforcement Learning for Connected Vehicles," *ACM MobiSys'19 (Poster)*.

[MobiSys'19] J. Kim and <u>J. Kim</u>, "Demo: Light-Weight Programming Language for Blockchain," *ACM MobiSys'19 (Demo)*.

[ICML'19] M. Shin and <u>J. Kim</u>, "Adversarial Imitation Learning via Random Search in Lane Change Decision-Making," *ICML'19 (Workshop on Artificial Intelligence for Autonomous Driving)*.

[ICC'19] M. Choi. D. Kim, D.-J. Han, <u>J. Kim</u>, and J. Moon, "Probabilistic Caching Policy for Categorized Contents and Consecutive User Demands," *IEEE ICC'19*.

[ICBC'19] M. Saad, L. Njilla, C.A. Kamhoua, <u>J. Kim</u>, D. Nyang, and A. Mohaisen, "Mempool Optimization for Defending Against DDoS Attacks in PoW-based Blockchain Systems," *IEEE ICBC'19*. **(19.61%)**

[CCS'18] S. Yoo, H. Kim, and <u>J. Kim</u>, "Secure Compute-VM: Secure Big Data Processing with SGX and Compute Accelerators," *ACM CCS'18 (Workshop on System Software for Trusted Execution)*.

[SMC'18] D. Kim, J. Kwon, and <u>J. Kim</u>, "Low-Complexity Online Model Selection with Lyapunov Control for Reward Maximization in Stabilized Real-Time Deep Learning Platforms," *IEEE SMC'18*.

[MobiSys'18] M. Shin, <u>J. Kim</u>, A. Mohaisen, J. Park, and K.H. Lee, "Neural Network Syntax Analyzer for Embedded Standardized Deep Learning," *ACM MobiSys'18 (Workshop on Embedded and Mobile Deep Learning)*.

[SECON'18] H. Lee, M. Shin, K.S. Kim, Y. Kang, and <u>J. Kim</u>, "Recipient-Oriented Transaction for Preventing Double Spending Attacks in Private Blockchain," *IEEE SECON'18 (Abstract)*.

[AsiaCCS'18] S. Kim and <u>J. Kim</u>, "POSTER: Mining with Proof-of-Probability in Blockchain," *ACM AsiaCCS'18 (Exteded Abstract)*.

[ICSE'18] S. Ahn, <u>J. Kim</u>, and S. Kang, "Poster: A Novel Shared Memory Framework for Distributed Deep Learning in High-Performance Computing Architecture," *IEEE ICSE'18 (Companion Volume)*.

[ICASSP'18] K.S. Kim, D. Kwon, Y. Kim, J. Kim, and <u>J. Kim</u>, "Self-Adaptive Machine Learning Operating Systems for Security Applications," *IEEE ICASSP'18*.

[SOSP'17] D. Kim, J.Y. Bang, and <u>J. Kim</u>, "A Reliable, Self-Adaptive Face Identification Framework via Lyapunov Optimization," *ACM SOSP'17 (Workshop on A.I. Systems)*.

[PAC'17] <u>J. Kim</u>, Y.J. Mo, W. Lee, and D. Nyang, "Dynamic Security-Level Maximization for Stabilized Parallel Deep Learning Architectures in Surveillance Applications," *IEEE PAC'17*.

[SIGCOMM'16] S.H. Jeong, A.R. Kang, J. Kim, H.K. Kim, and A. Mohaisen, "A Longitudinal Analysis of .i2p Leakage in the Public DNS Infrastructure," *ACM SIGCOMM'16 (Abstract)*.

[INFOCOM'16] <u>J. Kim</u>, "Buffer-Stable Adaptive Per-Module Power Allocation for Energy-Efficient Millimeter-Wave Modular Antenna Array (MAA) Platforms," *IEEE INFOCOM'16 (Abstract)*.

