

# Joint ISPRS, EARSeL & DGPF Istanbul Workshop – Topographic Mapping from Space dedicated to Dr. Karsten Jacobsen for his 80th Birthday

The joint ISPRS, EARSeL & DGPF workshop on 'Topographic Mapping from Space' (<https://ispristanbul2025.org>) took place from 28 to 31 January 2025 at the Congress Centre of Yıldız Teknik Üniversitesi in Istanbul. The workshop was dedicated to Dr Karsten Jacobsen on the occasion of his 80th birthday in 2024 to honour his scientific work, especially with his Turkish colleagues. The workshop was organised by Prof. Mehmet Alkan (Yıldız Technical University), Prof. Umut Sefercik (Gebze Technical University) and Prof. Gürcan Büyüksalih (Istanbul University) with a very helpful team of staff and students.



Roll-up of the workshop (left) and participants of the Joint ISPRS, EARSeL & DGPF Istanbul Workshop in front of the Congress Centre at Yıldız Technical University (right)

During the three-day workshop, a total of 13 sessions with 51 presentations on various topics and three keynote sessions with seven invited presentations were held. Three keynote lectures and nine presentations were given by German participants. Workshop topics included Remote Sensing, Digital Photogrammetry, Thematic Mapping, SAR, LiDAR, Artificial Intelligence (AI), Digital Terrain Modelling, Land Management & GIS, Remote Sensing for the Environment, UAV and World Spatial Imagery. In between, posters on these topics were presented in a separate session. In another session, the sponsors of the workshop had the opportunity to present their companies and their portfolio of remote sensing instruments and space missions. A special session on disaster monitoring with remote sensing technologies concluded the event with three papers.

In the opening session, the 122 registered participants were welcomed by Mehmet Alkan (local organising team), Karsten Jacobsen (Leibniz Universität Hannover), Nicolas Paparoditis (Vice President ISPRS), Mattia Crespi (Vice President EARSeL) and Thomas Kersten (as official representative of the DGPF), among others. The first keynote session was of course dedicated to Karsten Jacobsen. Christian Heipke presented Karsten Jacobsen's career and academic achievements in a humorous and affectionate way under the title "Karsten Jacobsen - my teacher, colleague and senior advisor", while in the second lecture Orhan Altan presented the connections and achievements of German professors in Turkey and vice versa with a special focus on Karsten Jacobsen under the meaningful title "Karsten Jacobsen, an Envoy for Orient and Occident and Vice Versa". After the many warm and personal words, Karsten Jacobsen returned to technical topics with the third lecture 'Digital Elevation Models - from Satellite Images to Free Available DEMs'. Stewart

Walker (formerly of LH-Systems and Leica) paid tribute to Karsten Jacobsen's achievements in the development of the photogrammetric bundle block adjustment with the now 207 additional parameters to compensate for systematic effects in another but later keynote lecture entitled 'The Story of Bundle Adjustment': Karsten Jacobsen's Chapter'.



Karsten Jacobsen (left) with Turkish colleagues and Thomas Kersten (right) and cutting his birthday cake

In addition to the many personal contacts and discussions, what will we take away from the Istanbul workshop? AI and machine learning are increasingly used in remote sensing, new digital aerial cameras (UltraCam Dragon and PhaseOne PAS Pana) are coming onto the market, better and better digital terrain models with worldwide coverage are freely available, satellite data (especially Sentinel and also World-View) are increasingly used in many different applications, and automation in data processing is being driven forward.

The workshop in Istanbul was very well organised by our Turkish colleagues and the conference centre was a worthy and spacious venue. The two evening social events were held in a restaurant on the campus of Yildiz Technical University, with the second evening dedicated to Karsten Jacobsen's birthday celebrations. The proceedings of the conference will soon be published in the ISPRS archives and can then be viewed and downloaded from the following link:

<https://www.isprs.org/publications/archives.aspx>.

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