

SYNOPSIS/PRESOLICITATION NOTICE

CyManII – Cybersecure Innovations for Manufacturing Competitiveness

The Cybersecurity Manufacturing Innovation Institute (CyManII) intends to post a Request for Proposal (RFP) documents for Secure Innovations for Manufacturing Competitiveness in early May of 2021. RFP documents will be posted on the CyManII website located on our website.

Summary of the Proposals to Be Requested

CyManII intends to make up to 6 awards, each between \$50,000 - \$250,000, subject to Department of Energy approval and availability of funds, in the general technical objective areas listed below. *Specific details on the technical topics requested in the RFP will be narrower in scope and more focused on particular technical outcomes than in the brief descriptions below.*

- **Baselining (Cybersecure Energy Quantification - CEQ)**: CyManII is using a collaborative approach to baseline priorities set during Roadmapping activities to ensure that they are rooted in industry performance metrics and form a quantitative basis to assess progress towards end goals.
- **Secure Manufacturing Architecture (SMA)**: CyManII is developing SMA, an open-reference architecture that can be instantiated in different manufacturing sectors to achieve ε-PURE cybersecurity properties (defined below). SMA will include and extend standards-based security development lifecycle (SDL) practices employed by industry and result in a suite of methods, standards and tools.
- **Secure Research and Development Infrastructure (SRDI)**: CyManII is forming SRDI to integrate a complex shared R&D infrastructure for collaboration and technology transfer among members.
- **Coordinated Vulnerability Awareness (CVA)**: CyManII will tailor the best coordinated vulnerability disclosure practices for smart manufacturing and innovate the next generation CVA that includes responsible and impactful disclosure and new proactive discovery capabilities and processes.
- **TrustWorks**: CyManII will develop TrustWorks to enable market transformation by driving broad and deep adoption of SMA, CVA, and other innovations by companies to ensure that CyManII technical innovations are properly introduced to the workforce.

Projects will be awarded **only in these technical objective areas**. Projects must be executed in an agile manner, using CyManII's Technical Innovation Infrastructure (TII) and processes, by an interdisciplinary team ideally led by a manufacturer. A team ideally includes a manufacturer, and one or more of the following: a systems integrator, an app vendor, a college or university, a machine builder or Original Equipment Manufacturer (OEM), and other manufacturers, especially small- and medium-sized manufactures.

Period of Performance: Maximum of 6 months, executed between 9/1/2021 and 3/31/2022.

Eligibility Criteria: All members must be domestic entities. To qualify as a domestic entity, it must be incorporated (or other-wise formed) under the laws of a State or territory of the United States with majority domestic ownership or control and have a physical place of business in the United States. In limited circumstances, foreign entities seeking to participate may obtain a foreign entity participation waiver. For a non-domestic entity to request a waiver, they must also be critical to CyManII's U.S. manufacturing mission as determined by the Executive Research Security Team (ERST).

Requirements to receive funding:

- All project team members must be at least a Collaborative-level CyManII members in good standing by the time the project is awarded by CyManII.
- The Principal Investigator (PI) is approved for access to the CyManII TII.
- Significant cost share is required to complement the funds provided directly by CyManII. 20% cost share of the total allowable cost of the project is required. Higher cost share percentages are strongly encouraged.

Background:

The goal of the Cybersecurity Manufacturing Innovation Institute (CyManII, pronounced 'sī-man-ē) is to implement a national vision for manufacturing cybersecurity that unleashes American innovation for decades to come. The intelligent transformation of manufacturing enables dramatic increases in overall equipment energy efficiency, which maximizes energy efficiencies, reduces cost, and maximizes innovation. This transformation is critical if the U.S. is to be the global leader in manufacturing. The intelligent (combined physical, cyber, and energy layers in legacy & new) transformation of manufacturing creates new and larger cyber-attack surfaces that are challenging and expensive to secure. This is the moment for a revolution in intelligent manufacturing, which requires starting with an Energy-Efficient (ϵ) Pervasive, Un-obtrusive, Resilient, Economical (ϵ -PURE) secure manufacturing architecture that enables energy efficiency return on investment (ϵ -ROI) as the justification for a secure measurement and verification across the nation's integrated automation and supply chain. How we secure this transformation will determine the future of U.S. manufacturing. CyManII is run by the University of Texas at San Antonio under a five-year, \$70 million cooperative agreement, DE-EE0009046, from the U.S. Department of Energy.

Informal Webinar

CyManII will conduct one or more informational webinars during the RFP process. Webinars will be held after the initial RFP release but before the due date for Proposals. The dates of these webinars will be posted on our website.

Place of Performance:

To be determined; fully remote allowed.

Primary Point of Contact:

Email: RFP-BP1@cymanii.org