

We are currently soliciting applicants for the 27<sup>th</sup> Los Alamos Dynamics Summer School (LADSS). During this ten-week program, students will gain a condensed graduate school-like experience while completing research projects within the multi-disciplinary field of dynamics — spanning mechanical, structural, electrical, and fluid systems. The students' research will focus on creating solutions to Los Alamos National Laboratory (LANL) mission-relevant problems that are defined by LANL R&D engineers and scientists. To further replicate the graduate school experience, LADSS also offers formal technical lectures, career development seminars, hands-on research-related tutorials, tours of LANL's unique experimental facilities, and seminars on research performed at LANL and partnering universities.

LADSS is a paid summer internship limited to U.S. citizens.

# **HOW TO APPLY**

Read more about the program and apply at ladss.lanl.gov

## **Applications must contain:**

- Current resume or CV (3 pages maximum)
- Cover letter describing your interest in LADSS and multi-disciplinary research of engineered systems, as well as your near term (1-3 year) academic and professional goals
- Transcripts
- Letter of recommendation (one required, multiple letters accepted)

### RESEARCH PROJECTS

Students are placed into three-person, multi-disciplinary teams, assigned a research project to be completed in an intense ten-week time frame, and mentored by LANL staff. The projects typically have a modeling, experimental, and analysis component. The goal is for the students to produce results and document their research in a manner suitable for reporting at professional conferences. To date, the LADSS program has produced 160 conference papers and 21 refereed journal articles.

#### **EDUCATIONAL ENRICHMENT**

Students participate in weekly lectures on various aspects of dynamic systems engineering, such as signal processing, modeling dynamic systems, data acquisition, nonlinear systems, model validation, and machine learning. In most cases, the students will apply the material presented in these lectures to their respective projects. In addition to the research focused lectures, student will participate in professional development seminars that include applying to graduate school and graduate fellowships. Tours and seminars highlighting research in LANL's core mission areas provide students with exposure to the broad scope of work performed across LANL's more than 40 sq. mi. campus.

All activities will be in person, on-site in Los Alamos, NM.

### APPLICANT INFORMATION

The program is designed for upper-division undergraduate students<sup>†</sup> to first-year graduate students from a variety of academic disciplines, including computer science, physics, mechanical / aerospace / structural / electrical / nuclear / civil engineering, and mathematics / statistics. Students are accepted into the program based on academic record, application, and letters of recommendation. As a general guideline, students should have sufficient academic achievement that they are, or will be, eligible for graduate school. In lieu of salaries, the students are provided with a fellowship that is intended to also cover relocation and housing expenses. Fellowship amounts range from \$12,000-\$18,000, depending on academic status and the point of origin for the student's travel to LANL. Additionally, students may present at a conference and if so, all travel costs for attending and presenting are covered.



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**Engineering Institute** 

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