

Professor (all ranks) Semiconductor Design and
Packaging Automation
Arizona State University at the Polytechnic Campus

Direct Link: <https://www.AcademicKeys.com/r?job=264582>

Downloaded On: Oct. 30, 2025 10:44am

Posted Oct. 29, 2025, set to expire Mar. 12, 2026

Job Title	Professor (all ranks) Semiconductor Design and Packaging Automation
Department	The School of Manufacturing Systems and Networks https://msn.engineering.asu.edu/
Institution	Arizona State University at the Polytechnic Campus Mesa, Arizona
Date Posted	Oct. 29, 2025
Application Deadline	Open until filled
Position Start Date	August 2026
Job Categories	Assistant Professor Associate Professor Professor
Academic Field(s)	Electrical and/or Electronics Mechanical Engineering Manufacturing & Quality Engineering
Apply Online Here	https://hiring.engineering.asu.edu/
Apply By Email	
Job Description	

The [Ira A. Fulton Schools of Engineering](#) at [Arizona State University](#) (ASU) and [School of Manufacturing Systems and Networks](#) seek applicants for a tenure-track or tenured faculty position in the area of Semiconductor Design and Packaging Automation. The School of Manufacturing Systems and Networks (<https://msn.engineering.asu.edu/>), one of the eight Fulton Schools, houses a vibrant faculty at the intersection of advanced manufacturing processes, robotics/automation and AI/ML engineering research as part of the Ira A Fulton Schools of Engineering (learn more at <https://research.engineering.asu.edu/>)

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). We seek applicants who can enhance our abilities in these areas as part of a community of experts. Particular areas of interest include but are not limited to:

- **Semiconductor device and advanced packaging manufacturing**, with an emphasis on novel process integration, heterogeneous integration, wafer-to-wafer and chiplet bonding, and materials systems for high-density, high-performance devices.
- **Silicon photonics and optical interconnect manufacturing**, including wafer-scale fabrication, hybrid bonding, co-packaged/co-designed solutions, and integration of photonic and electronic components.
- **Advanced packaging and interconnect technologies**, such as 2.5D/3D integration, high-density micro-bumping, integrated power delivery and cooling architectures, and embedded heterogeneous system assembly.
- **Automation and precision manufacturing** in semiconductor manufacturing, packaging, inspection and test processes, leveraging robotics, mechatronic systems, and AI/ML techniques.
- **Digital Twin and advanced simulation modeling of semiconductor process and packaging flows**, linking virtual manufacturing models with real-time data for process optimization, yield enhancement, and design verification.
- **Tooling and process innovation** that can be enabled by ASU's strategic investments in next-generation semiconductor manufacturing equipment, materials processing, and metrology systems.

We search for applicants who will contribute to our academic programs, promote transdisciplinary teaching and research, and help the university to 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 undergraduate and graduate courses, advise both undergraduate and graduate student research and projects, and undertake service activities.

The School of Manufacturing Systems and Networks is dedicated to advancing innovation in manufacturing science and engineering. The School has a dynamic group of 21 faculty members, including nine recipients of the NSF CAREER award, who collaborate across various research areas like manufacturing process science, automation & robotics, smart manufacturing, data analytics, and AI. Faculty are encouraged to create broader impacts through their research, not only by generating knowledge but also through technology transfer and entrepreneurial ventures. The School's location in the Phoenix metro offers close ties to the aerospace & defense industry, semiconductor/microelectronics and national laboratories, facilitating collaborative research. The School also contributes significantly to the Southwest Advanced Prototyping Hub (SWAP), Advanced

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Packaging (SHIELD USA), Global Futures Laboratory, and the various ASU Space Initiatives. The School stands out for offering an integrated suite of programs from Bachelor's, Master's and Ph.D. in Manufacturing and Robotics and Autonomous Systems Engineering. The School's faculty is currently housed within a state-of-the-art, approximately 170,000-square-foot facility, further enhancing its leadership in manufacturing innovation. We are seeking faculty who can contribute to the School's mission and specifically invite candidates to address how they can do so in their cover letter.

Appointment will be at Assistant/Associate/(Full) Professor rank, commensurate with the candidate's experience and accomplishments, beginning August 2026.

Essential Functions

- **Contribute to curriculum development.**
- Deliver instruction in-person and/or online.
- Supervise honors, master's, and doctoral students.
- Conduct research publishable in top-tier journals and/or conferences in the discipline.
- Develop grant proposals for external funding as PI or co-PI.
- Participate in professional and internal service.

Required qualifications

- Earned doctorate in Manufacturing, Mechanical Engineering, Electrical Engineering, Materials Science Engineering, or related discipline by the time of appointment.
- Evidence of excellence in research, as appropriate to the candidate's rank.
- Evidence of excellence in teaching, as appropriate to the candidate's rank.

Desired qualifications

- Demonstrated commitment to a collaborative, transdisciplinary approach to research and teaching.
- Commitment to inclusive research and teaching practices.

Application Instructions

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The application deadline is December 26th 2025. 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 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 (three pages maximum)
- Statement describing teaching interests and philosophy (two pages maximum)
- Contact information for three references

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 cultivating excellence, delivering innovation that matters, encouraging bold thinking, fostering a community of learning and collaboration, and building a foundation for all to be successful. Applicants are encouraged to address how their past, current, and future activities align with the ASU Charter and Fulton Schools of Engineering values in their application materials.

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

EEO/AA Policy

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 receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, 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/>.

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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.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

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