

Philippine Geomatics Symposium 2025: Preface

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The Philippine Geomatics Symposium (PhilGEOS) 2025 is a testament to the rapid progress of geospatial sciences in the Philippines, strengthening the country's role in the regional and international geomatics community. From its roots in 2012 under the University of the Philippines Department of Geodetic Engineering and Training Center for Applied Geodesy and Photogrammetry (UP DGE-TCAGP), PhilGEOS has served as a venue to disseminate scientific knowledge and exchange technological innovation. PhilGEOS has showcased how geomatics in its different forms, methodologies and applications, contributes to national development, scientific advancement and informed governance.

For 2025, PhilGEOS has adopted the theme "Enhancing Human Quality of Life through Spatial Technologies," which reflects the recognition that spatial data, analytics and systems are important in addressing contemporary societal challenges. The contributions cover a wide range of domains: disaster risk reduction and climate resilience, urban systems and mobility, environmental monitoring, natural resource management, land use and infrastructure planning, and advancements in geospatial methods. Works also focus on hazard exposure, flooding, land surface temperature, air quality and coastal processes. Submissions examine accessibility, walkability, traffic patterns, and livability, topics that are critical to improving the functionality and inclusiveness of cities.

The environment is a prominent theme, with papers that address habitat fragmentation, watersheds, marine and forest monitoring, and land degradation highlighting the importance of spatial technologies in protecting ecosystems and guiding policy. Works presented in the symposium illustrate how geospatial methods can detect environmental change, identify priority conservation zones, and support both scientific assessment and regulatory action.

Several papers also address equity and spatial justice, particularly in rural and geographically isolated areas, using enhanced accessibility indicators, network-based analyses, and socio-environmental datasets to uncover disparities in service provision and infrastructure access. At the same time, the symposium highlights notable methodological advancements, with many papers applying machine learning, object-based image analysis, advanced classification techniques, spectral modeling, UAV-based mapping, and spatial statistics, which demonstrates both technological sophistication and a strong commitment to adapting global innovations to the Philippine context.

The ISPRS Annals volume for PhilGEOS 2025 contains 54 papers, which underwent a double-blind full paper review process. This is made possible through the dedicated work of its Scientific Review Committee, whose members come from various prestigious institutions across Asia, North America and Europe. Their expertise ensures that the papers accepted for presentation meet high standards of quality, originality, and rigor. This is also made possible through the work of the organizing committee, partner institutions, and sponsors.

As readers engage with the papers included in this symposium, it is our hope that they will gain deeper appreciation for the transformative potential of spatial technologies in shaping a resilient, equitable, and sustainable future not just for the Philippines, but for the whole world.