THE SWAT MODEL

The Soil and Water Assessment Tool (SWAT) is a public domain model actively supported by the USDA Agricultural Research Service at the Grassland Soil and Water Research Laboratory in Temple, Texas, USA.

SWAT is a river basin-scale model to simulate the quality and quantity of surface and shallow ground water and predict the environmental impact of land management practices on different soil patterns and land use patterns. SWAT is widely used in assessing soil erosion prevention and control, non-point source pollution control and regional management in watersheds.

The main purpose of the model is to predict the effects of management decisions on water, nutrients, sediments and pesticide yield with reasonable accuracy on large, ungauged river basins. It is a distributed model that simulates all previously mentioned constituents on a daily time step. SWAT defines hydrology by a specific list of parameters including interception, evapotranspiration, surface runoff, lateral flow, soil percolation and groundwater flow, as well as river routing processes.

GENERAL INFORMATION

The Geosciences of Natural Resources laboratory (GeNaR), faculty of sciences of Ibn Tofail University in collaboration with the Functional and Environmental Ecology Laboratory (EcoLab) joint research unit (UMR 5245) involving the CNRS, the University Paul Sabatier of Toulouse III and the National Polytechnic Institute of Toulouse co-organize the Introductory SWAT Workshop, which will be held in Morocco, from 11 to 14 December, 2018.

The event is opened to professionals, graduate and post-graduate students, who use or will use SWAT in order to investigate hydrologic and water quality issues in watersheds and rivers. The languages of the Workshop are English and French. Participants are encouraged to bring their own laptop.

PROGRAMME OF THE BIGENNER SWAT WORKSHOP 11 to 14 December 2018

DAY 1

(Tuesday, 11 December 2018)

09h00 - 09h15 : Registration
09h15 - 10h : Welcome/Introduction
10h00 - 11h00 : SWAT Theory
11h00 - 11h30 : Coffee break
11h30 - 12h00 : Study case
12h00 - 14h00: Lunch
14h00 - 15h45 : Model overview (Theory)
15h45 - 16h00 : Coffee break
16h00 - 18h00: Model applications (Theory)

DAY 2

(Wednesday, 12 December 2018)

09h00 - 10h30: Theory and Application of SWAT
10h30 - 10h45: Coffee break
10h45 - 12h30: Introduction to SWAT/ArcGIS interface (GIS) and QSWAT
12h30 - 14h00 : Lunch
14h00 - 16h00 : Watershed delineation / Land use and soil overlay
16h00 - 16h15: Coffee break
16h15 - 18h00 : Watershed delineation / Land use and soil overlay

DAY 3

(Thursday, 13 December 2018)

09h00 - 10h30: HRU delineation
10h30 - 10h45: Coffee break
10h45 - 12h30: Weather and remaining inputs to develop the SWAT model
12h30 - 14h00 : Lunch
14h00 - 16h00 : Review of summary outputs
16h00 - 16h15: Coffee break
16h15 - 18h00 : Finish SWAT simulation using SWAT or QSWAT

DAY 4

(Friday, 14 December 2018)

09h00 - 10h30: Visualization and interpretation of SWAT outputs
10h30 - 10h45: Coffee break
10h45 - 12h30: Introduction of calibration and validation techniques /Address user requests and answer questions
12h30 - 14h00 : Lunch
14h00 - 16h00 : Review model calibration through the model interface
16h00 - 16h15: Coffee break
16h15 - 18h00 : Address user requests and clarify anything covered on the first two days

Please visit (http://swatmodel.tamu.edu/) for further details about SWAT and a free software download.

ORGANIZING COMMITTEE

-Pr. Souad haida (UIT, GeNaR, Kénitra, Morocco)
-Pr. Bouabid El mansouri (UIT, GeNaR, Kénitra, Morocco)
-Pr. Aziz Mrideck (UIT, GeNaR, Kénitra, Morocco)
-Dr. José Miguel Sánchez-Pérez (CNRS, ECOLAB, Toulouse, France)
-Dr. Sabine Sauvage (CNRS, ECOLAB, Toulouse, France)

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REGISTRATION FEE

- Introductory workshop (4 days)
- Standard 500 €
- Students: 300 €

The fee includes the accommodation, registration kit, course material, coffee break, lunch on all working days. Participants shall have to arrange for their Transport.
The participants are requested to register for the workshop by filling and mailing the attached registration form latest by 30 of November 2018, with a motivation letter, whichenables us to match your needs to Swat Workshop and thus ensure that you get maximum benefit. It is therefore important to specify your language skills, job experience and/or academic background in your motivation letter.
The number of seats is limited to 25 participants. The registration shall be done on the first days after the registration fees has been paid.
A certificate will be given to all participants after the completion of the Course.

Sponsored by:

www.cnrs.fr

The workshop will be held at Faculty of Sciences, Ibn Tofail University, Campus Maamora, BP. 133, 14000 Kénitra-Maroc.

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ACCOMMODATION: The workshop fee includes: coffee breaks, lunch and room accommodation.

Beginner SWAT Workshops will be led by Dr. José Miguel Sánchez-Pérez (ECOLAB, France) and Dr. Sabine Sauvage (ECOLAB, France)
It is assumed that attendees have a working knowledge of ArcGIS. We will not review basic concepts of ArcGIS usage prior to covering the SWAT/ArcGIS interface.

SWAT
Soil & Water Assessment Tool

Beginner SWAT Workshops

Ibn Tofail University Faculty of Sciences
Kénitra, Morocco
December 11-14, 2018

Faculté des Sciences

Laboratoire Géosciences des Ressources Naturelles
Université Ibn Tofail
Faculté des Sciences