Introduction to PYTHON Programming for MODFLOW Modelers

Webinar

Instructors:

Jim Rumbaugh
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Rodrigo Herrera
Southern Groundwater Modeling Company
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Location:

Your Home or Office!

Cost

Individual: $950
Office: $1,900

Contact Jim Rumbaugh (see above) to Register

Instructor Bio:

Jim Rumbaugh, hydrogeologist and groundwater modeler, has over 35 years of experience in application of groundwater models and in development of groundwater modeling software tools. He is the co-author of the Groundwater Vistas software and is President of Environmental Simulations, Inc., a company that specializes in groundwater modeling. Jim was a past Chairman of ASTM Subcommittee D18.21 on Groundwater and Vadose Zone Investigations. Subcommittee D18.21 was funded by U.S. EPA to develop standards for groundwater modeling practice. Jim was honored by the National Ground Water Association with the 1999 John Hem Excellence in Science and Engineering Award by NGWA. This award is given to those who have made a significant, recent scientific or engineering contribution to the understanding of groundwater. NGWA also presented Jim with the 2014 Technology Award, which is given to those who have made a significant contribution to the groundwater industry in the development of ideas and tools, along with exemplary service to colleagues throughout the industry in sharing these ideas. Jim teaches groundwater modeling seminars throughout the USA, Europe, Australia, and New Zealand. Jim has an active consulting practice and has worked on hundreds of groundwater modeling projects throughout the world.

Rodrigo Herrera, …

Registration:

To register for this seminar, simply send Jim an email at **JRumbaugh@GroundwaterModels.com,** give us a call at (610) 670-3400, or pay by credit card on our web site at www.groundwatermodels.com and click Online Store. Registration is not confirmed until we receive payment for the Webinar. Cost is $950 for an individual or $1,900 for an office (purchase 2 webinars at the online store for the office registration). Note that "office" means one physical location.

Webinar Information:

- The Webinar is divided into 6 lectures lasting between 1 and 2 hours. After each lecture, there will be computer exercises that you may work on at your own pace. Help with exercises is provided by email (support@groundwatermodels.com).

- Lectures are live **but will be recorded** in case you cannot attend all of them. You will call into the Webinar using either VoIP or telephone.

- Computer exercises are based on the Anaconda python development environment. All python-related software for the course is free. Detailed installation instructions will be provided before the webinar so you can get your computer set up for the course. Some references will be made to Groundwater Vistas Version 8 as well so a license to the advanced, professional, or premium versions would be advisable.

- ESI reserves the right to cancel the Webinar if there are less than 6 participants

- Each lecture will start at **1:00 pm Eastern Time**. **Note that this time is not our usual webinar starting time!** Webinar Lectures will be on Monday, Tuesday, and Wednesday for 2 consecutive weeks. Question & Answer sessions will be held on Thursdays. Consult our webinar schedule for exact dates.

Course Description:

Introduction to PYTHON Programming for MODFLOW Modelers

We are still developing this webinar. The following is a draft outline for the six lectures:

Lecture 1:
Introduction to Python in Anaconda

The first session covers the installation of Anaconda, the python interface we will be using in this course. We will also cover the basics of python programming using Jupyter notebooks

Lecture 2:
Flopy Basics

Flopy is a python interface for MODFLOW created by the USGS. The second session will cover how to use flopy to create models, import existing models, and process output from models created in Groundwater Vistas.

Lecture 3:
Using Pandas to Edit and Manipulate Data

Lecture 4:
Geopandas for Creating Maps from Model Output

Lecture 5:
Advanced Plotting of Model Output

Lecture 6:
Folium for Creation of Interactive Maps