

## ***Champion of Engineering Education Award***

*Marcia Friesen, P.Eng., Ph.D., FEC*



Marcia Friesen is the Director of the Internationally-Educated Engineers Qualification Program (IEEQ), an Associate Professor (Centre for Engineering Professional Practice & Engineering Education), and an Adjunct Professor (Electrical & Computer Engineering) at the University of Manitoba. She has developed expertise in qualifications recognition models and issues that affect internationally-educated professionals. As director of the IEEQ Program, she is responsible to lead the team that develops and delivers this qualification recognition pathway for internationally-educated engineers. In this role, she collaborates extensively with Engineers Geoscientists Manitoba and the Office of the Manitoba Fairness Commissioner. Since 2003, through Dr. Friesen's vision and efforts, the IEEQ program has addressed academic confirmation, cultural integration, language & communication development, professional networking opportunities, and supported engineering employment of internationally educated engineers. As such, the program represents a holistic qualifications recognition approach beyond a sole focus on technical confirmation. It also represents a unique partnership between an engineering regulatory body and the university.

The IEEQ program was the first of its kind in Canada and is now nationally recognized as a comprehensive qualifications recognition framework for the licensure and labour market entry of internationally-educated engineers. As an indication of the program's value and success, the Government of Manitoba awarded it baseline funding in 2007 to become a permanent program at the University of Manitoba. In 2005, Engineers Canada engaged with IEEQ and Engineers Geoscientists Manitoba to provide information and training to other Canadian jurisdictions that were interested in developing an IEEQ-style program. All of the 180+ graduates have been registered as EITs with the association, and to date IEEQ has contributed close to 85 new P.Eng.'s to the engineering profession as well. Whether EIT or P.Eng., approximately 90% of graduates are employed in their field, contributing to our key economic sectors in engineering consulting services, manufacturing, and the public service.

In her role as Director of the IEEQ program, Dr. Friesen has developed and teaches "Practicing Professional Engineering in Manitoba". This course is the model for a curriculum framework called Working in Canada Seminar, made available nationally to other Canadian jurisdictions who wish to implement a similar course. Marcia regularly presents to other professions and regulatory bodies relative to issues of qualifications recognition of immigrant professionals.

With advanced degrees in both education (M.Ed.) and engineering (Ph.D.), Dr. Friesen has a diverse and interdisciplinary research portfolio. Her research focusses on the integration of internationally-educated engineers through the lenses of social and cultural capital, and identity development. She collaborates on engineering education research with others, exploring the impacts of various new curriculum initiatives on students' learning, and she has developed an independent research program in mobile health software application.

Before coming to the University of Manitoba, Dr. Friesen worked in the private sector as a design engineer in environmental engineering and agricultural engineering consulting services. She is involved in numerous committees and task groups, including her current involvement on an APEG-BC steering

committee for qualifications recognition initiatives, sitting on the board of the Canadian Engineering Memorial Foundation, and on the ACEC-Manitoba TWICE committee.

For her passionate dedication to helping internationally educated engineers achieve their professional designation in Manitoba, and her tireless efforts to promote and improve the education of future engineers, the Faculty of Engineering, together with Engineers Geoscientists Manitoba, is pleased to award the 2016 Champion of Engineering Education Award to Dr. Marcia Friesen, P.Eng., FEC.