

## 2017 Early Achievement Award

### *Kristina Koenig, P.Eng.*



Kristina Koenig received her B.Sc. and M.Sc. degrees in Civil Engineering from the University of Manitoba in 2005 and 2008 respectively. She was awarded the Doupe Memorial Gold Medal on completion of her bachelor's degree and was recipient of the NSERC CGC Scholarship during her graduate studies. Kristina was admitted to the EIT (now Engineering Intern) program while she was in her master's program working at Manitoba Hydro's Water Resources Engineering (WRE) Department. During the last 10 years she has achieved professional engineer status (2011) and advanced her career to the level of Section Head for the Hydrologic and Hydroclimatic Studies Section in Manitoba Hydro's WRE department.

Kristina's graduate research involved statistical downscaling of climate model data from regional to local grid levels for the use in Canadian Climate Impact studies. Her work has been instrumental in establishing physically based hydrological models and she is responsible for leading the implementation of the inflow forecasting system within Manitoba Hydro. She is the lead for the team involved in the hydroclimatic study of large capital projects in support of regulatory hearings (environmental & economic). Research and development remains an important component of her work with focus on practical research to support the impact of climate change on flood forecasting. She has co-led a project studying climate change impact on probable maximum floods in Canada, to better understand changing extreme events important for dam safety and design.

Kristina participates in several multi-disciplinary national committees involving physical measurement based hydrological models and adaptation to climate change forecasts in engineering design of the projects. Her committee involvement includes groups such as FloodNet NSERC Strategic Network group, Ouranos Energy Program group, Natural Resource Canada Energy Program working group, and Province of Manitoba interdepartmental Climate Change Adaptation working group. Kristina represents Manitoba Hydro as well as the engineering profession at these groups.

In her role of Section Head, Kristina has mentored several young professionals, EIT, IEEQ, and summer students. She facilitates annual tours for University of Manitoba undergraduates to the Manitoba Hydro building. She also volunteers with various youth educational outreach

initiatives including science fairs and after school programs. She genuinely finds pleasure in inspiring students by talking about how class work connects to real life engineering work.

In recognition of exceptional achievement at the start of her career, Engineers Geoscientists Manitoba is pleased to present the 2017 Early Achievement Award to Kristina Koenig, P.Eng.