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.