



## Recent Trends in 3D Modelling from Point Clouds

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### Message from the Guest Editors

Point clouds are deemed to be one of the foundational pillars in representing the 3D digital world, despite their irregular topology among the discrete points associated with them. Recently, advancements in sensor technologies that acquire point cloud data for a flexible and scalable geometric representation have paved the way for the development of new ideas, methodologies, and solutions in countless remote sensing applications. These state-of-the-art sensors can capture and describe objects in a scene using dense point clouds from various platforms, perspectives, spectra, and granularity. In the last two decades, point clouds generated from images or directly acquired from Lidar have become the main source for 3D modeling. Many algorithms have since been made available in the form of data-driven, model-driven or hybrid approaches to reconstruct 3D models with semantic information. The latest techniques in deep learning have even made it possible to predict 3D models from point clouds.

The Special Issue aims at contributions that focus on processing and utilizing point cloud data acquired from laser scanners and other 3D imaging systems. We are particularly interested in original papers that address innovative techniques for generating, handling, and analyzing point cloud data, challenges in dealing with point cloud data in emerging remote sensing applications, and which develop new applications for point cloud data. Additionally, we look forward to seeing new algorithms, techniques, and applications of generating 3D city models or digital twins from point cloud data.

