



ICE WaRM Seminar Series

ICE WaRM presents a free short seminar

Water resources in India: problems and approaches

The International Centre of Excellence in Water Resources Management (ICE WaRM) is proud to host leading researchers Professor Ashu Jain and Dr Rajib Maity to present a free seminar on "Water resources in India". Both researchers are in South Australia to undertake research with The University of Adelaide and Flinders University respectively, funded through the ICE WaRM International Liaison Programme.

WHEN Wednesday June 18, 4pm - 5.30pm

WHERE The Australia Asia Water Centre,
Level 4, 77 Grenfell Street, Adelaide 5000

Registration for this seminar is required.
Please RSVP to Amber Welk at:
awelk@icewarm.com.au

SEMINAR SCHEDULE

4:00pm Introduction

"Water Problems and Solutions: An Indian Perspective"

Professor Ashu Jain
Department of Civil Engineering, Indian Institute of Technology Kanpur

"Incorporation of climate change effect for Indian hydroclimatology"

Dr Rajib Maity
Department of Civil Engineering, Indian Institute of Technology Bombay

5:00pm-5:30pm Refreshments



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Dr Ashu Jain is currently an Associate Professor in the Department of Civil Engineering at the Indian Institute of Technology, Kanpur. He has previously carried out research at the University of Leeds in the UK and the University of Kentucky in USA. Research interests include rainfall-runoff modelling, water resources management, artificial intelligence, genetic algorithms and chaos in hydrology.

India receives 50% of its annual rainfall in fifteen days and more than 90% of river flows occur in four monsoon months. India experiences floods and droughts at the same time in its different parts. The highly uneven spatio-temporal variation in water availability in India poses the biggest challenge to solve its water problems and cater to the water needs of a billion people. A glimpse of the issues, challenges, and possible solutions for water related problems in India will be presented. How the technological advancements made in recent times, traditional methods of rainwater harvesting, community participation, and proper co-ordination among various stake-holders can augment the water management in diverse conditions will be illustrated through some case studies.



Dr Rajib Maity is currently an Assistant Professor in the Department of Civil Engineering (Water Resources) at the Indian Institute of Technology, Bombay. His research areas include hydrology and water resources engineering, hydroclimatology and watershed development, more specifically time-series analysis and forecasting, bayesian hydrology, soft computing in hydrology and monsoonal rainfall.

In the context of climate changes, the natural variability and uncertainty associated with hydrologic variables is of great concern to the community. Hydroclimatology is a promising field of research in hydrology and water resources that uses the information of large-scale climate circulation. This helps to identify and capture the variability and uncertainty associated with the hydrologic variables owing to hydroclimatic teleconnection. The link between hydrologic variables and the atmospheric/oceanic circulation can be modelled using General Circulation Models (GCMs) or through the analysis of statistical relationships relating to hydroclimatic teleconnection.