

Special Issue on

## Application of Intelligent Decision Support System for Environmental Monitoring and Assessment

# CALL FOR PAPERS

Environmental pollution, especially of water, air, and soil as well as pollution across systems, is a major focus of social concern. More and more diverse pollution problems are emerging (e.g., those engineered nanomaterials released into the aquatic environment during their manufacture, application, or disposal; the pollutants resulting from motor vehicles within an urban street canyon; the nutrient elements including carbon, nitrogen, and phosphorus resulting from industrial and agricultural pollution due to the lack of effective waste control; the potentially toxic elements released into the environment from man-made or natural processes). These pose a potential threat to human health with the development of industry and agriculture. The transport/behavior assessment of pollutants in the environment is conducive to providing the support of decision-making for the pollution control strategies and management of affected environments. With the development of computational intelligence and soft computing, more convenient environmental monitoring and assessment approaches can be achieved. Intelligent decision support systems (IDSS) implemented with the field data are found to effectively support environmental assessment and control. IDSS can include qualitative, quantitative, mathematical, statistical, and artificial Intelligence (AI) models and meta-models.

This special issue is intended to bring together recent challenges and developments of computational intelligence technologies in the field of environmental monitoring and control. We invite authors to contribute original research articles as well as review articles to this issue.

Potential topics include but are not limited to the following:

- ▶ Development and application of new IDSS technologies in the field of environmental monitoring and assessment
- ▶ Simulation and control of pollutants by specific intelligent systems, such as knowledge-based systems/expert systems, case-based reasoning systems, data mining, multiagent systems, Bayesian networks, artificial neural networks, and fuzzy logic
- ▶ Application of IDSS in urban planning and municipal services through large scale data analysis
- ▶ Process identification of environmental dynamics, for instance, of surface and subsurface hydrology, limnology, meteorology, and geophysics with special respect to the interaction of anthroposphere and biosphere

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/acisc/idss/>.

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