Looking east for diversity

Female engineering academics - and their supporters - converge in Turkey

By Michael Hughes

According to Alice Smith of Auburn University, the West has a lot to learn from the Republic of Turkey about promoting women in industrial engineering academia.

That's why Smith and her co-principal investigator, Wichita State University professor Janet Twomey, both IIE members, scheduled the 2012 Workshop on Women in Industrial Engineering Academia for Istanbul.

"In fact, [Turkey's] proportion of women in engineering and engineering academia is quite a bit higher than it is in the U.S. or Europe," said the W. Allen and Martha Reed Professor of Auburn's industrial and systems engineering department. "So they obviously have a model that's worked, and they have significant numbers of high achieving women in academia and women in the academic pipeline."

A paper Smith co-authored illustrates this point. In 2005, women accounted for 17.2 percent of U.S. engineering undergraduates, 9.2 percent of the engineering faculty members and 10.2 percent of U.S. engineering workforce. By contrast, women were nearly 22 percent of Turkey's undergraduate students, 32 percent of the republic's engineering graduate students and about 28 percent of its engineering faculty, Smith and Berna Dengiz wrote in "Women in Engineering In Turkey – A Large Scale Quantitative and Qualitative Examination," published in the European Journal of Engineering Education.

The issue was important enough for the National Science Foundation to grant $60,000 for the purpose. Smith said that's the most money the NSF will give for international workshops.

So 75 academics from nine countries, including 11 from Baghdad University, gathered in Istanbul from May 30 to June 1 for roundtable discussions, sessions on career advancement and networking. The few participants not involved in industrial engineering departments hailed from technical areas that aligned with industrial engineering, Smith said. IIE member Zeki Ayag, an associate professor of industrial engineering at Kadir Has University in Istanbul, was the conference's foreign leader.

Smith described the gathering of 64 women and 11 men as more intensive and focused than a traditional conference, with fewer breakout and parallel sessions. The workshop featured a lot of unstructured time so people could have a free exchange of ideas. And former IIE president Jane Ammons, who is chair and professor of the Stewart School of Industrial and Systems Engineering at Georgia Tech, was the keynote speaker. IIE President-elect Kim Needy, an IIE professor at the University of Arkansas, promoted the benefits of becoming involved with IIE. The fact that it wasn't open to the public, that attendees had to be accepted, added to the focus.

Smith said the workshop achieved both of its objectives: Discuss best practices for helping women advance in industrial engineering academic careers, and facilitate future collaborations, especially international ones, among its participants.

Attendees ranging from doctoral students through senior academics took a multifaceted look at different professional development mechanisms, leadership opportunities and tricks and tools of the trade from those who have been through the process already. More junior people could learn about earning promotions and tenure...
while more experienced attendees gained illumination about advancing into administration or becoming a full professor.

The poster sessions allowed attendees to discover other researchers who tackled similar issues. Luncheon roundtables grouped people with similar research interests one day and with similar teaching interests another day.

Attendees showed a particular interest in meeting and proposing future collaborations with the contingent from Iraq. A similar conference in 2008 lacked such a delegation. In recent years, Smith hosted a couple of Iraqi professors at Auburn. Through them, the organizers got the word out to Baghdad University.

“They were very excited about being able to participate in an international conference, but one that they could afford to get to and could get to from Baghdad relatively easily,” Smith said. “They spread the word among their colleagues there, so we ended up with 11 men and women, mostly women, which added a really good dimension.

“They are facing so many challenges in trying to rebuild their universities and their educational system, and especially the women there are in a challenging environment because of the history of being oppressed there,” Smith continued. “It was exciting for those people, but it was exciting for everyone else because very few of the attendees had had an opportunity to meet with Iraqi professors firsthand and to get an appreciation of what they’re doing in Iraq with engineering education.”

Twomey concurred, adding that the time allotted for social contact was plentiful, so it was fun getting to know the other professors. She dubbed meeting the professors from Baghdad extra special.

“Just knowing about where they came from and what it took for them to get to the meeting, it wasn’t easy,” Twomey said. “And I think for them, coming to this conference was like breathing fresh air.”

For many of the women it was the first conference that they attended out of their country and the first one that gave them the opportunity to meet so many people from other countries, Smith said.

“It’s a good time for America and the Middle East to try to do more things together,” she said.

*Michael Hughes is the managing editor of Industrial Engineer.*