The Institute for Shock Physics, a multidisciplinary research organization within the College of Arts and Sciences, invites applications for a Research Engineer position (Administrative/Professional Staff Member) located at WSU's main campus in Pullman, WA. We are looking to hire a strongly self-motivated and talented individual with a strong experimental aptitude to contribute significantly through hands-on experimental work in a fast-paced creative environment.

The Institute’s overall research theme is “Understanding Materials under Extreme Conditions” and the research activities involve state-of-the-art experiments to understand the response of materials subjected to high dynamic stresses. The individual hired will be responsible for assisting with experiments, operating electro-optic instrumentation, and continually improving the experimental facilities.

Many of the experiments performed at the ISP utilize laser-interferometry measurements and other laser-based diagnostics that are integral to characterizing/understanding the shock compressed state of materials. In addition, a wide array of optical detection and analysis approaches are utilized, including fast photodetectors, image intensifiers, ICCD’s, streak cameras, and other state-of-the-art electro-optic instrumentation.

The overall responsibilities for this position are as follows:

1. Participate in the research experiments; and prepare reports and publications as appropriate.
2. Contribute effectively to all aspects of the experimental effort, including guidance and assistance to ISP research faculty, postdoctoral research associates, and graduate students.
3. Participate in the design, development, and use of optical equipment and systems, for laser-interferometry measurements and other optical-based diagnostics.
4. Assist with the design and development of research methodologies for a broad range of experimental projects.
5. Conduct regular maintenance activities in the laboratories, order experimental components and supplies; and work effectively in a team setting.

Because of the diverse nature of the research activities and the facilities in the Institute, the above list should be viewed as a representative, but not a complete, list of responsibilities.
Qualifications

Only applicants who are currently in the U.S. and meet the following minimum qualifications will be considered for this early career position.

- A M.S. degree in Physics, or a related area, with a strong experimental background and hands-on experience with laboratory equipment and tools common to experimental research.
- Good familiarity with hardware and software required for optical measurements, including lasers and optical detection equipment.
- An excellent mechanical aptitude and demonstrated hands-on experience with design and fabrication of instruments and experimental components.
- Strong academic background and excellent problem-solving skills.
- Good computer skills, including experience with technical/design programs, such as LabView or 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.
- Be able to lift up to 50 lbs., because of the need to move and assemble various experimental components and equipment. Must have fine motor skills, be able to climb up and down stairs in the laboratory and move equipment, as necessary.
- Must be able to obtain a badge at U.S. Department of Energy National Laboratories to gain access to restricted areas.

Applications

To apply, please submit application materials via email to ispjobs@wsu.edu. Applicants should submit a cover letter addressing the required qualifications for this position, detailed resume, and the names and contact information for three professional references.

Due to the large volume of applications, we will contact only those selected for next steps.

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](http://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](http://dcs-aps.wsu.edu))
- **Applied Sciences Laboratory - Spokane, WA**: Transforming science into practical solutions ([asl.wsu.edu](http://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, the Tri-Cities, and Everett. Due to its strong emphasis on excellence in research and education, the Carnegie Classification™ has designated WSU as R1/Tier 1: Doctoral University – Highest Research Activity. Current enrollment is approximately 31,600
undergraduate, graduate, and professional students. The University offers 98 majors, 86 minors, and 100+ in-major specializations for undergraduates, 78 master's degree programs, 65 doctoral degree programs, and 3 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 Pharmaceutical Sciences; and Veterinary Medicine) and a Graduate School. For more information, please visit wsu.edu.

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