

BIOGRAPHY

SMC Korea 2025



Name: Changhwan Choi

Title/ Position: Professor

Company: Hanyang University

“Changhwan Choi”, Ph.D. has been a professor at Hanyang University since 2010 with Division of Materials Science and Engineering and Department Semiconductor Engineering. His research activities consist of material, process, device and characterization for various advanced semiconductor devices in logic, memory, neuromorphic/PIM, 3D heterogeneous integration and packaging materials & process. These devices include TFET, FeFET, NCFET, and CFET for logic device, advanced DRAM, ReRAM, CBRAM, PRAM, SOM and 3D flash memory for memory device, memristor and 3-terminal devices for artificial synapse and neuromorphic/PIM device and system, 3D heterogeneous devices and integration, and packaging materials (PID, ABF) and packaging processing (RDL, package substrate, hybrid bonding, TGV etc). In addition, various semiconductor materials and process technology are being researched.

Prior to joining Hanyang University, Professor Choi was a Research Staff Member for IBM Thoams J. Watson Research Center. During his 4 years at IBM, Professor Choi spent time doing high-k/metal gate for advance transistor development and integration.

Choi received Ph.D and M.S degrees in electrical and computer engineering and materials science and engineering, respectively, from the University of Texas at Austin and a B.S degree in materials science and engineering from Hanyang University. He has published SCI papers with more than 160 and presented research results at various conferences. Particularly, his ferroelectric-based flash memory was selected as a highlight papers in symposium on VLSI technology in 2020. He holds US patents more than 25.