[EuCAP'16] R. Weiler, W. Keusgen, A. Maltsev, T. Kuhne, A. Pudeyev, L. Xian, J. Kim, and M. Peter, "Millimeter-Wave Outdoor Access Shadowing Mitigation using Beamforming Arrays," *IEEE EuCAP'16*.

[GLOBECOM'15] <u>J. Kim</u>, L. Xian, R. Arefi, and A.S. Sadri, "60 GHz Frequency Sharing Study between Fixed Service Systems and Small-Cell Systems with Modular Antenna Arrays," *IEEE GLOBECOM'15 (Workshop on Millimeter-Wave Backhaul and Access)*.

[SOSP'15] S. Yoo, Y. Shim, S. Lee, S.-A. Lee, and <u>J. Kim</u>, "A Case for Bad big.LITTLE Switching: How to Scale Power-Performance in SI-HMP," *ACM SOSP'15 (Workshop on Power-Aware Computing and Systems (HotPower))*.

[IMS'15] <u>J. Kim</u>, L. Xian, A. Maltsev, R. Arefi, and A.S. Sadri, "Study of Coexistence between 5G Small-Cell Systems and Systems of the Fixed Service at 39 GHz Band," *IEEE IMS'15*.

[GLOBECOM'14] <u>J. Kim</u>, L. Xian, A. Maltsev, R. Arefi, and A.S. Sadri, "Required Frequency Rejection in 39 GHz Millimeter-Wave Small Cell Systems," *IEEE GLOBECOM'14 (Industry Program)*.

[ICC'14] <u>J. Kim</u> and A.F. Molisch, "Quality-Aware Millimeter-Wave Device-to-Device Multi-Hop Routing for 5G Cellular Networks," *IEEE ICC'14*.

[ITA'14] <u>J. Kim</u>, A. Turci, G. Caire, and A.F. Molisch, "Joint Scheduling and Stochastic Streaming for Device-to-Device Video Delivery," *IEEE ITA'14 (Graduation Day Talk)*.

[MobiCom'13] <u>J. Kim</u>, F. Meng, P. Chen, H.E. Egilmez, D. Bethanabhotla, A.F. Molisch, M.J. Neely, G. Caire, and A. Ortega, "Demo: Adaptive Video Streaming for Device-to-Device Mobile Platforms," *ACM MobiCom'13 (Demo)*.

[ICC'13] <u>J. Kim</u>, Y. Tian, S. Mangold, and A.F. Molisch, "Quality-Aware Coding and Relaying for 60 GHz Real-Time Wireless Video Broadcasting," *IEEE ICC'13*.

[RWS'13] <u>J. Kim</u> and A.F. Molisch, "Enabling Gigabit Services for IEEE 802.11ad-Capable High-Speed Train Networks," *IEEE RWS'13*.

[PIMRC'11] <u>J. Kim</u>, Y. Tian, A.F. Molisch, and S. Mangold, "Joint Optimization of HD Video Coding Rates and Unicast Flow Control for IEEE 802.11ad Relaying," *IEEE PIMRC'11*.

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[CCNC'09] <u>J. Kim</u> and B. Jeon, "Optimal Beaconing for 60 GHz Millimeter Wave," *IEEE CCNC'09*.

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[COMSWARE'08] <u>J. Kim</u> and W. Lee, "Cooperative Relaying Strategies for Multi-Hop Wireless Sensor Networks," *IEEE COMSWARE'08*.

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Networks," *IEEE CIT'06*.

[VTC'06] <u>J. Kim</u>, J. Choi, and W. Lee, "Energy-Aware Distributed Topology Control for Coverage-Time Optimization in Clustering-Based Heterogeneous Sensor Networks," *IEEE VTC'06-Spring*.

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■ **ICTC, ICOIN, ICUFN, ICAIIC Contributions**

[ICOIN'22] H. Lee, Y. Kim, H. Cho, S. Jung, and <u>J. Kim</u>, "The Credibility Cryptocurrency Valuation: Statistical Learning Analysis for Influencer Tweets," *IEEE ICOIN'22*.

