



3rd EARSeL SIG Forestry Workshop
September 15-16, 2016
Krakow, Poland

“Breaking dimensions and resolutions of forest remote sensing data”

Background

During the last decade we are witnessing a global climate change leading to high frequency of disasters as hurricanes, droughts, forest fires, landslides, forest decline, insect outbreaks or floods. This situation requires us to develop decision support systems (DSS) for risks and damage assessment helping in next step to adapt appropriate forest management planning strategies. Hence the importance of forest DSS are remote sensing technologies and GIS, but their implementation into forest practices still could be more widely and more efficiently than in the past. At the same time, in the field of forestry applications, a significant number of new remote sensing sensors and platforms delivering 2D and 3D very high resolution data, as well as far advanced automated data processing methods (like GEOBIA) were developed and are used for forest applications. Some of the state of the art sensors and technical solutions will be very soon available on the RS market (like Sentinel-2) or, are announced for the upcoming months (e.g. WorldView-4).

Aims of the Workshop

The 3rd Workshop of the Special Interest Group on Forestry aims at setting up the common forum for the environment research community and people involved in the forestry sector, where both the operational techniques as well as developing methodologies can be presented and understood in order to improve the inventory methods, monitoring and management or protection practices used in the forests. The workshop will serve as a forum:

- to demonstrate the potential of the new generation of platforms, sensors and software,
- to present state of the art methods of data processing and integration,
- to evaluate both benefits and limitations of the new technologies, and
- to discuss future needs of forest related research sector and end-users.

We are planning to connect the 3rd SIG on Forestry with Young Scientist Days (YSD) to offer young researchers the exchange of the knowledge and participation in lectures and practical demonstrations (like UAV flight campaign) and software/data processing trainings.

This activity is planned as Summer School organizing just before the Workshop (12-14 September, 2015).

Scope of the Workshop

Proposed papers and posters should focus on following topics:

- from 2D to 3D forest inventory/planning using digital Photogrammetry - image based stereo-matching; LiDAR (ALS, TLS, MLS) and Radar;
- forest change: 4D time detection of multi-temporal and multi-source information;
- forest mapping technologies using very high ground resolution imageries
- applications of hyperspectral sensors (hand held, UAV, aircraft, spaceborne applications);
- automation of data processing (e.g. GEOBIA, LiDAR classification and vegetation metrics)
- state-of-the-art remote sensing technologies: spaceborne satellite sensors, UAV-LiDAR and hyperspectral mapping, TLS, etc.;
- multi-source RS data integration;
- mapping of forest decline/degradation/disasters;
- modeling application on forest biomass;
- monitoring of protected forests, biodiversity and forest services - related image analysis.

Organizers

The workshop will be organized by SIG on Forestry of the European Association of Remote Sensing Laboratories (EARSeL) and University of Agriculture in Krakow. You are very welcome to participate in a workshop with challenging topics. Please feel free to submit your individual input and to share your experiences with colleagues from around Europe.

Local organizer:

University of Agriculture in Krakow, Faculty of Forestry, Institute of Forest Resources Management, Department of Forest Management, Geomatics and Forest Economics.

Contact person: Piotr Wezyk, Assoc. Prof. (e-mail: p.wezyk@ur.krakow.pl) - Chairman of the SIG on Forestry, EARSeL.

Venue

Conference Center of the University of Agriculture in Krakow
Address: al. 29 Listopada 46, 31-425 Krakow