

JUMP into STEM

Professor Team Webinar #5

October 12, 2023

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Today's Agenda



- 2023-2024 JUMP into STEM Program updates
 - Student Webinar
 - Industry Team
 - Important Dates
 - Judging Process
- Website Demo
- National Laboratories and 2023 internship highlight
- Q&A

2023-2024 JUMP into STEM Program Updates

Student Webinars



- Two student webinars are provided
- **Student Webinar #1**
 - Recording is available.
 - <https://jumpintostem.org/students/>
- **Student Webinar #2**
 - Registration required
 - <https://nrel.zoomgov.com/meeting/register/vJlsfu-rqTotHAnJ712sQ8EcyzkPigRb1n4>
 - October 20, 2023, 12:00 PM ET (10:00 AM in MT)

A promotional graphic for the 'JUMP into STEM Student Webinar'. It features a blue background with the 'jump into STEM' logo at the top. Below the logo, the text 'JUMP into STEM Student Webinar' is written in white. A calendar icon indicates the date 'October 20 at 12 p.m. ET'. A QR code is shown with the text 'Register via Zoom' next to it. On the right side, there is a photo of two young women with their arms crossed, smiling. Below the photo, the URL 'JUMPintoSTEM.org/students' is displayed. At the bottom, there are logos for the U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy Building Technologies Office, Oak Ridge National Laboratory, NREL, and Pacific Northwest National Laboratory.

jump into STEM

JUMP into STEM Student Webinar

October 20 at 12 p.m. ET

Register via Zoom

[JUMPintoSTEM.org/students](https://jumpintostem.org/students)

U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY BUILDING TECHNOLOGIES OFFICE

OAK RIDGE National Laboratory

NREL Transforming ENERGY

Pacific Northwest NATIONAL LABORATORY

New: JUMP into STEM Industry Team



Purpose:

Provide more support to students during the competition to improve submission quality, and provide more engagement between industry and students. Thank you all for your feedback on this idea!

Process:

One Zoom session with each team member

Students and faculty need to register for each session [here](#)

Team members will openly answer questions from students during the session – they will not review work ahead of time



Register now!

Industry Team



Andrew Rodgers, ACE IoT Solutions



Justin Michael Hill, Southern Company

Register now!



Gavin Mabe, Clayton Home Building Group



2023-2024 Important Dates



August 1

Challenges open.

November 10

Challenges close. Internship Applications due.

November 17

Recommendations for intern applications due.

December 4

Challenge winners announced. Finalists invited to final competition.

December 8

Finalists accept or regret invitation.

January 25–26

Final Competition hosted by ORNL

Internship application



- Eligible students who submitted internship applications will be invited to the final competition
- Internship application due Nov. 10
- Recommendation due Nov. 17

A screenshot of the Zintellect website, which is powered by ORAU. The page displays the '2023 JUMP into STEM Building Technologies Internship Program'. It lists the organization as the U.S. Department of Energy (DOE) and provides a reference code: DOE-JUMPintoSTEM-BTIP-2023. A 'How to Apply' section includes a note that the opportunity is for JUMP into STEM participants only and lists the required application components: Profile Information, Educational details, Awards and honors, Internships or related experience, Essay questions, An updated resume, and Contact information. It also mentions that academic records may be submitted. The page concludes with a statement that all application components must be completed and received in the system to be considered, and provides contact information for Chris Nelson at JUMP-BTIP@orise.ora.gov.

zintellect
climb higher

powered by ORAU

Opportunity Catalog About Help Login Register

2023 JUMP into STEM Building Technologies Internship Program

Organization U.S. Department of Energy (DOE)

Reference Code DOE-JUMPintoSTEM-BTIP-2023

How to Apply NOTE: this opportunity is for JUMP into STEM participants only. All students enrolled in a U.S. college or university are welcome to participate in JUMP into STEM. Please see the JUMP into STEM website for details.

The internship application will require:

- Profile Information
- Educational details (e.g., dates of attendance/graduation, GPA, major(s))
- Awards and honors
- Internships or related experience
- Essay questions on relevant goals, interests, experiences, and skills
- An updated resume (pdf)
- Contact information for one academic or professional recommender, including current email address
- Academic records - For this opportunity, an unofficial transcript or copy of academic records may be submitted showing name, school name, current/enrolled classes, and GPA (pdf)

All application components, including responses to all application essays and all required questions, must be completed and received in the system in order to be considered. Applicant must also complete idea submission at JUMP into STEM to be considered for the opportunity. Selections will be made by a screening committee based on challenge competition criteria and eligibility for the appointments at ORNL, NREL, and PNNL.

For questions, contact Chris Nelson at JUMP-BTIP@orise.ora.gov.

