she notes, the culture in Saudi Arabia is changing now as more women express interest in engineering and technical roles and, with some customers, her presence has never been an issue.

Within Cisco, the attitude toward women is more open. "I'm glad to work in a professional environment at Cisco Systems," says Al-Wehaibi. "My colleagues are respectful, cooperative, and supportive." Their support was especially apparent in 2009 when Al-Wehaibi became the first Saudi woman to receive Cisco Certified Internetwork Expert (CCIE) certification. CCIE is acknowledged worldwide as the most prestigious networking certification, awarded to engineers who have mastered Cisco products and solutions. "CCIE was one of my goals," explains Al-Wehaibi, who is especially proud that she passed the 8-h lab exam on her first attempt. Engineers also have to take the written portion of the exam every two years to be recertified, which Al-Wehaibi has been twice since 2009.

Another honor Al-Wehaibi received came in 2011, when she was invited to be the keynote speaker at that year's WIE Forum, as part of the IEEE Innovative Smart Grid Technologies Conference in the Middle East. In keeping with the theme of the forum, which was "empowering young professionals and graduate students," "I spoke about my career journey, how I started as an intern, the trainings I took, the certifications, challenges, and recommendations," recalls Al-Wehaibi. After the event, she officially became a WIE member.

It was her status as a member that enabled her eligibility for the IE scholarship, and, just slightly over a year later, Al-Wehaibi attended her first business class (over video conference). Though she is no longer the only female in her environment—there are 11 women in her class of 26 students—Al-Wehaibi is the only one from the Middle East and, she is told, the first Saudi woman in IE Business School.

> *"I would advise young women to invest in themselves and their education, because knowledge is power. I urge them to create development plans and have clear goals."*

Looking to the future, Al-Wehaibi knows she has a new challenge ahead of her: juggling a demanding job, an intensive MBA program, and maintaining some work-school-life balance. "Time management is key," she notes. But Al-Wehaibi is up to the task and passes along some advise to others looking to follow a similar path. "I would advise young women to invest in themselves and their education, because knowledge is power. I urge them to create development plans and have clear goals," she says. Above all, "I encourage them to aim high and pursue their dreams."

—Leslie Prives

A President of Relevance

Novak to assume IPS president role

Next year when Dalma Novak takes over as president of the IEEE Photonics Society (IPS), she'll have one main goal in mind: relevance. "I've been thinking about that a lot over the last few months," she says, referring to her vision for the Society. "I want to understand what the Society should be doing to keep itself relevant and how it can change as the needs of its members and stakeholders change."

Dalma Novak

The more than 6,000 members of the IPS, like the fields they represent, are very diverse: students, academics, and industry professionals from all aspects of photonics, which is the combined study of electronics and optics and offers opportunities in everything from fundamental interactions between light and matter to devices, systems, and networks. "The IPS is a technical community that supports the interests of anyone in a photonics-related field," says Novak. "We publish prestigious journals, support local Chapter activities around the world, cosponsor two of the most influential conferences in the field, hold an annual meeting, and also put on a number of smaller events."

The annual meeting, the IEEE Photonics Conference, is the group's flagship event. It is traditionally held in the second half of the year (the 2013 conference was held in September in Bellevue, Washington) and brings together 400–500 attendees from around the world for five days of programming. "Four days are for the main program, which typically has keynote speakers and a selection of oral and poster sessions and panel events, sponsored by various IPS subcommittees," explains Novak. "The Sunday program really focuses on students and Graduates of the Last Decade, offering networking opportunities for these younger members."

In addition to the annual conference, the IPS plans smaller, topical meetings that focus on one or more particular areas of photonics. There are usually three or four of these held annually, with a series scheduled in both the summer and winter.

While Novak's role as president won't include direct responsibility for event planning, it will be related to the role she's been playing for the last three years as a member of the IPS's Board of Governors. The board is responsible for the governance of the Society, directing its activities, and focusing on long-term strategic planning. "As president, my role is an extension of that work," Novak explains. "I'll serve as a direct liaison to the Technical Activities Board of IEEE, as well as provide leadership and direction as to the Society's activities in the future."

