



# TEXTBOOK OF REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEMS

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## KEY SELLING POINTS

- ◆ Can be used in two ways – as a textbook for intro courses in remote sensing and geographical information systems (GIS) – and as a reference book for practitioners who use spatial data and its analysis in their professional work.

## BOOK INFORMATION

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The development of GIS technology and the inclusion of a number of courses in GIS and remote sensing in academic programme at various undergraduate and postgraduate levels are noteworthy. Perhaps the most significant single development in the world is the linkage of results of remote sensing data analysis to GIS for its integration with allied application areas. This book has been conceived with the objective of symbioting these two technologies and making available the relevant literature for the use of scientists, teachers and students of engineering and technology. The first part of the book deals with map language, the second part enumerates remote sensing principles and techniques, while the third part highlights the GIS principles as well as the principles of spatial models and conceptual design of GIS database management techniques. The final part gives a detailed account of the linkage and integration of parts two and three and their current and potential applications to urban and municipal administrations.

**Contents:** Map language; Remote sensing – basic principles; Microwave remote sensing; Remote sensing platforms and sensors; Visual image interpretation; Digital image processing; Fundamentals of GIS; Spatial data modelling; GIS data management; Data input and editing; Data quality issues; Data analysis and modelling; Integration of remote sensing and GIS; Urban and municipal applications.

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Geoinformation: Remote Sensing, Photogrammetry and Geographical Information Systems. Home. This textbook will appeal to a wide range of readers from advanced undergraduates to all professionals in the growing field of geoinformation. Interrelationship between GIS disciplines Classical and modern geospatial information system Principles of remote sensing Atmospheric windows Spectral reflectance Cross-section of a leaf Lens errors D-logH-curve Photographic sensitivity Spectral sensitivity of different films Chromaticity diagram CCD detector Charge transfer in a CCD array Normal angle objective Wide angle objective Image plane and objective Image motion compensation The LH Systems RC30. Geographical Information Systems Third Edition M. ANJI REDDY Professor & Head Centre for Environment Institute of Science and Technology Jawaharlal Nehru Technological University Kukatpal/y, Hyderabad-72 (A.P.) India. BSP BS Publications 4-4-309, Giriraj Lane, Sultan Bazar, Hyderabad - 500095 AP. For instance, Remote Sensing and GIS have been developed from earlier technologies such as surveying, photogrammetry, cartography, mathematics, and statistics. Laurini and Thompson (1992) adopted the umbrella term "Geomatics" to cover all these disciplines. They stated that the different aspects of each of these areas are necessary for formulating and understanding spatial information systems. Part 1 What is a geographic information system?: geographical information systems - an overview, Duane F. Marble geographical information systems - a new frontier, Roger F. Tomlinson a classification of software components commonly used in geographical information systems, Jack Dangermond GIS versus CAD versus DBMS - what are the differences?, David J. Cowen. The principles of construction and technical implementation of multichannel integrated remote sensing systems based on the separate channels which work at splitted spectral bands were developed. Read more. Book. Principles of remote sensing : an introductory textbook. January 2009. G.C. Huurneman.