

Korean International Semiconductor Conference & Exhibition on Manufacturing Technology 2025

KISM 2025 BUSAN

Re:Innovation of Semiconductor Manufacturing for AI Ecosystem



Jul. 2024 – Current

Jan. 2000-Jan. 2002

Dr. Jinwoo Kim

HEX A.I. Labs Inc. Korea

EDUCATION

North Carolina State University (NCSU), Raleigh, NC

Ph.D. in Department of Materials Science and Engineering, 2011

Dissertation: Characterization of Hf Si Oxynitride Pseudo-ternary Gate Dielectrics for the Application of Ge

MOSFETs (Prof. Gerald Lucovsky)

Hanyang University, Seoul, Korea

M.S. in Department of Materials Science and Engineering, 2005

Dissertation: Physical, chemical, and electrical characteristics of HfO₂ gate dielectrics and MOSFET grown using the remote- and direct-plasma atomic layer deposition methods (Prof. Hyeongtag Jeon)

Hanyang University, Seoul, Korea

Bachelor of Science in Department of Materials Science and Engineering, 2000

Representative Experiences

CEO, HEX A.I. Labs Inc.

Principal Researcher, Samsung Electronics DS division	Feb. 2017 – Jun. 2024
Research Associate, Univ. of Illinois at Urbana-Champaign	Jan. 2013 – Feb.2017
Postdoc, North Carolina State University Physics Department	Jan.2012 – Dec. 2012
Researcher, National Institute of Standards and Technology	Apr 2006 -Mar. 2008

Researcher, Hynix Semiconductor Inc.

CMOS Reliability and Advanced Devices Group

Memory R&D division