

# Postdoctoral Position Available at the University of Tennessee

## Department of Nuclear Engineering

### Overview

The Department of Nuclear Engineering at the University of Tennessee, Knoxville is excited to announce an opening for a postdoctoral researcher, starting in March - April 2025. This position is associated with the Defense Nuclear Nonproliferation (DNN) Enabling Capabilities in Technology (Tech) Consortium ([dnntech.utk.edu](http://dnntech.utk.edu)).

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### Qualifications

- PhD in Engineering, Physics, or closely related field
  - Background in basic and modern physics
  - Strong computer programming skills
  - Significant experience in experimental or computational research (experience in both is preferred)
  - Knowledge or experience in some of these areas:
    - Nuclear fuel cycle
    - Nuclear instrumentation
    - Nuclear reactor systems
    - Data science
    - Analog and digital signal processing
    - Computer/instrument interfaces
  - An ability to:
    - Conduct research and development within a collaborative environment.
    - Communicate effectively both orally and in writing.
    - Manage interpersonal conflicts skillfully.
  - U.S. citizenship or permanent residency.
  - Mentorship experience of undergraduate and/or graduate students (preferred).
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### Responsibilities

- Contribute to research in one or more of the consortium's research areas:
  - Advanced nuclear fuel and reactor systems engineering

- Detection, characterization, and response methodologies and tools
- Data science for nuclear nonproliferation
- Lead contributions toward peer-reviewed publications and conference presentations.

If no prior research has been conducted in residence at a DOE/NNSA national laboratory, a 6-to-8 week rotation at a national laboratory will be required during the appointment.

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### **Appointment Details**

The initial appointment is for 12 months, with the possibility of renewal for up to an additional 12 months.

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### **Why Knoxville?**

Knoxville offers:

- A vibrant city life with walkable downtown areas, active neighborhoods, theaters, museums, live music scenes across all genres, and diverse restaurants.
- Proximity to the Great Smoky Mountains for outdoor activities such as hiking, biking, and water sports on lakes and rivers.
- Close connections to four major metropolitan areas within a 200-mile radius that host larger cultural events.

The University of Tennessee has strong partnerships with Oak Ridge National Laboratory—the nation’s largest science and energy lab— the Y-12 National Security Complex, and several other DOE national laboratories. The Knoxville-Oak Ridge area may have the largest concentration of nuclear industry anywhere in the world, further contributing to its stature as a national powerhouse in nuclear science and engineering research and industry.

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### **Application Process**

Interested candidates should submit:

1. A letter of application,
2. Curriculum vitae,
3. Names and addresses of three references,

to:

Dr. Jason Hayward  
UCOR Fellow and Professor

Nuclear Engineering  
338 Zeanah Engineering Complex  
Knoxville, TN 37996  
Telephone: 865-974-2536  
Email: [jhayward@utk.edu](mailto:jhayward@utk.edu)

The online application for this position at UT will be available in early January. Review of applications will begin in January and continue until the position is filled.