

Do-Hyun Park

Summary

Postdoctoral Fellow holding a **Ph.D.** in Electrical and Electronics Engineering, with research expertise in **passive radar**, **radar signal processing**, **machine learning**, and **sensing systems**. Experienced in developing signal processing algorithms and implementing practical sensing systems using **software-defined radio** and **mmWave radar sensors**.

Education

Pusan National University Ph.D. in Electrical and Electronics Engineering • Dissertation: Interference Suppression for Passive Bistatic Radar: Deep Learning and Synthetic Data Generation Approaches • Advisor: Prof. Hyoung-Nam Kim	<i>Busan, South Korea</i> <i>Mar. 2019 – Feb. 2025</i>
Pusan National University B.S. in Electronics Engineering	<i>Busan, South Korea</i> <i>Mar. 2015 – Feb. 2019</i>

Research Experience

Jet Propulsion Laboratory (JPL) NASA Postdoctoral Program Fellow • Investigating the subsurface exploration of Uranian moons using passive radar sounding techniques	<i>Pasadena, CA, USA</i> <i>Sep. 2026 – Present</i>
Daegu Gyeongbuk Institute of Science & Technology (DGIST) Postdoctoral Fellow • Conducted research on healthcare applications of passive Wi-Fi radar	<i>Daegu, South Korea</i> <i>Oct. 2025 – Sep. 2026</i>
Pusan National University Research Associate • Developed signal processing and machine learning algorithms for radar systems and RF signal analysis	<i>Busan, South Korea</i> <i>Mar. 2025 – Oct. 2025</i>
Pusan National University Research Assistant • Performed simulations, data analysis, and experimental validation for radar systems and signal processing research	<i>Busan, South Korea</i> <i>Mar. 2019 – Feb. 2025</i>
Electronics and Telecommunications Research Institute (ETRI) Research Intern • Worked as a research intern in the Multidisciplinary Sensor Research Group	<i>Daejeon, South Korea</i> <i>Jul. 2018 – Aug. 2018</i>

Publications: International Journals

Activity-dependent Resolution Adjustment for Radar-based Human Activity Recognition Do-Hyun Park , Min-Wook Jeon, and Hyoung-Nam Kim Signal Processing (SCIE)	<i>Jun. 2026</i>
RTDNet: Modulation-Conditioned Attention Network for Robust Denoising of LPI Radar Signals Min-Wook Jeon, Do-Hyun Park , and Hyoung-Nam Kim Electronics (SCIE)	<i>Jan. 2026</i>
IPFSCNN: A Time–Frequency Fusion CNN for Wideband Spectrum Sensing Soon-Young Kwon, Do-Hyun Park , and Hyoung-Nam Kim Sensors (SCIE)	<i>Nov. 2025</i>
Noise-Aware Ensemble Learning for Efficient Radar Modulation Recognition Do-Hyun Park , Min-Wook Jeon, Jinwoo Jeong, Isaac Sim, Sangbom Yun, Junghyun Seo, and Hyoung-Nam Kim IEEE Internet of Things Journal (SCIE, JCR Top 4.1%)	<i>Jul. 2025</i>

Temporal-Feature-Based Classification of Active Sonar Targets in a Deep-Water Environment

MyoungJun Cheong, Juho Kim, **Do-Hyun Park**, and Hyoung-Nam Kim

IEEE Transactions on Aerospace and Electronic Systems (SCIE, JCR Top 9.6%)

Oct. 2024

HCTC: Hybrid Convolutional Transformer Classifier for Automatic Modulation Recognition

Jayesh Deorao Ruikar, **Do-Hyun Park**, Soon-Young Kwon, and Hyoung-Nam Kim

Electronics (SCIE)

Oct. 2024

Interference Suppression for an FM-radio-based Passive Radar via Deep Convolutional Autoencoder

Do-Hyun Park, Geun-Ho Park, Ji Hun Park, Jong-Hyeon Bang, Doohwan Kim, and Hyoung-Nam Kim

IEEE Transactions on Aerospace and Electronic Systems (SCIE, JCR Top 9.6%)

Feb. 2024

LPI Radar Detection Based on Deep Learning Approach with Periodic Autocorrelation Function

Do-Hyun Park, Min-Wook Jeon, Da-Min Shin, and Hyoung-Nam Kim

Sensors (SCIE)

Oct. 2023.

