



# 제 31회 한국반도체학술대회

The 31st Korean Conference on Semiconductors

2024년 1월 24일(수)-26일(금) | 경주화백컨벤션센터(HICO)

2024년 1월 25일(목), 15:30-17:15

Room G(201), 2층

K. Memory (Design & Process Technology) 분과

[TG3-K] RRAM and Neuromorphic Device III

좌장: 김성준 교수(동국대학교), 권민우 교수(강릉원주대학교)

<p>TG3-K-1 15:30-15:45</p>	<p>Optimized Chalcogenide Medium for Inherently Activated Resistive Switching Device Jin Joo Ryu<sup>1,2</sup>, Taeyong Eom<sup>1</sup>, Hyunchul Sohn<sup>2</sup>, and Gun Hwan Kim<sup>2,3</sup> <sup>1</sup>Thin Film Materials Research Center, KRICT, <sup>2</sup>Department of Materials Science and Engineering, Yonsei University, <sup>3</sup>Department of System Semiconductor Engineering, Yonsei University</p>
<p>TG3-K-2 15:45-16:00</p>	<p>Pseudo Synaptic Sampling: Energy-Efficient Algorithm for Spiking Hyunwoo Kim, Suyeon Jang, Uicheol Shin, and Sangbum Kim Department of Material Science and Engineering, Seoul National University</p>
<p>TG3-K-3 16:00-16:15</p>	<p>Design and Hardware Implementation of Memristive Based Neural Networks for Efficient Neuromorphic Computing Jae Gwang Lim<sup>1,2</sup>, Keonhee Kim<sup>1,2</sup>, Sung Jae Park<sup>1,2</sup>, Gyutaek Oh<sup>1</sup>, Yeonjoo Jeong<sup>1</sup>, Jaewook Kim<sup>1</sup>, Su youn Lee<sup>1</sup>, Joon Young Kwak<sup>1</sup>, Jongkil Park<sup>1</sup>, Gyu Weon Hwang<sup>1</sup>, Kyeong-Seok Lee<sup>1</sup>, Seongsik Park<sup>1</sup>, Hyun Jae Jang<sup>1</sup>, Byeong-Kwon Ju<sup>2</sup>, Jong Keuk Park<sup>1</sup>, and Inho Kim<sup>1</sup> <sup>1</sup>Center for Neuromorphic Engineering, KIST, <sup>2</sup>Display and Nanosystem Laboratory, School of Electrical Engineering, Korea University</p>
<p>TG3-K-4 16:15-16:30</p>	<p>Implementing a Scalable Neural Network at the Device Level Using a 3D Vertical Structure for PIM Seojin Cho, Hyejin Kim, Minsu Kang, Soho Kim, Sion Kim, Yuna Kim, and Daeseok Lee Department of Electronic Materials Engineering, Kwangwoon University</p>
<p>TG3-K-5 16:30-16:45</p>	<p>Unipolar and Bipolar 1S1M-Based MC-Dropconnect Hardware Implementation Do Hoon Kim, Woon Hyung Cheong, Hanchan Song, Jae Bum Jeon, and Kyung Min Kim KAIST</p>



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<p>TG3-K-6 16:45-17:00</p>	<p>Effect of the SiO<sub>2</sub> Film Formation Process on the Recognition Rate in Pd/IGZO/SiO<sub>2</sub>/p<sup>+</sup>-Si Memristors for Artificial Neural Network Application Dong Hyeop Shin, Seung Joo Myoung, Changwook Kim, Jong-Ho Bae, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim School of Electrical Engineering, Kookmin University</p>
<p>TG3-K-7 17:00-17:15</p>	<p>Sound Localization Using Brain-inspired Memristive Delay System for Active Speaker Detection Hanchan Song, Mingu Lee, Woojoon Park, Gwangmin Kim, and Kyung Min Kim Department of Materials Science and Engineering, KAIST</p>