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IDS Awarded UAE Contract for STEM Modeling Tools and Expertise

By: IDS Communications
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Alex Sanchez (left) greets Dr. Hassan Barada, interim Dean of Engineering at Khalifa University.

operating in a highly technological and computerized world where advances are occurring with increasing speed and frequency.”

IDS was recently awarded a contract from the United Arab Emirates (UAE) to provide Science, Technology, Engineering and Mathematics (STEM) modeling tools and expertise to increase university graduates with STEM-related degrees. The contract was awarded to IDS by Khalifa University of Science, Technology and Research (KUSTAR).

According to Lee Silvestre, vice president for Mission Innovation, more graduates in the STEM fields are needed in developed nations “to meet the demands of

Leveraging IDS’ Expertise

Alex Sanchez, a systems engineer who conducts research and speaks on education modeling, is leading Raytheon’s effort for Khalifa University. In fact, Sanchez is so highly regarded in this area that he was recently appointed to Massachusetts Gov. Deval Patrick’s STEM advisory council.

Sanchez, a member of Silvestre’s Mission Innovation group, is an expert in system dynamics modeling and simulation, which means studying systems through positive and negative feedback loops. “We’ve discovered that if you have teachers who can teach STEM well, then you’ll have more interested students, and these students will eventually graduate and become STEM teachers themselves — so that’s a positive feedback loop,” explained Sanchez.

Working with the university’s dean of Engineering, Sanchez will make three separate trips to the UAE during the six-month contract. He has already returned from his first trip, in which he helped launch the program. “We were contracted to help them identify two professors that they can hire, so I was there to begin that process.”

Sanchez will return to Khalifa University in June and again in October.

History of Education Modeling

Raytheon began work on a [STEM educational model](#) for the U.S. in 2006 under the personal direction of Chairman and CEO Bill Swanson. The model was developed to gain an understanding of the U.S. education system with the expressed purpose of increasing students' interest in pursuing STEM-related courses of study and careers.

“Applying system dynamics modeling and simulation to education was really intriguing because no one had done it before,” said Sanchez. “I had to research it and lead the charge; since then, I’ve become very, very involved in STEM activities.”

Raytheon and other engineering and technology-based companies are acutely aware of the importance of maintaining a steady stream of scientists, technicians, engineers and mathematicians from colleges and universities.

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