

“Hydroinformatics vs information system: challenges and opportunities”

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The massive and rapid spread of communicating devices within the Society and their application to the industrial sectors is not coordinated enough. The current situation in the water domain is characterized by a low level of maturity concerning standardization of ICT solutions and business processes. In such context, Hydroinformatics methods and tools have to adapt and demonstrate their capacities to become an essential component of the Water Information System which is now gradually appearing. The pillars for the development of this vision are the various business processes which are taking place in the 3 water domains: water uses, water hazard mitigation and water resources preservation. The new developments within the Hydroinformatic field have to integrate key concepts like interoperability and sustainability in order to cope with the needs of water professionals who are operating in the various domains. The emerging technologies like M2M or Ubiquitous Computing allow developing new methods and approaches which may overcome the restricted and limited definition of Hydroinformatic tools to numerical modeling systems.

After the introduction of several major concepts, the given presentation will illustrate the new possibilities offered to Hydroinformatics methods with examples regarding high performance computing and high resolution modeling, error propagation, and real time monitoring.