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Qiao Sun is a professor in the Department of Mechanical and Manufacturing Engineering at the University of Calgary. She leads her research group in the effort to improve the performance of mechanical systems for higher precision, speed, reliability, and energy efficiency. She also teaches at the undergraduate and graduate levels on subjects such as engineering mechanics, control systems, and optimization methods. She has been chosen by graduating classes as the "Professor of the Year" numerous times.

Qiao obtained her BSc in Power Machinery with a major in Marine Diesel Engines from Shanghai Jiao Tong University and worked as an engineer in a shipyard for one year before she returned to the same university to pursue a master's degree in Mechanical Engineering. She studied robotics for her MSc and went on to become a research engineer and lecturer at the Research Institute of Robotics of Shanghai Jiao Tong University. She was involved in the design and prototyping of China's first industrial robot Shanghai-No.1 where she obtained a tremendous amount of firsthand knowledge in motion control. She came to the University of Victoria in 1992 to pursue a PhD degree focusing on the dynamics aspects of flexible cooperating manipulators. Following the completion of her PhD, Qiao worked at the National Research Council of Canada in Vancouver for 8 months before she joined the University of Calgary in 1996.

Q. What's your day job?

A. I spend between 2 to 4 hours on teaching including lectures and labs, preparing notes, marking tests, answering questions from students, and managing materials on Blackboard; another 2 to 4 hours on research related activities such as reading and writing articles, attempting solutions with pencil and paper or computer, discussing interesting problems with graduate students/visiting scholars, and attending meetings; and another 1 to 2 hours on service related work such as reading and writing, and attending meetings.

Q. What's the best part of your job?

A. The best part of my job is the freedom I have to choose what I want to do in my

research and to pursue what I feel is of value to my heart.

Q. What's the Favorite part of your career?

A. Teaching! Teaching is my way of contributing to the betterment of mankind and our society. I love to teach my students how to think and how to reason. I also highly value the influence of my role as a positive example of good work ethics and discipline for young people.

Q. Who inspired you to become a Mechanical Engineer?

A. My high school math and science teachers had the most influence in leading me to science and engineering. What made me choose engineering as opposed to

science is the influence of a family friend who was also a university professor, an alumnus of Shanghai Jiao Tong University. He showed me pages and pages of ordered numbers called matrices that were part of a finite element calculation for structural analysis. I thought to myself that I would also like to learn to tackle problems that were close to everyday lives.

Q. What is your definition of leadership?

A. A leader is someone who can motivate and engage others in the pursuit of a vision. I see myself taking leadership roles in classrooms and in guiding graduate students to achieve learning goals. I also see ourselves, the engineering professionals, as having undeniable responsibilities to take leadership roles in dealing with the world's complex problems, such as health care, energy, and environment.

Q. What do you feel has been your most important professional accomplishment to date?

A. My most important professional accomplishment is that, as an engineering professor, I have taught a couple thousand undergraduate and graduate students. I truly feel accomplished when I shake their hands as they cross the stage at convocation each spring. I feel even more accomplished when they come back to tell me what they have been doing for work.

Q. If you had not chosen a career in engineering academia, what else would you have done?

A. I would probably be taking a position of research scientist in a research institute or a company. It is important that I have the freedom to find new ways of solving an old

problem or to find new problems and challenges to tackle as my daily work.

Q. What's one piece of advice you would give to Women in Engineering?

A. If engineering is your passion, then go for it. It is true that women face challenges in this still male dominated field but positive changes are taking place. Seek advice from people who have experience or knowledge whenever possible.