



What Your Job Will Be Like

We are seeking a R&D Mechanical Engineer to join our System-Level Vibration Testing Laboratory team to strengthen our position as a recognized leader in the field of Structural Dynamics and help tackle some of the most complex issues facing our nation's security. Our group has a unique balance of research and programmatic work which will allow opportunities to pursue your relevant interests while making a difference in the world.

In this role you will apply integrated technical judgement to anticipate, innovate, and deliver solutions to Sandia National Laboratories (SNL) missions. On any given day you may be called on to:

- Conceive, plan, and conduct technical work spanning fundamental research, development, and application to support SNL customers and sponsors.
- Contribute to the advancement of the field through collaboration and presenting work at technical conferences and peer-reviewed journals.
- Use engineering principles to create new understanding and capability in the field of structural dynamics (Modal and/or Shock & Vibration testing).
- Develop and implement new solutions and improvements to the group's technical and operational procedures.
- Collaborate with our mission partners to fully understand their needs, map them to technical requirements that best serve the mission, and inform tactical and strategic developments necessary for current and future mission needs.
- Provide strong technical expertise in performing structural dynamics testing on an ever-changing assortment of projects including weapon systems, aerospace structures & payloads, and civil structures. Depending on focus area, this will include Experimental Modal or shaker Shock & Vibration testing (traditional Single-Degree of Freedom and advanced Multi-Input/Multi-Output/6DOF).
- Responsible for leading detailed technical planning, execution, and reporting for complex test series, including safety and security considerations, across large multi-disciplinary teams.

Due to the nature of the work, the selected applicant must be able to work onsite. Additionally, the applicant must be willing to work on nuclear deterrence systems.

Qualifications We Require

- A Bachelor's degree in a relevant discipline and five (5) years of directly relevant experience, or an equivalent combination of directly relevant education and engineering or scientific experience that demonstrates the knowledge, skills, and ability to perform independent research and development.
- Ability to obtain and maintain a DOE Q security clearance.

Qualifications We Desire

The ideal R&D S&E Mechanical Engineer candidate will in addition possess the following:

- Graduate degree in Mechanical Engineering or a highly related field where an independent research project was a graduation requirement (e.g., independent project, thesis, or dissertation).
- Experience with mechanical engineering and product realization in the NNSA complex.
- Strong verbal and written communication skills, ability to work effectively in multidisciplinary teams.

Also for this posting we are seeking individuals with the following experience:

- Prior relevant experience in any of the following fields of Structural Dynamics:
 - Experimental Modal Analysis
 - Shock & Vibration Testing
 - Noise Vibration & Harshness (NVH)
 - Structural Dynamics
- Experience in Python and/or MATLAB
- Experience with dynamic sensors and instrumentation such as accelerometers
- Experience with data acquisition system setup, operation, and maintenance
- Demonstrated skills in digital signal or image processing techniques
- Demonstrated ability to plan and execute large test series in partnership with multiple stakeholders
- Experience with hazardous testing, such as explosives, and associated work planning and control processes

About Our Team

The Structural Dynamics Department (01522) is an integral part of the Engineering Sciences Center at Sandia National Laboratories. Our Center is the steward of engineering mechanics and dynamics for Sandia, and we are dedicated to solving our customer's most pressing and important national security problems.

Apply online at:

Job # [697955](#)

Location: Albuquerque, NM

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.

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Life-changing careers.*

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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.