First Announcement and Call for Participation

Summer School 2009

Field methods and eco-hydrological models for integrated water management in rural areas

Sept. 15th-30th 2009

Kiel, Germany

Department of Hydrology and Water Resources Management

Outline

Rural regions play a central role in the management of water resources of the earth. Most ground- and freshwater originates from these regions, but they do not only "produce" water, on a global scale agriculture consumes more than 70% of freshwater resources. The expected climatic changes aggravate the situation, especially for BRIC (Brazil, Russia, India, China) countries where water is scarce – at least in parts of the countries. In Germany (and Europe), the problems of water quantity are less important than that of quality, because many freshwater bodies are polluted. As a countermeasure to improve the ecological quality of water bodies, the European Community has implemented the Water Framework Directive (WFD). This integrated management of catchments is much more than the simulation of water budget. It also includes impacts on economy, ecology of terrestrial and freshwater ecosystems and effects of land use.

The WFD has stimulated many interdisciplinary research activities aiming at an integrated management of catchments. The application of these methods and models is not limited to Europe, they can be applied to other climates as well – the sustainable use of water resources in rural landscapes is a global problem.

This summer course is the second of three subsequent courses.

2008: Management of water quantity

2009: Management of water quality

2010: Integrated management of water resources

2009: Management of water quality

All management measures are based on reliable data and/or simulation of the quantity of water. This is why we devote the first summer course to this problem. We use different field assessment methods and models to quantify the water cycle with a special focus on the adaptation to the data bases of BRISC countries. Experts from selected countries (China, Bulgaria, Brazil) will report about the situation in their countries. In addition, we will also discuss the use of data from global models as a basis for future scenarios of local conditions.

Course Topics

- Basics: ecological and physico-chemical parameters and indicators of water quality
- Monitoring concepts and measurement techniques
- Management of water quality in selected BRIC countries
- Statistical analyses of time series of water quality
- Simulation of water quality in rural catchments with SWAT (nutrient budgets, management strategies)
- Excursions (experimental catchments, labs, water water treatment plant)

Further Information & Homepage

http://www.hydrology.uni-kiel.de/summerschool

Please refer to the homepage for updated information

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UNESCO

Department of Hydrology and Water Resources Management

Application

The summer school is intended for scientists from Germany and BRIC (Brazil, Russia, India and China) countries with at least a master degree. PhD students are invited to submit applications to summerschool@hydrology.uni-kiel.de.

The application should include

- Application form
- Letter of motivation
- Curriculum Vitae
- Copies of certificates
- for PhD students: abstract (not to exceed 3 pages including references and any figures, tables, etc.) describing the student´s dissertation
- for scientists: list of references

The deadline for submissions is

April 1st, 2009

To ensure a high ratio between tutors and students the school will be limited to 20 participants.

Accommodation

The summer school will take place in Kiel, Germany.

Accomodation is organized by Kiel University.

Costs

The DAAD/BMBF offers 20 scholarships for scientists to cover the costs of the summer school. Please indicate if you apply for a scholarship.