

Special session on:

**“Soft Computing methodologies applied in water-related technologies”**

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**CSC2009:  
The First International Conference on Soft Computing Technology in  
Civil, Structural and Environmental Engineering**

Conference Venue: Funchal, Madeira Island, Portugal,  
1-4 September 2009.

<http://www.civil-comp.com/conf/csc09.htm>

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*The session will focus on the use of **Soft Computing** and **Artificial Intelligence** methodologies (i.e. Derivative-free methods, Evolutionary Algorithms, Artificial Neural Networks, Foraging methodologies, etc.) to solve **engineering problems** in **water-related** technological fields.*

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**Topics**

The session will welcome (although not limiting to) contributions on soft computing methodologies and algorithms applied in real-world engineering problems in water-related technological fields. A non exhaustive list of **methodologies** to focus on is the following:

- Single and Multi-Objective Evolutionary Algorithms.
- Artificial Neural Networks.
- Fuzzy Systems.
- Foraging methodologies and Swarm Intelligence.
- Simulated Annealing.
- Hybridization between different types of AI and classical optimization algorithms.
- Integration of approximation models.
- Parallelization of AI algorithms.
- Multi-disciplinary optimization methodologies.

A non exhaustive list of **application areas** is the following:

- Optimal design and operation of hydrodynamic machines
  - Optimal design in environmental management problems
  - Optimal design of treatment facilities
  - Surface and Subsurface water management and treatment
  - Aquifer characterization
  - Artificial intelligence in surface water quality modelling and monitoring.
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## Paper submissions

For paper submission information please send e-mail to [jnikolo@dpem.tuc.gr](mailto:jnikolo@dpem.tuc.gr).

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## Important dates

Abstract submission                      15 November 2008  
Full paper deadline                      as advised by the editor in your abstract acceptance email  
Last day for author registrations 1 July 2009

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## Session chair

Dr. Ioannis K. Nikolos

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## Session Co-chair

Dr. Maria Papadopoulou

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## Conference venue

The conference will take place in Funchal, Madeira Island, Portugal, between 1 and 4 September, 2009. The venue for the conference is **Hotel Tivoli Madeira**, Rua Simplicio dos Passos Gouveia, no.29, 9004-576, Funchal, Madeira, Portugal. Please refer to the official CSC2009 web site for details on the conference and for travel information (<http://www.civil-comp.com/conf/csc09.htm>).