Student Training in Applied Research (STAR) Undergraduate Program

National Renewable Energy Laboratory

Big Picture

To meet the demands of our world's future energy needs in the clean energy transition, the National Renewable Energy Laboratory (NREL) is reaching out to the best and brightest engineering and applied science students. Minority-serving institutions are home to many of these students, and NREL invites them to participate in an enhanced educational and internship experience. The Student Training in Applied Research (STAR) undergraduate internship program launched in the summer of 2022 with 13 students from two historically Black colleges and universities (HBCU), two Hispanic-serving institutions (HSI), and one Tribal-serving institution (TSI). NREL is rolling-out year two and aiming for full-scale operations in year three that will create a unique opportunity for the nation's top minds to conduct meaningful research on clean energy and become part of a community who will be the future leaders of our clean energy transition.

Program Design

STAR students work alongside both faculty and NREL mentors to deliver on joint-research objectives and develop professional and technical skills necessary for the workforce or continued education. Students conduct hands-on research with their NREL mentors throughout the summer internship and continue with their faculty advisors during the academic year. This design enables students to contribute to cutting-edge research while progressing in their studies at their universities. Mentoring is at the core of this program with researchers and faculty co-mentoring their STAR students to provide comprehensive guidance and support at both the university and national lab levels. The technical matching of NREL researcher, faculty mentor, and undergraduate student is designed to help develop long-term relationships built on trust and communication, and to foster collaboration and learning exchanges in the industry.

> Bridging existing gaps in education, research, and public service to create career pathways for undergraduate students and build long term partnerships with minority-serving institutions.

Program Impacts

This is a pivotal moment for the United States to focus on developing the talented future leaders that are studying at minority-serving institutions. We need to bridge the gaps that exist in education, research, and public service to create career pathways for undergraduate students and build long-term partnerships with MSIs. Their voices are critical to NREL, and it is imperative that professional development, financial assistance, and a community of care are provided to these students for the program to succeed. When we succeed, we will create a more equitable way for students and faculty to engage in the clean energy economy and develop deeper engagement with universities that are underrepresented in NREL's partnership portfolio.

Get Involved

Following the pilot year, STAR is poised for a significant scale-up. The second year aims to double the number of students, faculty and NREL participants, and expand to four additional universities. In addition, STAR will continue to provide unique wraparound services for student success:

- Relocation and housing expenses covered for the10-week summer internship at NREL;
- Robust professional development and mentoring that is tailored to students from underrepresented groups;
- Ongoing support during the academic year for participating students and faculty mentors; and
- Continued program evaluation centered on equity and impact to guide future work.

NREL's University Partnerships Program is seeking funding to scale-up the program for a second year.

Contact

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Visit the University Partnerships Program Page via www.nrel.gov

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