

WM2015 Conference Panel Report

PANEL SESSION 038: Graduating Students and New Engineers – Wants and Needs – Are Companies Even Listing?

Session Co-Chairs: **Robert Berry**, *Foxfire Scientific, Inc.*
Leonel Lagos, *Applied Research Center – FIU*

Panel Reporter: **Robert Berry**, *Foxfire Scientific, Inc.*

Panelists:

- **Melody Bell**, *DAS, US DOE EM Headquarters*
- **Kevin Cooper**, *Director Regional Center for Nuclear Engineering and Training Indian River State College*
- **Robert Lapierre**, *Florida International University*

Summary of Presentations:

Melody Bell spoke of:

- DOE student programs including the Intern and Pathway Programs, spoke of the future needs of the DOE offices are manning requirements for EM in particular.
- Currently 20 candidates are completing the one year intern program and there are 10 slots for the next class.
- Introduced the DOE's Presidential Management Fellows Program which is setup to develop future leaders, but no current EM slots exist.
- trips for students in order to build a more complete resume and what 'soft skills' they should be working on to improve their job chances.

Kevin Bell Head of the RCNET / NSF CITE Center at Indian River State College,

The Indian River College NSF CITE site is one of 42 ATE centers in the US, created for Technician Training / workforce integration. The RCNET was founded in August of 2011, with a NSF grant of \$3.1 Million dollars. The center provides new generation/ next generation training in response to DOE requests, and they also get feedback from students to change training methods to better reach out to the students. He outlined the general curriculum / professional development/ soft skills and career and academic pathways that is the training center focus. He then listed the types of Associate of Sciences degrees awarded and what job needs they fill for DOE.

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Robert LaPierre FIU, discussed the graduating rate from STEM degree programs (50%) and trends in hiring. He compared those rates to non-STEM degree programs, (25%) physical sciences and (15%) for Biology degree programs and asked “Why so low?” He attributes this to:

- A) Less job available compared to number of graduates
- B) Some find opportunities outside of STEM

What do STEM students Want?

- A) Money - compensation/ benefits / incentives
- B) Power – responsibility / ability to make a difference/ freedom to express themselves
- C) Respect
 - a. Positive company culture/morale/philosophy
 - b. Real responsibility
 - c. Mentorship
 - d. Challenging learning opportunities