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Autore	Purkis Samuel J
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4.6 Error assessment

4.7 Time-series analysis and change detection4.8 Field sampling using GPS; 4.9 Use of Geographic Information Systems; 4.10 Key concepts; 5 Monitoring changes in global vegetation cover; 5.1 EM spectrum of vegetation; 5.2 Vegetation indices; 5.3 Biophysical properties and processes of vegetation; 5.4 Classification systems; 5.5 Global vegetation and land cover mapping programmes; 5.5.1 NASA Pathfinder global monitoring project; 5.5.2 International geosphere-biosphere program; 5.5.3 Application of new satellites and radar; 5.6 Remote sensing of vegetation as a monitor for global change
CASE STUDY: Desertification in the African SahelCASE STUDY: Deforestation of Amazonia; 5.7 Remote sensing of wetlands change; 5.8 Fire detection; 5.9 Key concepts; 6 Remote sensing of urban environments; 6.1 Urbanization; 6.2 Urban remote sensing; 6.2.1 Three-dimensional urban model generation; 6.2.2 Stereo imaging; 6.2.3 LiDAR; 6.2.4 Synthetic Aperture Radar (SAR); 6.3 Microwave sensing of subsidence; 6.4 Textural metrics; 6.5 Monitoring city growth; 6.6 Assessing the ecology of cities; 6.7 Urban climatology; 6.8 Air quality and air pollution; 6.9 Climate change as a threat to urbanization
6.10 Key concepts7 Surface and ground water resources; 7.1 Remote sensing of inland water quality; 7.2 Remote sensing sediment load and pollution of inland waters; 7.3 Remote sensing non-coastal flooding; 7.4 Bathymetry of inland waters; 7.5 Mapping watersheds at the regional scale; 7.6 Remote sensing of land surface moisture; 7.7 Remote sensing of groundwater; 7.8 Key concepts; 8 Coral reefs, carbon and climate; 8.1 Introduction; 8.2 The status of the world's reefs; 8.3 Remote sensing of coral reefs; 8.4 Light, corals and water; 8.4.1 Light and the water surface
8.4.2 Light and the water body

Sommario/riassunto

Remote Sensing plays a key role in monitoring the various manifestations of global climate change. It is used routinely in the assessment and mapping of biodiversity over large areas, in the monitoring of changes to the physical environment, in assessing threats to various components of natural systems, and in the identification of priority areas for conservation. This book presents the fundamentals of remote sensing technology, but rather than containing lengthy explanations of sensor specifications and operation, it concentrates instead on the application of the technology to key environ