[ICOIN'22] H. Lee, H. Lee, S. Jung, and <u>J. Kim</u>, "Stable Marriage Matching for Traffic-Aware Space-Air-Ground Integrated Networks: A Gale-Shapley Algorithmic Approach," *IEEE ICOIN'22*.

[ICTC'21] Y. Kwak, W.J. Yun, S. Jung, J.-K. Kim, and <u>J. Kim</u>, "Introduction to Quantum Reinforcement Learning: Theory and PennyLane-based Implementation," *IEEE ICTC'21*.

[ICTC'21] W.J. Yun, Y.J. Ha, S. Jung, and <u>J. Kim</u>, "Autonomous Aerial Mobility Learning for Drone-Taxi Flight Control," *IEEE ICTC'21*.

[ICTC'21] Y. Kim, W.J. Yun, and <u>J. Kim</u>, "Trends in Neural Architecture Search: Towards the Acceleration of Search," *IEEE ICTC'21*.

[ICUFN'21] Y. Kwak, W.J. Yun, S. Jung, and <u>J. Kim</u>, "Quantum Neural Networks: Concepts, Applications, and Challenges," *IEEE ICUFN'21*.

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[ICUFN'21] S. Park and <u>J. Kim</u>, "Trends in LEO Satellite Handover Algorithms," *IEEE ICUFN'21*.

[ICUFN'21] Y.J. Ha, M. Yoo, S. Park, S. Jung, and <u>J. Kim</u>, "Secure Aerial Surveillance using Split Learning," *IEEE ICUFN'21*.

[ICOIN'21] S. Jung, W.J. Yun, <u>J. Kim</u>, and J.-H. Kim, "Infrastructure-Assisted Cooperative Multi-UAV Deep Reinforcement Energy Trading Learning for Big-Data Processing," *IEEE ICOIN'21*. *(Best Paper Award)*

[ICOIN'21] S. Oh, J. Choi, J.-K. Kim, and <u>J. Kim</u>, "Quantum Convolutional Neural Network for Resource-Efficient Image Classification: A Quantum Random Access Memory (QRAM) Approach," *IEEE ICOIN'21*.

[ICOIN'21] J. Choi, S. Oh, and <u>J. Kim</u>, "A Tutorial on Quantum Graph Recurrent Neural Network (QGRNN)," *IEEE ICOIN'21*.

[ICOIN'21] J. Choi, S. Oh, S. Park, J.-K. Kim, and <u>J. Kim</u>, "Proper Cost Hamiltonian Design for Combinatorial Optimization Problems: A Boolean Function Approach," *IEEE ICOIN'21*.

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[ICOIN'21] J.Y. Shim, <u>J. Kim</u>, and J.-K. Kim, "On the Tradeoff Between Computation-Time and Learning-Accuracy in GAN-Based Super-Resolution Deep Learning," *IEEE ICOIN'21*.

[ICOIN'21] H. Ahn, J. Kim, and <u>J. Kim</u>, "Auction-based Truthful Distributed Resource Allocation for Smart Grid Systems," *IEEE ICOIN'21*.

[ICOIN'21] H. Lee, S. Park, J. Kim, and <u>J. Kim</u>, "Auction-Based Deep Learning Computation Offloading for Truthful Edge Computing: A Myerson Auction Approach," *IEEE ICOIN'21*.

[ICOIN'21] J. Kim and <u>J. Kim</u>, "Access Management using Vickrey-Clarke-Groves Auction in Terrestrial-Drone Networks," *IEEE ICOIN'21*.

[ICOIN'21] M. Shin and <u>J. Kim</u>, "Joint Behavioral Cloning and Reinforcement Learning Method for Propofol and Remifentanil Infusion in Anesthesia," *IEEE ICOIN'21*.

[ICOIN'21] A. Ahmad, M. Saad, <u>J. Kim</u>, D. Nyang, and D. Mohaisen, "Performance Evaluation of Consensus Protocols in Blockchain-based Audit Systems," *IEEE ICOIN'21*.

