HAJIM SCHOOL

New Engineering Dean Outlines Her Vision

Wendi Heinzelman, the first woman to serve as dean of the Hajim School, sees engineering as a quest to improve the world.

Wendi Heinzelman recognizes that some students can find it difficult to imagine themselves as engineers. But, she notes, that's often because many young people haven't had the opportunity to learn about engineering and how the field contributes to modern life.

That was not the case for her. Heinzelman credits the example of her parents with sparking her interest in engineering and technology, as well as in expanding the reach of education.

"When I was growing up, engineering was not a subject that was covered in school, and had I not been born into a family where both education and engineering were highly valued, I may never have found my calling in life. My mom was a science teacher, and my dad an engineer," she recounted during a ceremony to formally mark her appointment as dean of the Hajim School of Engineering & Applied Sciences.

"From my mom I learned the power of education, as she spent most of her career teaching students from an inner city with less privileged backgrounds. My dad worked at Bell Labs in its heyday, and I remember the palpable excitement just in walking into that enormous building, where great minds of the day would be discussing their latest breakthroughs."

FIRST: Wendi Heinzelman is the first woman to lead engineering.

Her father helped develop technology to enable computers to understand spoken language, which was, as she noted, well before Apple, Google, Microsoft, and Amazon rolled out commercial versions of "assistants" you can talk to. "As a kid growing up in the '80s, this was the coolest technology I could imagine," she says. "You could actually talk to a computer and it would respond appropriately. This is what ignited my desire to learn about engineering, and in particular, electrical engineering, so that I could one day perhaps make a similar contribution to society."

Heinzelman's contributions—both as an electrical engineer and as an educational leader—were recognized during the December ceremony. Presided over by President and CEO Joel Seligman, the event included remarks by Ed Hajim '58, a chemical engineer who went on to become chair emeritus of the Board of Trustees and the namesake for the school.

They were joined by Peter Lennie, senior vice president and the Robert L. and Mary L. Sproull Dean of the Faculty of Arts, Sciences & Engineering. Also giving presentations were Heinzelman's mentor, Anantha Chandrakasan, the Vannevar Bush Professor and head of electrical engineering and computer science at MIT; and a guest speaker, Alicia Abella, assistant vice president for cloud technologies and services research at AT&T.

—BOB MARCOTTE

ADAM FENSTER

DEAN'S ADDRESS

'Diverse Groups Thinking about Problems'

By Wendi Heinzelman

Everyone grows up with the impacts of engineering all around them. But many kids do not have the slightest idea about what an engineer does and could not possibly envision themselves in this profession. This leads to a big portion of our society not being adequately represented in the fields of engineering and applied sciences. Given that the best, most creative, and most efficient solutions have been shown to result from diverse groups thinking about problems, it is vital to the future of not only our school but also our profession that we increase access.

To meet this goal, we as a society need to ensure that we do a better job of educating future generations about the field of engineering—the excitement of tackling difficult issues, the satisfaction of solving even a small piece of a problem, the incredible challenge that comes with being able to design the future, and the awesome responsibility to make sure that these solutions lead to positive outcomes, a healthier, happier, and more sustainable world. This is a challenge that we all are tasked with, and I know we will continue to make progress.

APPLYING APPLAUSE: Wendi Heinzelman, dean of the Hajim School of Engineering & Applied Sciences, is applauded after delivering an address to mark her installation as the first woman to lead the school.

The mission of the Hajim School is to advance the highest quality education and research in engineering and applied science through engaging experiences and environments that promote critical thinking, creativity, ethics, and leadership.

It is important that our students have access to opportunities outside of the classroom in three key areas: internships, global education, and research. Internships provide such an opportunity and help students determine directions they would like to take in their careers. It is also crucial that our students understand that we operate in a global world, and engineering must be undertaken within the context of a global society. Stepping out of their comfort zones and experiencing life in a different society, a different culture, perhaps a different language, is an incredible growth opportunity that I hope many of our students can experience. And research is key to developing analytic and creative skills, to understanding the literature and determining how to develop new knowledge, and to fostering critical thinking that will benefit our students in whatever careers they choose.

I also want to ensure that every individual within the Hajim School is respected and valued for the contributions that he or she brings to our academic mission. Although we have made great strides to increase our enrollment of women and underrepresented minority students and faculty, we need to do more to both attract and retain diverse students and faculty in our programs. At the same time, we must challenge ourselves to expand our thinking and our ideas—about the intellectual nature of our fields, the practical applications of our work, and the professional responsibilities that necessarily follow.

I am a strong believer in the benefits of crossdisciplinary thinking. The humanities and social sciences, in particular, have a lot to teach us about critical discourse, and my goal is for our Hajim students to engage in such discourse and to have our students explore opportunities they won't readily have once they leave the University.

I believe that all educated citizens in the 21st century, regardless of major or intended career, need to have an understanding of technology, of data analysis, system design, and computer systems, and we are currently working on developing new courses and clusters that will hopefully attract non-engineers to become educated in these important skills.

I've always loved our school's motto, Meliora, which means "ever better." To me, Meliora is about taking time to recognize, appreciate, and really celebrate how far we have come, yet always keeping an eye on where we want to go. I have no doubt that the spirit of Meliora is alive and well in the Hajim School, and I look forward to working with our students, faculty, staff, alumni and friends to achieve ever better research and educational opportunities. R

For the full text of Heinzelman's remarks, visit Rochester.edu/newscenter/heinzelman-address/.

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