

# WORKSHOP: Next Generation Mixed-Mode Microelectronics

**PROGRAM MANAGER:** James Wilson

**DATE:** Wednesday, October 20, 2021

**TIME:** 3:15pm – 5:30pm

**ROOM NAME:** Kalei Best

## DESCRIPTION

This workshop will review ongoing research under the DARPA Technologies for Mixed-mode Ultra Scaled Integrated Circuits (T-MUSIC) program, including:

- Efforts from foundries to develop advanced mixed-mode process technologies for integrated circuits combining both digital CMOS and advanced analog/RF devices
- Efforts to create state-of-the-art mixed-mode circuits using the above advanced technologies
- An overview of government and commercial needs in the mixed-mode microelectronics space

After presentations on the above topics, time is set aside for a round-table discussion with the audience on the future of mixed-mode microelectronics.

## AGENDA

<b>3:15pm-3:30pm</b>	<b><i>T-MUSIC Program Overview</i></b> James Wilson, DARPA PM
<b>3:30pm-3:45pm</b>	<b><i>Mixed-Mode Government Applications and Needs</i></b> Tony Quach and Chris Bozada, Air Force Research Labs
<b>3:45pm-4:00pm</b>	<b><i>Advanced Mixed-Mode SiGe BiCMOS Foundry Technology</i></b> Alvin Joseph, Global Foundries
<b>4:00pm-4:15pm</b>	<b><i>Advanced Mixed-Mode Electronic Circuits</i></b> Steve Turner, BAE
<b>Afternoon Break: 4:15pm-4:30pm</b>	
<b>4:30pm-4:45pm</b>	<b><i>Hybrid Mixed-Mode Electronic Circuits</i></b> Prof. Ken Yang, UCLA
<b>4:45pm-5:00pm</b>	<b><i>THz Transistors on a CMOS Platform</i></b> Prof. Sayeef Salahuddin, UC Berkeley
<b>5:00pm-5:15pm</b>	<b><i>Looking to the Future Through a High-Speed InP Lens</i></b> Prof. Mark Rodwell, University of California, Santa Barbara
<b>5:15pm-5:30pm</b>	<b><i>Round Table Discussion</i></b> with audience participation
<b>Workshops Conclude at 5:30pm</b>	

## QUESTIONS

Please contact Julian Warchall for more information following this workshop at [julian.warchall.ctr@darpa.mil](mailto:julian.warchall.ctr@darpa.mil).