

FIU Projects 4 & 5 DOE-FIU Science and Technology Workforce Development Program

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FLORIDA INTERNATIONAL UNIVERSITY



STEM Minority Students Pipeline

























The University of Texas at Austin









DOE Fellow Induction Class of 2019



Derek Gabaldon Gisselle Gutierrez **Daniel Martin** Aurelien Meray Philip Moore Jeff Natividad **Edward Nina** Anilegna Nunez Abreu Heily Revoll Caballero Michael Thompson Rocio Trimino Gort Nathalie Tuya Olivia Bustillo Beatriz Perraso



12 EM + 2 LM New DOE Fellows inducted, 166 since program inception



DOE Fellow Induction Class of 2019





Inducted two DOE LM Fellows

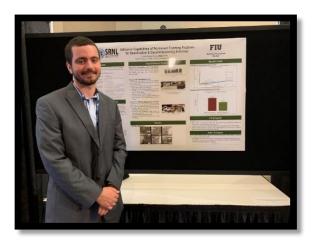


Conference Presentations



- Waste Management Symposia 2020 13 student technical posters, 2 professional presentations, and 1 panel member
- DOE Fellow Poster Exhibition and Competition at FIU 21 Fellows
- International Test And Evaluation (ITAE) 2019 conference 1 Fellow









Fellows @ WM20









DOE Fellow Awards/Recognitions



- Best undergraduate student poster award at WM20 Anilegna Nunez Abreu
- 2020 Roy G. Post Foundation Scholarships Gisselle Gutierrez (Undergraduate Level), Amanda Yancoskie (Graduate Level)
- Best posters at DOE Fellow Poster Exhibition and Competition 2019
 - Graduate: Michael Thompson (1st), Tristan Simoes-Ponce (2nd), Roger Boza (2nd);
 - Undergraduate: Christopher Excellent (1st), Katherine De La Rosa (2nd), Anilegna Nunez Abreu (2nd)
- 2019 DOE Fellow of the Year Award Tristan Simoes-Ponce





Next Generations of Tech Workforce



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







Academic Milestones





Graduates - December 2019

Frances Zengotita (Class of 2016) - B.S. Chemistry Joshua Nunez (Class of 2017) - M.S. Mech. Eng. Patrick Uriarte (Class of 2018) - B.S. Mech. Eng. Ryan Cruz (Class of 2017) - M.S. Info. Tech.

Graduates - May 2020

Aurelien Meray (Class of 2019) - B.S. Comp. Sci. Rocio Trimino Gort (Class of 2019) - B.S. Env. Eng. Tristan Simoes-Ponce (Class of 2017) - M.S. Mech. Eng.

Graduates - Aug 2020

Gisselle Gutierrez (Class of 2019) - B.S. Env. Eng. Jason Soto (Class of 2018) - M.S. Mech. Eng. Michael Thompson (Class of 2019) - M.S. Elec. Eng.

- Frances Zengotita: Recognized and honored by FIU's President, Dr. Mark Rosenberg, as a World's Ahead Graduate
- Tristan Simoes-Ponce: Successfully defended his Master's Thesis, titled "Mechanical Properties of Permanent Foaming Fixatives for D&D".
- **Jason Soto:** Successfully defended and passed his Master's thesis titled "Design of a Robotic Inspection Platform for Structural Health Monitoring"
- **Michael Thompson:** Successfully passed M.S. proposal defense based on thesis: *Structural health monitoring of pipelines in radioactive environments through acoustic sensing and machine learning*



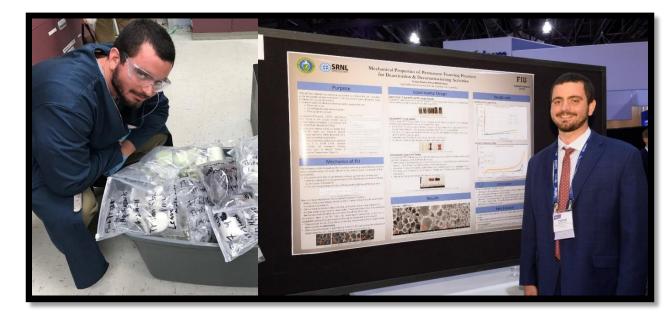


Tristan Simoes Ponce

M.S. Environmental Engineering Position: Mechanical Engineer at SRNL







Tristan at SRNL during summer 2019 internship (*left*) and presenting poster at Waste Management 2020 (*right*)





