



**“Gheorghe Asachi” Technical University of Iasi, Romania**



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## **EDITORIAL**

### **A SPECIAL ISSUE DEDICATED TO**

### **LENVIS SYMPOSIUM ON**

### **LOCALIZED ENVIRONMENTAL SERVICES FOR ALL**

*28-29 November 2011, Delft, the Netherlands*

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UNESCO-IHE Institute for Water Education and the Lenvis project organized the *Lenvis Symposium on Localized Environmental Services for all Citizens*. The theme of the event was innovative tools for collaborative decision making web services and phone applications in water and air domain.

*Lenvis* is about the use of modern ICT to communicate on environment and health, presenting information on the actual state of the environment at specific user locations and possible associated health threats to all people. Information on environment is gathered in one place, where users can respond to what is presented. They can interact in a way they know from social networks and other interactive forums on internet. *Lenvis* focused on the combined needs of government organizations and user groups. *Lenvis* also takes into consideration recent developments in ICT such as use of GPS for localization and internet on mobile devices. Internet has brought a wealth of information on any topic one could think of. However, it is the user who has to compile useful information from all sources available.

*Lenvis* makes a difference in that it aims to present location-based information on basically all environmental data in one portal. This web portal can be customized and parts of the website can be included in other applications.

The *Lenvis* information is based on monitoring of water, air and health data as well as online model outcomes in these three domains. Prototypes are built and practical tests are performed in case studies in the Netherlands, Portugal and Italy.

Particular topics which are addressed in these case studies are: water pollution at recreational beaches and the associated health threats; smog alarms in urbanized areas and associated asthma warnings; water quality information and flooding threats in urban and rural areas and dedicated environmental and weather information for recreational users. The *Lenvis* project run from October 2008 to December 2010 involved 10 EU organizations and was funded by the EC FP7 programme. During these years a team of professionals from universities, industries and governments cooperated closely and aimed to facilitate collaboration between different stakeholders, such as environmental protection agencies, health institutions and service providers, policy makers, citizens in general and environmental communities in Europe.

The project organized the *Lenvis Symposium* which looked at the research areas and brought together professionals and public users of environmental information. The sessions of the symposia ([http://hikm.ihe.nl/Lenvis\\_symposium/lenvis.html](http://hikm.ihe.nl/Lenvis_symposium/lenvis.html)) covered topics in the area of web services, user requirements for environmental systems, environmental system and services design, data privacy quality and security, real time data interoperability, environmental modeling services interoperability, health impact assessment modeling, integration of localized user services and mobile phone applications for water and air.

Plenary lectures were delivered by recognized personalities, who presented substantial synthesis of

achievements in their research fields and formulated interesting directions of study, in delivering environmental services for citizens, for the years to come.

The two plenary speakers who brought their

contribution were Professor Francesco Archetti, from UNIMIB- Milan (Italy) and M. ten Harkel, from the Province of Noord Braabant.

The presentation sessions were held in parallel with demonstration sessions.

#### Guest editors:

**Prof. Francesco Archetti, Lenvis Symposium Organiser, Milano Bicocca, Italy**

**Dr. Ir. Ioana Popescu, Lenvis Symposium Organiser, UNESCO-IHE, Delft, the Netherlands**

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**Francesco Archetti** is Professor of Analysis of Financial Systems and Operations Research at the Faculty of Sciences of University of Milano Bicocca, Italy, and Deputy of the Rector for Research, Innovation and Technology Transfer. He was Researcher at the *Consiglio Nazionale delle Ricerche*, CNR, (National Council of Research), Italy (1973-1981) and Professor of Operations Research and Business Management at the Faculty of Sciences at University of Torino, Italy (1981-82). He is referee for the Italian Ministry of University and Research and Italian Ministry of Industry. His main research interests are Machine Learning techniques for Smart City, Big Data, Sensors Networks and Cognitive Middleware, Manufacturing and Logistics: grid-based Supply Chain Management Systems and RFID based tracking and logistics, Data, Web and Text Mining, Bioinformatics and Computational Systems Biology.



**Ioana Popescu** is a Senior lecturer in Hydroinformatics at UNESCO-IHE Institute for Water Education. Her background is in the areas of mathematical modeling, ICT and Hydraulic Engineering and she has a PhD degree in the area of Computational Hydraulics. Ioana Popescu's main research interests include Flood Modeling and hydrodynamics of rivers, lakes and reservoirs. To contribute to these areas her current research interest and expertise is in the development and application of modeling systems for water related areas, particularly in the area of numerical methods (theory and application), river system modeling and use of water related tools for modeling and Decision Support Systems. She has been involved in 22 research projects in the past years in the area of physically based modeling, Flood modeling, River Systems modeling, Decision Support Systems, Hydroinformatics and Computational Hydraulics.