

"Groundwater modeling with Groundwater Vistas" with Dr. Dragan Kaludjerovic
(<http://advancedgwt.com>)

Date: 15 - 16 September 2016

University of Architecture, Civil Eng. and Geodesy

1164 Sofia bul. "Hristo Smirnenski" 1

Price: 350 €

Registration :via e-mail

- Mariya Marinova – marimarinowa@yahoo.com
- Zhivko Ivanov – kiip_pleven@abv.bg

Method of payment: Bank transfer or PayPal

Payment before date: 12 September 2016

Participants will be with their own laptops.

Participants will receive a student version of Groundwater Vistas and digital copy of Lectures.

Language: English

Program Timetable

First day

9:00 – 10:00 Practical exercise in Groundwater Vistas – 60 minutes. Participants should built their first model in MODFLOW, with river and well boundary condition, define WHPA (wellhead protection area) with MODPATH. Also, three simple models will be built to compare analytical results and numerical results in Groundwater Vistas and MODFLOW

10:00 – 10:15 Coffee break 15 minutes

10:15 – 12:15 Introduction to Groundwater Modeling, lecture by Jim Rumbaugh. References, Modelling steps, building conceptual model, model construction, grid design, model calibration, sensitivity analysis, predictive simulation

12:15 – 12:30 Coffee break

12:30 – 13:00 Practical exercise in Groundwater Vistas – building 2D model with river, swamp, recharge and well. Groundwater model balance. Example take from the book of Mary P. Anderson

13:00 – 14:00 Launch

14:00 – 14:30 Practical exercise in Groundwater Vistas, building 3D geometry of model with 5 layers

14:30 – 16:00 Lecture Introduction to calibration by Jim Rumbaugh. Calibration techniques, preparing for calibration, calibrating targets, calibration parameters, sensitivity analysis, introduction to inverse models

16:00 - 16:30 Coffee break

16:30 – 17:30 Practical exercise in Groundwater Vistas – calibration of model – 60 minutes. Participant will built model with observation points and manually calibrate the model

Second day

9:00 – 9:30 Practical exercise in Groundwater Vistas, importing KML file from Google Earth to QGIS and then to Groundwater Vistas

9:30 – 11:30 Particle tracking and transport model simulation, video lecture

11:30 – 12:00 Coffee break

13:00 – 13:45 Practical exercise in Groundwater Vistas – setting up simple transport model with MT3DMS

13:45 – 15:00 Launch

15:00 – 15:45 Practical exercise in Groundwater Vistas – performing inverse calibration with PEST

15:45 – 16:00 Coffee break

16:00 – 17:00 Video lecture, migrating from older MODFLOW to new MODFLOW

17:00 – 17:15 Break

17:15 – 18:15 Video lecture about software Groundwater Desktop – visualization for Groundwater Vistas