NEW PROGRAM HELPS TO PAVE WAY FOR

MORE FEMALE FACULTY ENGINEERS

Women in engineering at the University of Illinois have started a new program to encourage and support more females to enter academia as faculty.

Illinois Female Engineers in Academia Training, or iFEAT, began when members of the Graduate Society of Women Engineers (GradSWE) at the university decided to leverage resources to make a change.

The new program, iFEAT, helps women engineers prepare faculty application materials to help them pursue academic careers. They also learn more about the faculty application process and best practices for submitting their applications.

The program addresses an ongoing, national issue—the shortage of women in science, technology, engineering, and mathematics faculty positions.

According to a report from the National Science Foundation, about 40 percent of women received doctoral degrees from 2002 to 2012. However, women held only 27 percent of tenure-track assistant professorships and fewer than 10 percent of tenured positions in engineering.

"Awareness of these statistics provided a little extra motivation for us to create a thorough and sustainable program," said Danielle Mai, a graduate student in the Department of Chemical and Biomolecular Engineering and member of Associate Professor Charles Schroeder's research lab.

With assistance from Elizabeth Horstman, a chemical engineering graduate student and member of Professor Paul Kenis' research group, and Yanfen Li, a graduate student in bioengineering, the trio founded iFEAT to develop a community of scholars with supportive faculty.

The program takes a two-pronged approach toward encouraging women to stay in academia, Mai said.

"First, seminars and panels open candid discussions about various parts of the faculty application process and starting an academic career," she said. "Second, students prepare tangible application materials that they give and receive feedback about in peer review groups."

Mai, a Mavis Future Faculty Fellow, said she had attended seminars and workshops about how to prepare for a faculty position. "These opportunities provided a lot of information, but there was little to no accountability for applying what I learned," she said.

Her involvement with iFEAT has solidified her wish to pursue an academic career.

"After graduate school, I plan to expand my research horizons through postdoctoral research, after which I will apply for tenure-track faculty positions at research-oriented institutions."

This year, 13 women participated in iFEAT, including one participant who applied for academic positions and has received several offers. The group plans to expand iFEAT next year to include postdoctoral researchers and advanced graduate students.

"The faculty position application process is difficult and time-consuming, so it is important to provide support for women who might feel alone in this stage of their career," Mai said.

"It is also important to sustain this program because gender diversity in engineering will not change over one, two, or five years. Universities should work toward providing steady resources for transient student and postdoctoral communities to make a lasting impact," she added.

The new program has received support from many faculty, and organizers expressed gratitude toward their advisor, Rohit Bhargava, Professor of Bioengineering and affiliate faculty member of Chemical and Biomolecular Engineering; Associate Professor Charles Schroeder, Assistant Professor David Flaherty, and Assistant Professor Ying Diao.

Chemical and biomolecular engineering graduate students Danielle Mai and Elizabeth Horstman and bioengineering graduate student Yanfen Li established iFEAT to support women pursuing careers in academia.