

Job Opening: R&D Mechanical Engineer (Experienced)
Sandia National Laboratories, Livermore, CA
Job ID: 690142

POSTING DURATION:

This posting will be open for application submissions for a minimum of seven (7) calendar days, including the 'posting date'. Sandia reserves the right to extend the posting date at any time.

NNSA Requirements for MedPEDs:

If you have a Medical Portable Electronic Device (MedPED), such as a pacemaker, defibrillator, drug-releasing pump, hearing aids, or diagnostic equipment and other equipment for measuring, monitoring, and recording body functions such as heartbeat and brain waves, if employed by Sandia National Laboratories you may be required to comply with NNSA security requirements for MedPEDs. If you have a MedPED and you are selected for an on-site interview at Sandia National Laboratories, there may be additional steps necessary to ensure compliance with NNSA security requirements prior to the interview date.

Salary Range: \$116,600 - \$229,500

*Salary range is estimated, and actual salary will be determined after consideration of the selected candidate's experience and qualifications, and application of any approved geographic salary differential.

WHAT YOUR JOB WILL BE LIKE:

We are seeking a R&D Mechanical Engineer staff member (job title: R&D S&E, Mechanical Engineering) to join our world-class team of energy scientists and engineers. In this position, you will lead DOE funded projects that support U.S. goals for aviation sector decarbonization through enabling experimental end use research that accelerates the adoption of "drop-in" sustainable aviation fuels (SAFs). Relevant research topics include improved understanding of fuel-dependent atomization, mixing, ignition, flame stabilization, and pollutant formation phenomena to include study of the impact of soot and other emissions on the formation of condensation trails. In our interdisciplinary and collaborative work environment, there will be opportunities to apply your skills and knowledge to similar applied combustion research projects related to industrial and reciprocating engine applications.

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

- Create strategic research plans that support aviation sector decarbonization
- Develop facilities that are purpose-built to interrogate relevant combustor fluid mechanic, combustion, and emissions formation processes
- Conduct experimental research using optically accessible facilities and through application of advanced diagnostics to include direct sampling and non-intrusive methods
- Supervise and mentor interdisciplinary teams of postdocs, technologists, visitors, and interns
- Present and publish research results in acclaimed conferences and journals
- Engage with companion Sandia research groups, the professional community, and industrial partners to strengthen the impact of your research

Applicants on this requisition may be interviewed by multiple organizations at Sandia National Laboratories.

Due to the nature of the work, the selected candidate must be able to work onsite at the Sandia Livermore location.

QUALIFICATIONS WE REQUIRE:

- Ph.D. in engineering, physical sciences, or other relevant field
- Solid experimental background in thermal sciences, fluid mechanics, or combustion science
- A strong record of peer-reviewed publications
- Ability to obtain and maintain a DOE Q-level security clearance

QUALIFICATIONS WE DESIRE:

- Background in optical, spectroscopic, and sampling diagnostics
- Experience with combustion research in high-pressure systems or engines
- Ability to formulate and lead research projects, to include proposal writing
- Ability to develop enabling research facilities and capabilities
- Willingness to communicate clearly and frequently with relevant stakeholders
- Experience mentoring individuals with diverse backgrounds and abilities
- Collaborative research approach

ABOUT OUR TEAM:

The Applied Combustion Research Departments perform world-leading reciprocating and gas turbine engine research for a range of mobility sectors in customized optically accessible engines and combustion vessels with experiments supported by a professional team of mechanical and electrical technologists. Non-intrusive laser diagnostics are used to study relevant combustor system fundamentals of fluid mechanics, heat transfer, and chemical reactions, with collected data used to inform companion model development efforts. The pre-competitive understanding of key combustor processes is leveraged by engine industry partners to develop proprietary hardware designs and operating strategies that help achieve transportation sector decarbonization goals while maintaining near-zero criteria pollutant emissions levels.

ABOUT SANDIA:

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:

- Challenging work with amazing impact that contributes to security, peace, and freedom worldwide
- Extraordinary co-workers
- Some of the best tools, equipment, and research facilities in the world
- Career advancement and enrichment opportunities
- Flexible work arrangements for many positions include 9/80 (work 80 hours every two weeks, with every other Friday off) and 4/10 (work 4 ten-hour days each week) compressed workweeks, part-time work, and telecommuting (a mix of onsite work and working from home)
- Generous vacations, strong medical and other benefits, competitive 401k, learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance*

World-changing technologies. Life-changing careers. Learn more about Sandia at: <http://www.sandia.gov>*. These benefits vary by job classification.

SECURITY CLEARANCE:

Sandia is required by DOE to conduct a pre-employment drug test and background review that includes checks of personal references, credit, law enforcement records, and employment/education verifications. Applicants for employment need to be able to obtain and maintain a DOE Q-level security clearance, which requires U.S. citizenship. If you hold more than one citizenship (i.e., of the U.S. and another country), your ability to obtain a security clearance may be impacted.

Applicants offered employment with Sandia are subject to a federal background investigation to meet the requirements for access to classified information or matter if the duties of the position require a DOE security clearance. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause a clearance to be denied or terminated by DOE, resulting in the inability to perform the duties assigned and subsequent termination of employment.

EEO:

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.

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Applicants must apply to the link below:

<https://sandia.jobs/livermore-ca/rd-mechanical-engineer-experienced/8A4DBC4AB0624F408008EA343A6692F3/job/>