MIDWEST MICROELECTRONICS CONSORTIUM

The MMEC Receives Microelectronics Commons Project Awards

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The Midwest Microelectronics Consortium (MMEC) is excited to announce the award of five technology development projects through Microelectronics Commons. These five project awards designate a total first-year funding of over $31 million of a total proposed $130 million over the next four years in addition to $29 million in cost share, bringing total potential project budgets to over $159 million. These projects will engage more than 30 MMEC members representing organizations from industry, academia, and government stakeholders to advance domestic microelectronic technology development to deliver solutions to strengthen the US-based supply chain. "These awards are the culmination of months of effort from the MMEC members and our team," Jackie Janning-Lask, MMEC CEO stated, "We are very excited to see these projects awarded to the MMEC members. These projects will play a critical role in onshoring chip development and are a critical step in securing the US microelectronics supply chain."

Funded by the CHIPS and Science Act, the Microelectronics Commons program is a network of regional technology hubs focused on expanding the nation's global leadership in microelectronics. This program accelerates domestic prototyping and grows a pipeline of US-based semiconductor talent. The Microelectronics Commons program is led by the Office of the Undersecretary for Research and Engineering, executed through the Strategic & Spectrum Missions Advanced Resilient Trusted Systems (S²MARTS) Other Transaction Agreement (OTA) established by the Naval Surface Warfare Center (NSWC), Crane Division and is managed by the National Security Technology Accelerator (NSTXL).

Earlier this year, the MMEC submitted 15 tech-based proposals that support prototype projects across six technical areas that are critical to the Department of Defense. Those areas are: Secure Edge Computing/Internet of Things, 5G/6G Technology, Artificial Intelligence Hardware (AI), Quantum Technology, Electromagnetic Warfare (EW), and Commercial Leap Ahead (CLA). The five projects awarded to the MMEC are:

1) **5G/6G:** Wideband Multifunctional Software Defined Radio (WMSDR)
   Project Team Performers: Lockheed Martin, Intel, Indiana Micro, CapV LLC, University of Dayton, 3dGS
2) **Artificial Intelligence:** Ultra Efficient In-Hardware Prototype Using Hyperdimensional Computing
   Project Team Performers: Intel Federal, University of Pennsylvania, SkyWater Technology, AI-Sensation, Air Force Research Laboratory (AFRL), DEVCOM Army Research Laboratory
3) **Electromagnetic Warfare:** Co-packaged Reconfigurable Signal and Intelligence Architecture
   Project Team Performers: Lockheed Martin, Intel Corporation, AFRL
4) **Electromagnetic Warfare:** Center for Technology Transition and Rapid Prototyping of Infrared Detectors
   Project Team Performers: The Ohio State University, Attollo Engineering, SK Infrared, Senseeker Engineering, IQE USA, NSWC-Crane
5) **Secure Edge:** Validated GPU Based Secure Processing Module
   Project Team Performers: Northrop Grumman, University of Maryland, NHanced Semiconductors, Battelle, NVIDIA

"The MMEC was formed to identify opportunities and build collaboration between members to accelerate microelectronics innovation. It was impressive to see how the project teams leveraged MMECs role based hub model to produce 15 very high-quality proposals. Being awarded five projects really speaks to the talent and expertise of our members and the MMEC team" said MMEC CTO, Matt Casto PhD. "I am confident these projects will be successfully executed and will ultimately be a huge benefit to the US and the warfighter."

In addition to fueling research and development through the projects, the MMEC is using funding to work with members to: 1) utilize existing tools and machinery, and invest in new infrastructure capabilities for expansion and modernization of manufacturing facilities, and 2) partner with industry, academia, and training providers to ensure that educational programs are aligned with industry needs and that students are prepared to fill jobs that are in high demand. The project awards will provide funding for Workforce Development efforts, estimated at over $2M, to create a beginning-to-end pipeline of technology, tools, and human resources to place the US at the forefront of microelectronics development and manufacturing. "A skilled and diverse pipeline of workers is critical to building a domestic, sustainable, semiconductor industry in the US. That is why we are focused on working with our partners to reach out to K-12, universities, and colleges to provide the next generation with the information about how rewarding a career in the semiconductor industry can be." Stated Mrs. Janning-Lask

"In Ohio, we have always built the things that America and the world need, from the cars we drive to the planes we fly, and soon, it will be Ohioans who make the most advanced semiconductors on the planet," stated JP Nauseef, JobsOhio CEO and Chairman of the MMEC Board of Directors. "With Ohio's competitive advantage in the Silicon Heartland, the Air Force Research Laboratory, our growing innovation districts, and so much more, we continue to drive the reshoring of critical technologies and the rebirth of American manufacturing."

About the MMEC

The Midwest Microelectronics Consortium (MMEC) leads the acceleration of microelectronic technologies and delivers solutions to establish a trusted and resilient domestic supply chain. The MMEC is the premier collaborative, public-private ecosystem that engages broadly across innovative partners in industry, academia, and government to rapidly advance defense and commercial applications. This unique environment empowers members to discover new technologies, share capabilities, develop a skilled workforce, and launch groundbreaking innovation into scalable commercial production for the benefit of National Security and economic dominance.

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