**Aide Robles**

School of Sustainable Engineering and the Built Environment

Biodesign Swette Center for Environmental Biotechnology, Arizona State University

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Statement of Purpose

Seeking an engineering company that values community, diversity, and the environment where I can use my knowledge and skills to restore water and soils. While addressing this generations environmental challenges, I am determined to use my position to advocate, educate, and empower young, minoritized women. My long-term goal is to build an organization that practices great science and engineering while giving a voice to young girls from minoritized groups.

Education

**Civil, environmental and sustainable engineering Ph.D. May 2022**

Arizona State University, Tempe, AZ

Focus: Microbial chain elongation

Advisor: Anca G. Delgado

**Civil, environmental and sustainable engineering M.S. 2019**

Arizona State University, Tempe, AZ

Thesis: “Reductive Dechlorination of TCE Sustained by Microbial Chain Elongation”

Advisor: Anca G. Delgado

**Civil Engineering B.S. and Modern Languages - Spanish B.A. 2017**

Northern Arizona University, Flagstaff, AZ

Awards

First place GWAG student paper Spring 2020

University Graduate Fellowship Fall 2019

Phoenix/Scottsdale Groundwater Fellowship, ASU Fall 2018 – Spring 2019

MORE Award, ASU Spring 2018 – Fall 2018

Arizona Grad Scholar Award, ASU Fall 2017 – Spring 2019

Gold Axe Award, NAU Spring 2017

Delia Martinez Memorial Award, NAU Fall 2016 – Spring 2017

Fred and Edith Ohlinger Memorial Award, NAU Fall 2016 – Spring 2017

Honors College Award, NAU Fall 2016 – Spring 2017

AZ Society of Civil Engineers Award, NAU Fall 2015 – Spring 2016

Global Opportunities Scholarship, NAU Fall 2015 – Spring 2016

Mildred Fenton & Carrol Lane Award, NAU Fall 2015 – Spring 2016

Shelton Hannig Civil Engineering Award, NAU Fall 2013 – Spring 2014

NAU University Grant, NAU Fall 2012 – Spring 2017

Dean’s Tuition Scholarship, NAU Fall 2012 – Spring 2017

Dean’s list, NAU Fall 2012 – Spring 2017

Dorrance Program Scholarship, NAU Fall 2012

Instruction

Arizona State University

**Grader, “CEE 303: Microbiological Processes”, Professor Anca G. Delgado, 2020 – 2020**

Administered grades and address content questions relating to microbial roles in the environment such as biogeochemical cycles, metabolisms and the fate of chemicals, and contaminants in the natural and built environment.

Northern Arizona University

**Teaching Assistant, “CENE 333L: Water Resources Lab”, instructor Mark Lamer, 2016 – 2017**

Developed syllabus, overall course structure, and administered all grades. Taught exercises on modflow, AutoCAD Civil 3D and HEC-HMS.

Northern Arizona University

**Teaching Assistant, “CENE 251: Applied Mechanical Statics”, instructor Mark Lamer, 2015**

Developed supplemental assignments, quizzes, and exam preparation handouts. Held recitation hour for questions on course material and administered grades.

Northern Arizona University

**Teaching Assistant, “CENE 180: Computer Aided Drafting”, instructor Mark Lamer, 2014 – 2015**

Offered office hours to discuss lab-related topics including contour maps, topographic maps, and object rendering. Proofread, reviewed, and assisted in developing assignments for course.

Northern Arizona University

**Teaching Assistant, “CENE 286: CENE Design the Process”, instructor David Richter, 2014**

Held office hours for writing and project questions pertaining to grammar and the engineering process. Graded technical papers for content and grammar. Proofread and reviewed assignments.

Northern Arizona University

**Teaching Assistant, “CENE 270: Surveying”, instructor Mark Lamer, 2014**

Assisted students with surveying tasks; such as completing level loops, operating a total station, data collectors and reading Philadelphia and Lenker rods. Held office hours and recitation for application and course questions.

