PURDUE UNIVERSITY

# CSME

## CENTER FOR SECURE MICROELECTRONICS ECOSYSTEM

CSME is a first-of-its-kind partnership between academia, industry, and government, in particular AFRL and NAVY CRANE, that aims to advance research and workforce development in secure microelectronics. CSME addresses the challenges arising from a zero-trust model across the entire life-cycle of microelectronics from design and design tools to materials, fabrication and packaging.

### IMPACT

CSME will contribute to national security and identify solutions to key security concerns by:
+ creating novel on-chip designs,
+ measurement approaches and processes to
+ prevent side channel attacks,
+ maliciously modified circuits,
+ counterfeiting,
+ reverse engineering and IP privacy.

### PEOPLE and PARTNERS

CSME has currently 19 Principal Investigators from Purdue University, Georgia Institute of Technology, University of Florida, Arizona State University and Texas A&M University working collaboratively with undergraduate and graduate students on sponsor defined projects. The center is looking to grow the number of performers and institutions. CSME is an industry defining training ground for the next generation of talent needed to advance national security. Inaugural CSME sponsors include Taiwan Semiconductor Manufacturing Corporation (TSMC), Synopsys, and the U.S. Department of Defense.

### STRATEGY

CSME will establish an ecosystem that engages:
+ companies from the entire chips supply chain,
+ including defense companies and
+ U.S. government agencies
to identify critical security related research topics that can be addressed by nationwide experts at key academic institutions.

### CSME MEMBER BENEFITS

CSME Member Benefits include access to center research outcomes before publication, IP options, opportunity to impact research directions, early access to student talent, networking and industry interactions. CSME is actively recruiting more members and sponsors to this partnership.

For more details on benefits, tiers, and how to become a member, contact Center Directors Joerg Appenzeller appenzeller@purdue.edu and Anand Raghunathan raghunathan@purdue.edu

*"This is, I think, the most exciting human fab that I have ever seen."*

*"I have to tell you all how blown away we have been with what we have seen at Purdue. Incredible."*

Academia, industry, and government partners gather for the first Center for Secure Microelectronics Ecosystem annual meeting, October 2022

ASU · Georgia Tech · A&M · tsmc · SYNOPSYS · U.S. Department of Defense · UF University of Florida

PURDUE UNIVERSITY

https://engineering.purdue.edu/semiconductors/centers#CSME