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## **AC 2012-5003: MENTORING MILLENNIAL WOMEN IN ENGINEERING**

### **Dr. David Porush, MentorNet**

David Porush is CEO of MentorNet. He earned his B.Sc. from MIT and his Ph.D. from SUNY, Buffalo. He was professor at RPI from 1981-1998 and Director of the AI Research Lab, as well as Founder and Director of the Electronic Media Arts & Communication B.S. degree program. From 2003-2007, he was Executive Director of SUNY Learning Environments, administering grants for new educational media for the 64 campus SUNY system and created the first B.S. in E.E. degree online. Porush is an author of numerous books, articles, and essays, including *The Soft Machine* (1985).

## **Mentoring Millennial Women in Engineering**

*What research tells mentors about navigating the gender **and** generation gap*

MentorNet will present its findings on new communication styles among female college students who are millennials (those born after 1980) and the implications for their career-focused relationships formed over electronic media, especially with mentors.

The basis for these changes, our research suggests, stem from radical shifts in cognitive and expressive habits powered by electronic media, including the ubiquity and power of smartphones, the Internet, social media, online gaming, and the number of channels and layers they collectively provide to the rising generation of millennials, also dubbed “digital natives.”

These include changes in their expectations about outcomes of relationships; the quality and informality of relationships; the broadening kinds of activities within those relationships that are considered legitimate professional discourse; the number and kinds of relationships they form; the increased speed with which relationships form and dissolve; changing expectations about the nature and instantaneity of feedback; lowered barriers to forming relationships across traditional divides; access to increased numbers of relationships; and proliferation of new and broader genres of acceptable communications styles. Secondary factors resulting from use of electronic media include changing expectations about work-life balance, mobility, loyalty, the nature of work itself, and shifts in temporal boundaries.

We will suggest specific strategies for mentors – who are overwhelmingly over 40 years old and male – to accommodate those shifts, with the goals of enhancing the dialogue between mentors and students in order to improve retention and graduation rates of women in engineering, ease their entry into the workforce, and improve the atmosphere for them in the engineering professions.

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