

Job Title: STS Instrument Systems Science and Technology Manager

Requisition Id 9662

Overview:

Oak Ridge National Laboratory (ORNL) is seeking an Instrument Systems Science and Technology Manager for the Second Target Station (STS) project. The STS is a \$2Billion Department of Energy project to be constructed at the ORNL Spallation Neutron Source (SNS) over the next decade. The STS will provide wholly new capabilities for the study of a broad range of materials with neutron scattering and support thousands of users from the physical, materials, and applied sciences as well as industry. The science capabilities provided by the instrument suite at the STS will complement those of the two existing neutron scattering user facilities at ORNL, the First Target Station (FTS) of the SNS and the High Flux Isotope Reactor (HFIR). The STS will deliver the highest peak brightness cold neutrons in the world, which together with advances in neutron optics, instrumentation, and detectors, will enable scientists to study materials early in the discovery cycle and observe materials in action. STS will be capable of supporting 22 individual neutron scattering instruments (beamlines), each of which transports neutrons from the source to a shielded end station that houses a user-provided sample along with a suite of detectors. Please see <http://neutrons.ornl.gov/sts> for more information.

Purpose:

The STS Instrument Systems Science and Technology Manager provides leadership of the STS instrument science and technology team and coordinates the physics design and optimization of neutron instruments to ensure that instruments are capable of achieving their defined science capabilities and are delivered within the approved project baseline. This position will also ensure that the R&D activities associated with Instrument Systems are necessary and focused in key areas that mitigate risk and aim to improve instrument performance with well-defined deliverables.

The Instrument Systems Science and Technology Manager works closely with the Instrument Systems Engineering Manager and with other project technical groups to ensure that the scientific requirements and physics design of the instruments are achieved. Engagement in individual and collaborative research is encouraged, especially in areas that drive development of advanced methods and technologies that will be implemented at STS.

Major Duties and Responsibilities:

- Coordinates the physics and technical design and establishes the scientific requirements of the STS project instruments while maintaining strong community input into the instrument development process
- Provide leadership to continually improve the performance of the Instrument Systems Science and Technology team by managing professional development and training, creating a work environment where staff report issues and concerns without fear of retribution, and effectively learning from assessment and experience
- Serve as the key interface with STS Instrument Engineering, ensuring that the scientific requirements for STS instruments are enabled by the engineering design
- Identify R&D activities that are necessary to ensure the science readiness of the STS project instruments and manage the budget of the Instrument Systems R&D program
- Engage with the user community to identify and develop instrument concepts, maintain consistent communication on project progress, and plan for the early science success of the instruments
- Promote a team approach to instrument development where individual expertise is recognized and employed across the instrument suite
- Develop strong working relationships across the project with Cost Account Managers, line managers, sponsors, and project support organizations including ES&H, QA, business, project controls, and human resources
- When required, prepare presentations for, and responses to recommendations from, technical reviews and/or advisory committees
- Represent the STS Project by participating in and presenting project information at reviews, conferences and workshops
- Collaborate with appropriate external institutions to improve methodologies for instrument design and develop relevant technologies

Basic Qualifications:

- PhD in science or engineering with at least 10 years neutron scattering science experience

- A minimum of 5 years managing scientists and/or engineers, and/or as an instrument scientist leading the development and operation of a neutron instrument
- Excellent written and oral communication skills
- A strong record of scientific publication
- Must be available for some domestic and international travel

Preferred Qualifications:

- Experience in design of instruments at a spallation neutron source, including Monte Carlo/ray-tracing methods for instrument optimization
- Experience as a scientist leading the construction of a new neutron instrument
- Familiarity with U.S. Department of Energy expectations for the management of construction projects

Work Direction and Interface:

Position reports to the STS Instrument Systems Manager. Works closely with scientists, engineers, and technical staff within the STS project and collaborates with scientists in other ORNL divisions and relevant external institutions.

Relocation:

Moving can be overwhelming and expensive. UT-Battelle offers a generous relocation package to ease the transition process. Domestic and international relocation assistance is available for certain positions. If invited to interview, be sure to ask your Recruiter (Talent Acquisition Partner) for details.

For more information about our benefits, working here, and living here, visit the "About" tab at jobs.ornl.gov.

This position will remain open for a minimum of 5 days after which it will close when a qualified candidate is identified and/or hired.

We accept Word (.doc, .docx), Adobe (unsecured .pdf), Rich Text Format (.rtf), and HTML (.htm, .html) up to 5MB in size. Resumes from third party vendors will not be accepted; these resumes will be deleted and the candidates submitted will not be considered for employment.

If you have trouble applying for a position, please email ORNLRecruiting@ornl.gov.

ORNL is an equal opportunity employer. All qualified applicants, including individuals with disabilities and protected veterans, are encouraged to apply. UT-Battelle is an E-Verify employer.