====== ** Hydroinformatics approaches for river basin related problems** ======

As a part of Data4Water EU Twining project, a series of summer schools will be organised. The first Summer school is organised by from UNESCO-IHE Institute for Water Education and University Politehnica of Bucharest.

The summer school topic is Hydroinformatics approaches for river basin related problems and takes place from 21st June to the 8th July, 2016. Detailed description of the content, logistics and venue of the school is given bellow.

Applications for the summer schools are welcomed, no later than 8-th of June, 2016. We look forward to seeing you in Bucharest soon.

Objective:

The three-week program is designed to teach participants the necessary background on hydroinformatics tools for solving problems related to water environment in river basins, and give them an opportunity to work directly with the tools. At the end of the 3 weeks programmes participants will be able to solve their own problems using these tools.

Description:

The three-weeks summer school schedule is:

1. Training courses – 3 days [21th to 23th June].
2. Summer school assignment tasks for participants – 1 day [24th June]
3. Problem solving sessions guided by experts – 12 days [25th June to 6th July]
4. Session for presenting the final results - 2 days [7th July to 8th July]
5. Evaluation of the summer school achievements

The detailed syllabus of the training courses covers three main aspects of hydroinformatics, as follows:

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1. Introduction and Modelling
   1.1 Introduction to Hydroinformatics
   1.2. Modelling paradigms: Physically based modelling, Data driven
modelling
   1.3. Examples/Case studies
2. Optimization and Decision Support
   2.1. Optimization
   2.2. Decision support methods: Multicriteria analysis, decision support
systems
   2.3. Examples/ Case studies
3. Data
   3.1. Data sources and standards
   3.2. Spatial Data Infrastructures
   3.3. Role of cloud computing and parallel computing in Hydroinformatics
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Content from all above three aspects will be addressed during the summer school. The courses are intended for a multidisciplinary audience.

Problem solving session is focused on building a code for a hydrological model and preparing it to be calibrated and validated with data. In order to determine the uncertainty bounds for some of the parameters the model will need to be run on the cloud (hundreds of instances), on Amazon or other freely available cloud. Next step will be fetching the results and building an interface that will present the results, after they have been analysed.

Application procedure:

To apply for a place please send a short CV (including research interests) to elena.apostol@cs.pub.ro or catalin.leordeanu@cs.pub.ro.

The Summer School is targeted at PhD/MD/undergrads students and other early career researchers. There is no participation fee.

Important dates:

The closing date for applications is: 8th June 2016 The final list of participants will be announced on 15th June 2016 Please direct all enquiries to elena.apostol@cs.pub.ro or catalin.leordeanu@cs.pub.ro.

Organisers:

UNESCO-IHE: A. Jonoski and I. Popescu UPB: prof. M. Mocanu, E. Apostol, C. Leordeanu