



ANNUAL REPORT OF THE SIG RADAR REMOTE SENSING FOR THE YEAR 2016

THE DEADLINE FOR THE SUBMISSION OF THIS REPORT TO THE EARSEL SECRETARIAT IS JANUARY 10th, 2017 (by email: secretariat@earsel.org)

Name of SIG:	Radar Remote Sensing
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Year:	2016

WORKSHOPS AND CONFERENCE (INSIDE AND OUTSIDE EARSEL)

Please describe here activities conducted in 2016 (attached files compiling information and scientific and/or budgetary results can be added to the report) and workshops foreseen for the year 2017 or 2018 if already planned.

The SIG did not organize a thematic workshop in 2016, but contributed to the following:

- XXIII ISPRS Congress - Prague (Czech Republic), July 12-19, 2016
- ESA Living Planet Conference - Prague (Czech Republic), May 9-13, 2016
- TerraSAR-X/TanDEM-X Science Team Meeting - DLR in Oberpfaffenhofen (Germany), October 17-20, 2016

The SIG will contribute to:

- 37th EARSeL Symposium
- ISPRS Hannover Workshop - Hannover (Germany), June, 6-9, 2017
- FOSS4G Europe Conference - Paris - Marne-la-Vallée (France), July, 18-22, 2017
- ISPRS Geospatial Week - Wuhan (China), September, 18-22, 2017

A Joint Workshop with the SIGs Urban Remote Sensing, 3D Remote Sensing and Developing Countries will be organized in 2018 at Ruhr University in Bochum (Germany).

WEBSITE AND PROMOTION ACTIVITIES

The SIG website is operational in the old version and under restyling according the new EARSeL format (at present - December 2016 - there still are some difficulties due to this new format). It is also foreseen a promotion of the SIG under LinkedIn, in order to make easy both the count of the Colleagues/people interested in SIG activities and, vice versa, the tracking of the SIG activities by them.

OTHER INFORMATION

Scientific activities

The main scientific activities of the SIG were devoted to the following topics:

- to refine/establish new algorithms to generate DSM and DEM from high resolution SAR sensors, with a particular care to complex morphology areas (urban – also for building detection - , mountain), also considering the potentialities of the new high resolution sensors (COSMO-SkyMed, TerraSAR-X and RADARSAT-2); the implementation of new algorithms was developed also in connection with proposals opened within the Google Summer of Code 2014, 2015 and 2016, and benefiting of the already well established Open Source environment as OSSIM
- to investigate the potentialities of the ESA Sentinel-1 SAR sensor for glacier surface velocity field measurements using off-set tracking technique; an innovative FOSS software has been developed and tested using different dataset
- to develop new algorithms and applications exploiting SAR Big Data analysis using innovative processing platform (i.e. Google Earth Engine)

Cooperation with other Associations

The SIG maintained a continuous cooperation with ISPRS, especially with the following Technical Working Groups:

- WG I/4: Geometric and Radiometric Modelling of Optical Airborne and Spaceborne Sensors
- WG VII/2: DEM Generation and Surface Deformation Monitoring from SAR Data