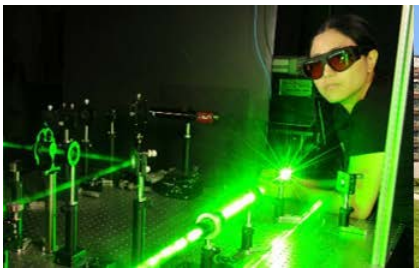
NOTICE OF VACANCY

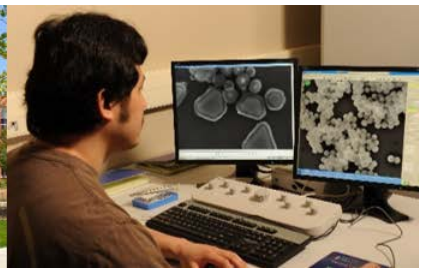
Research Optical Engineer for the ISP/Applied Sciences Laboratory

Institute for Shock Physics
Washington State University

Description of Position

The Spokane-based Applied Sciences Laboratory (ASL) of the Institute for Shock Physics (ISP) at Washington State University has an opening for a Research Optical Engineer (Administrative/Professional Staff Member). The initial focus will be on taking a laboratory-based measurement system that has been used in initial field tests, and to solve several engineering problems and then build a rugged system for future field testing. Other responsibilities include conducting optical measurements, maintaining lasers, and contributing to the development of new optical measurement techniques. Occasional travel with access to DoD facilities is required.





The ASL is a contract research organization with an emphasis on multidisciplinary research activities in the physical sciences and engineering to undertake a broad range of applied S&T projects for government agencies and corporations, including technology transfer for commercial applications. The scientific underpinnings to address the multidisciplinary challenges involve physics, chemistry, materials science, and computational modeling and simulations.

We are looking to hire an experimentalist who enjoys hands-on work and problem solving in a fast-paced, research environment. Representative examples of relevant research projects include: Laser-induced photoluminescence analysis of optical temperature sensors; and Pulsed Laser Deposition (PLD) of ceramic sensor materials.

Responsibilities include, but are not limited to:

1. Take the lead in the design, development, and use of optical equipment and systems, for optical measurements and other laser-based diagnostics.
2. Participate in the design and development of research methodologies for a broad range of experimental projects.
3. Independently define and complete experimental projects and tasks.
4. Contribute effectively to all aspects of the research projects including assistance to ASL research faculty; maintenance of the experimental facilities; ordering experimental components, equipment and supplies; and working effectively in a team setting.
5. Conduct and analyze research experiments, and prepare reports and publications as appropriate.

Many of the experiments performed at the ASL utilize a wide variety of lasers that are integral to the measurement of optical properties (e.g., pulsed/cw high energy/power lasers, frequency doubled/tripled/quadrupled lasers, optical parametric amplifiers, femtosecond lasers, CW laser diodes, etc.). A wide array of optical detection and analysis apparatus are also utilized, including biased and amplified photodiodes, photomultipliers, APD's, image intensifiers, and other state-of-the-art electro-optic instrumentation. The successful candidate will learn to operate and maintain these systems, as well as design new systems, and select appropriate components to advance the capabilities of the ASL.

Qualifications
Only applicants who are currently in the U.S. and meet the following minimum qualifications will be considered for the position. The required professional qualifications and personal attributes are:

- A Bachelor's Degree in Physics or a related field with a strong experimental background in optical physics, optics, lasers or optoelectronics.
- An excellent mechanical aptitude and strong hands-on ability with design and fabrication of instruments and experimental components.
- Good familiarity with hardware and software required for photonic based experiments, including pulsed lasers, lock-in amplifiers, PMTs, IGOR, etc.
- Good computer skills, including experience with technical/design programs, such as LabView and SolidWorks, and working knowledge of data analysis software.
- Excellent communication skills, both oral and written.
- Personal attributes should include critical thinking, good judgment, clear sense of purpose, attention to detail, ability to work effectively in a team, and accountability.

Preferred qualifications
- A M.S. degree in Physics or a related field.
- Demonstrated ability to develop and refine a lab-based measurement system into an engineering prototype.

The salary structure is both attractive and nationally competitive. Other benefits include health/dental insurance, vacation/sick leave, and retirement plans.

Applications
To apply, please submit application materials via the WSU Human Resource Services website: https://www.wsujobs.com/postings/48048. Applicants should submit a cover letter addressing the required and preferred qualifications for this position, a detailed resume, and the names and contact information for three professional references.

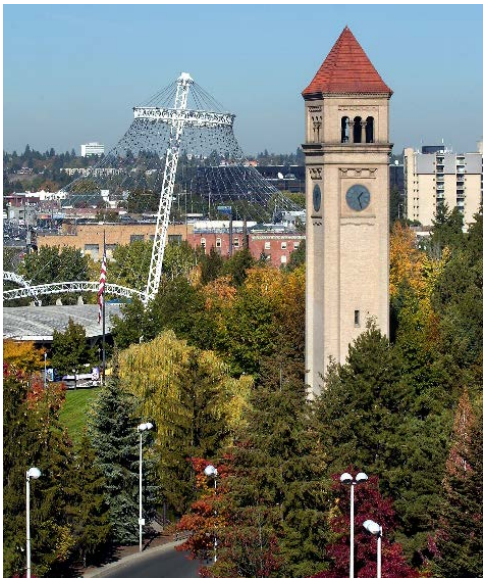
Please contact Ms. Sheila Heyns with inquiries regarding this position (ispjobs@wsu.edu, 509-335-1861). For more information, please visit https://asl.wsu.edu/.

Additional information about the Institute for Shock Physics and Washington State University follows:

The Institute has ongoing research activities at the following three locations:

- *Institute for Shock Physics - Pullman, WA*: Combining research innovations and rigorous education (shock.wsu.edu)
- *Dynamic Compression Sector - Argonne, IL:* Frontier of dynamic compression science (first-of-a-kind worldwide user facility) located at the Advanced Photon Source, Argonne National Laboratory (dcs-aps.wsu.edu)
- *Applied Sciences Laboratory - Spokane, WA:* Transforming science into practical solutions (asl.wsu.edu)

Washington State University



Washington State University, one of the two research universities in the state, was founded in 1890 as the state's land-grant institution and is located in Pullman with regional campuses in Spokane, Vancouver and the Tri-Cities. Due to its strong emphasis on excellence in research and education, the Carnegie Classification™ has designated WSU as R1: Doctoral University – Highest Research Activity. Current enrollment is approximately 31,500 undergraduate, graduate, and professional students. The University offers more than 200 fields of study, with 95 majors for undergraduates, 79 master's degree programs, 63 doctoral degree programs, and 4 professional degree programs. Academically, the University is organized into 11 colleges (Agriculture, Human, and Natural Resource Sciences; Arts and Sciences; Business; Communication; Education; Engineering and Architecture; Honors; Medicine; Nursing; Pharmacy; and Veterinary Medicine) and a Graduate School. The Colleges of Medicine, Nursing, and Pharmacy are located on the WSU Health Sciences Spokane campus. For more information, please visit www.wsu.edu.

WSU is an EO/AA Educator and Employer.