Starting Local

Novak is well primed for advising on the IPS's future, having started the first

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Chapter in the IEEE Victoria Section of Australia in 1999. She had previously been both a Student Member as well as a volunteer with IEEE. Since starting her local Chapter (at that time the IPS was called the Lasers and Electro-Optics Society), Novak has been active as a volunteer in various ways. "I've been an associate editor for several of the publications, served as both a program and general chair of the IEEE Photonics Conference, and been elected as the group's secretary-treasurer," she says.

Novak's leadership and entrepreneurial spirit are also evident in her day-to-day job, where she serves as the vice president of engineering at Pharad, LLC, a company she cofounded. Pharad is a research, development, and manufacturing company based in Maryland that develops advanced antenna and high-performance fiber-optic distribution networks for radio-frequency signals.

Novak transitioned into this work by way of academia, which she viewed as a natural next step after receiving a bachelor's degree in electrical engineering and a Ph.D. from the University of Queensland. She taught at both the University of Queensland and the University of Melbourne over the next 12 years before looking for a new challenge. Having taken a leave of absence from her professorship to work at a startup company in the United States, Novak considered transferring into the photonics industry for that challenge. By starting her own company, she would have different experiences, explaining "one opportunity I wanted to have was to work with a company where I was involved in managing the company and setting it up it from scratch."

However, Novak points out that the experience of starting a business and running it day-to-day is not all that different from her time in academia. "Because we are a company that works in state-of-the-art technologies, I actually do a lot of research, just like I did when I was at the University of Melbourne," she says. "The skill set that you develop as a professor, for example writing proposals and communicating with others, translates very well into working in industry. Training students is not dissimilar to training young engineers, as well."

Novak will be calling on her expertise spanning both academia and industry to lead the IPS over the next year. While one of the best-known aspects of the Society's offerings is the opportunity to publish in its prestigious journals, this benefit tends to resonate more with people in academia. Since, as Novak explains, "publications are sometimes of less interest to people in industry because there isn't that desire or need to publish," it is important for the Society to focus on remaining relevant to all its members. "I would like for people in industry to feel that the conferences and the networking component of the IPS are essential to their career paths," shares Novak.

"The skill set which you develop as a professor, for example writing proposals and communicating with others, translates very well into working in industry."

Like her own personal experience, Novak suspects that many people who go into engineering do so because, while they love the studies of mathematics and science, they appreciate having a degree that also makes them part of a profession. This profession has also given her a community to belong to in the IPS and she will continue to give back to that community through her leadership as president next year. "I have gotten a great deal out of becoming a volunteer to the IEEE," Novak says. "Someone once mentioned to me that you get out of it what you put in, and the experience of volunteering for me has given back something tremendous."

For more information on the IEEE Photonics Society and how you can become a member, please visit PhotonicsSociety.org or Facebook.com/PhotonicsSociety.

—Leslie Prives

Under Pressure

Engineering is a part of life for Kotb

Madiha Kotb is head of the Pressure Vessels Technical Services Division for Regie du batiment du Québec, a board established by the Québec government to ensure the quality and safety of buildings and systems, including safety programs within the field of pressure vessels. Kotb has also been recently elected as president of the American Society of Mechanical Engineers (ASME) for a one-year term, which began in July 2013. Kotb is the 132nd president of ASME and the fourth woman to lead the engineering organization. She is a recipient of the ASME Dedicated Service Award and the Canadian Standards Association Award of Merit for her contribution to the development of Canadian nuclear standards.

Kotb grew up as the youngest of four siblings, three girls and one boy. Her late father, Mahmoud El Mehelmy, was a civil engineer and a major partner in a construction company in Egypt. As a young child, Kotb says she was fascinated by engineering simply because her father was one. He used to always say, "Engineers might not be able to solve all of life's problems, but they are educated and trained to find solutions to every problem." For Kotb, it was not only that "father knows best," but also "engineers know best."

Engineering was one of the most respected professions in Egypt to the extent that you would call someone with an engineering education "Bashmohandess," which means "engineer" but is also a title of respect. Engineering was also a very well-paid profession in Egyptian society, so naturally it was appealing to those students who were competitive, had good grades in school, had an aptitude in science and math, and were looking to pursue a college education.

Kotb says one of her father's famous quotes was, "Work is very important and

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