

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9911019127303321 |
| Titolo | Laser scanning for the environmental sciences / / edited by George L. Heritage, Andrew R.G. Large and Martin Charlton |
| Pubbl/distr/stampa | Chichester, West Sussex, : Blackwell Pub., 2009 |
| ISBN | 9786612139635 9781282139633 1282139630 9781444311952 1444311956 9781444311945 1444311948 |
| Descrizione fisica | 1 online resource (306 p.) |
| Altri autori (Persone) | HeritageG. L (George Leonard) LargeAndrew R. G CharltonMartin |
| Disciplina | 526.9 |
| Soggetti | Environmental monitoring - Remote sensing Remote sensing |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | LASER SCANNING FOR THE ENVIRONMENTAL SCIENCES; List of Contributors; Preface; 1 Laser Scanning - Evolution of the Discipline; 2 Principles of 3D Laser Scanning; 3 Issues in Laser Scanning; 4 Airborne LiDAR: Instrumentation, Data Acquisition and Handling; 5 Geostatistical Analysis of LiDAR Data; 6 Laser Scanning: Data Quality, Protocols and General Issues; 7 Terrestrial Laser Scanning to Derive the Surface Grain Size Facies Character of Gravel Bars; 8 Airborne Laser Scanning: Methods for Processing and Automatic Feature Extraction for Natural and Artificial Objects 9 Terrestrial Laser Scan-derived Topographic and Roughness Data for Hydraulic Modelling of Gravel-bed Rivers 10 Airborne LiDAR Measurements to Quantify Change in Sandy Beaches; 11 LiDAR in the Environmental Sciences: Geological Applications; 12 Using LiDAR in Archaeological Contexts: The English Heritage Experience and Lessons |

Learned; 13 Airborne and Terrestrial Laser Scanning for Measuring Vegetation Canopy Structure; 14 Flood Modelling and Vegetation Mapping in Large River Systems; 15 Laser Scanning Surveying of Linear Features: Considerations and Applications; 16 Laser Scanning: The Future Index

Sommario/riassunto

3D surface representation has long been a source of information describing surface character and facilitating an understanding of system dynamics from micro-scale (e.g. sand transport) to macro-scale (e.g. drainage channel network evolution). Data collection has been achieved through field mapping techniques and the use of remotely sensed data. Advances in this latter field have been considerable in recent years with new rapid-acquisition methods being developed centered around laser based technology. The advent of airborne and field based laser scanning instruments has allowed researchers to
