The International Microelectronics, Assembly and Packaging Society

Florida Chapter

https://imaps.org/page/IMAPS-Florida

Advanced Technical Workshop (ATW) & Tabletops

SMART SENSORS, µACTUATORS & SMALL AUTONOMOUS SYSTEMS

Research, Advanced Manufacturing & Applications

REGISTER at http://imaps.org/florida/

General Chair: C. Mike Newton, Director Strategic Technologies, Florida Tech Research Institute
Technical Chair: Amy Bonecutter-Leonard, Photonics & Microelectronics (PhoMicro) Discipline Lead / Intel & Cyber Sector, Space & Airborne Systems / L3HARRIS TECHNOLOGIES

April 9th, 2026

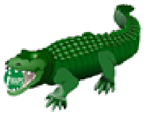
VENUE: VERTEX Applied Innovation Hub

Palm Bay, FL 32905

Workshop Focus: ***Small Smart Autonomous Systems (SSAS)*** *are increasingly becoming more ubiquitous, and capabilities are supporting multiple use cases including DoD & Civil applications.* ***SSAS*** *are supporting forward austere positions for the military, security at major public events, disaster relief or exploring new frontiers in space or ocean. Each use case is exposed to a variety of harsh environmental challenges. More capabilities in smaller systems are needed including Smart Sensing and µActuation. With smaller systems,* ***Size, Weight & Power plus Cost (SWaP-C)*** *are at the forefront. These challenges push the requirements for advanced microelectronic packaging, interconnect and power required for the integration into* ***SSAS****. The way we manufacture is also shifting to increase resilience in the supply change moving away from single manufacturing facilities to distributed manufacturing concepts like manufacturing as a service and *Defense Foundries supported by digital workflows from ideation to creation. This workshop will bring together the scientists, engineers, manufacturers, academia, and businesspeople from around the world who work in smart sensors, systems and advanced packaging technology. This* ***full day Advanced Technical Workshop & Tabletop Exhibits*** *enable discussion and presentations on the latest microelectronic based design, process and materials for integration of smart sensors and photonic technologies and platforms.*

- Advance/Additive & Novel Electronic Packaging
- Sensors / Optical Sensors/Lab on a Chip
- MEMS / MOEMS/Chiplets
- RF / Antenna / Wireless Integration
- Thermal Management, High Temp Packaging
- High Performance Materials
- Multifunctional/Functionally Gradient Integration
- Advanced Substrates & Interconnect
- Batteries/Power Harvesting/Hybrid Power
- Metrology
- Optical Interconnect
- Microfluidics
- Thin and ultra-miniature components
- Design, Simulation and Modeling
- Smart Sensor Applications (Unmanned platforms)
- AI, IOT, iIOT & Cybersecurity
- Dynamic Manufacturing & Cyberfacturing
- Work Force Development & Outreach

The global Smart Sensors Market was valued at USD 61.93 billion in 2024 and is projected to grow from USD 72.03 billion in 2025 to USD 136.28 billion by 2029



https://www.marketsandmarkets.com/Market-Reports/smart-sensor-market-43119772.html
* https://www.karveinternational.com/insights/the-defense-foundry-model
http://www.imaps.org/