Themes of the symposium

The symposium seeks to bring together computer scientists, hydrologists, water engineers, and environmental scientists, to explore the key issues governing the successful application of machine learning (e.g. data-driven models and optimisation techniques) to water systems.

Papers are invited that explore issues of model and/or optimisation strategy design, selection and application, particularly those that investigate one or more of the following issues within the context of water systems:

- Water system knowledge requirements for model development
- Choice of machine learning and/or data-driven modelling technique: ANN, SVM, SOM, BBN, RBF, GP, ANFIS, Model/Decision Tree, CA etc.
- Choice of learning/optimisation process: GA/EA, PSO, ACO, gradient-descent-based, backpropagation etc
- Machine learning innovations as applied to water systems
- Novel combinations of techniques to solve real-world water-related problems
- Hybrid modelling techniques to improve computational performance and model accuracy
- Model design and meta-heuristics
- Metrics and measures to quantify and evaluate model performance
- Operational setting and requirements' effect on model development
- Move from "black box" to "grey box" models

Papers that compare models and/or methods are particularly encouraged.

Important Dates and Submissions

The symposium welcomes both extended abstracts (4 pages), and full papers (8 pages). Please use the templates from last year’s convention, accessible from http://events.cs.bham.ac.uk/turing12/submission.php.

Submissions are welcomed by 11:59pm GMT, 14th January 2013 to the MALWAS2013 easychair link.
For further information please contact MALWAS2013@gmail.com.

The best papers will be considered for publication in Journal of Hydroinformatics.

- Extended abstract and full paper submission deadline: 14 January 2013
- Notification of acceptance/rejection decisions: 11 February 2013
- Final versions of accepted papers (Camera ready copy): 4 March 2013

There will be a separate proceedings for each symposium, produced before the convention. Each delegate will receive a memory stick containing the proceedings of all the symposia.