[ICOIN'21] T.-Y. Youn, <u>J. Kim</u>, and S.C. Seo, "Efficient Data Delivery in Content-Centric Network with Stronger Privacy of Publisher," *IEEE ICOIN'21*.

[ICOIN'21] M. Shin, D. Mohaisen, and <u>J. Kim</u>, "Bitcoin Price Forecasting via Ensemble-based LSTM Deep Learning Networks," *IEEE ICOIN'21*.

[ICOIN'21] H.W. Kwon, J. Nam, <u>J. Kim</u>, and Y.K. Lee, "Generative Adversarial Attacks on Fingerprint Recognition Systems," *IEEE ICOIN'21*.

[ICTC'20] J. Yoo, J. Park, A. Wang, D. Mohaisen, and <u>J. Kim</u>, "On the Performance of Generative Adversarial Network (GAN) Variants: A Clinical Data Study," *IEEE ICTC'20*.

[ICTC'20] W.J. Yun and <u>J. Kim</u>, "3D Modeling and WebVR Implementation using Azure Kinect, Open3D, and Three.js," *IEEE ICTC'20*.

[ICTC'20] S. Oh, J. Choi, and <u>J. Kim</u>, "A Tutorial on Quantum Convolutional Neural Networks (QCNN)," *IEEE ICTC'20*.

[ICTC'20] M. Choi and <u>J. Kim</u>, "Video Placements and Dynamic Streaming Services in Wireless Caching Networks," *IEEE ICTC'20*.

[ICTC'20] J. Kim, T.D. Ngo, P.S. Oh, S.S.-C. Kwon, C. Han, and <u>J. Kim</u>, "Economic Theoretic LEO Satellite Coverage Control: An Auction-based Framework," *IEEE ICTC'20*.

[ICTC'20] S. Park, J. Park, D. Mohaisen, and <u>J. Kim</u>, "Reinforced Edge Selection using Deep Learning for Robust Surveillance in Unmanned Aerial Vehicles," *IEEE ICTC'20*.

[ICTC'20] J. Choi and <u>J. Kim</u>, "Kirchhoff's Circuit Law Applications to Graph Simplification in Search Problems," *IEEE ICTC'20*.

[ICAIIC'20] V.H. Nguyen, V. Bui, <u>J. Kim</u>, and Y.M. Jang, "Power Demand Forecasting Using Long Short-Term Memory Neural Network for Smart Grid," *IEEE ICAIIC'20*.

[ICAIIC'20] V. Bui, V.H. Nguyen, D. Kim, <u>J. Kim</u>, and Y.M. Jang, "RNN-based Deep Learning for One-Hour Ahead Load Forecasting," *IEEE ICAIIC'20*.

[ICOIN'20] J. Choi, S. Oh, and <u>J. Kim</u>, "The Useful Quantum Computing Techniques for Artificial Intelligence Engineers," *IEEE ICOIN'20*.

[ICOIN'20] D. Kim, D. Kwon, S. Park, and <u>J. Kim</u>, "Learning-Based Dot-Grid Alignment for Projection Distortion Correction," *IEEE ICOIN'20*.

[ICOIN'20] J. Jeon and <u>J. Kim</u>, "Privacy-Sensitive Parallel Split Learning," *IEEE ICOIN'20*.

[ICOIN'20] S. Park, Y. Kang, Y. Tian, and <u>J. Kim</u>, "Fast and Reliable Offloading via Deep Reinforcement Learning for Mobile Edge Video Computing," *IEEE ICOIN'20*.

[ICTC'19] J. Choi and <u>J. Kim</u>, "A Tutorial on Quantum Approximate Optimization Algorithm (QAOA): Fundamentals and Applications," *IEEE ICTC'19*.

[ICTC'19] J. Jeon, <u>J. Kim</u>, J. Huh, H. Kim, and S. Cho, "Overview of Distributed Federated Learning: Research Issues, Challenges, and Biomedical Applications," *IEEE ICTC'19*.

