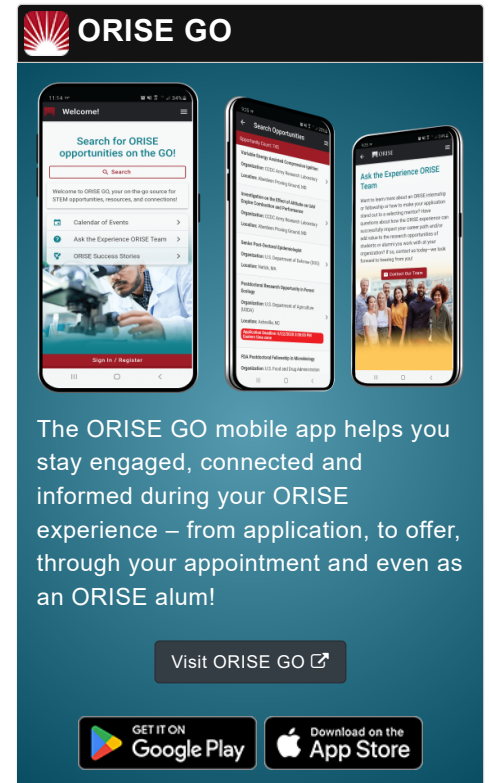


**Opportunity Title:** Facility Energy Consumption Based on Thermodynamics and Air Flow

**Opportunity Reference Code:** DOE-MSIPP-16-10-LANL



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**Organization** U.S. Department of Energy (DOE)

**Reference Code** DOE-MSIPP-16-10-LANL

**How to Apply** A complete application must include the following to be considered:

- Completion of all required fields in the application
- Undergraduate transcripts
- One Recommendation (minimum)

If you have questions, send an email to Elizabeth Nelson at [Elizabeth.Nelson@orau.org](mailto:Elizabeth.Nelson@orau.org) . Please include the reference code for this opportunity in your email.

**Application Deadline** 3/16/2016 11:59:00 PM Eastern Time Zone

**Description** The Minority Serving Institutions Partnership Program (MSIPP) Internships is a new program to promote the education and development of the next generation workforce in critical science, engineering, technology, and math (STEM) related disciplines that complement current and future missions of DOE national laboratories. The MSIPP Internship program is designed to provide an enhanced training environment for next generation scientists and engineers by exposing them to research challenges unique to our industry.

MSIPP Interns will be given the opportunity to complete Summer Internships aligned with ongoing U.S. Department of Energy Office of Environmental Management (DOE-EM) research under the direction of a host national laboratory. The internship will be performed at the host national laboratory, utilizing their facilities and equipment under the guidance of a research staff member.

Minority Serving Institutions are institutions of higher education enrolling populations with significant percentages of undergraduate minority students.

The research project will focus on benchmarking facility energy consumption based on thermodynamics and air flow measurements integrating building automation systems with mechanical equipment. Specifically this will involve the review of mechanical and electrical drawings to understand how building automation will interface with climate control conditions.

**Qualifications** The successful candidate should be an undergraduate student studying mechanical, electrical, environmental or sustainability engineering, and have an interest in fluid dynamics, physical equipment, and temperature control. Previous experience in CAD or Sketch-up is preferred but not necessary. Organizational and time management skills are required.

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and Air Flow

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**Eligibility Requirements:**

1. Be currently enrolled as a full-time undergraduate or graduate student at an accredited Minority Serving Institution \*see criteria for Minority Serving Institutions here <http://srnl.doe.gov/msipp/internships.htm>
2. Be working towards a science, technology, engineering, or mathematics (STEM) degree
3. Have an undergraduate cumulative minimum Grade Point Average (GPA) of 3.0 on a 4.0 scale
4. Be a United States citizen
5. Pass a drug test upon selection to participate in the MSIPP  
\*The process and timing for drug testing varies from lab to lab. Use of Marijuana/Cannabis or its derivatives if prescribed is legal in some states. However, having these drugs in your system is NOT legal at United States Federal Contractor sites and National Laboratories.
6. Reference must be received by March 6, 2016 at 11:59 PM ET

For more information about The Minority Serving Institutions Partnership Program (MSIPP) Internships, please visit <http://srnl.doe.gov/msipp/internships.htm>

To see all MSIPP position postings visit:  
[www.orise.orau.gov/MSIPP](http://www.orise.orau.gov/MSIPP)

**Eligibility  
Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree or Master's Degree.
- **Overall GPA:** 3.00
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 )
  - **Computer, Information, and Data Sciences** (16 )
  - **Earth and Geosciences** (21 )
  - **Engineering** (27 )
  - **Environmental and Marine Sciences** (14 )
  - **Life Health and Medical Sciences** (45 )
  - **Mathematics and Statistics** (10 )
  - **Physics** (16 )
  - **Science & Engineering-related** (1 )

**Affirmation**

I certify that I am pursuing or have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.