



Seunghyeong Yoo

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EDUCATION

- **Korea Advanced Institute of Science and Technology, Daejeon** *Aug. 2024 - Present*
School of Electrical Engineering GPA: 3.46/4.3
- **Ulsan National Institute of Science and Technology, Ulsan** *Mar. 2022 - Aug. 2024*
Department of Electrical Engineering GPA: 3.71/4.3
– Advisor: Jinseok Choi
- **The Catholic University of Korea, Seoul** *Mar. 2015 - Feb. 2022*
Department of Information Communication and Electronics Engineering GPA: 3.97/4.5

PROJECTS

- **Multiple-Functional High-Reliable Power Conversion System for DC Microgrid** *Jun. 2023 - Feb. 2026*
Development of Basic Communications System BRL, NRF
– Tools & technologies used: PSIM, MATLAB
- **6G Wireless Communications System Development** *Mar. 2024 - Feb. 2027*
Development of OFDM-MIMO Systems Samsung Electronics
– Tools & technologies used: MATLAB

ACHIEVEMENTS

• Journals

- [02] Mintaek Oh, **Seunghyeong Yoo**, Namyoon Lee[†], and Jinseok Choi*, "Generalized Power Iteration-Based Precoding With Low-Complexity Matrix Inversion Approaches for Massive MIMO Systems", TVT, 2025
- [01] Sumin Bae, **Seunghyeong Yoo**, Sangmin Lee, and Jinseok Choi*, "Joint Secure Max-Min Fairness Precoding and Antenna Selection under Coarse Quantization", TVT, 2025

• International Conference

- [04] Sumin Bae, Sangmin Lee, **Seunghyeong Yoo**, Jinseok Choi*, "Max-Min Fairness Precoding with Low Resolution DACs", ICTC, 2024
- [03] Sungyu Kim, **Seunghyeong Yoo**, Jinseok Choi*, "Downlink Satellite Network Analysis with Beam Gain in Shadowing Channel", ICTC, 2023
- [02] Mintaek Oh, **Seunghyeong Yoo**, Sungyu Kim, Jinseok Choi*, Seyoung Kim, Jeonghun Park, "A Survey on Statistical Channel Modeling for Underwater Acoustic Communications", ICTC, 2023
- [01] **Seunghyeong Yoo**, Seokjun Park, and Jinseok Choi*, "Joint Precoding and Combining for Quantized Full-Duplex MU-MIMO Systems", VTC, 2023

• Domestic Conference

- [10] **Seunghyeong Yoo**, Seokjun Park, Mintaek Oh, and Jinseok Choi*, "Performance Analysis Experiment of Full-Duplex System with Low-Resolution Quantizer", JCCI, 2024
- [09] Eunsung Choi, **Seunghyeong Yoo**, Sungyu Kim, Junil Choi[†], Jinseok Choi*, "Survey of Low Earth Orbit Coverage Analysis", KSAS, 2024
- [08] Soomin Bae, **Seunghyeong Yoo**, sangmin lee, and Jinseok Choi*, "Fairness-Aware Beamforming for Low-Resolution DAC Systems", KICS, 2024
- [07] Sungyu Kim, **Seunghyeong Yoo**, and Jinseok Choi*, "Analyzing Downlink Satellite Network in Shadowing Channel with Beam Gain", KICS, 2023
- [06] **Seunghyeong Yoo**, Seokjun Park, and Jinseok Choi*, "Precoder Design for Quantized Full-Duplex MU-MIMO Systems", KICS, 2023
- [05] Yunmo kang, Yunho Kang, Jaeseung Shin, **Seunghyeong Yoo**, and Seung Chang Park*, "A New Experiment of a Autonomous Controlled Prototype to Implement the Edge Computing and the Cloud Computing Useful for Smart Marine Logistics", IEIE, 2020
- [04] Yunmo kang, Yunho Kang, Jaeseung Shin, **Seunghyeong Yoo**, and Sangoh Yoo*, "Security Management System to Block Abnormal Symptoms Using IoT Sensor and Artificial Intelligence", KIPS, 2020

[03] Yunmo kang, Yunho Kang, Jaeseung Shin, **Seunghyeong Yoo**, and Seung Chang Park*, "A Development of the Autonomous Berth Simulator consisting of the Newest Edge Computing and Artificial Intelligence Useful for Smart Offshore Logistics", KIPS, 2020

[02] **Seunghyeong Yoo**, Hyunjin Hwang, and So Ryoung Park*, "Modeling of the Angle Deception Using Cross-Polarization Jamming Against Monopulse Radar", KICS, 2020

[01] Hyunjin Hwang, **Seunghyeong Yoo**, and So Ryoung Park*, "Effect of Scattered Field by Terrain Bounce on Radar Angle Tracking Under Cross-Eye Jamming", KICS, 2020

AWARDS

–Project Award		<i>Dec.2020</i>
<i>Winning the Silver Prize in the Smart Marine Logistics Category of Hanium ICT Contest</i>		Ministry of Science and ICT
–Project Award		<i>Dec.2020</i>
<i>Winning the Encouragement of Award in the Free Topic Category of Hanium ICT Contest</i>		Ministry of Science and ICT
–Academic Honors		<i>Dec.2020</i>
<i>Award for Encouragement of Academic Research Conference</i>		The Catholic University of Korea