5 Questions toâ€¦ Sander Oude Elberink, GSW2019

In June this year, the Dutch city of Enschede welcomed the photogrammetry and remote sensing community for the ISPRS Geospatial Week 2019 (GSW2019). Whether to attend presentations, such as on 'Façade Reconstruction for Textured LOD2 CityGML Models Based on Deep Learning and Mixed Integer Linear Programming', or to meet up with fellow Lidar specialists from around the world, numerous delegates travelled to Enschede for a thorough update on what is going on in their area of expertise. We asked Sander Oude Elberink, programme chair of GSW2019, five questions in order to get an impression of this high-level event.

How would you sum up the event?

In five words: it was a fantastic week! The event itself is only one (although also the most important) part of the ISPRS Geospatial Week. So, when looking back as an organizer, I also see the activities which started sometime in 2018. Agreeing on the number of workshops and the various scopes, discussing the schedules and the scientific papers – these are just some of the activities that are done in the months beforehand by a team of about ten people. The preparations form the basis for a successful week, and during the Geospatial Week itself we just need to give it the finishing touch. Thanks to the hard work of all the volunteers, caterers, technicians and organizers, everything ran smoothly. So, looking back, it was a fantastic week after a long period of preparation.

What were the key themes discussed during the conference?

There were 13 different workshops running in parallel during the week, each with a different focus, so unfortunately I can't mention them all here. Of course, deep learning for data processing was prominently present during the conference, and not only in the workshop on Semantics3D where the main focus was on retrieving semantic information from images and point clouds. In fact, ten papers spread over five workshops included the term 'deep learning' in their title, and a keynote presentation was given on deep learning for processing hyperspectral imagery. In other words, deep learning is 'hot', and I expect it to remain so for a while.

Geomatics is a very dynamic profession. What would you consider as the most striking developments in photogrammetry and remote sensing that were presented at the Geospatial Week?

This is another hard question to answer here, but I'd say the insights that very long-range remote sensing, e.g. planetary mapping, and very close-range remote sensing (UAV's and indoor mapping) are really close to each other in terms of sensor integration and data processing techniques. 2D and 3D image information is everywhere, and sensors and algorithms are increasingly being used to cover the whole range from long to short-range remote sensing. Another slightly less striking ongoing development is the integration of computer vision and photogrammetry. Performing scene understanding in 3D has many advantages over 2D, so it is logical that some advances are bringing photogrammetry and computer vision closer together.

How would you describe the synergy between business and science that was visible at the event?

There was indeed a clear connection between industry and science. The industry presentations were well attended, with many scientists interacting with the presenters representing the companies. Likewise, many delegates from private companies attended the scientific sessions. On the sensor side, new insights were presented into Lidar sensors like the single photon Lidar (SPL) systems. This illustrates that business and science need each other in order to make progress. Vendors are opening up parts of their data processing to gain more insights from scientists. It will be interesting to see what the SPL data from IceSat-2, which has been available since 10 June, will bring us.

The next edition of the ISPRS Geospatial Week will take place in Dubai in 2021. What's your advice for the organizing committee?

My advice is to make sure that the programme contains a collection of workshops which complement each other. This ensures the cross-pollination of ideas between disciplines and communities. The organizing committee may even consider facilitating this in conjunction with sister events outside the ISPRS, such as CIPA on cultural heritage or Silvilaser on forestry applications.

Sander Oude Elberink.

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