

Geospatial Information: State of the Art and Future Trends

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Abstract

The presentation will explore the role of geospatial information in today's internet age and in the grand challenges facing our societies, including global change, sustainable development, mobility, energy, food security, health, biodiversity and demographic change. In the following research trends in photogrammetry, remote sensing and GI science will be discussed, and it will be shown how new and better sensors, sensor networks, including high resolution satellites and satellite constellations and web-enabled 3D cameras as well as unconventional platforms such as mobile mapping systems and unmanned aircraft systems have shaped the discipline in the past years and will continue to do so.

This is the context in which ISPRS, the International Society for Photogrammetry and Remote Sensing, strives to fulfil its role as the foremost scientific body to deliver information from imagery. ISPRS is an international non-governmental organization that promotes international cooperation between the worldwide organizations with interests in the photogrammetry, remote sensing and spatial information sciences. Established in 1910, ISPRS is the oldest international umbrella organization in its field, which may be summarized as addressing “information from imagery”.

ISPRS achieves its aims by:

- Advancing knowledge in the areas of interest of ISPRS by encouraging and facilitating research and development, scientific networking and inter-disciplinary activities.
- Facilitating education and training with particular emphasis in less developed countries.
- Promoting public recognition of the contributions of the photogrammetry, remote sensing and spatial information sciences for the benefit of humankind and the sustainability of the environment.

The ISPRS scientific and technical programs are organized by Technical Commissions. Each Commission is sponsored by an ISPRS Member organization for the four-year period between Congresses. The Technical Commissions currently have established approximately 60 Working Groups which are responsible for particular topics within the Commissions' areas of responsibility. All Technical Commissions will hold a Symposium within their country in 2018. In September 2017 the ISPRS Geospatial Week will take place in Wuhan, China. The same year will also see smaller workshops being organized by the Working Groups, such as the “ISPRS Hannover Workshop” next month. The next ISPRS Congress will be held in June/July 2020 in Nice, France.

Biography:

Christian Heipke is a professor of photogrammetry and remote sensing at Leibniz Universität Hannover, where he currently leads a group of about 25 researchers. His professional interests comprise all aspects of photogrammetry, remote sensing, image understanding and their connection to computer vision and GIS. He has authored or co-authored more than 300 scientific papers, more than 70 of which appeared in peer-reviewed international journals. He is the recipient of the 1992 Otto von Gruber Award, the 2012 Fred Doyle Award, both from the International Society of Photogrammetry and Remote Sensing (ISPRS), and the 2013 Photogrammetric (Fairchild) Award from ASPRS.



From 2004 to 2009, he served as vice president of EuroSDR (European Spatial Data Research, formerly known as OEEPE). From 2011-2014 he was chair of the German Geodetic Commission (DGK), from 2012-2016 ISPRS Secretary General. Currently he serves as ISPRS President.