

# CCEE MONTHLY

The Department of Civil, Construction, & Environmental Engineering



COLLEGE OF ENGINEERING

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Structural

Geotechnical

Water

Transportation

Environmental

Construction

## Student Spotlight



**Anita Sanchez**, also an undergraduate student in **Dr. Natalie Mladenov's** WIRLab, was selected to conduct summer research at UC Berkeley (UCB) in Dr. Lisa Alvarez-Cohen's Lab through the ReNUWIT Research Experience for Undergraduates (REU) program. During the nine-week program, she worked with a UCB graduate student on an environmental engineering project focused on energy-positive wastewater treatment and resource recovery using anaerobic ammonium oxidation (anammox). Anita learned new analytical techniques to track nitrogen removal rates under different conditions to optimize the resource recovery process. This summer research experience will be invaluable to Anita as she looks toward pursuing a PhD in Environmental Engineering after graduation.

## Article in the Union Tribune



**Dr. Natalie Mladenov** was recently featured in both our San Diego State University Office of Graduate and Research Affairs "Research News and Recent Grants" newsletter and also The San Diego Union-Tribune in an article from July 19, 2018 titled "Researcher leads students at water sustainability lab." In the article, Dr. Mladenov discusses her research and her passion for mentoring student researchers and encouraging women to pursue STEM fields.

## Reinventing Water



**Lorelay Mendoza** is an environmental engineering student in **Dr. Natalie Mladenov's** Water Innovation and Reuse Lab. Lorelay was selected to participate in the Reinventing the Nation's Urban Water Infrastructure (ReNUWit) summer Research Experience for Undergraduates (REU). ReNUWit is an interdisciplinary, multi-institution engineering research center whose objective is to change the way we manage urban water. At UC Berkeley, she studied the microbial water quality of drinking water distribution systems (DWDSs). Specifically, Lorelay simulated different kinds of pipe flow in annular reactors, and enumerated cells using flow cytometry. Lorelay's work provides insight into how different operating conditions of DWDSs affects the growth of biofilms in pipes and microbial regrowth. After completing her undergraduate degree, Lorelay intends to pursue her Ph.D. in an engineering field that addresses and solves the challenges humans face with current global climate conditions and an increasing population.

## Elementary School Presentations



**Dr. Alicia Kinoshita** was invited to speak at two schools on August 16, 2018: Abraham Lincoln Elementary School (2nd – 5th grades) in Honolulu Hawai'i and Ka'imiloa Elementary School in Ewa Beach (4th and 5th grades), a school in a rural community. Dr. Kinoshita was thrilled to speak about the scientific method and share the streamgaging techniques that she and her students use in the field to answer questions about hydrology and water resources in San Diego. The elementary students were an amazing audience with excellent observations and questions. They send their warmest "Aloha" to SDSU!

## The Knowledge to Practice (K2P) Project



The Knowledge to Practice (K2P) project supports water and sanitation safety planners to use an evidence-based approach for managing health outcomes by improving access to scientific data on the efficacy of sanitation and the occurrence and persistence of pathogens in excreta and sewage. The project is led by Michigan State University in partnership with the Ugandan National Water and Sewerage Corporation, and it is funded by the Bill and Melinda Gates Foundation. Above is a photo of SDSU's incoming graduate student, **Isaac Musaazi**, with his Environmental Engineering Adviser **Dr. Matthew Verbyla**, taking a tour of the Lubigi wastewater and fecal sludge treatment plant in Kampala, Uganda.

## WIRLab Junior MESA Outreach



**Dr. Natalie Mladenov's** ENVE graduate students **Lauren Steinberg**, **Kristen Snyder**, **Federick Pinongcos** and undergraduate ENVE students **Jason Simmons** and **Stephanie Chao** presented at MESA's Junior Research Academy. The program consists of incoming freshmen in SDSU who plans to study in STEM. The presentation was about water/wastewater treatment, the concept of fluorescence and included a demo of things that fluoresce under a UV light.

**Quotes of the Month:** "We do not inherit the earth from our ancestors, we borrow it from our children." -unknown

The Department of Civil Engineering strives to provide a world class, hands-on learning experience for all students in the Department. Many of the student organizations, events and activities are made possible by generous alumni and friends like you. If you have interest in supporting our efforts, please contact **Kate Carinder** in our Development Office at (619) 594-8264 or by email at [kcarinder@sdsu.edu](mailto:kcarinder@sdsu.edu). Please use the following link to give directly to the Department <http://campaign.sdsu.edu/civilengineering>