

Auto req ID 1445BR <https://www.sri.com/careers/search-jobs>  
Title Research Engineer, Novel Electronic & Semiconductor Devices  
Location(s) Princeton, NJ  
Employment Status Full Time  
Job Description SRI International's Advanced Technology and Systems Division (ATSD) performs research across a wide range of disciplines - from materials to energy to advanced optical, radar, and surveillance systems – while transitioning technology from basic R&D to fieldable prototypes.

Our SRI campus in Princeton, NJ has an immediate opening for a Research Engineer/Physicist in our Center for Security & Survivability (CSS). We are seeking a versatile electrical engineer or physicist to work with a group of research professionals who leverage expertise across the physical sciences to develop and deliver advanced R&D solutions to our government and commercial customers. This person will make leading contributions to on-going and future research and development programs in the areas of novel electronic materials and semiconductor devices, including novel photodetectors, trusted microelectronics, as well as near-field and radiating electromagnetic systems.

Specifically, the candidate must have strong technical knowledge in the areas of device physics and electromagnetics, including both analytical and experimental capabilities. The core responsibilities of the role will include designing and implementing devices based on unique RF, microwave, and optical properties and will involve leading project tasks related to device design/modeling, fabrication, measurement and data analysis as well as implementation of laboratory-based proof-of-concept experiments. The candidate will also develop system applications based on the realization of such enabling devices.

The candidate will be expected to work with a close-knit team of engineers and applied physicists to realize proof-of-concept demonstrations of such devices and sensors. The candidate should be able to contribute at the individual level, with expected guidance from more senior group members. Besides the above, other duties include contributing to, and then leading, new research proposal efforts and business opportunities in related fields; writing technical reports and scientific documents; presenting research findings to both technical and non-technical persons.

Qualifications PhD in Electrical Engineering, Physics or related discipline.  
Please note: Industry experience is a plus but new grads are welcome to apply!

Skills:

- Semiconductor device physics
- Electromagnetics, including microwaves and RF
- Near-field interactions
- Sub-wavelength structures and nanostructures
- Intuition of underlying physical processes
- Understanding of fundamental noise processes
- Familiar with common design and modeling software: HFSS, COMSOL, etc.

- Strong numerical and analytical modeling skills: common computer languages LabVIEW, MATLAB, etc.
- Ability to implement complex experimental instrumentation, with strong hands on experience, including laboratory, cleanroom, and/or model shop experience.
- Must possess a results-oriented approach, with an ability to work both independently, as well as a team contributor.
- An ability to solve technical problems in multiple disciplines, and an interest in multiple technical areas, are desirable.

Character qualities:

- Motivated, quick learner
- Must be effective in a laboratory environment
- Detail-oriented
- Strong written and verbal communications skills
- Able and motivated to learn new tasks, and bring tasks to completion
- Able to work in a team environment
- Good deductive reasoning skills and ability to filter important details from a larger pool of data

**Other Requirements**

--Ability to transfer/obtain/maintain a U.S. government security clearance required. See [http://www.dss.mil/psmo-i/ps\\_faqs.html](http://www.dss.mil/psmo-i/ps_faqs.html)  
 --U.S. Citizenship required.

**EOE/AA**

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**Background Check**

Employment with SRI International is contingent upon the satisfactory completion of a background check.