

Opportunity Title: ORNL Post-Masters - RF and Communication System Design, Signal Processing and Machine Learning
Opportunity Reference Code: ORNL16-70-EESRD

Organization Oak Ridge National Laboratory (ORNL)

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Description The RF, Communications and Intelligent Systems (RFCIS) group at the Oak Ridge National Laboratory (ORNL) is seeking a Postmasters Research Associate with expertise in one or more of the following areas: RF and communications system design, software-defined radio (SDR), signal processing, machine learning, and neuromorphic systems. The RFCIS group conducts applied research and development to address issues of national importance in the areas of homeland and global security, energy efficiency, electric grid resilience, and vehicle security. The group consists of staff members with backgrounds in electrical engineering and computer science, and frequently collaborates with outside partners in academia, industry, and government.



Under the supervision of a research mentor, this position will be expected to support research and development programs within the group depending on the skill set of the selected candidate. Key projects within the group include development of systems and algorithms for low-power wireless communications, RF signal processing and signature analysis, software-defined radio algorithms, and multi-sensor data collection. The candidate will have the opportunity to work as a part of the team to meet technical milestones, publish work in professional journals and conference proceedings, and work with senior staff to develop new ideas/proposals.

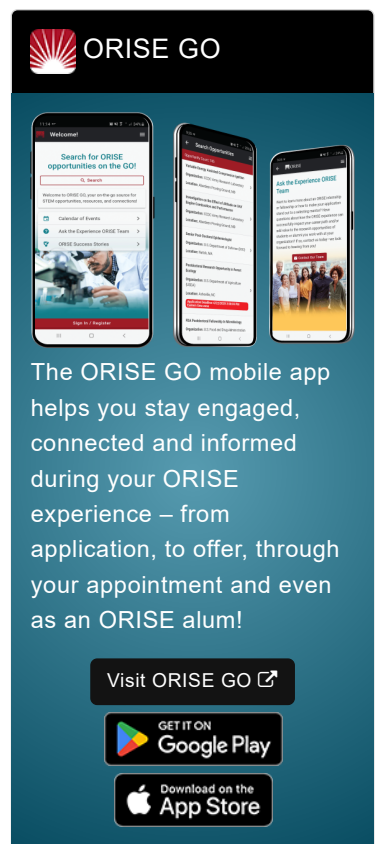
For post-masters researchers, an M.S. is required in Electrical Engineering, Computer Science, or a related field. Excellent oral and written communication skills and the ability to communicate ideas clearly and effectively are required. Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

Qualifications


- Experience in some aspect of RF signals, systems, or communications
- Demonstrated experience conceiving and executing research and development projects
- Strong interest in organizing technical teams and developing new projects
- Significant experience programming in one or more languages, preferably MATLAB and/or C++
- Experience with software-defined radio (SDR) or RF electronics design
- Experience in pattern recognition, machine learning, or neuromorphic architectures
- Ability to obtain a DOE security clearance


Eligibility Requirements


- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree received within the last 60 month(s).
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([5](#) )
 - **Engineering** ([2](#) )



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Affirmation I certify that I have completed coursework towards a degree in science,
technology, engineering, mathematics, or a related field.

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