[ICAIIC'19] J. Jeon, D. Kim, and <u>J. Kim</u>, "Cyclic Parameter Sharing for Privacy-Preserving Distributed Deep Learning Platforms," *IEEE ICAIIC'19*.

[ICAIIC'19] K.S. Kim, D. Kim, and <u>J. Kim</u>, "Hardness on Style Transfer Deep Learning for Rococo Painting Masterpieces," *IEEE ICAIIC'19*.

[ICOIN'19] D. Kwon and J. Kim, "Optimal Trajectory Learning for UAV-BS Video Provisioning System: A Deep Reinforcement Learning Approach," *IEEE ICOIN'19*.

[ICTC'18] D. Kwon and J. Kim, "Opportunistic Medium Access for Hyper-Dense Beamformed IEEE 802.11ax Wireless Networks," *IEEE ICTC'18*.

[ICTC'18] D. Kim, S.-W. Hwang, and J. Kim, "Very Short-Term Photovoltaic Power Generation Forecasting with Convolutional Neural Networks," *IEEE ICTC'18*.

[ICUFN'18] J. Kim and K.S. Kim, "Detecting Selfish Backoff Attack in IEEE 802.15.4 CSMA/CA using Logistic Classification," *IEEE ICUFN'18*.

[ICOIN'18] J. Spaulding, J. Park, J. Kim, and A. Mohaisen, "Proactive Detection of Algorithmically Generated Malicious Domains," *IEEE ICOIN'18*.

[ICOIN'18] D. Kwon and J. Kim, "Distributed Dynamic Power-Aware Buffering for Multi-Gbps Video Streaming in IEEE 802.11ad Fast Session Transfer," *IEEE ICOIN'18*.

[ICOIN'18] S. Hwang, K.S. Kim, Y. Kim, J. Kim, M. Park, S. Park, and J. Kim, "High-Dimensional Statistical Supervised Learning for Extracting Information in Steganography," *IEEE ICOIN'18*.

[ICOIN'18] B. Seo, M. Shin, Y.J. Mo, and J. Kim, "Top-Down Parsing for Neural Network Exchange Format (NNEF) in TensorFlow-based Deep Learning Computation," *IEEE ICOIN'18*.

[ICUFN'17] Y.J. Mo, J. Kim, J.-K. Kim, A. Mohaisen, and W. Lee, "Performance of Deep Learning Computation with TensorFlow Software Library in GPU-Capable Multi-Core Computing Platforms," *IEEE ICUFN'17*.

[ICTC'15] J. Kim and E.S. Ryu, "Feasibility Study of Stochastic Streaming with 4K UHD Video Traces," *IEEE ICTC'15*.

[ICTC'15] E.-S. Ryu, Y. Ryu, H.-J. Roh, J. Kim, and B.-G. Lee, "Towards Robust UHD Video Streaming Systems using Scalable High Efficiency Video Coding," *IEEE ICTC'15*.

Patents (Granted), *totally 61*

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

Korea University – Undergraduate Courses (College of Engineering (EGRN), School of Electrical Engineering (KECE), and Department of Semiconductor Engineering (SEMI)), *Faculty Member*
- *Data Communications (KECE316):* Fall 2020
- *Digital System Design and Laboratory (KECE210):* Fall 2020
- *Probability and Random Process (KECE209):* Spring 2022, Spring 2021 *(Best Teaching Award, Top 20%)*, Spring 2020
- *Digital System (KECE207):* Spring 2020
- *Computer Language and Laboratory (EGRN151):* Fall 2021 *(Best Teaching Award, Top 20%)*, Fall 2020 *(Best Teaching Award, Top 20%)*, Fall 2019 *(Granite Tower (Seok-Top) Best Teaching Award, Top 5%)*
- *Object-Oriented Programming (SEMI104):* Fall 2021
- *Introduction to Computers (SEMI103):* Spring 2021 *(Granite Tower (Seok-Top) Best Teaching Award, Top 5%)*

