

Preface: ISPRS Geospatial Week 2025

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The International Society for Photogrammetry and Remote Sensing (ISPRS) Geospatial Week 2025 (GSW'2025) was a global scientific gathering that brought together a series of 16 workshops, organized by active ISPRS Working Groups and international experts. GSW'2025 was proudly hosted by the Mohammed Bin Rashid Space Centre (MBRSC) and took place from 6–11 April 2025 in the vibrant city of Dubai, United Arab Emirates. This marked the first time the event was hosted in the Gulf region, symbolizing a new chapter in the global exchange of knowledge and technology. The conference was held under the theme "Photogrammetry and Remote Sensing for a Better Tomorrow," reflecting its focus on advancing sustainable and impactful geospatial technologies. The conference was chaired by Dr. Saeed Al Mansoori, with strong support from the MBRSC leadership and scientific community, and in collaboration with international stakeholders. GSW'2025 was the sixth edition in the series, following successful editions in Antalya (2013), La Grande Motte (2015), Wuhan (2017), Enschede (2019), and Cairo (2023).

The 16 workshops held as part of GSW'2025 represented the latest advancements and future trends in photogrammetry, remote sensing, AI-driven Earth observation, spatial data science, and their applications in sustainability, climate, smart cities, and planetary exploration. These workshops included, but were not limited to:

- Smart Forests and Agriculture 2025 (SFA 2025)
- Intelligent Uncrewed Vehicles mapping Systems (IUVS)
- AI for Spatial Data Quality and Uncertainty Modeling in Spatial Analyses
- Remote sensing monitoring for urban environment
- Vision Metrology and Uncertainty Assessment
- Planetary Remote Sensing and Mapping (PRSM2025)
- Digital Construction
- Laser Scanning 2025
- 3D Sensing for Smart Cities

- Digital Twins and Open-Source Empowered HD Maps for Smart Mobility and Autonomy
- Earth Observation and Geospatial Artificial Intelligence for Disaster Risk Management
- Semantic Scene Analysis and 3D Reconstruction from Images and Image Sequences (Semantics3D)
- Applications of Open Standards, IoT, Crowdsourcing, & Intelligent Systems for Smart Cities Governance & Digital Twin Implementation
- Resilient High-Precision Positioning, Navigation and Guidance of Autonomous Vehicles
- Climate Change and Geospatial research: advanced geospatial research for sustainable development through International Cooperation
- Data Management and Data Quality for Remote Sensing Scenarios

A total of 171 full papers and 350 extended abstracts were submitted by authors from over 58 countries. All submissions were subjected to a rigorous review process conducted by more than 322 international reviewers. As a result, 138 full papers have been accepted for publication in the *ISPRS Annals*, and 270 papers in the *ISPRS Archives*.

We extend our sincere gratitude to all authors, reviewers, session chairs, and workshop organizers who contributed to the scientific success of GSW'2025. Your valuable efforts ensured a rich, diverse, and high-quality collection of work shown in these proceedings.

We would also like to acknowledge the ISPRS Council, the ISPRS Technical Program Committee, the Technical Commission Presidents, and the international geospatial community for their collaboration and trust. We hope you find these proceedings insightful, informative, and a valuable contribution to the advancement of geospatial science and technology.

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