



WATHNET5 WORKSHOP

18 - 19 March 2020

WATHNET5 is an advanced software platform that integrates simulation of water resources systems and decision support informed by multi-objective optimization.

A two-day workshop will introduce the theory underpinning WATHNET5 and develop hands-on skills enabling access to its more advanced features.

Program

The first day is targeted at participants with limited or no experience using WATHNET5. The second day covers more advanced topics and is suitable for those having completed the first day and more advanced users.

The workshop will consist of several primers on fundamentals and eight tutorials that demonstrate the capabilities of WATHNET5 to answer progressively more difficult questions in the context of a case study system that grows in complexity.

Wednesday 18 March	0900-1230	Primer on network flow programming Tutorial 1: Creating a network Data management Introduction to scripts Tutorial 2: More advanced scripting
	1300-1700	Tutorial 3: Adding options Primer on multi-objective optimization Tutorial 4: Formulating an optimization problem Tutorial 5: Running and understanding an optimization
Thursday 19 March	0900-1230	Primer on stochastic data generation Tutorial 6: Use of stochastic data Tutorial 7: Nonstationarity and dynamic simulation Multi-replicate Monte Carlo Subroutines
	1300-1600	Tutorial 8: Changepoints Schedule optimization Advanced topics Cloud-based optimization using MPI Calibration Script design to manage complexity

The presenter will be Emeritus Professor George Kuczera with tutors to be advised.

Requirements

Participants must bring their own laptop (running 64-bit Windows with two or more cores), a power adaptor, and have administrator rights to install software. An external mouse is highly recommended in preference to a touchpad. A monitor will help tired eyes.

Assumed knowledge includes: familiarity with water resource simulation; limited fear of probability and statistics; and familiarity with basic programming concepts (VBA, Python, C, Fortran).

Details

The workshop will be held in the training room, Level 11, 160 Clarence St, Sydney.

To register your attendance please contact Monique Retallick retallick@wmawater.com.au or call 02 9299 2855.

The number of seats is limited. Preference will be given to two-day registrants.

The workshop fee is \$750 per day. This includes morning/afternoon teas and lunch and a copy of the tutorial version of the software which includes training materials.