What Your Job Will Be Like

We are seeking an Optical Science Postdoctoral Appointee to investigate exciting questions in our Remote Proliferation Detection Department. Are you driven and results-oriented? Are you intrigued by the opportunity to collaborate with hardworking, world-class peers in a variety of fields? If so, you may find this work invigorating!

The selected applicant will join a multidisciplinary team to develop and use active and passive remote sensing systems to collect and analyze optical signatures and observables relevant to the proliferation detection and nuclear on proliferation mission spaces.

On any given day, you may be called on to:

- Develop optical system solutions for data collection of phenomenology of interest
- Develop novel algorithms for data processing and exploitation
- Develop optical and electromagnetic transport models for diverse media
- Plan, execute, and analyze data from laboratory and field experiments
- Form highly productive dynamic teams to accomplish project goals
- Be responsible for the effective communication of research results through publications and conference presentations
- Define your future career goals, seek to acquire technical skills, scientific knowledge, and collaborations needed to pursue them

Qualifications We Require

- Ph.D. in Optics, Electrical Engineering, Physics, Applied Mathematics, Computer Science, Mechanical Engineering, or an equivalent field acquired within 5 years prior to employment
- Ability to obtain and maintain a DOE security clearance

Qualifications We Desire

- Strong background in optical remote sensing and optical measurement capabilities
- Background in electromagnetic/optical modeling toolsets
- Excellent analytical and problem-solving skills; ability to identify research objectives and develop clear solutions to complex problems while using sound judgment in drawing conclusions
- Willingness and ability to collaborate on a dynamic team with varied skills and backgrounds and be proactive and creative in solving problems that arise and to conduct independent research
- Proven ability to conduct creative independent research
- Proficiency with varied communication methods, including oral presentation, preparation of high-impact visual presentations, written reports, and the ability to clearly and concisely communicate scientific and technical information

About Our Team

We support the Office of Proliferation (NA-221) within the NNSA Office of Defense Nuclear Nonproliferation Research and Development (DNN R&D) through the execution of nonproliferation technology research, development, and demonstration experiments, applications, and field exercises. The department advances national security missions through the development of innovative concepts for active and passive remote sensing systems, signatures, and exploitation. The department maintains a breadth of remote sensing competencies including target phenomenology, scene simulation, radiative transport, optical sensor modeling and development, spectral and temporal data processing, and algorithm development.

About Sandia: Our culture values work-life balance; we offer flexible work schedules like a 9/80 or 4/10 alternative work week, part-time options and telecommuting opportunities - with management approval, on-site fitness and medical facilities, and three weeks of vacation. Sandia provides employees with a comprehensive benefits package that includes medical, dental, vision, and a 401(k) with company-match.

Sandia National Laboratories is the nation’s premier science and engineering lab for national security and technology innovation. We are a world-class team of scientists, engineers, technologists, post docs, and visiting researchers all focused on cutting-edge technology, ranging from homeland defense, global security, biotechnology, and environmental preservation to energy and combustion research, computer security, and nuclear defense.

World-changing technologies.
Life-changing careers.

Learn more at: www.sandia.gov/careers

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, or veteran status and any other protected class under state or federal law.