Training Workshop on

Hydrological Modeling for Assessment of Climate Change Impacts on Water Resources

November 10-13, 2014

Organized by:

CENTRE OF EXCELLENCE IN WATER RESOURCES ENGINEERING
University of Engineering and Technology, Lahore-54890
INTRODUCTION AND NEED

Pakistan is facing numerous socio-economic challenges including poverty, water scarcity. However, climate change and its impacts on water resources have become a complex challenge. The signs are already visible on our system, most prominent of which is the extreme flooding during recent years. According to the Oxfam International, in 2010, Pakistan faced the worst ever natural disaster, in its history, in the form of flooding which claimed one-fifth of the geographical area and affected almost 20 million people. Similar conditions were faced in 2011 flood which affected over 6 million people and 4.5 million acre of land.

Changing climatic conditions adversely affect the water resources and agriculture system of Pakistan. There is a dire need that some serious steps should be taken by Government of Pakistan as a counter strategy. We cannot ignore the fact that it is the matter of our survival. The most practical approach would be the development and application of management strategies for water resources conservation and development, under changing climatic conditions.

Keeping in view a training workshop is being organised by Centre of Excellence in Water Resources Engineering, for engineers, scientists, and professionals involved in water agriculture and climate sectors.

SCOPE OF WORKSHOP

This training workshop will consist of two parts. The first part will comprise of Introduction to climate change and its impact on different aspects of life. Climatic change parameters and their estimation under different scenarios. The second part will deal with how to estimate changing climatic parameters affecting the hydrological process. Hydrological modeling for assessment of water resources under changed climatic conditions. The well-established public domain softwares such as Hydrologic Modeling System (HEC-HMS), Soil Water Assessment Tool (SWAT) will be applied during this training workshop.
GENERAL OUTLINES

I. Introduction to climate change
II. Impact of climate change on water resources of Pakistan.
III. Introduction to climate change prediction approaches.
IV. Generation of future climate parameters.
V. Application of LARS-WG for generation of future Climate parameters.
VI. Impact of climate change on hydrological processes.
VII. Hydrological modeling under changed climatic conditions.
VIII. Assessment of water yield under future climate conditions.
IX. Approaches to combat with water related problems under changed climatic conditions.

POSSIBLE OUTCOME

Changing climatic conditions are adversely affecting the water resources and agriculture system of Pakistan. The adverse effects of climate change have to be foreseen for planning and development of water resources projects. After successful completion of this training workshop the participants would be able to use the modeling approach for quantification of potential water resources under changed climatic conditions. Impacts of different human interventions on quality and quantity of water at watershed as well as project scale. The will also help them in formulation and application of management strategies for water resources conservation and development under of changing climatic conditions

VENUE

Centre of Excellence in Water Resources Engineering, University of Engineering and Technology Lahore.

RESOURCE PERSONS

1. Prof. Dr. Abdul Sattar Shakir
2. Prof Dr. Habib-ur-Rehman
3. Dr. Ghulam Nabi
4. Dr. Mohsin Iqbal
BENEFICIARIES

Engineers, Scientists, and Professionals involved in water agriculture and climate sectors. are invited to participate in workshop. The graduate and post graduate students interested to do their research in water and climate are also encouraged. Only thirty seats are available, 20 for Engineers, Scientists, professionals and 10 for students. The registration of the participants will be first come first serve basis

FEE

The workshop fee for professionals is Pak Rs. 5000/ and 3000/ for students. The cost will cover course material and refreshments. Accommodation for the participants from outside Lahore may be arranged at their own expenses

For Further information contact:

Workshop Coordinator
Prof. Dr. Abdul Sattar Shakir

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