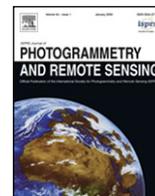




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Editorial

The International Society of Photogrammetry was founded in 1910 and in 1980 its name was changed into ISPRS. The Centenary of ISPRS – celebrated on July 4, 2010, in Vienna, Austria – was taken as an opportunity to look ahead in the ISPRS journal which started in 1938 as *Photogrammetria* and got its current name in 1989. As special issue editors we therefore asked a variety of authors in agreement with the Editor-in-Chief, for contributions about topics indicating current cutting-edge research and future directions in the fields of photogrammetry, remote sensing, and spatial information sciences.

Thus, developments on the sensor and platform-side, algorithms, and applications were selected, many of which have not been in the traditional focus of the community and readership of the ISPRS and its journal. With restrictions concerning page numbers, time, and author availability, the presented material had to remain fragmentary with respect to the goal of sketching all future scientific developments. Particularly, considering the origins of ISPRS, a bias was purposely introduced towards photogrammetry, while simultaneously acknowledging the increasing impact of remote sensing and spatial information technology. The future will bring a further integration of the fields of photogrammetry, computer vision, remote sensing, and spatial information sciences.

The advantages and limitations of mini and micro satellites for Earth observation are presented by Rainer Sandau and co-authors. At the border between photogrammetry and remote sensing, Wolfgang Wagner presents basic physical principles on the range measurement process in laser scanning. Anttoni Jaakkola et al. demonstrate that laser scanning from a UAV is feasible especially for multitemporal research and that the same low-cost multi-sensor system can be applied for mobile laser scanning. Using a stereo camera, Konrad Schindler et al. demonstrate how pedestrians can be detected and tracked in traffic scenarios entirely automatically, while Jan-Michael Frahm et al. explain how Internet photo collections with tens of thousands images and video sequences can be used for 3D reconstruction. Christian Heipke presents a summary of activities known as crowdsourcing,

wikimapping or NeoGeography, which provide high quality data for mapping and updating using volunteered or passively collected information. Thomas Luhmann's paper gives an overview and shows perspectives of close range photogrammetry for industrial applications. Norbert Haala and Martin Kaka provide an update on city modeling from airborne imaging sensors, which has been a focus of ISPRS for many years, aiming at high automation degrees and high accuracy simultaneously. The exploitation of airborne sensing including SAR in forestry and its new possibilities, especially for biomass estimation, are presented by Barbara Koch.

We would like to thank all the scientists supporting the review process with their time and expertise, and especially the Editor-in-Chief George Vosselman for his support in preparing this ISPRS Centenary issue.

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