



WORKSHOP: Autonomy and Processing - Technologies and Non-Volatile Memory for Multifunctional Memory and Computing

PROGRAM MANAGER(S): Dr. Ronald G. Polcawich, DARPA
Dr. Y.K. Chen, DARPA
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DATE: Wednesday, August 19, 2020

TIME: 2:15 PM – 5:45 PM

DESCRIPTION

The workshop gathers thought leaders to discuss current state-of-the-art and the industrial roadmaps to probe into promising new technology approaches for the next-generation of multifunctional memory. A range of speakers will identify possible unique Department of Defense (DoD) applications enabled by technologies and device structures to take advantage of dense, low write-energy and multi-bit non-volatile memory (NVM) capabilities for next-generation memory-enhanced data-centric computing.

AGENDA

2:15 PM	Welcome and Introduction Dr. Ronald G. Polcawich, DARPA Dr. Y.K. Chen, DARPA Dr. Ali Keshavarzi, DARPA
2:30 PM	FRANC: Computational Random Access Memory (CRAM) for AI Dr. Jian-Ping Wang, University of Minnesota, Professor
2:50 PM	FRANC: Gate Stack Optimization for Ferroelectric Field Effect Transistors Dr. Sayeef Salahuddin, University of California, Berkeley, Professor
3:10 PM	JUMP: ASCENT Center – Ferroelectric NVRAM for Emerging In-Memory Compute Applications Dr. Suman Datta, Notre Dame University, Professor
3:30 PM	Industry Perspective Talk on New Memory Technology Ms. Wendy Elsasser, ARM
3:50 PM	Follow-up Discussion
Afternoon Break: 4:00 PM – 4:15 PM	
4:15 PM	Multi-Function Capabilities of FeRAM Dr. Scott Summerfelt, Texas Instruments
4:35 PM	TUFEN: Ferroelectric Al_{1-x}Sc_xN for Next Generation NVM Dr. Roy Olsson, University of Pennsylvania, Professor
4:55 PM	FLAG Seedling: Physical Sensing with Advanced CMOS Dr. Dana Weinstein, Purdue University, Professor
5:15 PM	Near/In-Memory Computing for Data-Intensive Applications Prof. Arijit Raychowdhury, Georgia Tech, Professor
5:35 PM	Follow-up Discussion
Virtual Exhibit Hall Office Hours: 5:45 PM – 6:45 PM	

QUESTIONS

Please the ERI Summit mailbox for more information following this workshop at ERI-Summit@darpa.mil.