Spotlight on STEM Women

Dr. Saiyu Ren joined the Department of Electrical Engineering at Wright State University (WSU) as an Assistant Professor in 2009 where she oversees an active research program in radio frequency and mixed-signal microelectronic integrated circuits. Dr. Ren received her M.S. and Ph.D. in Electrical Engineering from WSU after first completing an MS degree at the Chinese Academy of Sciences. Dr. Ren has received research funding from RBS Technologies, Raytheon, and the USAF Research Laboratories. At WSU, she teaches both graduate and undergraduate courses in her area of expertise, including CMOS Integrated Circuit Design, VLSI Systems Design, and IC Design Synthesis.

Dr. Ren is a member of the Institute of Electrical & Electronics Engineers (IEEE) and Phi Kappa Phi. An active scholar, Dr. Ren has published several first authored manuscripts in prominent journals within her field and frequently presents her research at national and international conferences.

What are your current research interests?

“My research interests are focused on microelectronic integrated circuits. Microelectronic circuits are important technology enablers for applications that require ultra small size, weight, and power such as medical sensors, avionic sensors, and wireless communication sensors.”

What do you like most about being a scientist?

“I really enjoy working on applied engineering problems, where you build something for a practical application. I also feel very lucky to be a faculty member where I am able to share some of my engineering experience with my students; a good day in the classroom gives me great satisfaction.”

What would you say to women considering a career in your field?

“I would say GO FOR IT. Follow your dream! Engineering is one of the most rewarding careers on the planet.”

Taking Initiative:

LEADER Mini-Grants RFP—Deadline Oct. 28th

The LEADER Consortium is pleased to announce its third annual Mini-Grants Program. This program provides up to $5,000 (per award) in support of Institutional Programming, and Faculty Research activities that further the Consortium’s mission to promote the recruitment, retention, and advancement of tenure-track women STEM faculty, and to create a workplace environment that fosters these goals.

Institutional Programming awards support activities that include (but are not limited to): convening workshops for regional STEM women, hosting speakers or visiting scholars; and regional networking activities targeted at STEM women faculty.

Faculty Research awards support any faculty research activity aligned with our mission, including: attending a specialized workshop; hosting a speaker or scholar; attending a conference for professional development; or purchasing equipment and supplies.

Proposals for activities to occur between Jan-Dec 2012 are welcome from individuals or groups (including academic departments or units), within or across institutions. The Mini-grants RFP and proposal forms may be found at the LEADER website: http://www.wright.edu/leader. Proposal requirements include a 3-pg narrative, a budget/justification, 2-pg bio-sketch, and one letter of support.

Proposals should be submitted by October, 28, 2011 via email to: leader@wright.edu. Questions regarding the Mini-grants program may be directed to Dr. Stephanie Goodwin at: leader@wright.edu.

Each month, we spotlight a leading female faculty member in the STEM disciplines from across our consortium. To nominate a female faculty member who is leading the way in your STEM department, send the nominee’s name along with a brief explanation to: leader@wright.edu.

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In addition, the availability of mentoring and professional coaching for STEM women throughout their careers may allow them to navigate around the service elevator and onto the fast path to success. The LEADER Consortium supports programs that promote both mentoring and coaching for tenure-track STEM women. To learn more about our programs, visit the LEADER website (www.wright.edu/leader) and select Faculty Resources.

Research Corner:
Gender and the “Service Elevator”—A Slower Ride to Advancement

Recent data from the University of Massachusetts (Misra et al., 2011) echo what women in academia may have long suspected: they may be doing more than their fair share when it comes to service. Misra and colleagues found important gender differences in how men and women spent their time, even though men and women spent about the same amount of overall time at work (~64 hrs/week). The largest gender differences were observed for faculty at the associate rank. Associate-ranked women, compared to men, reported spending ~8 hrs more per week on service (teaching, mentoring, committees).

Over two semesters, these 8 hrs/week add up to a difference of 220 hours, with necessary implications for research productivity. Both men and women reported they would prefer to spend more time on research and less on service, but when asked how they managed the extra demands of service roles, they reported “sacrificing research first.” Importantly, these gendered service patterns were more pronounced for women in STEM.

The authors of the study link these gender differences in service to other data demonstrating that women spend more time at the associate rank than do men. That is, women may be stuck in an “academic service elevator” that is simply slower to take them to the top when it comes to advancement.

How do campuses across the LEADER Consortium compare when it comes to gender and service? Data from the LEADER Consortium’s climate survey conducted in 2009-10 parallel Misra et al.’s results (see Figure). Across our institutions, women reported serving on more committees than did men, and tenured faculty reported serving on more committees than did untenured faculty. These data suggest that women at our institutions could be at risk of getting onto the “service elevator” with implications for research productivity and advancement.

How can we, as administrators, department chairs, and faculty members, address this potential risk? A number of solutions are possible, including: ensuring equity in service via better visibility of service activities, capitalizing on technology to reduce the burden of necessary service roles, and setting clear policies and expectations regarding service.

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