

**Opportunity Title:** Building Technologies Minority Serving Institutions Program  
(HERE - BTMSIP)

**Opportunity Reference Code:** ORNL-HERE-BTMSIP

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

**Reference Code** ORNL-HERE-BTMSIP

**How to Apply** Visit [JUMP into STEM](#) to learn more about eligibility requirements and participation rules.

If chosen by the selection committee, you will be contacted with an invitation to apply to the ORNL-HERE-BTMSIP application for the ORNL summer 2019 internship.

**Application Deadline** 3/12/2019 1:00:00 PM Eastern Time Zone

### Description **Calling on Smart Students for Smart Solutions!**

Oak Ridge National Laboratory (ORNL), in partnership with the National Renewable Energy Laboratory (NREL) is offering online **student design competitions** for solutions to building design research and development topics. **This is your opportunity to compete for Awards, including a chance for a paid summer internship at NREL or ORNL**

Visit the [JUMP into STEM](#) online platform to view the challenges. JUMP into STEM Challenges are aimed at (undergraduate and graduate) university and college students studying architecture, engineering, computer science, or other science disciplines. Students can participate in JUMP into STEM individually or in teams. Teams represented by two or more academic department are encouraged.

**Round 1 Challenge:** [“Connecting the Right Data at the Right Time to Improve Residential Building Performance.”](#) The Challenge objective: identify and design approaches to influence homeowner decisions to optimize their energy use. Previously recorded webinars by technology experts are posted for information and assistance. **This Challenge closed on November 30<sup>th</sup>.**

**Round 2 Challenge:** [“Stop the squander! Identifying building malfunctions that waste energy. Designing New Methods for a Fault Detection and Diagnosis in Buildings.”](#) The Challenge objective: develop new methods to accurately and efficiently identify when faults occur, the type of fault, and to develop a straightforward system to notify and visualize the fault(s) and its’ impact for building owners. Sample data is provided online. Previously recorded webinars by technology experts are posted for information and assistance. **This Challenge closed on November 30<sup>th</sup>.**

**Round 3 Challenge:** [“Pushing the Envelope with Wall Retrofit Designs.”](#) The Challenge objective: design a product that can be used for a residential building wall retrofit intended to replace or supplement current, leaky, and unhealthy walls. Using a base case house, idea submitters should design a wall retrofit product that will meet local code, improve energy performance, address material needs, and demonstrate performance for moisture and air tightness requirements. **This Challenge closes on February 22<sup>nd</sup>, 2019.**

### Awards to Win

Eligible students with the winning responses will be invited to participate in a JUMP into STEM Finalist Event to compete for **paid summer internships at Oak Ridge National Laboratory (ORNL)**. Additionally, eligible winners of each challenge may be invited to collaborate on a JUMP into STEM webinar to present on their idea, and considered for future Research and Development (R&D) collaboration.

Selected interns will be appointed full-time for the summer term at ORNL and will be engaged in a



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research and technology project under the guidance of a laboratory scientist or engineer. Dates are flexible depending on availability and project needs, but a minimum of 10 weeks is recommended. Undergraduates will receive a stipend of \$500 per week while graduate students will receive \$600 per week. There is a \$150 per week housing allowance for participants whose permanent address is 50 miles or more from Oak Ridge, TN and eligible travel to/from the appointment will be reimbursed up to \$500.00.

**Qualifications** Winning students will be invited to participate in a JUMP into STEM Finalist Event to compete for **paid summer internships at Oak Ridge National Laboratory (ORNL)**. An ORNL-led screening committee will then determine those that will be invited to apply through Zintellect for the BTMSIP internship.

**Program Eligibility for Undergraduates:**

- Be currently enrolled as an undergraduate student at a U.S. accredited institution
- Have a cumulative minimum GPA of 3.0 on a 4.0 scale
- Be 18 years or older by the start of appointment
- Be a U.S. Citizen or Legal Permanent Resident at the time of application
- Have medical insurance during appointment
- Have one academic or professional reference

**Program Eligibility for Graduates:**






- Be currently enrolled as a graduate student at a U.S. accredited institution
- Have a cumulative minimum GPA of 3.0 on a 4.0 scale
- Be 18 years or older by the start of appointment
- Be a U.S. Citizen or Legal Permanent Resident at the time of application
- Have medical insurance during appointment
- Have two academic or professional references

**Eligibility Requirements**

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Currently pursuing a Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Overall GPA:** 3.00
- **Discipline(s):**
  - **Business** ([11](#))
  - **Chemistry and Materials Sciences** ([12](#))
  - **Communications and Graphics Design** ([6](#))
  - **Computer, Information, and Data Sciences** ([16](#))
  - **Earth and Geosciences** ([21](#))
  - **Engineering** ([27](#))
  - **Environmental and Marine Sciences** ([14](#))
  - **Life Health and Medical Sciences** ([45](#))

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- **Mathematics and Statistics** ([10](#) )
- **Other Non-Science & Engineering** ([13](#) )
- **Physics** ([16](#) )
- **Science & Engineering-related** ([1](#) )
- **Social and Behavioral Sciences** ([28](#) )