Research experience

Swette Center for Environmental Biotechnology and Center for Bio-mediated and Bio-inspired Geotechnics, Arizona State University

**Graduate Research Assistant Aug 2017 – Current**

Conduct research on bioremediation of chlorinated organic solvents, PFAS/PFOS and microbial chain elongation in soil and groundwater. Operate and maintenance various instruments for chemical analysis, train lab members on various instruments. Perform aseptic techniques for culturing of pure cultures, such as plating, qPCR, isolations, DNA/RNA extractions and purification.

Universidad de Alicante, Alicante, Spain

**Hydrology Lab Intern 2016**

Perform site visits to collect soil samples for analysis. Operate software, such as MatLab, and Hydrus. Operate hydrology lab and geotechnical lab instruments, such as KSAT and HYPROP. Read and write reports pertaining to groundwater in arid regions.

Leadership

Biodeisgn Swette Center for Environmental Biotechnology

**Night of the Open Leader 2020**

Organized an outreach booth for grade school children to learn about bioremediation in soil and groundwater through a hands-on activity.

**Instrument Trainer and Designated Responsible User for HPLC and GC** **2017 – Current**

Perform maintenance, training, and scheduling of the instrument.

**Lab mentor for undergraduate researchers 2017 – Current**

Train and mentor undergraduate students in an environmental lab. Mentor incoming graduate researchers and guide them in mentoring undergraduate researchers.

Omega Phi Alpha National Service Sorority

**Nation Committee Member 2014**

Assisted in a community service project that extended internationally.

NAU Society of Hispanic Professional Engineers

**Secretary 2013 – 2015**

Coordinate and host STEM related events for grade school students and parents. Reach out to community to provide information on higher education and STEM.

Research Presentations

**Robles A.,** Yellowman T. L., Joshi S., Rangan S., Delgado A. G. *Microbial Chain Elongation Drives Complete Reductive Dechlorination of Trichloroethene*. Geosyntec Student Paper 2020 Webinar Series, October 2020. (PPT Presentation)

**Robles A.,** Yellowman T. L., Joshi S., Rangan S., Delgado A. G. *Harnessing Hydrogen Production during Microbial Chain Elongation for Reduction of Oxidized Groundwater Contaminants*. ICE Conference. Tübingen, Germany, October 2020. (PPT Presentation)

**Robles A.**, Yellowman T. L., Delgado A. G. *Reductive Dechlorination of Trichloroethene Sustained by Microbial Chain Elongation.* AEESP Conference. Tempe, AZ, May 2019. (PPT Presentation).

**Robles A**., *IGP- Northern Arizona University and Universidad de Alicante Fall 2015 Exchange.* 21st Annual Colloquium of International Engineering Education. Newport, RI, November 2018. (PPT Presentation).

**Robles A.**, Yellowman T. L., Delgado A. G. *Reductive Dechlorination of Trichloroethene Sustained by Microbial Metabolic Chain Elongation (MCE).* CBBG Year 3 NSF Site Visit. Tempe, AZ, November 2018. (PPT Presentation).

**Robles A.**, Delgado A. G. *Reductive Dechlorination of Trichloroethene Sustained by Microbial Chain Elongation.* Spring 2018 ASU FURI-MORE Symposium. Tempe, AZ, April 2018. (PPT Presentation).

**Robles A.**, Yellowman T. L., Delgado A. G. *Microbial Chain Elongation Inhibits Methanogenesis and Sustains Complete Reductive Dechlorination of TCE.* 9th Annual SSEBE Graduate Research Symposium. Tempe, AZ, February 2019. (PPT Presentation).

Publications

**Robles A.**, Joshi SM, Yellowman T, Delgado AG*. Microbial chain elongation as a H2-producing process for reductive dechlorination of chlorinated ethenes.* In preparation.

Joshi S. M., **Robles A.**, Aguilar S., Delgado A. G*. The occurrence and ecology of microbial chain elongation of carboxylates in soils.* ISME.

Skills

AutoCAD Software

Qiime2 (bioinformatics software)

Experience in developing methods for qPCR, HPLC, and GC.

Gardener, baker, and kombucha enthusiast

Languages

English– native language

Spanish

Memberships and Affiliations

Society of Hispanic Professional Engineers

American Society of Civil Engineers

American Chemical Society

Society of Women Engineers

Association for Women in Science

Omega Phi Alpha National Service Sorority