

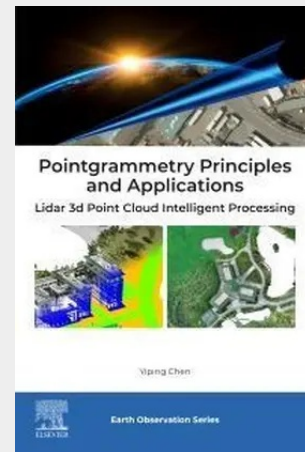
Pointgrammetry Principles and Applications

Lidar 3D Point Cloud Intelligent Processing

Photogrammetry Principles and Applications: LiDAR 3D Point Cloud Intelligent Processing addresses the growing demand for advanced 3D point cloud processing in geospatial and Earth observation fields. With LiDAR technology playing a vital role in autonomous driving, smart cities, and environmental monitoring, this book offers a systematic overview of core algorithms, including 3D reconstruction, DEM generation, and semantic segmentation that use cutting-edge artificial intelligence methods like deep learning and large language models. It combines foundational knowledge with practical case studies from diverse regions such as Toronto, Xiamen, and Nanjing, illustrating how these techniques are applied in real-world scenarios. The book's content spans hardware descriptions, software workflows, and algorithmic insights, making it suitable for both self-study and academic courses. Featuring templates, flow diagrams, step-by-step processes, and tables, it ensures ease of cross-referencing and practical understanding. Thus, it empowers researchers, students, and industry professionals to process complex, massive point cloud data efficiently, leading to more accurate spatial analysis, environmental assessments, and urban planning.

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