

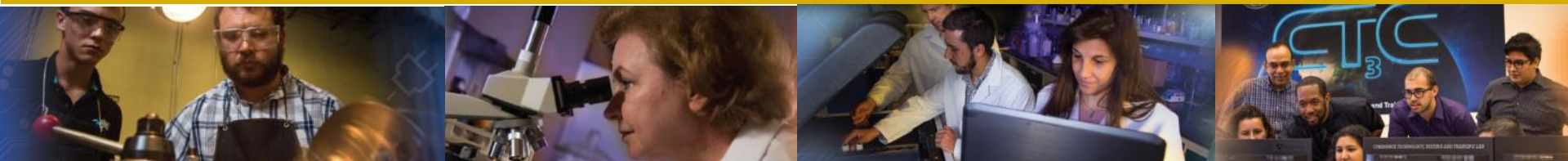


# FIU Project 4

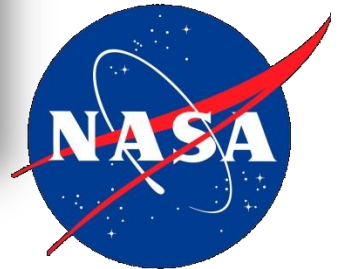
## DOE-FIU Science and Technology Workforce Development Program

Dr. Leonel Lagos  
(Program Director)

FLORIDA INTERNATIONAL UNIVERSITY



# STEM Minority Students Pipeline





# DOE Fellow Induction Class of 2018



Roger Boza  
David Mareno  
Jorge Montesino  
Jose Rendon  
Alex Rivero  
Jason Soto  
Alexis Suarez  
Patrick Uriarte  
Alexis Vento  
Amanda Yancoskie

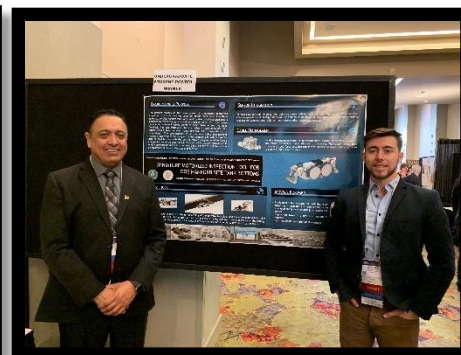
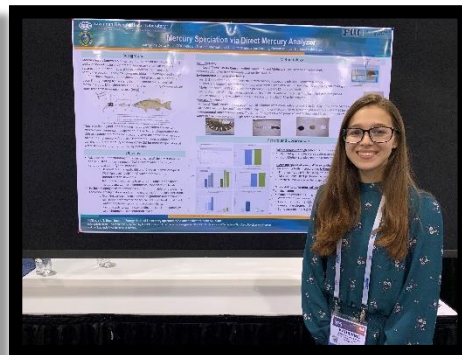


10 New DOE Fellows inducted,  
152 since program inception



# Conference Presentations

- Waste Management Symposia – 14 student technical posters, 3 professional presentations, and 3 panel members
- DOE Fellow Poster Exhibition and Competition at FIU – 17 Fellows
- Life Sciences South Florida Undergraduate Research Symposium – 2 Fellows
- American Nuclear Society (ANS) winter meeting in Orlando – 4 Fellows
- SoFL-ACS Chapter Chemical Sciences Symposium in Miami – 1 Fellow
- American Nuclear Society (ANS) student conference – 2 Fellows





# WM19 University Pavilion





# DOE Fellow Publications



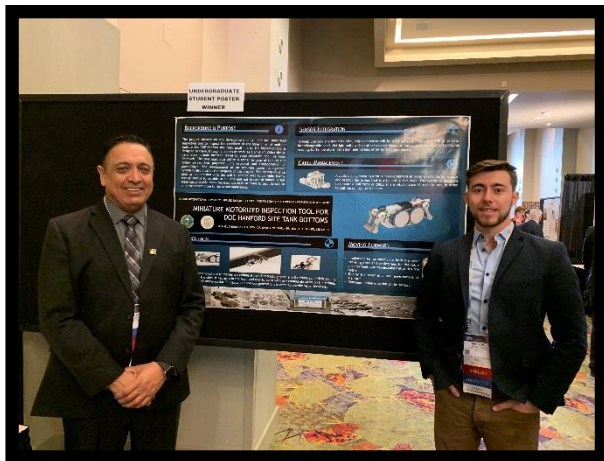
- Szecsody, J., Truex, M., Qafoku, N., McKinley, J., Ivarson, K., **Di Pietro, S.A.**, (2019) “Persistence of Chromate in Vadose Zone and Aquifer Sediments in Hanford, Washington,” Accepted in: Science of the Total Env.
- Emerson, H., **S. DiPietro**, Y. Katsenovich, J. Szecsody. October 2018. Potential for U Sequestration with Select Minerals and Sediments via Base Treatment. Journal of Environmental Management, 223, 1, 108-114.
- Emerson, H., **F. Zengotita**, T. Dittrich, M. Richmann, Y. Katsenovich, D. Reed. October 2018. Retention of Neodymium by Dolomite at Variable Ionic Strength as Probed by Batch and Column Experiments. Journal of Environmental Radioactivity, 190-191, 89-96.



