

**POSTDOCTORAL RESEARCH SCHOLAR**  
**Arizona State University**

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Downloaded On: Oct. 5, 2024 9:17am

Posted Sep. 30, 2024, set to expire Jan. 30, 2025

<b>Job Title</b>	POSTDOCTORAL RESEARCH SCHOLAR
<b>Department</b>	Ira A. Fulton Schools of Engineering
<b>Institution</b>	Arizona State University Mesa, Arizona
<b>Date Posted</b>	Sep. 30, 2024
<b>Application Deadline</b>	Open until filled
<b>Position Start Date</b>	Available immediately
<b>Job Categories</b>	Post-Doc
<b>Academic Field(s)</b>	Electrical and/or Electronics Engineering - Other
<b>Job Website</b>	<a href="https://engineering.asu.edu/research/">https://engineering.asu.edu/research/</a>
<b>Apply Online Here</b>	<a href="https://engineering.asu.edu/research/">https://engineering.asu.edu/research/</a>
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<b>Job Description</b>	

**Arizona State University**

**Ira A. Fulton Schools of Engineering**

**The Polytechnic School**

**Postdoctoral Research Scholar**

**Location: Arizona State University – Polytechnic Campus**

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**Unit**The Polytechnic School

**Position Type**Postdoctoral Scholar

**Position Title**Postdoctoral Scholar

**Location**Arizona State University, Poly Campus

**Open Date**September 13, 2024

**Deadline**— October 17, 2024

**Start date** As soon as possible (preferably December 2, 2024)

### Position Description

The Ira A. Fulton Schools of Engineering at Arizona State University (ASU) and the Polytechnic School seek applicants for a post-doctoral scholar position in the area of Power Electronics and Control Engineering. The Polytechnic School (TPS), one of the eight Fulton Schools, houses a vibrant research community focusing on clean energy materials and devices (batteries and fuel cells), vehicle dynamics and control, multi-vehicle systems, solar photovoltaics, power electronics, semiconductor packaging, electric vehicles, connected and automated vehicles, shared mobility, etc. (Learn more at <https://research.engineering.asu.edu/>). The Polytechnic campus is also home to faculty advancing research in engineering education and human systems/factors, and has strong and growing ties to aerospace, defense, semiconductor, energy/utility and other manufacturing sectors that are well-represented in the region.

For this position, Power Electronics and Control Engineering (PEACE) lab is particularly interested in recruiting a scholar who is focused on the design, development, and experimentation of high-frequency wide bandgap power converters, related control systems and modulation methods for a range of applications including transportation electrification, space, avionics, and grid-renewables integration.

Primary job duties **will include:**

- Advancing research and developing a comprehensive research agenda in high-frequency power

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electronics, as appropriate for a tenure-track academic position. This includes actively leading technical aspects of the funded research projects, publishing peer-reviewed articles, presenting research at national and international conferences, and pursuing research funding.

- Mentoring graduate students (MS and PhD) in Power Electronics and Control Engineering (PEACE) laboratory
- Pursuing teaching and/or other educational opportunities such as co-teaching, delivery of seminars.

### Qualifications:

#### Required qualifications

- Doctoral degree in electrical engineering, electronics engineering, systems engineering, or a closely related field by the start date.
- Strong theoretical and hands-on practical background in power electronics
- Demonstrated potential to achieve national or international recognition in research.
- Effective verbal and written communication skills.

#### Desired qualifications

- A strong theoretical foundation in modeling of power converters and high-frequency magnetics
- Extensive hands-on experience in design, development and control of wide bandgap power electronic converters, particularly high-frequency (MHz-range) high-density GaN power converters
- Proficiency in complex multi-layer PCB layout for high-frequency converters, as well as signal conditioning and control
- Advanced proficiency in TI DSP and FPGA programming
- Evidence of the potential ability to publish academic research.
- Evidence of the potential ability to pursue and secure research funding.
- Evidence of the potential ability to work in transdisciplinary or collaborative teams.

### Application Instructions

Application deadline is **October 17, 2024**. Applications will continue to be accepted on a rolling basis for a reserve pool, which 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:

- Curriculum vitae

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- Letter of interest describing how the applicant meets the qualifications noted above
- Research statement that articulates a scholarly research agenda (limited to two pages)
- Contact information, including email addresses, for a minimum of 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 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, and inclusion and how future activities will align with upholding the ASU Charter.

Inquiries about the positions should be directed to **Professor Ayan Mallik** at [ayan.mallik@asu.edu](mailto:ayan.mallik@asu.edu)

### About Arizona State University

ASU is a large, comprehensive, research university and for nearly two decades, has transformed into the “New American University,” one dedicated to the simultaneous pursuit of excellence, broad access to quality education, and meaningful societal impact. Through its Charter and Design Aspirations, the institution centers inclusion and access as values that drive the enterprise; adopts inter- and transdisciplinary approaches to teaching and learning as ways to address society’s greatest challenges; and develops innovative partnerships to produce master learners across the lifespan. To learn more about ASU, visit <https://www.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 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/>.)

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



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contacting the ASU Police Department at 480-965-3456.

### **EEO/AA Policy**

Arizona State University is an Equal Opportunity/Affirmative Action employer.

### **Contact Information**

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

**Contact** Arizona State University  
Arizona State University  
Mesa, AZ 85212