Registration Form	
Datei Bearbeiten Suchen Ansicht Kodierung Sprachen Einstellungen Werkzeuge Makro Ausführen Erwi	438/3171
Applied Programming Course Martin Euther Univers	
Hydrogeology, Environmental Geology, GIS Halle-Wittenberg	
2020 Institute for Geosciences and Geography	
Halle (Saale), Germany	
November 21 - 22 & 28 - 29, 2020	
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Deadline for registration October 15, 2020 01 03	
10 git sha . C. C	
Complete the following form: (C) 2019 by Applied Geology Martin Luther	University Halle (Germany)
12 email : wolfgang.gossel@geo.uni-halle.de	
Name:*** <u>*********************************</u>	***/
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25 from PyQt5.QtGui impZiD:QIcon	
26 from PyQt5.QtWidgets import QAction	
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29 from .resources import *	
Phone: Import the code for the dialog	
31 from .Ex_lin_cs_dialog import Ex_lin_csDialog 3E-mailimport os.path	
33	
Pythe Fees for external participants on request	
Python and Tor Cattornal Participants on request	

Fax or Mail to:

Prof. Dr. Wolfgang Gossel

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Applied Programming Course Hydrogeology Environmental Geology

GIS 2020







Nov. 21- 22 & 28 - 29 2020

Martin Luther University
Halle-Wittenberg

Institute for Geosciences and Geography
Department of Applied Geology

Course Description

Computer programs become more and more dominant in sciences because of their modeling and simulation capabilities. In general ready-to-use software is applied to scientific questions. In rare cases scientific software tools don't match the task to be carried out and at this point a new tool has to be programmed according to specific needs. For the connection of OpenSource GIS and numerical modelling tools interfaces with parameter distributions and boundary conditions have to be developed. Python is a complex universe ready for solution of many problems in this field.

Course Objectives

- Learning introductory Python
- Object oriented programming approaches
- Efficient algorithms
- Set up graphical user interfaces.
- Reading and writing data/data exchange.
- Learning from OpenSource Software
- Inserting new features to OpenSource GIS

- QGIS and Python programming
- Variogram calculation
- Kriging interpolation
- Special features of 3d variogrammetry

Course Lectures and Labs

Saturday Nov. 21, 2020

Introduction: Programming basics

Python syntax

IDEs and different operating systems

GUI programming

Vector data exchange

Sunday Nov. 22, 2020

Variogram programming Using visualization libraries

Application: Variogram visualization

Saturday Nov. 28, 2020

NumPy, SciPy & Co.

Kriging interpolation based on variogram

Data exchange with raster data files in OpenSource GIS

Sunday Nov. 29, 2020

3d in Python and GIS: Cross sections 3d visualization

Our PC Labs

2 Labs with >10 multicore CPU PC Operating system: MS Windows 10 (R) and Ubuntu Linux

Venue: V.-Seckendorff-Platz 4 06120 Halle Third floor

Fees and further information on request

Course Instructors

apl. Prof. Wolfgang Gossel and Dipl. Geol. Lars Schimpf Martin Luther University Halle

Prof. Dr. Wolfgang Gossel is specialist in groundwater modelling and GIS-applications

1992 - 2000 Senior geologist at WASY Ltd. 2000 - 2002 Hydrogeologist at BGR

since 2002 Senior Research Scientist in

Hydrogeology MLU

Location

Halle (Saale), Germany Faculty Nat. Sciences III Institute of Geosciences and Geography von-Seckendorff-Platz 3

