

University of Texas at Arlington

Semiconductors Cluster Hiring – Multiple Assistant/Associate/Full Professor Positions

The University of Texas at Arlington (UTA) is pleased to announce a Semiconductors cluster hiring initiative. We are seeking outstanding tenure-track/tenured Assistant/Associate/Full Professors whose scholarship focuses on (i) **Back-end Technologies and Packaging** and (ii) **Development of Advanced Semiconductor Materials and Quantum Technologies**. Candidates must hold a Ph.D. in engineering, science, or related discipline appropriate to the research focus of the cluster. The appointment of a given candidate will be in a relevant department, either in the College of Engineering (COE) or the College of Science (COS), based on the candidate's background. Applicants must show exceptional promise for high-quality research, teaching, professional development, and the ability to build extramurally funded research programs. Candidates are expected to demonstrate the ability to work effectively in a highly collaborative, engaging, and dynamic environment comprising individuals with various backgrounds, skills, and perspectives.

The appointments are expected to commence on September 1, 2024, for the start of the Fall 2024 semester.

Areas of special interest include, but are not limited to:

Back-end Technologies and Packaging (two positions).

- **Area 1:** advanced interconnects, encompassing 3D and optical interconnects, new metal interconnects/dielectrics, materials/structure for high-performance interconnects and advanced devices, new solder alloys and interconnect components (barrier, low-k, thin metallic films, etc.).
- **Area 2:** packaging/interconnect engineering on the interface reaction and management, reliability assessment techniques, heterogeneous integration, and co-designed electronics.

Advanced Semiconductor Materials and Quantum Technologies (two positions)

- **Area 3:** Chemical synthesis, precursor development of next-generation semiconductors, low dimensional structures, and unusual geometries. Characterization of deposition methods, mechanisms, and growth. Applicants whose research is guided by data-driven approaches or includes autonomous processing are especially encouraged to apply.
- **Area 4:** quantum information theory, solid-state quantum memories, and/or quantum device integration.

However, all areas with the potential to significantly advance the field of advanced semiconductor materials and quantum technologies will be considered.

Benefits at UTA

We are proud to offer a comprehensive benefits package to all our employees at the University.

To help you understand the full value of these benefits, we have created a tool that calculates the total worth of your compensation package. This tool takes into account all of the benefits that you are eligible for, including health insurance, retirement plans, and paid time off. To access this tool and learn more about the total value of your benefits, please click on the following link:

<https://resources.uta.edu/hr/services/records/compensation-tools.php>

CBC Requirement

It is the practice of The University of Texas at Arlington to conduct a criminal background check on any applicant who is under final consideration for employment with the University.

Essential Duties and Responsibilities

The successful applicant will be committed to excellence in research, teaching, and service and will be expected to teach undergraduate and/or graduate courses, build and lead a team of student researchers, implement a program of externally funded research that yields top-tier publications, and contribute to professional service within UTA and the external community. Duties include (1) building and leading a team of Ph.D. researchers and postdocs, (2) developing externally funded research programs that yield top-tier publications, and (3) commitment to quality teaching at the graduate and undergraduate levels.

Required Qualifications

Minimum requirements for this position include (1) a Ph.D. or equivalent in one of the disciplines noted above or a related discipline that clearly aligns with a focus on semiconductors research; (2) a strong publication record or potential in the field of expertise; (3) strong research program with existing external funding or potential for funding; and (4) commitment to quality teaching at the graduate and undergraduate levels.

Department Information:

For information on the College of Engineering and the College of Science, please go to:

- College of Engineering (COE): <https://www.uta.edu/academics/schools-colleges/engineering>
- College of Science (COS): <https://www.uta.edu/academics/schools-colleges/science>

University Information

The University of Texas at Arlington is located in the heart of the Dallas-Fort Worth-Arlington metroplex, a vibrant and diverse metropolitan area that is home to over 7 million

people, one of the fastest-growing tech economies in the United States, and a wide array of arts, entertainment, and cultural activities. UTA is a comprehensive teaching, research, and public service institution dedicated to the advancement of knowledge through scholarship and creative work. The University is committed to providing access and ensuring student success, and to a culture of innovation, entrepreneurship, and commercialization of discoveries by our community of scholars. With an enrollment of more than 40,000 students, UTA is the second largest in the University of Texas System. As a result of its combination of rigorous academics and innovative research, UTA is designated as a Carnegie R-1 “Very High Research Activity” institution. UTA ranks No. 4 nationally in Military Times’ annual “Best for Vets: Colleges” list and is among the top 30 performers nationwide for promoting social mobility of its graduates (U.S. News & World Report, 2023). UTA is designated by the U.S. Department of Education as both a Hispanic-Serving Institution (HSI) and an Asian American and Native American Pacific Islander-Serving Institution (AANAPISI), and it has one of the top 5 most ethnically diverse undergraduate student bodies in the United States (U.S. News & World Report, 2023). Its approximately 270,000 alumni, including some who occupy leadership positions at many of the 24 Fortune 500 companies headquartered in North Texas, contribute to UTA’s \$22.2 billion annual economic impact on Texas.

Furthermore, UTA is poised to experience widespread growth in the near future. The university recently launched the first phase of its RISE 100 initiative aimed at recruiting 100 new tenure-system faculty to amplify research standing and position UTA as a leader in key scholarly areas; more details are available at <https://www.uta.edu/administration/president/strategic-plan/rise100>. The successful candidate for this position will have the opportunity to join UTA during an exciting period of growth and contribute as the university broadens its impact.

Important Message

All employees serve as a representative of the University and are expected to display respect, civility, professional courtesy, consideration of others, and discretion in all interactions with members of the UT Arlington community and the general public.

Special Instructions to Applicants

Applicants should go to <https://uta.peopleadmin.com/postings/26997> and upload the following:

- Full CV and cover letter summarizing their interests and qualifications for the position.
- Statement of teaching philosophy describing your conceptualizations of teaching and learning, and teaching and assessment methods, and how your teaching practices will engage students from a range of backgrounds and experiences.
- Research statement describing past, present, and future research, including how you foster (or will foster) collaborative research environments.
- Full contact information for at least three academic or professional references.

Optional Documents

1. Unofficial Transcripts
2. Writing Sample
3. Other Document
4. Relevant URL
5. Veteran Employment Preference - Form DD-214
6. Teaching Evaluations

Review of applications will begin immediately and will continue until the position is filled.

Questions may be addressed to provost@uta.edu

For more information about UTA, please visit: <http://www.uta.edu/uta>.