# DOE Fellow Awards/Recognitions



- Best student poster award at WM19 – Michael DiBono
- 2019 Roy G. Post Foundation Scholarship (Undergraduate Level) – Manuel Losada
- Best posters at DOE Fellow Poster Exhibition and Competition – Anibal Morales (1<sup>st</sup>), Tristan Simoes-Ponce (2<sup>nd</sup>), Ripley Raubenolt & Silvina Di Pietro (3<sup>rd</sup>)
- 2018 DOE Fellow of the Year Award – Katherine De La Rosa





# Next Generations of Tech Workforce

DOE Fellows demonstrating robotic technologies to middle and high school students during FIU's Engineering Expo







# Academic Milestones

- **Hansell Gonzalez-Raymat:**

Successfully defended Ph.D. dissertation: *Unrefined Humic Substances as a Potential Low-cost Remediation Method for Groundwater Contaminated with Uranium in Acidic Conditions*

- **Sebastian Zanlongo**

Successfully defended Ph.D. dissertation: *Multi-Robot Coordination and Scheduling for Deactivation & Decommissioning.*

- **Joseph Coverston:**

Successfully defended Master's thesis: *Numerical Simulation of Flushing Deposits in Pipelines*

- **Joshua Nunez:**

Successfully passed M.S. proposal defense based on thesis: *The Applications of Intumescent Technologies in Support of D&D Activities Across the DOE Complex*

DOE Fellow Ripley Raubenolt at Fall 2018 graduation ceremony



DOE Fellow Ximena Lugo at Spring 2019 graduation ceremony



## Graduates – December 2018

- Hansell Gonzalez(Class of 2013) – Ph.D. Chemistry
- Sebastian Zanlongo (Class of 2015) – Ph.D. Comp. Sci.
- Ripley Raubenolt (Class of 2016) – B.S. Env. Eng.
- Amanda Yancoskie (Class of 2018) – B.S. Env. Eng.

## Graduates – May 2019

- Alex Rivero (Class of 2018) – B.S. Comp. Eng.
- Michael DiBono (Class of 2016) – B.S. Mech. Eng.
- Ximena Lugo(Class of 2017) – B.S. Env. Eng.
- Jeff Natividad (Class of 2019) - B.S. Env. Eng.



# Career Commencements

Hansell Gonzalez-Raymat

Ph.D. Chemistry

Position: Sr. Scientist SRNL



Hansell Gonzalez-Raymat  
DOE Fellow - Class of 2013



Hansell delivering message to DOE Fellows Class of 2018 (left)  
and presenting poster at Waste Management 2018 (right)

