Prof. Ho Jun Kim

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Professor Ho Jun Kim received his Bachelor's degree in Mechanical Engineering from Hanyang University in Seoul, South Korea, in 2002. He went on to earn his Master's and Ph.D. degrees in Mechanical Engineering from Texas A&M University, College Station, Texas, in 2004 and 2008, respectively. From 2008 to 2018, he worked in semiconductor equipment development in the Memory Division of Samsung Electronics in Hwaseong, South Korea. From 2018 to 2020, he served as an Assistant Professor in the Department of Mechanical Engineering at Dong-A University in Busan, South Korea. He then held an Assistant Professor position in the Department of Mechanical Engineering at Gachon University in Seongnam, South Korea, from 2020 to 2022. Since 2022, he has been a Professor in the Department of Mechanical Engineering at Hanyang University ERICA campus in Ansan, South Korea.

His research interests include process plasma, plasma torches, thermal chemical vapor deposition, particle transport, remote plasma cleaning, droplet simulation, two-phase flow simulation, cleaning process, and numerical simulations using molecular dynamics and ab initio calculations.

Current research projects led by Professor Kim's research group are as follows:

- ✓ Development of simulation technology for performance optimization in semiconductor/display applications
- ✓ Creation of a design database integrating plasma equipment simulations and measurement data
- ✓ Development of computational fluid dynamics techniques for supercritical fluids
- ✓ Analysis of plasma torch technology through the coupling of low-temperature plasma and transient fluids
- ✓ Development of surface phenomenon analysis for process simulations
- ✓ Construction of a chemical reaction database for plasma process simulations