



EuroSDR Educational Service 2016

The 2016 series of short e-learning courses from EuroSDR will begin with a **pre-course seminar**, hosted by the Faculty of Geography and Regional Studies, University of Warsaw **from 7th to 8th March 2016**. During the seminar, participants will hear presentations covering background material of four e-learning courses and the learning Moodle platform; they will meet the tutors and fellow students and will have opportunity to take an active part in round-table discussions about the course topics. The seminar will be followed by four **distance e-learning courses**. Each course requires about **thirty hours of online study** and it is completed over a period of **two weeks** during spring 2016.

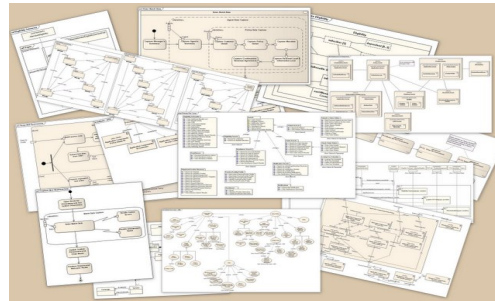


RPAS in Land Survey – Theory and Practice

Tutors: Dr. Görres Grenzdörffer (University of Rostock), Dr. Michael Cramer (University of Stuttgart)

The course will give an introduction to the use of RPAS and the processing of data. There are significant differences in RPAS imagery – compared to the data which typically are used in airborne photogrammetry, e.g. quality of utilised cameras, irregular image block geometry. Still the quality of the RPAS derived products like surface models and orthophotos may completely fulfil requested demands. This will be exemplarily illustrated compared to the standard reference data from national land survey. Special focus will be laid on the processing of image data from RPAS like application of structure from motion for the image block orientation and dense matching. Furthermore the course will give an overview of the different RPAS carrier platforms and sensor systems and will also illustrate the topic of flight regulations and getting permission to fly.

Dates: 14–25 March 2016

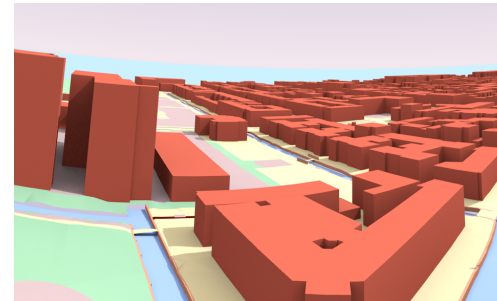


International Standards for Geographic Information

Tutor: Prof. Wolfgang Kresse (University of Applied Sciences, Neubrandenburg)

The course aims at giving a structured perspective at the suite of the ISO/Technical Committee (TC) 211 “Geographic information / Geomatics” and the Open Geospatial Consortium standards and will teach the path from abstract models to implementable solutions for the important fields such as metadata, services, web mapping and imagery. It will focus on the structure of the standards, their content and their interdependence. ISO- and OGC-standards will be discussed as if they belong to the same large model. The course will work on selected applications which build upon the UML-models of existing standards, but require their profiling and an application schema, i.e. decreasing the model and extending the functionality to areas that are not directly covered by the standard. This will be done using UML. The resulting model will be converted to an xml-schema document using the conversion tool ShapeChange.

Dates: 4–15 April 2016

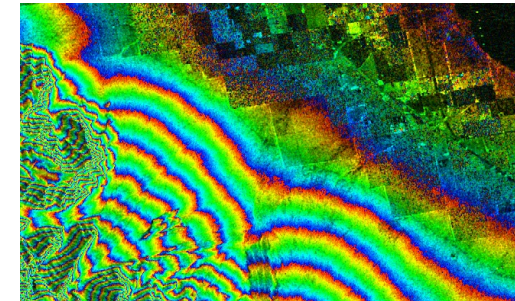


3D City Modelling

Tutors: MSc. Ravi Peters, Dr. Hugo Ledoux, Prof. Jantien Stoter (Delft University of Technology)

This is an introductory course to 3D city modelling. 3D city models are becoming an ubiquitous tool in areas such as urban planning and environmental modelling. This course gives an overview on state-of-the-art in 3D city modelling and its applications, introduces the participants to the underlying principles of 3D city modelling and lets them experience hands-on what it means to create a 3D city model. A number of topics will be discussed: the international CityGML standard, the concept of Level of Detail (LOD) in 3D city models, and the importance of data quality. The goal of the practical exercise, to be executed with FME, is to create a valid and CityGML-compliant LOD1 3D city model by combining existing 2D topographical datasets with aerial LiDAR point clouds.

Dates: 18–29 April 2016



Synthetic Aperture Radar for Mapping Applications

Tutor: Prof. Olaf Hellwich (Technical University Berlin)

The course gives a complete introduction to Synthetic Aperture Radar (SAR). The paging geometry and radiometry are explained using examples from currently available sensor systems. Sensor orientation and geocoding are treated from a geodetic viewpoint. SAR interferometry, SAR polarimetry, polarimetric interferometry and SAR tomography are dealt with intensively. Approaches making use of satellite-borne SAR for solving geodetic problems are discussed. Mapping applications are discussed with an emphasis on high-resolution 3D object detection and reconstruction. The required computer vision and machine learning concepts are included. The course is of interest for both beginners in SAR remote sensing as well as advanced learners interested in the use of pattern analysis techniques.

Dates: 16–27 May 2016



This course will kindly be supported by Pix4D, Lausanne – Switzerland. Each participant will receive a free month of Pix4Dmapper Pro UAS software.

Fees	600 € for pre-course seminar + 1 or 2 courses
	700 € for pre-course seminar + 3 or 4 courses
	100 € for pre-course seminar only

For more information visit
<http://www.eurosd.net/>, section Education