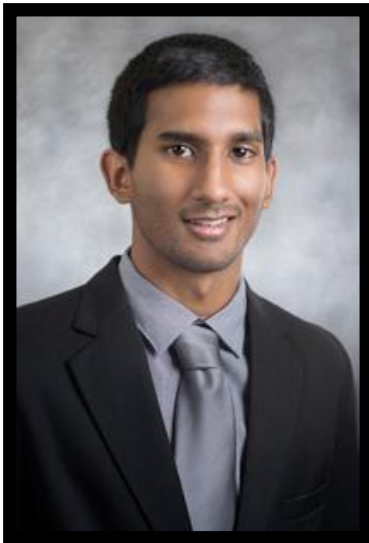


# Career Commencements

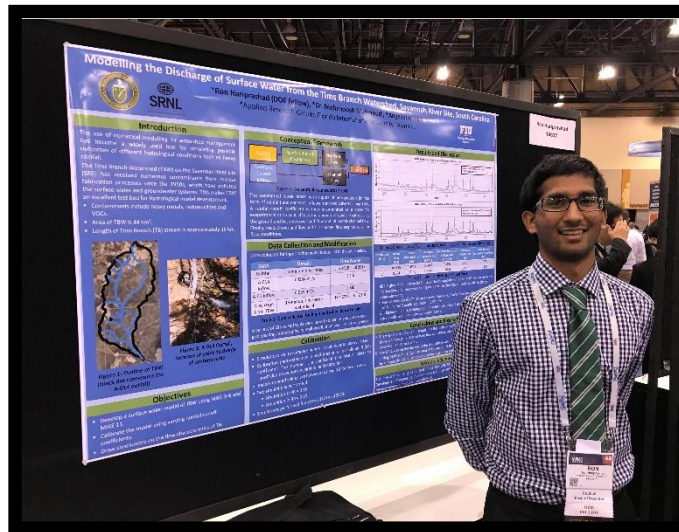
## Ron Hariprashad

M.S. Environmental Engineering

Position: Drainage Engineering Associate - Engineer I, RS&H



**Ron Hariprashad**  
DOE Fellow - Class of 2016



Ron presenting his poster at WM2019 (left) and at SRNL during his 2017 summer internship (right)



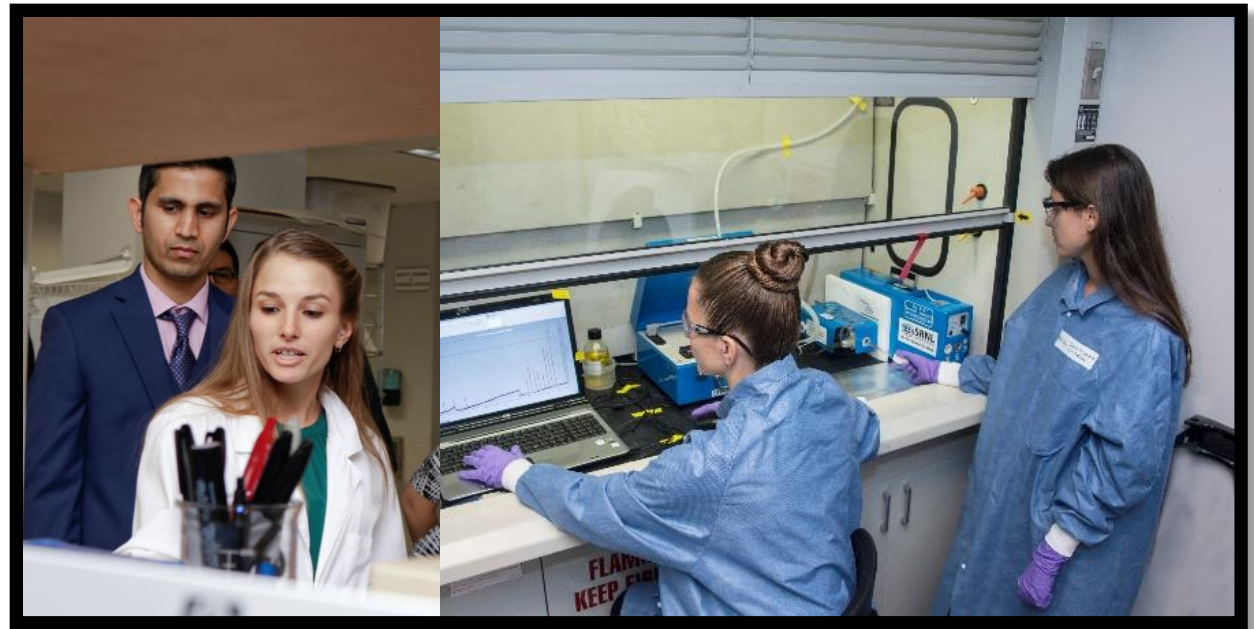


# Career Commencements

## Ripley Raubenolt

B.S. Environmental Engineering

Position: Associate Professional – SCS Engineering



Ripley Raubenolt  
DOE Fellow - Class of 2016

Ripley during at FIU laboratory (*left*) and at  
SRNL during her 2017 summer internship (*right*)

