

CISTAR Project Update for the Period 10/1/2019 to 9/30/2020

Section 1: General Information

Thrust/Pillar: Diversity and Culture of Inclusion; Engineering Workforce Development

Project Title: CISTAR-NSBE SEEK Partnership Video



Project Leader: Denise Driscoll, CISTAR Director of Diversity and Inclusion, Davidson School of Chemical Engineering, Purdue

ERC Team Members Involved with the Project: **When box not checked, it is b/c no fit.**

Name, Institution	Role ¹							
Include all other contributors beyond the project leader, and their university	<input type="checkbox"/> F	<input type="checkbox"/> PD	<input type="checkbox"/> GS	<input type="checkbox"/> UG	<input type="checkbox"/> REU	<input type="checkbox"/> YS	<input type="checkbox"/> RET	<input type="checkbox"/> S
Fabio Ribeiro (PU)	<input checked="" type="checkbox"/> F	<input type="checkbox"/> PD	<input type="checkbox"/> GS	<input type="checkbox"/> UG	<input type="checkbox"/> REU	<input type="checkbox"/> YS	<input type="checkbox"/> RET	<input type="checkbox"/> S
Maeve Drummond Oakes (PU)	<input type="checkbox"/> F	<input type="checkbox"/> PD	<input type="checkbox"/> GS	<input type="checkbox"/> UG	<input type="checkbox"/> REU	<input type="checkbox"/> YS	<input type="checkbox"/> RET	<input type="checkbox"/> S
Brittany Bright (PU)	<input type="checkbox"/> F	<input type="checkbox"/> PD	<input type="checkbox"/> GS	<input type="checkbox"/> UG	<input type="checkbox"/> REU	<input type="checkbox"/> YS	<input type="checkbox"/> RET	<input type="checkbox"/> S
Jennifer Mamph (PU)	<input type="checkbox"/> F	<input type="checkbox"/> PD	<input type="checkbox"/> GS	<input type="checkbox"/> UG	<input type="checkbox"/> REU	<input type="checkbox"/> YS	<input type="checkbox"/> RET	<input type="checkbox"/> S
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	<input type="checkbox"/> F	<input type="checkbox"/> PD	<input type="checkbox"/> GS	<input type="checkbox"/> UG	<input type="checkbox"/> REU	<input type="checkbox"/> YS	<input type="checkbox"/> RET	<input type="checkbox"/> S

¹ F = faculty; PD = postdoctoral researcher; GS = graduate student REU = undergraduate researcher; YS = young scholar; RET = teacher, S= research staff

Section 2: Quad Chart

<p>Project Goals</p> <ul style="list-style-type: none"> • Rise to NSF’s Diversity and Inclusion Video Exhibition Challenge during the COVID lockdown to highlight a partnership helping CISTAR with broaden representation goals • Document the NSF-funded CISTAR-NSBE SEEK successful partnership as captured on video with 2019 NSF REM students and teachers talking about their summer experience • Describe the unique aspects of our program which attracts individuals interested in doing cutting-edge research, but also interested in giving back and mentoring kids underrepresented in STEM (vs. 10-week traditional research programs) • Showcase our video in DCI and EWD circles, at NSBE headquarters, etc., to show the possibilities of combined types of summer experiences to cast a wider net, recruiting individuals who may not have thought research was necessarily for them • Use as a recruiting tool to attract more participants to REM summer program; recruit students, generally, who value a center interested in broadening participation and building a culture of inclusion 	 
<p>Barriers</p> <ul style="list-style-type: none"> • The sound/visual quality of the video interviews varied widely, even after multiple takes, because students and teachers were using their own phones or computers with variable internet capabilities during COVID lockdown <p>Methodologies</p> <ul style="list-style-type: none"> • Contacted and scheduled virtual interviews with 2019 REM cohort and other parties we wanted to interview for the video • Wrote questions to explore their program experiences and subsequent impact • Created storyboard and identified the more impactful segments of the interviews • Team worked with producer and NSBE to create final footage, add music, and discover appropriate commentator voice 	<p>Achievements</p> <ul style="list-style-type: none"> • Video was well-received by NSBE headquarters; it is being used as a recruiting tool, as well • An article has been accepted for ASEE paper at 2021 Annual Conference and Exposition; will be featured in various newsletters, as well, in 2021 • Inspired, in part, by video, submitting an NSF REM Supplemental grant proposal in November 2020 • Will be sharing video and describing summer REM program at the <i>ERC EWD, DCI, SLC, Eval Workshop</i> in November, 2020

Section 3: Project Summary Brief

Abstract

The video about the NSF-funded Research Experience and Mentoring (REM) program highlights the unique CISTAR—NSBE SEEK partnership that gave NSBE undergraduate students and STEM teachers an opportunity to do cutting-edge research at CISTAR, and then “give back” by mentoring kids at a NSBE SEEK camp—all in one summer! This video will be used to demonstrate the value of a combined summer experience program in addition to offering a traditional 10-week summer research program. It will also be used as a recruiting tool to attract students and teachers to our growing REM program.

Project Role in Supporting Strategic Plan

This project supports CISTAR’s strategic plan by: 1. Focusing on offering support to undergraduate students from underrepresented backgrounds, 2. Building partnerships with engineering students groups (i.e., NSBE), and 3. Appealing to those students who are torn between a summer giving back and mentoring underrepresented kids to help change who goes into STEM fields and a summer doing cutting-edge research and being mentored and given professional development opportunities. Instead of having to choose, we make it possible for students to experience both, and to learn more about the interconnectedness of what goes on in academia and what goes on in the communities that they live and work in.

From the video, too, it is clear that the students and teachers felt included and that diversity was valued at CISTAR. This has made them willing to invest in a long-term relationship with us.

Future Plans

We plan to keep growing the CISTAR-NSBE SEEK partnership. In summer 2019, CISTAR hired some of the 2019 students and teachers to help work with CISTAR and NSBE SEEK staff to build more connections between the two parts of the summer experiences. The partnership has grown to the point now where CISTAR is writing a *Memorandum of Understanding* with NSBE.

Also, we have great unused footage from the interviews to constructively use in a second video. We hope to communicate more vividly in this second video our vision for broadening representation by propagating combined summer experiences that combine personal growth and development with community service.

The video project and our vision will be disseminated in a paper and presentation at the 2021 ASEE Annual Conference & Exposition (Driscoll & Drummond Oakes, Creating a Diverse, Next Generation of Technically- and Community-minded STEM Professionals).