Internship application- Recommendations



Information about you, the recommender		
Name <input type="text"/>		
Title <input type="text"/>		
Institution/Organization <input type="text"/>		
Phone <input type="text" value="United States"/> <input type="text" value="Optional"/>		
Information about the applicant		
How long and in what association have you known the applicant? <input type="text"/> 0 of 950 max characters		
Information about the applicant Compared to other individuals of comparable age and experience you have known in the last five years, how would you rate the applicant with respect to the following SCIENTIFIC CHARACTERISTICS?		
Mastery of fundamental knowledge in field <input type="text" value="Please Select"/>		
Skill/originality of research project design <input type="text" value="Please Select"/>		
Laboratory skills and techniques <input type="text" value="Please Select"/>		
Productivity in research <input type="text" value="Please Select"/>		
Ability to work with others <input type="text" value="Please Select"/>		
Add any descriptive comments that will assist in providing a complete picture of the applicant's potential. <input type="text"/> 0 of 950 max characters		
Optional upload for additional letter of recommendation		
<ul style="list-style-type: none">• File must be uploaded in Adobe PDF format. Scanned items are not optimal for search engines.• Files should not include your date of birth, Social Security number, or Student ID. These items are considered protected PII (personally identifiable information) and do not need to be shared.• The PDF file must not require special certificates or passwords to open.• All documents must be in English or include an English translation.• Maximum file size is 15 MB.		
PDF <input type="text" value="Select file"/>		
<input type="button" value="Save as Draft"/> <input type="button" value="Submit"/>		

Evaluation Criteria and Judging

- Idea submission is evaluated by a panel of judges (3 judges per idea submission).
- Judging panels are balanced with representatives from DOE/national labs, the private sector, and academia.

Team Diversity and Understanding Stakeholders (20%)

- Diversity statement and project team background
- Understanding stakeholders

Submission (10%)

- Submission requirements

Challenge Level Competition

Solution (40%)

- Technical solution
- Feasibility
- Novelty
- Impact

Market Readiness (30%)

- Market characterization
- Technology-to-market
- Overcoming adoption barriers

Team Diversity and Understanding Stakeholders (20%)

- Multidisciplinary team approach
- Understanding stakeholders

Solution (30%)

- Technical solution
- Feasibility
- Novelty
- Impact

Final Competition

Market Readiness (25%)

- Technology-to-market
- Market characterization
- Overcoming adoption barriers

Presentation (25%)

- Effective delivery of ideas
- Presentation preparation
- Questions & answers

Challenge Winners



- Challenge winners will be announced on **Dec. 4**
- Winning teams selected from each Challenge will be awarded a token of recognition and 1:1 mentorship with an industry expert



Challenge Finalists



- Challenge winners and additional eligible teams will be selected to compete at the **Final Competition**
- Finalists will be notified on **Dec. 4**
- To be eligible to participate in the Final Event, students must complete Zintellect **internship applications**



Final Competition



- The Final Competition will be held in person at ORNL (January 25-26, 2024)
- Finalists will present ideas to a panel of judges from industry, DOE, academia, and national labs



2023 Final Competition Winners




- Received 10-week paid internship
 - Oak Ridge National Laboratory (Tennessee)
 - National Renewable Energy Laboratory (Colorado)
 - Pacific Northwest National Laboratory (Washington)
- Completed a poster presentation and/or technical report
- Winners recognized in a DOE BTO [article](#), NREL news [article](#), and ORNL and NREL websites.



Website Demo






ABOUT + GUIDANCE + SCHEDULE AWARDS + NEWS CHALLENGE TOPICS + FINAL COMPETITION

The DOE BTO announces the release of the JUMP into STEM 2023-2024 challenges!

Challenge Topics


Keepin' it Cool (or Hot)



This challenge focuses on developing an innovative solution for thermal energy storage for buildings to optimize energy utilization, enhance sustainability, and increase resilience.

[READ MORE](#)


That's a Wrap!



The objective of this challenge is to improve the building envelope performance of new or existing residential buildings by reducing energy consumption in a cost-effective and accessible way.

[READ MORE](#)

You and Me, Carbon Free!

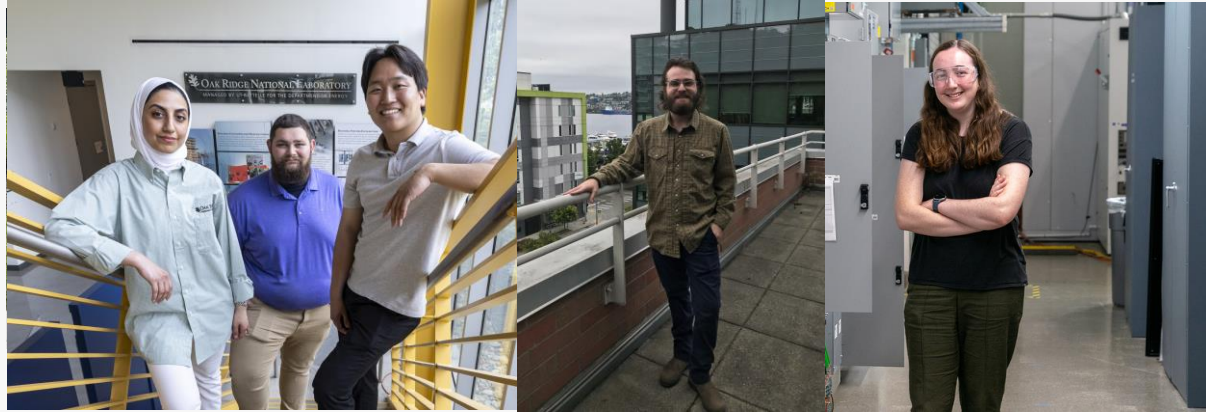


The objective of this challenge is to develop an innovative solution that will reduce carbon emissions from U.S. buildings (residential or commercial, new or existing).