Accurate Estimation of LPI Radar Pulse Train Parameters via Change Point Detection

Jong-Hyeon Bang, **Do-Hyun Park**, Wonjin Lee, Doohwan Kim, and Hyoung-Nam Kim

IEEE Access (SCIE)

Feb. 2023

Publications: International Conferences

Filterbank-Based Micro-Doppler Spectrogram Transformation for Human Activity Recognition

Do-Hyun Park and Hyoung-Nam Kim

The 39th International Conference on Information Networking (ICOIN 2025)

Jan. 2025

Accuracy Improvement Using Conditional GAN in FMCW Radar-Based Fall Detection

Nayun Park, **Do-Hyun Park**, Min-Wook Jeon, and Hyoung-Nam Kim

The 39th International Conference on Information Networking (ICOIN 2025)

Jan. 2025

Deep Learning-Based Modulation Recognition with Multi-Scale Temporal Feature Extraction

Da-Min Shin, **Do-Hyun Park**, and Hyoung-Nam Kim

The 39th International Conference on Information Networking (ICOIN 2025)

Jan. 2025

Attention-Based Denoising for Wireless Communication Signals

Min-Wook Jeon, **Do-Hyun Park**, and Hyoung-Nam Kim

The 39th International Conference on Information Networking (ICOIN 2025)

Jan. 2025

Detection of LPI Radar Signals Based on Periodicity Analysis

Do-Hyun Park and Hyoung-Nam Kim

2024 International Conference on Electronics, Information, and Communication (ICEIC 2024)

Jan. 2024

Analysis of Explainable Convolutional Neural Network for Weak Radar Signal Detection

Da-Min Shin, **Do-Hyun Park**, and Hyoung-Nam Kim

2024 International Conference on Electronics, Information, and Communication (ICEIC 2024)

Jan. 2024

Denoising Method for Detecting Low-Probability-of-Intercept Radar Signal Using Convolutional Neural Network

Min-Wook Jeon, **Do-Hyun Park**, and Hyoung-Nam Kim

2024 International Conference on Electronics, Information, and Communication (ICEIC 2024)

Jan. 2024

Detection of LPI Radar Signal Using Periodic Autocorrelation Function and LSTM

Do-Hyun Park and Hyoung-Nam Kim

The 11th International Conference on Green and Human Information Technology (ICGHIT 2023)

Feb. 2023

A Fast and Accurate Convolutional Neural Network for LPI Radar Waveform Recognition

Do-Hyun Park, Jong-Hyeon Bang, Ji-Hun Park, and Hyoung-Nam Kim

2022 19th European Radar Conference (EuRAD 2022)

Sep. 2022

Improved TOA and Pulse Width Estimation for Wideband Signal in Electronic Warfare Systems

Jong-Hyeon Bang, **Do-Hyun Park**, and Hyoung-Nam Kim

2022 19th European Radar Conference (EuRAD 2022)

Sep. 2022

Target Detection using U-Net for a DTV-based Passive Bistatic Radar System

Ji-Hun Park, **Do-Hyun Park**, and Hyoung-Nam Kim

The 4th International Conference on Artificial Intelligence in Information and Communication (ICAIIIC 2022)

Feb. 2022

A Method for Eliminating False Detection Results in FM-radio-based Passive Bistatic Radar

Do-Hyun Park, Geun-Ho Park, Hyoung-Nam Kim, Kyu-Ha Song, and Jun-Il Ahn

2020 International Conference on Electronics, Information, and Communication (ICEIC 2020)

Jan. 2020

Publications: Domestic Journals

Semantic Segmentation-Based Drone Communication Signal Separation Method

Do-Hyun Park, Soon-Young Kwon, Jinwoo Jeong, Isaac Sim, Sangbom Yun, Junghyun Seo, and Hyoung-Nam Kim

Journal of Korean Institute of Communications and Information Sciences (SCOPUS)

Nov. 2025

HDBSCAN-based Clutter Removal of An Active Sonar under Multipath Environment

Myoung Jun Cheong, Hyeon-Deok Cho, Won-Ki Kim, **Do-Hyun Park**, and Hyoung-Nam Kim

Journal of The Institute of Electronics and Information Engineers

Aug. 2024

Time-of-Arrival and Pulse-Width Estimation Method Robust to Weak Signal Environment in Electronic Warfare

