

## Workshop Lectures

- All lectures will be delivered by experts from international and national organizations.
- The participants should bring their own laptop with QGIS and QSWAT loaded. Please follow the website link to download QSWAT and QGIS: <http://swat.tamu.edu/software/qswat/>

## Organizer

- **Dr. Shashidhar, IIT Hyderabad**

## International Speaker

- **Dr. R Srinivasan, Texas A&M University, USA**

## Eligibility

Following are eligible to attend the workshop :

- ⇒ Bachelors / Masters / PhD level students of Sciences / Engineering with emphasis on water resources , RS/GIS, geophysics, environmental, or related areas
- ⇒ Postdocs / Project associates in water resources or allied areas
- ⇒ Faculty of engineering colleges / universities teaching water resources related subjects

## How to Apply

- Eligible candidates can send their registration form by Email/Post.
- Please follow the link to download the broucher: [http://www.gian.iitkgp.ac.in//files/brochures/BR1446397143Hydrological\\_Modeling\\_Using\\_SWAT\\_Model\\_Brochure.pdf](http://www.gian.iitkgp.ac.in//files/brochures/BR1446397143Hydrological_Modeling_Using_SWAT_Model_Brochure.pdf)
- Number of participants to each workshop session is very limited and preference will be given based on first come first basis.

## **Global Initiative to Academic Network (GIAN)**

### **10 -Day Workshop on Hydrologic Modeling with SWAT**

**14th- 23rd December  
2015**



*Organized by*  
Department of Civil Engineering  
Indian Institute of Technology Hyderabad

## About IIT Hyderabad

Inventions and innovations are drivers for the vision of IIT Hyderabad. IIT Hyderabad started functioning from August 2008 from its temporary campus in Ordnance Factory Campus. As of today, IIT Hyderabad has 12 academic departments, 121 faculty, and 1465 students. Faculty of the institute are involved with 75 sponsored R&D projects with a funding of worth 540 million rupees. Faculty has published 120+ journal articles and presented at 80 + conferences of international repute. Academic activities from the permanent campus will commence from August 2014.

## Civil Engineering @ IITH

Civil Engineering department offers bachelors (CE), masters, and doctoral programs in the areas of structural, geotechnical, environmental, and water resources. Currently, the department has 12 Faculty, 78 graduate students, and 40 undergraduate students. Faculty of the department have published 15 + journal articles, and involved with R&D projects of worth about 50 million rupees.

## About the Workshop

Hydrological modeling is becoming increasingly complex due to climate change. Existing modeling tools may need improvements for sustainability of water resources. Developments in computer technology have revolutionized the study of hydrologic systems, several hydrologic/water quality models have been developed for applications in hydrologic modelling. This workshop is mainly focused on one such model for water resources professional called Soil and Water Assessment Tool (SWAT) which is widely used all over the world with more than 2300 peer reviewed publications.

## Workshop Information

In this course of 10 day workshop, lectures will address on QGIS, current and emerging developments in Hydrological modeling using SWAT in the broad areas of water resources from speakers of international renown.

### Topic 1: Introductory SWAT (W1)

Introduction to Remote sensing, GIS, hydrologic modeling, and ArcSWAT; Watershed and HRU delineation; Weather and management inputs; Soils attribute data preparation, Visualization and interpretation of SWAT outputs using QGIS and QSWAT

### Topic 2: Advanced SWAT (W2)

Introduction to calibration and validation; Sensitivity and uncertainty analysis; Introduction to SWAT-CUP; Calibration and Validation ; Discussion on individual SWAT projects (everyone encouraged to bring their own SWAT projects to discuss issues of model setup, calibration, scenarios, uncertainty analysis and any applications for one-on-one sessions). Climate change data extraction from CMIP5 portal, statistical downscaling and SWAT climate change applications and interpretation of results.

## Mark your Calendar

Workshop Registration Deadline :

Preferably 11th December 2015. Please follow the link:

<http://www.gian.iitkgp.ac.in/> for further updates

Workshop Dates: 14th to 23rd December 2015

## Registration Charges

The Participation fees for taking the course is as follows for the total workshop: **Participant from abroad : US \$500**

**Industry/Research Organization :**

**Rs. 30,000**

**Academic Institutions Faculty/Staff :**

**Rs. 12,000**

**Student/Research Scholar : Rs. 5,000**

The above fee include all instructional materials, tutorials, and Internet facility during class . hours. The participants will be provided with single bedded accommodation on payment basis on availability of hostel facilities.

## Contact us

**Course Co-ordinator**

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