Marie Bernard, ing.

Award for the Support of Women in the Engineering Profession

Some engineers do more than design bridges or the latest high-tech products – they are role models who work hard to improve their profession by opening its doors to women. One such engineer is Marie Bernard, ing.

Today she is an expert in time management, who never lets her strenuous workload interfere with her passion for engineering, or her personal life. From 1975 to 1980, for example, while pursuing her masters degree at the École Polytechnique de Montréal, she also worked full time and raised two children.

Her work ethic and her ability to juggle multiple priorities may have their roots in her childhood. One of 10 children, she was able to balance her school work with her obligations to her family, without losing sight of her long-term goals.

Marie completed her doctorate at McGill University in 1988 and became assistant professor at École Polytechnique. Seven years later, in 1995, she was elevated to the rank of professor with tenure in the department of mechanical engineering, teaching at the undergraduate and graduate levels.

While teaching, Marie has pursued contract research work with several major corporations and worked effortlessly to foster a relationship between education and industry. But she may be best known for her efforts to open the doors of the engineering profession to women. The co-author of some 60 publications, she has written many reports recommending concrete action to promote an increase in the number of women engineers.

Recognizing that actions often speak louder than words, Marie has also undertaken extensive promotional work to help make engineering an attractive career choice for women, often through involvement with professional and engineering organizations. At the École Polytechnique de Montréal, for example, Marie was a member of a working group for the integration of women. She has also served on the Women in Engineering Committee of l'Ordre des ingénieurs du Québec, as a participant in the Women in Engineering: More than just Numbers workshop, and as a co-founding member and co-holder of the Marianne-Mareschal Chair which was formed to present engineering to young women as an accessible, stimulating and dynamic professional career. Throughout her own career, Marie has strived with conviction to change the university environment and pave the way for young women to enter the profession.

Marie's teaching has spread beyond the walls of her university. A gifted speaker, she has given presentations to several outside organizations including the Women in Science and Engineering (WISE) committee and the ACFA colloquium on Women, Science and Technology.

Today, 11 years after the events of December 6, 1989, the number of women enrolled in the École Polytechnique de Montréal's engineering programs has doubled, in no small part due to the conviction and insight of Marie Bernard.

Marie is a member of l'Ordre des ingénieurs du Québec.

Dr. Nancy Mathis, P.Eng.

Award for the Support of Women in the Engineering Profession

Dr. Nancy Mathis, P.Eng., embraces life and her work in a way that makes her the consummate role model for young women considering a career in engineering.

Named one of *Chatelaine* magazine's "Top 15 Women to Watch" in 2000, Nancy is the co-founder of a successful international business, a talented engineer, a teacher and community volunteer, as well as a caring mother.

Her career took root in 1995, when she and her husband Chris turned a concept she had developed for her PhD thesis into a small start-up company, Mathis Instruments Ltd. Its growth – and Nancy's recognition as one of Canada's top business women – have been nothing short of meteoric.

Through it all, Nancy has served her profession as a volunteer, inspired engineering students at the University of New Brunswick, teaching in three different departments, spoken at engineering conferences around the world, become an international authority on non-destructive testing methods, and co-founded a day-care centre. If there is ever a list published of outstanding role models for young women considering a career in engineering, Nancy Mathis is sure to be at or near the top.

There was never any doubt that Nancy would succeed at whatever she put her mind to. In fourth grade, Nancy's teacher asked her small Prince Edward Island class what each student's motto was. Eight-year-old Nancy replied, "You come close to what you aim for, so aim high."

In partnership with her husband and fellow engineer Chris Mathis, P.Eng., Nancy certainly aimed high when she co-founded Mathis Instruments Ltd. The goal was to market their TC Probe, a non-destructive thermal conductivity-measuring device that can be used to test the thermal conductivity of a variety of materials for a variety of purposes, worldwide.

Today, industries such as aerospace, automotive, electronics, medical, appliance, food processing, and textiles have all benefited from the TC Probe's ability to test online the thermal conductivity, thermal inertia, homogeneity, delamination and other properties of materials such as insulation, foams, glass, pastes, polymers, adhesives, and ceramics.

Nancy assumes four separate roles in her life: wife, mother, engineer and entrepreneur, and invests in each an energy, drive, confidence, and humour which is contagious to everyone she meets.

A member of the Association of Professional Engineers and Geoscientists of New Brunswick, Nancy often accepts invitations to speak at engineering gatherings, and sat on the National Advisory Council of the Royal Bank of Canada's Young Entrepreneur Advisory Council in 1998. One of her goals is to make education and resources available to young business owners. In everything she does, Nancy encourages students of both genders, from elementary school to the engineering graduate level, to follow their dreams and keep their careers moving forward.