

Water Resources Management 2009
September 9-11, 2009
Malta

Hromadka Prize

The conference first morning session closed with the award of the Hromadka prize for outstanding presentation at this conference. Carlos explained that there were many nominations for the award and it was extremely difficult to decide who was to win. The committee guidelines were to look for originality and impact of the work in practice as well as being technologically sound. The award was instituted by Dr Ted Hromadka, a member of WIT's Board of Directors in memory of his father. Ted is an outstanding professional engineer as well as researcher recognised by the international community in the field of hydraulic modelling and the Boundary Element Method.

The high standing of some of the delegates who didn't receive the award was recognised by giving a diploma to distinguished participants in the competition. The following received the diploma;



"Mathematical models for irrigation and nutrient management practices to improve nitrate pollution control"
by Anca Marinov, Politechnic University of Bucharest

It proposes measures to reduce the nitrate pollution in groundwater by optimizing fertilizer's application using a computer programme that can simulate different scenarios.

"Water resources management in the bottle water business" by Ronan Le Fanic, Nestle Water Management and Technology, France

The paper discusses water resources management and strategies to ensure sustainable water supply for the industry, emphasising the need to protect those resources in terms of quality and quantity.

"A hydro-economics model for managing groundwater resources in semi—arid regions" by Hamad Assaf, American University of Beirut, Lebanon

The paper presents an interactive decision support model based on economic principles and standard aquifer representation. The model is to help water policy makers and managers to assess water allocation policies.

"Four explicit formulae for friction factors calculation in pipe flow" by Victor Diniz, UNICAMP, Sao Paulo University, Brazil

The paper presents intensely practical results. The author gives four explicit formulae to calculate the friction factor for all flow regimes.

"A decision support system to assist river basin hydroelectric inventory in Brazil" by F.S. Costa of CEPTEL, Electric Power Research Centre at Rio de Janeiro State University, Brazil

The computerized decision support system analysed parameters to select the best solution for water distribution taking into consideration energy, economic, social and environmental balance.

"Landbased disposal of wastewater: Fate of Phosphorous" By Iris Vogela, Hort Research, New Zealand, presently at Dresden University, Germany

The work describes a series of laboratory experiments to remove Phosphorous nutrients from wastewater. The results set important guidelines regarding times required for removal of the contaminants by infiltration tests.

"Increasing pollution and harmful benthic Cyanobacterial blooms in Fethiye Bay, Turkey" by Emine Okudan, Akdeniz University, Turkey

This paper analyses a problem that affects many regions of the world, i.e. that of harmful algal blooms, attributed to nutrient enrichment associated with coastal eutrophication. This paper documents the formation patterns around Fethiye Bay

This year a special Hromadka prize has been awarded to Professor Stephen Mecca from Providence College in the USA for his life long achievements in the field of hydraulic engineering and environmental research. He has not only carried out important research in these areas but also generously contributed to improve teaching and research in other institutions around the world. He has been a participant in many Wessex Institute of Technology meetings where his contributions demonstrated his concern with solving practical problems, particularly those related to improving the environment.

He has two important presentations in this conference and the associated one on River Basin Management. They were;

"A natural laboratory for small estuary studies: the reincarnation of Town Pond"

This provided an opportunity to observe the early evolution of a new estuarine ecosystem, which can be used as a natural laboratory for short and long term studies of small estuaries.

"Rational water use in the US: the potential for the retrofit of simple residential technologies"

This paper relates to the development and application of a rational use scenario in which present consumption is examined against water conservation opportunities. It would make economic sense to users. Results indicate considerable savings could be achieved.



The Hromadka award for Water Resources Management was given to Ulo Suursaar for the following paper;

"Possible effect of reopening of the Vaikse Strait (Baltic Sea): Results of high resolution modelling" by U Suursaar, University of Tartu, Estonia

This is an important contribution to the study of the ecological impact of a long established causeway separating the Gulf of Riga and the Väinameri Sea. The idea was to decide if the deterioration in the environment was due to the presence of the causeway, and if so if it is appropriate to allow flow between the two water bodies by building a series of bridges and openings along the causeway.

The study showed that such changes would have minimum effects. It was also concluded that even complete openings along the 3km causeway will not significantly affect the ecology of the region, whose deterioration is thought to be due to natural causes.