



Prof. Sangyoon Han

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Professor Sangyoon Han earned his Bachelor's degree in Electrical Engineering from Seoul National University in 2010 and his Ph.D. in Electrical and Computer Engineering from the University of California, Berkeley, in 2016. Following his Ph.D., he completed his military service as a postdoctoral researcher in the Department of Physics at KAIST. Since 2020, he has been a faculty member in the Department of Robotics and Mechatronics Engineering at DGIST.

Professor Han is leading innovative research that integrates silicon photonics technology with MEMS. This work led to a remarkable reduction in standby power in photonic integrated circuits by a factor of 10^6 , with the results published in Nature Photonics in 2023. He has also authored over 20 papers in prestigious journals, including Nature Communications (2 articles), Optica (2 articles), ACS Photonics, and Microsystems & Nanoengineering. In recognition of his contributions, he received the Young Scientist Award at the 2024 PIERS Symposium, an accolade awarded to outstanding researchers under the age of 40.

He is developing a silicon photonics-based optimization processor and a photoacoustic ultrasonic sensor under the support of Samsung Future Technology Development projects. Professor Han is also actively collaborating on silicon photonics research with organizations such as Opticis, KIST, and LIG Nex1. Furthermore, he is leading multiple government-funded research projects, and from 2024, he has been appointed as the Korean principal investigator for the Korea-EU joint semiconductor research project to develop AI accelerators based on photonic integrated circuits.