Six indomitable women: Success stories in STEM

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Dr Nova Ahmed

As we face a multitude of complex challenges—from climate change to global health epidemics to rising inequality—the role of science, technology, engineering and mathematics (STEM) has become instrumental in our technology-driven world, where some of the fastest growing, lucrative occupations are in STEM fields. Many women in STEM face several challenges every day. Lack of motivation, confidence, family issues, implicit bias, and a general underrepresentation of women and girls in leadership positions and higher education remain systemic problems. However, participation of women in STEM occupations is essential, because diversity is a key factor in innovation and development. Commemorating the International Day of Women and Girls in Science (February 11), here are the inspiring stories of six women who are thriving in STEM fields.

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After passing her HSC from Holy Cross College, Dr Nova Ahmed earned her BSc in Computer Science from the University of Dhaka (DU). She served as a lecturer at DU right after her graduation, and earned her MSc and PhD in Computer Science from Georgia State University and the Georgia Institute of Technology, USA, respectively. Dr Nova joined the Department of Electrical and Computer Engineering (ECE) at North South University (NSU) in 2011. She was the only female faculty member in the department at the time. She is currently an associate professor at NSU.

Her research interests include computing for good, healthcare, education, cloud and distributed computing, sensors and systems, feminist human computer interaction, and ICT for privacy and social justice. She is fascinated with solving problems in Bangladesh in low-cost, feasible, and socially acceptable ways, through everything from sensor-based hardware systems to human-centered computing. To that end, she has worked on projects dealing with safe vehicle-driving, flash floods, and sexual harassment, among other things.

Dr Nova became a mother while she was pursuing her PhD. Continuously shifting her roles as a parent and a student and juggling her responsibilities effectively were tough for her. But thankfully her partner, who was also a PhD student at the time, and her peers helped her through all of it.

"I cannot do this because I am a girl" is a statement Dr Nova, who has over 10 years of research and professional experience in computer science, dislikes to hear. She is passionate about engaging women and children in STEM disciplines.

She noted that female students are a minority in her department and some of the brightest girls in her classes do not show the same active participation in laboratory-based learning environments. She has organised the Ada Lovelace Celebration in Dhaka and the Women in Science Without Borders programme in South Africa and Egypt to open up conversations about the challenges that women scientists face.

"Many of my female students don't want proper jobs in computer science upon graduation. Despite having good grades and giving good interviews, they tend to fail in the psychology tests for industry jobs," she explains.

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