



## 7<sup>th</sup> IEEE Electron Devices Technology and Manufacturing (EDTM) Conference 2023

March 7 – 10, 2023 / COEX Seoul, Korea

14G. Neural Network Based Modeling and Simulation	
Session Date:	March 8(Wed.), 2023
Session Time:	13:30-14:55
Session Room:	Room G (#318)
Session Chair	Prof. Min-Hwi Kim (Chung-Ang University)

[14G-1] [Invited]

13:30-13:55

### Neural Compact Modeling: Motivation, State of the Art, Future Perspectives

Hyunbo Cho

*Alsemy Inc.*

[14G-2]

13:55-14:10

### Coupled Multiple Physics-Informed Deep Operator Networks for Boltzmann Transport Simulations of Nanowire Field Effect Transistors

Bokyeom Kim and Mincheol Shin

*Korea Advanced Institute of Science and Technology*

[14G-3]

14:10-14:25

### Accelerated Simulation and Performance Optimization of 3D Multigate Logic Transistors by Using Neural Networks

Seung-Cheol Han, In Ki Kim and Sung-Min Hong

*Gwangju Institute of Science and Technology*

[14G-4]

14:25-14:40

### Variability Aware FET Model with Physics Knowledge Based Machine Learning

Kumar Sheelvardhan, Surila Guglani, M. Ehteshamuddin, Sourajeet Roy and Avirup Dasgupta

*Indian Institute of Technology Roorkee*

[14G-5]

14:40-14:55

### Graphical Approach of Equipment Health Monitoring Using Network Analysis

Wanwook Ki, Minjae Choi, Yongjun Lee, Kiseop Yoon, Hanchan Hwang, Jisoo Park, Taewook Kang, Jaeyong Park and Younghoon Kim

*Samsung Electronics Co., Ltd*