The most talked about career opportunities in the United States are in the area of STEM, which stands for Science, Technology, Engineering and Mathematics. In fact, some experts have said that because of the shortage of workers entering these fields, the United States is losing in competitiveness in the global market. We need more technological expertise in the workforce.

For the past 50 years or more, the U.S. has been a leader in technical innovation, which has been the force behind our economic prosperity. However, because of the decreasing number of people pursuing these technical careers and the increase in our technical talent and jobs moving overseas, our future advancement of our competitiveness in global research and development is of great concern.

A report by the National Academy of Sciences has shown that the U.S. is losing its edge in the area of STEM. It also indicates that other countries are being favored when it comes to global trends in research and development, and it highlights the immediate need for the U.S. to take action in order to enhance its competitiveness. The report also mentions the lack of the number of minorities and women entering careers in science and technology.

Another important concern in the fields of STEM is the number of women who are receiving their degrees in these fields and are either not pursuing STEM careers or they are choosing to leave their STEM career within the first five years. Some speculation for these two trends have been a lack of female role models, gender stereotyping and less family-friendly flexibility in the STEM fields.
In a study that focused on why women were leaving the engineering field at the University of Wisconsin—Milwaukee by Dr. Nadya A. Fouad, Ph.D., professor in the Department of Education Psychology and Director of the Center for the Study of the Workplace, and Dr. Romila Singh, Ph.D., associate professor of Lubar School of Business and Associate Director of the Center of the Study of the Workplace, it was concluded that women engineers left the engineering profession for many reasons that were both individual and organizational. However, the work environment seemed to be the greatest influence for women to leave their engineering job. This included too much travel, excessive workload, unclear work roles, lack of advancement and feeling isolated in a male dominated field. For some women, the work environment made it difficult to spend time with family or to even have a family.

“This is the key,” says Gabriel. “Anyone can have a job, but to find satisfaction can make all the difference in the world. And WiSE gives women the opportunity to be with other women in similar careers that are experiencing the same situations and challenges in the workplace.”

Because of the research by Dr. Fouad and Dr. Singh by UWM’s Center for the Study of the Workplace, Marcia Gabriel, LEED AP outreach specialist and program manager for the Center of Sustainability and Continuing Engineering Education, was able to create with her colleagues Murali Vedula, engineering program director, and Jan Allen, director of business and management programs, WiSE (Women in Science and Engineering), which is a monthly breakfast and discussion group for women engineers and female undergraduates. WiSE gives these women a platform to discuss how gender plays into shaping day-to-day professional interactions and its implications for long-term careers. And as Gabriel says, “These breakfasts have become invaluable as a place of constructive engagement and a sharing of information.”

What studies have found is that women in STEM careers often feel isolated and excluded from informal communication and support networks, and this was a major factor in taking a toll on these women’s career and job satisfaction. So UWM created WiSE to help create a support network for women in STEM careers.

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Gabriel also said that WiSE gives women a place to constructively discuss ideas to foster careers and professional growth; to focus on finding positive methods to make changes in the workplace; and it provides opportunities for networking, mentoring and professional development for women statewide.

“Studies have shown that women need to have this type of engagement for motivation and renewal,” says Gabriel.

I think this is true for all women in every aspect of our lives, whether in our careers or home. Think about how much better and energized you feel after you’ve spent time with a mentor or friend. No wonder WiSE has become such a successful program.

Each WiSE session is held the first Thursday of every month at the UWM’s School of Continuing Education. And at each meeting, a woman engineer facilitates a discussion on a new topic of interest. Some past topics have included How to Be Heard; Workplace Balance; Strategies for Working in a Male Dominated Environment; and Mentoring and Networking.

For more information about WiSE or to become a member, contact Marcia Gabriel at gabrielm@uwm.edu. Professional memberships are $60 per year and student memberships are $20 per year. Nonmembers may participate for $20 per session.

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