

MICROELECTRONICS LAB

Purdue Applied Research Institute, LLC (PARI) serves as a critical bridge between academic research and real-world applications, fostering innovation and collaboration across a range of disciplines. Within PARI, the Microelectronics Lab is dedicated to advancing microelectronics research, development, and transition to national security applications. Our mission is to accelerate the translation of cutting-edge university research into impactful solutions, working closely with government, industry, and academic stakeholders. The PARI Microelectronics Lab complements and amplifies faculty work by providing resources, infrastructure, and industry connections that enable broader impact to national security and defense. Through our engagement model, we actively collaborate with faculty and students, offering avenues for joint proposals, applied research initiatives, and hands-on student experiences.

Our lab is currently involved in diverse projects, ranging from advanced semiconductor packaging and reliability testing for extreme environments to the development of new materials and device architectures. These efforts provide unique opportunities for engagement with faculty to extend their core research into path to productization with real-world applications and related environmental requirements while also offering students project-based learning experiences. Our goal is to facilitate partnerships that bridge faculty-driven innovation in R&D with national security and defense needs, enhancing rather than replacing academic efforts through applied research programs. During the luncheon, we'll be presenting information about our mission, current focus areas, and workforce development pipeline program. We look forward to a dialogue with Birck Nanotechnology Center faculty on avenues of collaborations and strategies to implement this vision to maximize the impact of Purdue's microelectronics footprint.

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