[READ MORE](#)

www.JUMPintoSTEM.org

In the News: 2023 Interns



- 2023 ORNL intern highlight, August 21, 2023: 2023 JUMP into STEM Final Competition Winners Contribute to Building Science at ORNL
- 2023 NREL news story, August 29, 2023: JUMP Into STEM Winners Unlock New Career Opportunities and Impactful Research During Summer Internships at NREL
- 2023 Pacific Northwest National Laboratory (PNNL) news story, September 8, 2023: Students JUMP into STEM with Building Science Internships



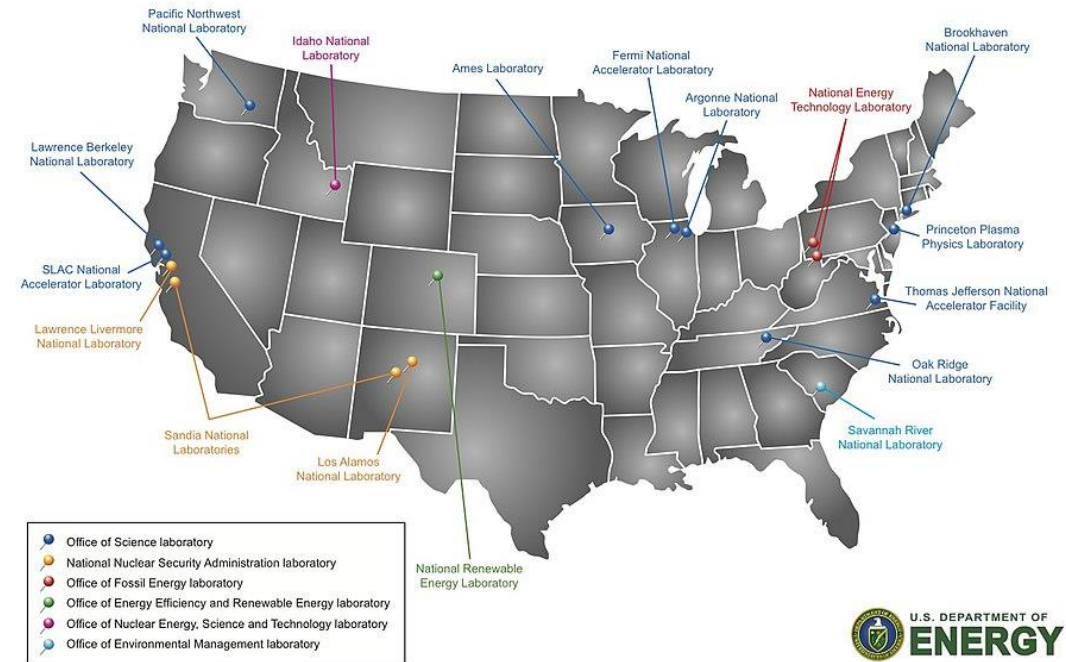
All archived here: <https://jumpintostem.org/news/>

Department of Energy National Labs



- DOE's 17 National Labs tackle the critical scientific challenges of our time
- Address large-scale, complex research and development challenges with an emphasis on translating basic science to innovation

Department of Energy National Laboratories



Oak Ridge National Laboratory



- Located in Oak Ridge, Tennessee
- ORNL's research encompasses many areas of scientific discovery, including building science:
 - Energy Efficiency for Homes, Buildings and Manufacturing
 - Smart Power Systems
 - Sustainable Transportation



National Renewable Energy Laboratory



- Located in Golden, Colorado
- NREL's science drives innovation specifically for the Office of Energy Efficiency and Renewable Energy in four main energy sectors:
 - Renewable Power
 - Sustainable Transportation
 - Energy Efficiency
 - Energy Systems Integration



Pacific Northwest National Laboratory



- Located in Richland, Washington with offices across the Pacific Northwest
- PNNL leads research for the Department of Energy in sustainable energy areas:
 - Electric Grid Modernization
 - Energy Efficiency
 - Energy Storage
 - Renewable Energy
 - Transportation



We Invite You to the Final Competition



In-person final competition
at ORNL!

We hope to see you here
January 25-26, 2024

Oak Ridge National Laboratory
Oak Ridge, Tennessee

Questions?



Q&A

THANK YOU!



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