Jong-Hyeon Bang, **Do-Hyun Park**, Wonjin Lee, Doohwan Kim, and Hyoung-Nam Kim

Journal of Korean Institute of Communications and Information Sciences (SCOPUS)

Dec. 2022

Drone Target Detection Method Using U-Net for DTV-Based Passive Radar

Ji-Hun Park, **Do-Hyun Park**, Jong-Hyeon Bang, and Hyoung-Nam Kim

Journal of Korean Institute of Communications and Information Sciences (SCOPUS)

Oct. 2022

Performance Analysis of ResNet-based Target Classifications Using Spectral Kurtosis

Ji-Hyeon Kim, **Do-Hyun Park**, and Hyoung-Nam Kim

Journal of The Institute of Electronics and Information Engineers

Apr. 2022

Performance Analysis of Deep-Learning Target Classification Algorithms Using Micro-Doppler Image

Ji-Hyeon Kim, **Do-Hyun Park**, and Hyoung-Nam Kim

Journal of Korean Institute of Communications and Information Sciences (SCOPUS)

Mar. 2021

A Method for Eliminating False Detection Results Caused by FDOA-Domain Sidelobes in FM-Radio-Based Passive Radar

Do-Hyun Park, Geun-Ho Park, and Hyoung-Nam Kim

Journal of Korean Institute of Communications and Information Sciences (SCOPUS)

Oct. 2020

Publications: Domestic Conferences

Presented **30** domestic conference papers, including **12** as the **first author**.

Full list is available at sites.google.com/view/dohyunpark/publications

Patents

Electronic Device for Generating Training Data Based on Radar Domain Transformation and Control Method Thereof

Hyoung-Nam Kim, **Do-Hyun Park**, Min-Wook Jeon, Jinwoo Jeong, Isaac Sim, Sangbom Yun, Junghyun Seo

KR Patent, 10-2026-0164320

Aug. 2026

System and Method for Drone Signal Separation Based on Semantic Segmentation

Hyoung-Nam Kim, **Do-Hyun Park**, Min-Wook Jeon, Jinwoo Jeong, Isaac Sim, Sangbom Yun, Junghyun Seo

KR Patent, 10-2025-0191143

Dec. 2025

Method and Apparatus for Generating Synthetic Data for Training Target Detector in Passive Coherent Location System

Hyoung-Nam Kim, **Do-Hyun Park**, Geun-Ho Park

KR Patent, 10-2586255

Oct. 2023

Device and Method for Estimating Arrival Time and Pulse Width of Input Signal Using Change Point Detection

Hyoung-Nam Kim, Jong-Hyeon Bang, **Do-Hyun Park**

KR Patent, 10-2023-0006643

Jan. 2023

Method and Apparatus for Extracting Target Data in FM Signal Based Passive Coherent Location System

Hyoung-Nam Kim, **Do-Hyun Park**, Geun-Ho Park, Jun-Il Ahn, Kyu-Ha Song

KR Patent, 10-2150099

Aug. 2020

Honors & Awards

- 2025 **Best Paper Award**, Brain Korea 21 Program at Pusan National University
- 2024 **First Place**, MathWorks MATLAB AI Student Challenge
- 2021 **Best Paper Award**, Korean Institute of Communications and Information Sciences
- 2020 **Excellence Award**, PNU ICT Convergence Competition
- 2019 **Brain Korea 21 Plus Scholarship**, Ministry of Education

Technical Academic Activities

- 2026 ~ **IEEE Sensors Journal**, Reviewer
- 2025 ~ **IEEE Transactions on Aerospace and Electronic Systems**, Reviewer
- 2025 ~ **IEEE Communications Letters**, Reviewer
- 2025 ~ **IEEE Access**, Reviewer

Certificates

- 2023 **Fundamentals of Deep Learning**, NVIDIA Deep Learning Institute
- 2022 **Fundamentals of Accelerated Computing with CUDA C/C++**, NVIDIA Deep Learning Institute
- 2022 **Machine Learning with MATLAB**, MathWorks

Skills & Technical Proficiencies

Languages

- English (Professional Working Proficiency)
- Korean (Native)

Programming Languages

- Python (Proficient)
- MATLAB (Proficient)
- C++

Hardware Design Tool

- Xilinx Vivado

RF & Radar Systems

- Software-Defined Radio
- TI mmWave Radar Sensor