Engineers Australia
Sydney Division
Water Engineering Panel

ENGINEERS AUSTRALIA
SYDNEY DIVISION

Water resources planning and design under a changing climate

Speaker:

Dr Seth Westra, University of New South Wales, Sydney

Background:

Water supply systems, flood protection works and a range of other climate-sensitive infrastructure traditionally have been designed based on the assumption that the future climate will mirror what has occurred in the past. Although this assumption has been questioned due to the natural fluctuations of climate, such variability usually can be accommodated by using long instrumental records or information from paleo-climate sources. In contrast, human-induced climate change is expected to push a range of hydrological variables well outside the envelope of what has occurred in the past, leading some researchers to proclaim this assumption that underpins so much of hydrological design is now 'dead'.

This presentation is directed towards hydrologists, water resource planners and those in related areas who are interested in developing a better understanding not only of how climate change is expected to affect the various components of the hydrological cycle, but also the methods being used to incorporate such changes into hydrological planning and design. Finally, it is becoming increasingly clear that the additional uncertainty due to climate change will require new approaches to decision making, and a brief overview of some recent thinking in this area will be provided.

Seth Westra is a hydrologist at the University of New South Wales, having completed his PhD assessing the impacts of low-frequency climate variability on water supply systems, and using this information as the basis for deriving forecasts of reservoir inflows several seasons ahead. Seth also has spent several years in consulting, advising government and industry on the implications of climate variability and change on water resources. Seth's current research interests include developing methods that allow inference on how the means and extremes of precipitation are expected to change under a future climate, and using these methods for hydrological modelling and design.

Tuesday 26th October 2010

Time: 5.30pm for 6:00pm
Drinks & nibblies from 5:30pm

Venue: Engineers Australia Auditorium, Ground Floor
8 Thomas Street, Chatswood NSW 2067

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Attendance can be credited towards IEAust Continuing Professional Development requirements