


Presented By:
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Department of
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Environmental Engineering *Seminar*

Monday, September 12th
McDonnell Douglass Engineering Auditorium (MDEA)
11:00AM - 12:00PM

Estimating Design Floods In A Warming Climate: Gaps, Challenges & The Way Forward

A lot has been said and written about climate change and how it may make floods more frequent and extreme. In this talk I outline what needs to change in a warmer climate for design floods to increase or decrease, present data based (as opposed to model based) evidence for all the changes till date, and present what I feel is a sensible way design flood estimation should be approached in this new climate we are in. Specifically, I show evidence for clear changes in the spatial and temporal patterns associated with extreme storms, along with an increase in design intensities for shorter duration events. These changes present the clearest evidence till date that design flood magnitudes for urban catchments across the world are increasing, a change that needs to be accepted and factored into our planning guidelines urgently given the implications this has to our existing stormwater infrastructure and society in general.



Ashish is a Professor in Hydrology/Hydroclimatology/Water Resources, based at UNSW in Sydney. I am engaged with research projects on finding ways of meaningfully assessing impact of climate change on hydrology and water resources, assessing (and reducing) modelling uncertainty, estimating design floods in a more meaningful way, issuing seasonal forecasts for water resources management, developing better models that simulate both hydrology and ecology in an increasingly warming world, and a bunch of other things mostly aligned around my strengths in using statistical analysis and methods for a range of hydrologic problems.