DESCRIPTION

This fourth and full colour edition updates and expands a widely-used textbook aimed at advanced undergraduate and postgraduate students taking courses in remote sensing and GIS in Geography, Geology and Earth/Environmental Science departments. Existing material has been brought up to date and new material has been added. In particular, a new chapter, exploring the two-way links between remote sensing and environmental GIS, has been added.

New and updated material includes:

- A website at www.wiley.com/go/mather4 that provides access to an updated and expanded version of the MIPS image processing software for Microsoft Windows, PowerPoint slideshows of the figures from each chapter, and case studies, including full data sets,

- Includes new chapter on Remote Sensing and Environmental GIS that provides insights into the ways in which remotely-sensed data can be used synergistically with other spatial data sets, including hydrogeological and archaeological applications,

- New section on image processing from a computer science perspective presented in a non-technical way, including some remarks on statistics,

- New material on image transforms, including the analysis of temporal change and data fusion techniques,

- New material on image classification including decision trees, support vector machines and independent components analysis, and

- Now in full colour throughout.
This book provides the material required for a single semester course in Environmental Remote Sensing plus additional, more advanced, reading for students specialising in some aspect of the subject. It is written largely in non-technical language yet it provides insights into more advanced topics that some may consider too difficult for a non-mathematician to understand. The case studies available from the website are fully-documented research projects complete with original data sets. For readers who do not have access to commercial image processing software, MIPS provides a licence-free, intuitive and comprehensive alternative.

ABOUT THE AUTHOR


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