

NSF EPSCoR

RESEARCH PAPER ABOUT THE NEVADA CLIMATE CHANGE PROJECT PUBLISHED IN INTERNATIONAL JOURNAL

Guoping Tang, a research assistant at the Desert Research Institute (DRI), Reno, has had two papers published in the last three years as a direct result of the previous NSF EPSCoR Track 1 research project that focused specifically on climate change and its effects in Nevada. The most recent of the two papers, titled "Trends and climatic sensitivities of vegetation phenology in semiarid and arid ecosystems in the US Great Basin during 1982–2011" was published in *Biogeosciences*, an international scientific journal in November of last year.



This is a great individual accomplishment for Tang, but also a testament to the relevance of the research done in the Track 1 project and the usefulness of the information from a global perspective.



PROGRAM IMMERSSES STUDENTS IN STEM-FOCUSED CAREER

It's one thing to teach the fundamentals of science, technology, engineering and math (STEM) in the classroom, but it's much more impactful for students to be introduced to professionals who currently apply these skills in their chosen career fields. This is the beauty of the STEM Career Investigation Program (SCIP) which gives students a chance to explore careers in STEM fields during a six week seminar series. Now in its third year, the program is funded through an NSF EPSCoR grant and is part of the educational component of the Nexus project.

Speakers in this year's series, which began in February and ran through March 8, was hosted at the Raggio Research Center at the University of Nevada, Reno. Some of the speakers included Andy Stevenson, special projects associate from Tesla Motors, Inc., who discussed the history of the sustainable energy electric car company; Dr. Scott Mensing from the University of Nevada, Reno, who had students analyze core samples from Sequoia National Forest; and Julia Hudson, lead occupational therapist at Renown Health, who shared her work on electrical muscle stimulation.

This year, an average of 17 students participated in each session and included Washoe County high school students as well as four UNR college freshmen. After the fifth session, presenter Dr. Richard Kelly, chief engineer at the Nevada Advance Autonomous Systems Innovation Center, offered an internship opportunity to one of the college students. The student is studying computer science and is a participant in the Nevada First in the Pack program which helps first-generation college students.

SCIP allows students to better understand the real world application of what they are learning in school and ideally create curiosity and interest toward furthering their education in these fields. To learn more about this year's program visit <http://www.unr.edu/raggio-center>.

NSF EPSCoR

GRADUATE STUDENT CHASES PASSION THROUGH EPSCoR RESEARCH PROJECT

Through NSF EPSCoR-funded projects, groundbreaking research is happening throughout Nevada. And, although research is the focus of initiatives like the Nexus project, grooming future scientists and engineers is equally as important. Danielle Nobles-Lookingbill, a graduate student at the University of Nevada, Las Vegas, is passionate about solar energy research and is a great example of the budding talent involved in the Nexus project.



Nobles-Lookingbill is the first generation in her family to complete an undergraduate program at a university, and soon will be the first in her family to earn a doctoral degree once she graduates from UNLV as a doctor of philosophy and mechanical engineering. Her focus in the Nexus project is to create a system that can more efficiently turn solar energy into clean energy with a smaller environmental and geographical footprint.

"Our system is currently achieving concentration ratios of over 220 suns, providing experimental receiver temperatures over 950 C in less than five minutes," said Nobles-Lookingbill. "This means we are able to provide a significant, clean heat source for our system, and that the receiver we engineered will withstand the high temperatures and high fluxes provided by the Nevada sun."

Nobles-Lookingbill is grateful for the opportunities the EPSCoR program has provided her during her educational career. Not only has she had the opportunity to find passion in solar energy, she has also found a tightknit community at UNLV that has allowed her to grow as a student, researcher and a person. "I believe we do not only affect our community by our research, but also by engaging younger generations and encouraging them to continue the journey," Nobles-Lookingbill said.

To learn more about Nobles-Lookingbill and her involvement in the Nexus project, visit <http://nvsolarnexus.org/graduate-student-researcher-danielle-nobles-lookingbill/>



NASA EPSCoR AND NASA SPACE GRANT WHERE ARE THEY NOW?

"Taking the lead design role on the current NASA funded BEAM program that will be launched to the International Space Station early next year." --Brandon Bechtol, UNLV - 2006 Space Grant Scholar

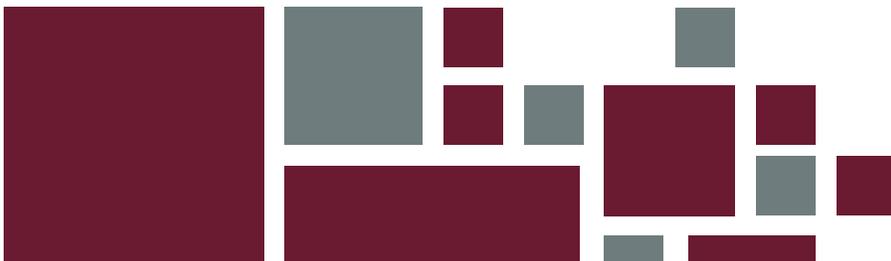
"I am current conducting research in the aerospace field and teaching students in mechanical engineering." --Travis Fields, UNR - 2006 Space Grant Scholar

"I am a Postdoctoral Associate at Stony Brook University. I am continuing planetary research." --Seth Gainey, UNLV - 2012 Space Grant Fellow

"In my current occupation as Engineering Manager at CGM, we have numerous aerospace customers that we manufacture complex, high precision machining components for." --Brian Magann, UNLV - 2010 Space Grant Scholar

"I have been a lead flight test engineer for multiple programs at the Air Force Test Center, General Atomics, and Sierra Nevada Corp." --Travis Pyne, UNR - 2007 Mars Rover Competition

"I am currently working on a team to deploy various unmanned systems for inspection of power plants and utilities." --Milan Hening, UNR - 2009 Nevada Student Satellite Program



epscorspo.nevada.edu | 702.522.7070
Nevada System of Higher Education
5550 W. Flamingo Road, Ste. A-2, Las Vegas, NV 89103