Arizona State University
Ira A. Fulton Schools of Engineering
The School of Manufacturing Systems and Networks
Assistant/Associate/Full Professor in Manufacturing and Robotics Engineering Program
Location: Arizona State University – Polytechnic Campus


The Ira A. Fulton Schools of Engineering at Arizona State University (ASU) and The School of Manufacturing Systems and Networks (MSN) seek qualified applicants for engineering *tenure-track* or *tenured* faculty positions with a focus in "Cybersecurity in Manufacturing Systems and Automation" and "Robotics, AI, and Smart/Cyber-Physical Systems for Industry 4.0 (Cybermanufacturing)".  The School of Manufacturing Systems and Networks, one of the Fulton Schools of Engineering, is building an energetic manufacturing, robotics, and human systems engineering research community (Learn more at https://research.engineering.asu.edu/). To advance this area, we seek applicants who complement our ability to solve Grand Challenge Problems as part of a transdisciplinary community of experts in the development of advanced manufacturing, robotics, and artificial intelligence. Particular areas of interest include:

- Cybersecurity in Manufacturing Systems and Automation
    - Advanced frameworks for industrial control systems security as it relates to manufacturing
    - Network topologies, design, and security topics as it relates to digital, distributed manufacturing
    - Securing emerging manufacturing technologies for more secure, trustworthy, and resilient industrial systems (using 5G, blockchain, etc)
    - Data-driven threat modeling as it relates to manufacturability and design/product supply chain security
    - Enabling safer human-robot interactions in modern industrial settings
    - Manufacturing Blockchain
- Robotics, AI, and Smart/Cyber-physical Systems for Industry 4.0 (Cybermanufacturing)
    - Virtual, augmented, and mixed reality for hybrid human-robot fabrication
    - Interaction Learning for human/robot collaborative assembly
    - Machine learning and AI applied to understanding, scaling, and optimizing automation for Industry 4.0
    - Foundational contributions to novel manufacturing landscapes (using IIOT, 5G, apps, marketplaces, cloud integration, etc)
    - Physics-informed machine learning for manufacturing; smart sensing and environments; and digital twin methodologies

Connections to robotics, computer science, industrial engineering, human systems engineering, and materials science are strongly encouraged.

We seek applicants who will contribute to our academic programs, promote transdisciplinary teaching and research, and help the university achieve its aspirations, including enabling student success, transforming society, valuing entrepreneurship, and conducting use-inspired research. Faculty members in the Fulton Schools are expected to develop an internationally recognized and externally funded research program, adopt effective pedagogical practices in the development and delivery of graduate and undergraduate courses, advise both undergraduate and graduate student research and projects and undertake service activities.

This search is part of ASU's engagement with Arizona's New Economy Initiative (NEI), a bold effort to ensure that Arizona leads the new economy that will rely on engineering, computing and technology to drive sustainable growth, resilience and opportunities for all.  NEI investments in the Fulton Schools of Engineering will grow our world-class faculty to accelerate research outcomes and to broaden student access to our programs; will establish Science and Technology Centers to foster the growth of new economy Industries; and will expand experiential learning and workforce training opportunities.

Appointments may be at the **Assistant, Associate,** or **Full Professor** rank commensurate with the candidate's experience and accomplishments, beginning August 2022. Although the tenure home may be in any of the Ira A. Fulton Schools of Engineering, The School of Manufacturing Systems and Networks currently the most involved in the interest of this research.

**Qualifications**

Required Qualifications:
- Earned doctorate in engineering, computer science, or a related discipline by the time of appointment
- Demonstrated research capability
- Commitment to teaching excellence as appropriate to the candidate's rank
- Effective oral and written communication skills in English

Desired Qualifications:
- Demonstrated commitment to a collaborative, transdisciplinary approach to research and teaching
- Demonstrated success in conducting research, including an established track record publishing in academic journals, presenting at conferences, invited talks, etc.
- Demonstrated success in mentoring, training, supervising, and graduating students for both academic and industrial careers.
- Demonstrated success in navigating the funding landscape, with prior success attracting and maintaining a self-sustaining research program
- Commitment to working in a diverse, equitable, and inclusive environment.

**Application Instructions**

Application deadline is January 21, 2022. Applications will continue to be accepted on a rolling basis for a reserve pool. Applications in the reserve pool may then be reviewed in the order in which they were received until the position is filled. To apply, visit https://hiring.engineering.asu.edu/ and select "apply now" next to the corresponding position. Candidates will be asked to create or use an existing Interfolio Dossier to submit the following:

- Cover letter
- Curriculum Vitae
- Statement describing research interests (two pages maximum)
- Statement describing teaching interests and philosophy (two pages maximum)
- Statement describing commitment and approaches to advance Diversity, Equity, Inclusion and Belonging* (one page maximum)
- Contact information for three references

Applicants need to specify which of the two focus areas they are applying in (cybersecurity, cybermanufacturing); if applicants believe they are well aligned for either focus area, a clear rationale must be included as to why.

*The ASU Charter states, "ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves." The Fulton Schools of Engineering are dedicated to continuous innovation, student success, faculty excellence, and cultivation of an environment that is diverse, equitable, inclusive and promotes belonging. The diversity statement provides applicants an opportunity to demonstrate their past and current activities in promoting diversity, equity, inclusion and belonging and how future activities will align with upholding the ASU Charter.

For additional information regarding position specifics, please contact the search committee chair, Professor Daniel Aukes via email at danaukes@asu.edu

**Equal Employment Opportunity Statement**

A background check is required for employment. Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability, protected veteran status, or any other basis protected by law.

(See https://www.asu.edu/aad/manuals/acd/acd401.html and https://www.asu.edu/titleIX/.)
In compliance with federal law, ASU prepares an annual report on campus security and fire safety programs and resources. ASU's Annual Security and Fire Safety Report is available online at https://www.asu.edu/police/PDFs/ASU-Clery-Report.pdf. You may request a hard copy of the report by contacting the ASU Police Department at 480-965-3456.

COVID-19 Vaccination Requirements - Under the recent executive order issued by President Biden requiring all employees of federal contractors to receive COVID-19 vaccinations, ASU expects all employees, including new hires, to be vaccinated unless they have an approved medical or religious accommodation. Proof of vaccination will be required by January 4, 2022. For questions about medical or religious accommodations, please visit the Office of Diversity, Equity and Inclusion's webpage.