

Sangmin Kim

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EDUCATION

Ph.D. Electrical and Computer Engineering

Seoul, Korea | Mar 2020 - Present

KOREA UNIVERSITY

Advisor : [Inkyu Lee](#)

Thesis :

Overall GPA : 4.31 / 4.5

B.E. Electrical Engineering

Seoul, Korea | Feb 2020

KOREA UNIVERSITY

Overall GPA : 4.10 / 4.5

WORK EXPERIENCE

ACADEMIC EXPERIENCE

KOREA UNIVERSITY | GRADUATE RESEARCH ASSISTANT

Seoul, Korea | Mar 2023 – Present

Principal Investigator : [Inkyu Lee](#)

DEEP LEARNING-BASED TRAFFIC PREDICTION FOR LOAD BALANCING

Jul 2026 - Present

Network Business, Samsung Electronics

RESEARCH ON LOW EARTH ORBIT INTER-SATELLITE LINKS

Jan 2025 - Jun 2026

Institute for Information & communication Technology Planning & evaluation (IITP)

AUGMENTED COGNITION META COMMUNICATION RESEARCH CENTER

Jul 2024 - Dec 2024

National Research Foundation (NRF) Center

INTELLIGENT 6G WIRELESS ACCESS SYSTEMS

Mar 2023 - Dec 2024

Institute for Information & communication Technology Planning & evaluation (IITP)

QUEEN'S UNIVERSITY | VISITING RESEARCH STUDENT

Kingston, ON, Canada | Dec 2022 – Feb 2023

Supervisor : [Il-Min Kim](#)

PUBLICATIONS

Journal

[J4] S. Kim*, Z. Fu, J. Moon, S. Hwang, S. Park and I. Lee*, "Adaptive Sensing Mode Selection and Beamforming Designs for Integrated Dynamic Sensing and Communication Systems," *submitted in IEEE Transactions on Wireless Communications*, Mar. 2026

[J3] Z. Fu, S. Kim, S. Hwang, J. Moon, J. Kim, J. Kim and I. Lee*, "Deep Reinforcement Learning for Adaptive Power Allocation in ISAC Systems with Mobile Target," *accepted in IEEE Transactions on Vehicular Technology*, Jun. 2026

[J2] Z. Fu, J. Moon, S. Hwang, S. Kim, D. Zhang and I. Lee*, "Covert Communications in Multi-antenna Two-way Relay Systems," *IEEE Transactions on Vehicular Technology*, vol. 74, no. 9, pp. 14069-14080, Sep. 2025

[J1] S. Shin, S. Hwang, S. Kim and I. Lee*, "Comments on "Throughput Maximization for UAV-Enabled Integrated Periodic Sensing and Communication"," *IEEE Transactions on Wireless Communications*, vol. 24, no. 2, pp. 1753-1753, Feb. 2025

Conference

[C3] J. Kim, S. Kim, Z. Fu, J. Moon, S. Hwang and I. Lee, "A Preference-Conditioned Multi-Objective Deep Reinforcement Learning for the Rate-Energy-Fairness Tradeoff in Multiuser SWIPT Systems," *submitted in International Conference on Information and Communication Technology Convergence (ICTC)*, Oct. 2026

[C2] S. Kim, Z. Fu, J. Moon, S. Hwang and I. Lee, "Beamforming Optimization for Time Domain Integrated Sensing and Communication Systems," *in International Conference on Information and Communication Technology Convergence (ICTC)*, Oct. 2024

[C1] Z. Fu, J. Moon, S. Hwang, S. Kim, D. Zhang and I. Lee, "Covertness Analysis for the Covert Communications in Multi-antenna Two-way Relay Systems," *in Proc. International Conference on M³ IT Convergence (ICMIC)*, Aug.

2024, pp. 312-313

Patent

[P2] I. Lee, S. Kim and Z. Fu, "Base Station Control Method and Base Station Apparatus for Performing Time Slot-based Adaptive Sensing Mode Control Using Past Observation Information in Integrated Sensing and Communication Environment," *filed with the US Patent and Trademark Office*, No. US 19/735,390, Jul. 8, 2026

[P1] I. Lee, S. Kim and Z. Fu, "Method and Apparatus for Base Station Control Performing Time-slot Based Adaptive Sensing Mode Control Using Past Observations in Radar-communication Integrated Environment," *filed with the Korea Intellectual Property Office*, No. KR 10-2025-0158074, Oct. 28, 2025

PROJECTS

NATIONAL RESEARCH FOUNDATION PROJECT

Objective: Designing integrated sensing and communication with dynamic beam control for next generation meta communication system.

Deliverables: [J4], [C2], [P1], [P2], Technical Documents

AWARDS AND HONOR

BRONZE AWARD

Seoul, Korea | Dec 2024

IEEE SEOUL SECTION STUDENT PAPER CONTEST

Title: Beamforming optimization for integrated sensing and communication system with consecutive sensing protocols

BEST PAPER AWARD

Seoul, Korea | Jun 2024

THE KOREAN INSTITUTE OF COMMUNICATIONS AND INFORMATION SCIENCE

Title: A study on the energy efficiency in relay-aided integrated sensing and communication system

GRADUATE SCHOLARSHIP

Seoul, Korea | Mar 2020 – Feb 2022

KOREA UNIVERSITY

Full tuition for graduate students

ACADEMIC EXCELLENCE AWARD

Seoul, Korea | Mar 2016 - Feb 2020

KOREA UNIVERSITY

Recognized for outstanding academic performance with a semester GPA of 4.0/4.5 or higher (across 6 semesters)

UNDERGRADUATE SCHOLARSHIP

Seoul, Korea | Mar 2016 – Feb 2020

KOREA STUDENT AID FOUNDATION

Full tuition for undergraduate students with science and engineering major

ACADEMIC ACTIVITY

Reviewer

Journal: IEEE TWC

SKILLS

Programming Languages: MatLab, $\LaTeX$

REFERENCES

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Korea University, Anam-dong, 145, Anam-ro, Seongbuk-gu, Seoul 02841, Korea

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