Opportunity Title: ORNL Grid-Related Cyber-Security Post Master's Research Position

Opportunity Reference Code: ORNL16-59-EESRD

Organization	Oak Ridge National Laboratory (ORNL)
Reference Code	ORNL16-59-EESRD
Description	Undergraduate and MS experience in computer science/engineering.

The successful candidate will work with an inter-disciplinary research team at ORNL to help develop an open framework for the joint optimization and control of networked microgrids (NM). The platform will be open, extensible, scalable, dynamic, and reconfigurable -- think software-defined grid meets software-defined-network. This position focuses on cybersecurity aspects of research-related NM control and optimization. The successful candidate also will help develop a NM security testbed, including the set of control, communication, data network components and physical system components required to provide an accurate NM security exploration environment and a network and log collection framework that enables and facilitates multiple NM practical cybersecurity research areas such as vulnerability research, impact analysis, mitigation research, cyber-physical metric development, security validation, cyber forensics and operator training and establishment of extended operator training and cyber research in the form of a cyberwar game exercises.

Qualifications

Experience with multiple programming languages would be very beneficial; the successful candidate must have working knowledge and experience with cyber-security related software and tools.
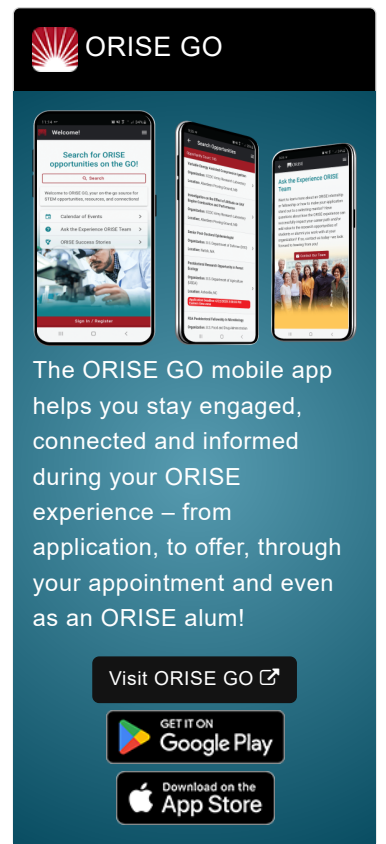
Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

This ORNL Postgraduate Research Associates Program is administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).

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** (16 👁)

Affirmation

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

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