

WORKFORCE DEVELOPMENT & TRAINING

PROJECT: DOE-FIU Science and Technology Workforce Development Program

CLIENT: U.S. Department of Energy LOCATION: DOE HQ, DOE Sites & National Labs PRINCIPAL INVESTIGATOR: Dr. Leonel Lagos PROGRAM MANAGER: Dr. Ravi Gudavalli

Description:

The DOE-FIU Science and Technology Workforce Development Program is an innovative program between the U.S. Department of Energy's Office of Environmental Management (DOE-EM) and Florida International University's Applied Research Center designed to create a "pipeline" of minority engineers specifically trained and mentored to enter the DOE workforce in technical areas of need. This innovative program was designed to help address DOE's future workforce needs by collaborating with academic, government and DOE contractor organizations to mentor future minority scientists and engineers in the research, development, and deployment of new technologies addressing DOE's environmental cleanup challenges. Students selected as DOE Fellows will perform DOE-EM related hands on research at FIU by working alongside FIU-ARC's scientists and engineers as well as with FIU faculty.



DOE Fellows participating in summer internships

The students also participate in summer internship assignments at DOE facilities such as national laboratories and DOE sites. Upon graduation and completion of this fellowship, the students will submit an application to join Federal internship programs such as the Pathways Program, or apply to DOE national laboratories and DOE contractors.

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DOE Fellows performing research

Benefits:

- Students gain professional development and work experience through hands on research conducted alongside ARC and FIU scientists.
- 10-week internships at DOE national laboratories such as Oak Ridge, Pacific Northwest, Lawrence Livermore, Savannah River, Los Alamos, and Idaho, as well as DOE-HQ, and DOE sites.
- Opportunities for graduate students to develop Master's thesis and/or PhD dissertation topics with direct supervision of ARC scientists and FIU faculty.
- Students attend national and international conferences such as the Waste Management Symposia, American Nuclear Society's annual meetings and topical conferences.
- Students develop presentation skills by highlighting their research via oral and poster presentations.
- Opportunities for students to seek employment with DOE, DOE national labs, and DOE contractors.

ABOUT

Since 1995, the Applied Research Center at Florida International University has provided critical support to the Department of Energy's Office of Environmental Management mission of accelerated risk reduction and cleanup of the environmental legacy of the nation's nuclear weapons program. ARC's research performed under the DOE-FIU Cooperative Agreement (Contract # DE-EM0005213) can be classified as fundamental/basic, proof of principle, prototyping and laboratory experimentation.

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Accomplishments:

- 183 FIU STEM minority students (graduates and undergraduates) have been inducted as DOE Fellows since program inception.
- Thirteen (13) DOE Fellows hired by DOE EM HQ, DOE national research laboratories, NNSA, and private contractors for EM. In addition, 19 DOE Fellows have been hired by other federal, state or local governments including: Dept. of Defense, NASA, Dept. of Commerce, Florida Dept. of Environmental Protection, DERM, Dept. of the Navy (NAVSEA).
- 77 DOE Fellows graduated FIU with BS or MS degrees and obtained employment in STEM industry, including Florida Power & Light, GE, Lockheed Martin, Raytheon, Texas Instruments, and others. Hiring rate for DOE Fellows is 95%.
- 173 internships completed at DOE sites, national labs (SRS, ORNL, DOE ORO, PNNL, LLNL, Idaho, and Hanford), DOE HQ and DOE contractors. Technical reports available at <u>http://fellows.fiu.edu</u>.
- Over 275 student posters and professional presentations given at national & international conferences (e.g., Waste Management Symposia, American Nuclear Society, etc.).
- Waste Management Symposia Best Student Posters awarded to Aurelien Meray (2021, Graduate), Derek Gabaldon (2021, Undergraduate), Anilenga Nunez (2020), Michael (2019, DiBono undergraduate), Mackenson Telusma (2019. Graduate), Christine Wipfli (WM15), Alexandra Fleitas (WM14), Stephen Wood (WM11), Denny Carvajal (WM10) and Denisse Aranda (WM09). Best Overall Professional Poster awarded to Leydi Velez (WM09).
- 74 Fellows have continued to obtain Master's or PhD degrees at FIU and other institutions.
- Established the first American Nuclear Society (ANS) student chapter at FIU (January 2016).



DOE Fellows and FIU staff at WM20.



DOE Fellows with Mr. Ike White at WM20.



DOE Fellows and judges at FIU Poster Competition 2019.