### Session: 47F. Memory for New Applications

**Session Date:** March 9(Thu.), 2023  
**Session Time:** 16:30-18:00  
**Session Room:** Room F (#317)  
**Session Chair:** Prof. Tae-Sik Yoon (Ulsan National Institute of Science and Technology)  
Prof. Kyung Min Kim (Korea Advanced Institute of Science and Technology)

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| **[47F-1]** Demonstration of Ultra-Thin Ferroelectric/Dielectric and Anti-Ferroelectric/Dielectric Bilayers for Future DRAM Cell Capacitors  
Dong Ik Suh, Won-Tae Koo, Youngmo Kim, Ja-Yong Kim, Seung Wook Ryu, Heeyoung Jeon, Ki Vin Im, Gwangyeob Lee, Taeone Youn, Hyeonho Jeong, Seho Lee, Myung-Hee Na and Seon Yong Cha  
SK hynix Inc.                                                                                          | 16:30-16:45 |
| **[47F-2]** A Ferroelectric Differential Bit Cell Based Multiple-Time Programmable Physical Unclonable Function (PUF) for IoT Devices Security  
Paritosh Meihar, Srinu Rowtu, Sandip Lashkare and Udayan Ganguly  
Indian Institute of Technology Bombay                                                                 | 16:45-17:00 |
| **[47F-3]** A Novel Pulse-Width-Modulated FeFET-Based Analog Content Addressable Memory with High Area-And Energy-Efficiency  
Weikai Xu\(1\), Jin Luo\(1\), Qianqian Huang\(1,2,3\) and Ru Huang\(1,2,3\)  
\(1\)Peking University, \(2\)Beijing Advanced Innovation Center for Integrated Circuits, \(3\)Chinese Institute for Brain Research                                                                 | 17:00-17:15 |
| **[47F-4]** Novel Complementary FeFET-Based Lookup Table and Routing Switch Design and Their Application in Energy/Area-Efficient FPGA  
Yuan-Yu Huang, Po-Tsang Huang, Po-Yi Lee and Pin Su  
National Yang Ming Chiao Tung University                                                                 | 17:15-17:30 |
| **[47F-5]** A 40-nm Embedded 1T-OTP MACRO with Gate-Oxide-Charge Storage by Channel-Hot-Electron-Injection Featuring 0.086 \(\mu\)m\(^2\)/cell, 1.8 V of Program-Voltage, 125 \(^\circ\)C Retention  
National Central University                                                                                 | 17:30-17:45 |
| **[47F-6]** Self-Clocking Fast and Variation Tolerant True Random Number Generator Based on a Stochastic Mott Memristor  
Gwangmin Kim, Jae Hyun In, Young Seok Kim, Hakseung Rhee, Woojoon Park, Hanchan Song, Juseong Park and Kyung Min Kim  
Korea Advanced Institute of Science and Technology                                                           | 17:45-18:00 |