Patrick Uriarte

B.S. Mechanical Engineering
Position: Test Systems Engineer Intern at iRobot



DOE Fellow - Class of 2018



Patrick presenting at poster exhibition (*left*) and at WRPS during his 2019 summer internship (*right*)





Ryan Cruz

M.S. Information Technology
Position: Information Assurance Engineer at Lockheed Martin



DOE Fellow - Class of 2017



Ryan at INL during summer internship 2019





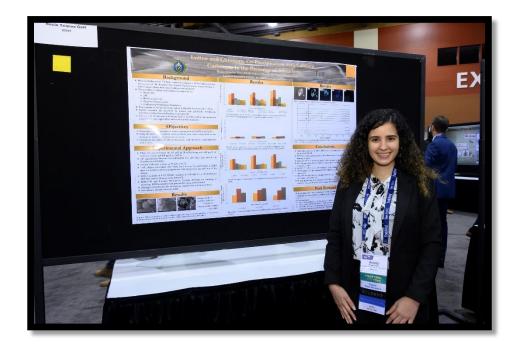
Rocio Trimino-Gort

B.S. Environmental Engineering

Position: Junior Project Engineer at A&P Consulting Transportation Engineers, Corp.



DOE Fellow - Class of 2019



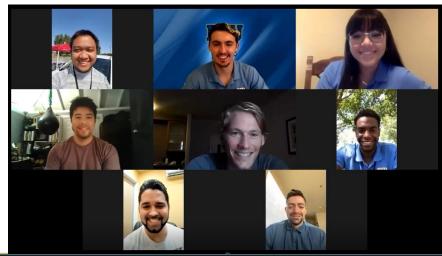
Rocio presenting poster at WMS 2020



Summer 2020 Internships



DOE Fellow	Internship Location	Mentor(s)
Roger Boza	INL (10 week remote)	Ahmad Al Rashdan, Mike Griffel
Michael Thompson	INL (2 weeks remote + 8 weeks on site)	Ahmad Al Rashdan, Mike Griffel
Christopher Excellent	INL (2 weeks remote + 8 weeks on site)	Christopher Wright, Steven Egan
Aurelien Meray	LBNL (10 week remote)	Haruko Wainwright
Juan Morales	PNNL (10 week remote)	Katrina Waters
Gisselle Gutierrez	WIPP (10 week remote)	Anderson Ward
Edward Nina	WRPS (8 weeks on site)	Trent Fullmer
Jeff Natividad	WRPS (8 weeks on site)	Alexander Pappas

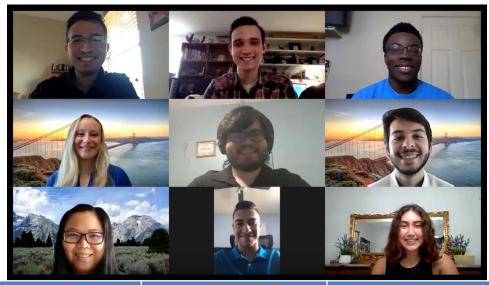


Advancing the research and academic mission of Florida International University.



Recruitment - Class of 2020





DOE Fellow	Program	Major
Alicia Maratos	Undergraduate B.S.	Environmental Engineering
Adrian Muino	Undergraduate B.S.	Computer Engineering
Raymond Piloto	Graduate M.S.	Computer Engineering
Ryan Ocampo	Graduate M.S.	Civil Engineering
Stevens Charles	Undergraduate B.S.	Civil Engineering
Mariah Doughman	Graduate Ph.D.	Chemistry
Phoung Pham	Graduate Ph.D.	Chemistry
Sebastian Story	Undergraduate B.S.	Mechanical Engineering
Joel Adams	Graduate Ph.D.	Mechanical Engineering



FIU Performance Year 1



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

- Recruit qualified talented FIU minority STEM students
- Engage in DOE EM/LM 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, American Geophysical Union (AGU)
- 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)