Korea University – General Education and International Winter Campus (IWC), *Faculty Member*
- *Future Mobility Technology (GEQR075):* Spring 2022
- *Introduction to Artificial Intelligence (IWC420):* Winter 2021 (12/2021–01/2022)

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)
  (Ph.D. Advisor: Prof. Jaekyun Moon at Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea)
  Currently, *Assistant Professor* at **Kyung Hee University**, Suwon, Korea
- **Dr. Soyi Jung** (03/2021–08/2021), jointly with **University of California at Irvine** (co-advised by Prof. Marco Levorato)
  (Ph.D. Advisor: Prof. Jae-Hyun Kim at Ajou University, Suwon, Korea)
  Currently, *Assistant Professor* at **Hallym University**, Chuncheon, Korea
- **Dr. Ju-Hyung Lee** (08/2021–), jointly with **University of Southern California** (co-advised by Prof. Andreas F. Molisch)
  (Ph.D. Advisor: Prof. Young-Chai Ko at Korea University, Seoul, Korea)

Ph.D. Course Students and Alumni
- **Soohyun Park** (03/2019–08/2023 (expected))
- **Haemin Lee** (09/2020–08/2024 (expected))
- **Won Joon Yun** (03/2021–08/2024 (expected))
- **Hankyul Baek** (03/2021–)
- **Yoo Jeong (Anna) Ha** (03/2021–)
- **Yunseok Kwak** (03/2021–)
- **Hyunsoo Lee** (03/2021–)

Ph.D. Course Students and Alumni (Co-Supervision and Tight Collaboration for Dissertations)
- **Minseok Choi** (Advisor: Prof. Jaekyun Moon at KAIST), *Professor* at **Kyung Hee University**, Korea
- **Laihyuk Park** (Advisor: Prof. Sungrae Cho at CAU), *Professor* at **Seoul National University of Science and Technology**, Korea
- **Shinyoung Ahn** (Advisor: Prof. Sungwon Kang at KAIST), *Researcher* at **Electronics and Telecomm. Research Institute (ETRI)**, Korea
- **Jonghoe Koo** (Advisor: Prof. Sunghyun Choi at SNU), *Researcher* at **Samsung Research**, Korea
- **Seungyo Ryu** (Advisor: Prof. Dongseung Kim at Korea Univ.), *Researcher* at **LG Electronics**, Korea
- **Soyi Jung** (Advisor: Prof. Jae-Hyun Kim at Ajou Univ.), *Professor* at **Hallym University**, Korea
- **Joo Yong Shim** (Advisor: Prof. Jong-Kook Kim at Korea Univ.)

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 Motors Group**, Korea
- **Dohyun Kim** (03/2018–02/2020), *Researcher* at **Naver Corporation**, Korea
- **MyungJae Shin** (03/2018–02/2020), *Engineer* at **mofl** (startup), 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 (KETI)**, Korea
- **Minjae Yoo** (03/2021–02/2023)

Intel Corporation (Santa Clara, California, USA), *Graduate Interns*
- **Minseok Choi**, Ph.D. in EE from KAIST (02/2016–07/2016), now with **Kyung Hee University**, Suwon, 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

Professional Activities

Talks and Presentations (Selected)

Tutorials and Special Session Talks in IEEE Conferences
- *Advanced Deep Learning Methods for Autonomous Mobility*
  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
- *Spatio-Temporal Slit Learning for Privacy-Preserving OCR Applications*
  Huawei Research Center (Text-Aware Image Understanding Workshop) (Online, 11/2021)
- *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) (Online, 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
- *A.I. Technology Trends and Applications*; **Korea Meteorological Administration** (Online, 09/2021)
- *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)*: 2022 (Vice Chair for Administration, a.k.a., Secretary), 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)*: 2022 (Finance Chair), 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*)
- **IEEE APCC:** 2022 (Local Arrangement Chair)
- **IEEE ICEIC:** 2021 (Local Arrangement Chair)
- **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 IPDPS** *(IEEE Computer Society)*: 2022 (*Heterogeneity in Computing Workshop (HCW)*)
- **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

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