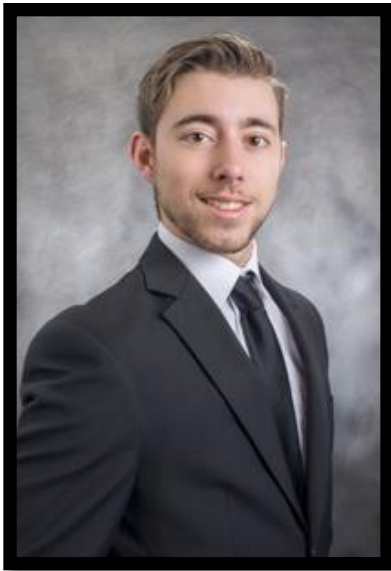


# Career Commencements

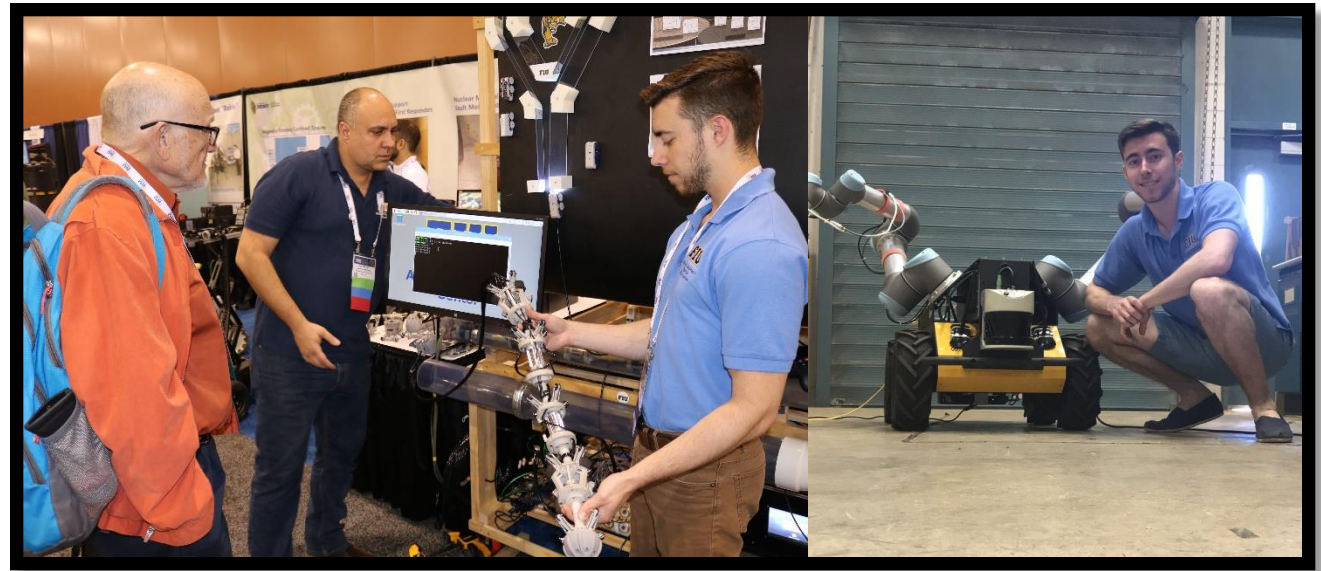
## Michael DiBono

B.S. Mechanical Engineering

Position: Technical Account Manager – Microsoft



**Michael DiBono**  
DOE Fellow - Class of 2016



**Michael at WM2018 robotic showcase (left) and at University of Texas Austin during 2017 summer internship (right)**

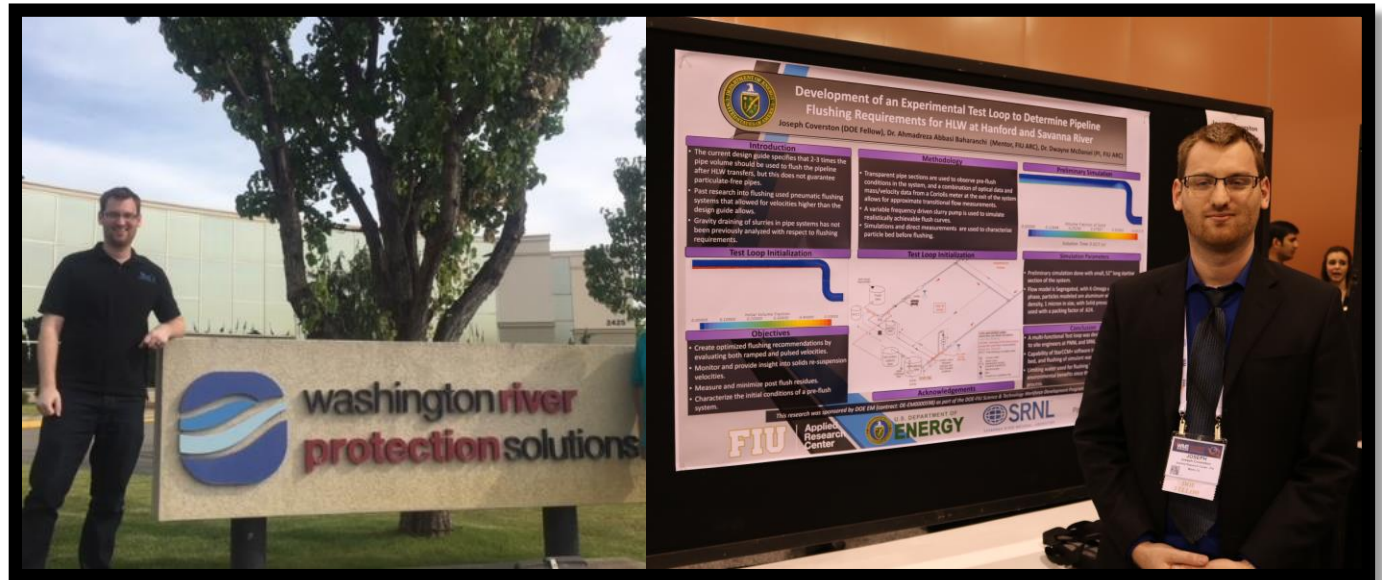
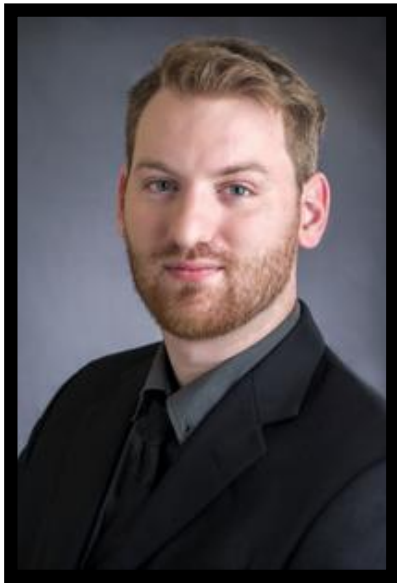


# Career Commencements

Joseph Coverston

M.S. Mechanical Engineering

Position: R&D Engineer II – The Pennsylvania State University’s Applied Research Laboratory



Joseph Coverston  
DOE Fellow - Class of 2017

Joseph at WRPS during his summer internship 2018 (left) and at the WM2019 student poster presentation (right)



# Summer 2019 Internships



DOE Fellow	Internship Location	Internship Mentor
Jason Soto	WRPS	Matt Garlick
Patrick Uriarte	WRPS	Natalie Young
Anilegna Nunez Abreau	HQ	Skip Chamberlin
Alexis Suarez	HQ	Skip Chamberlin
Alexis Vento	Sandia	Anderson Ward
Katherine De La Rosa	SRNL	Brian Looney
Silvia Garcia	SRNL	Brian Looney
Silvina Di Pietro	LLNL	Claudia Joseph
Juan Morales	SRNL/ANL	Pamela Weisenhorn
Amanda Yancoskie	SRNL	Grace Maze
Alejandro Koszarycz	SRNL	Patricia Lee
Roger Boza	INL	Mike Griffel
Tristan Simoes-Ponce	SRNL	Connor Nicholson
Frances Zengotita*	LLNL	Enrica Balboni
Ryan Cruz*	INL	Tammy Borders

**FIU-DOE  
Cooperative  
Agreement**

**Funded by  
hosting  
institution**



# FIU Performance Year 10



**Active hands-on research assisting ARC scientists/engineers during the execution of DOE-EM research in order to integrate education with practical experience in the DOE EM problem areas.**

- Recruit qualified talented FIU minority STEM students
- Engage in DOE EM research under the technical projects
- Conduct poster exhibition & competition
- Host DOE Fellows induction ceremony
- Coordinate summer internship program and internship technical reports
- Conference participation & presentations, including WM Symposia
- DOE Fellows lecture series forum
- DOE EM HBCU collaboration/interactions - extend recruitment to include HBCU/MSI students interested in a Ph.D. at FIU
- Work closely with DOE nat. labs to identify opportunities for Ph.D. students including extended work assignments that can lead to post-doctoral positions
- Fostering opportunities for DOE Fellows research assignments at other institutions (i.e. CMU, UT-Austin, others)