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Sommario/riassunto

Possibly the greatest change confronting the practitioner and student of remote sensing in the period since the first edition of this text appeared in 1986 has been the enormous improvement in accessibility to image processing technology. Falling hardware and software costs, combined with an increase in functionality through the development of extremely versatile user interfaces, has meant that even the user unskilled in computing now has immediate and ready access to powerful and flexible means for digital image analysis and enhancement. An understanding, at algorithmic level, of the various methods for image processing has become therefore even more important in the past few years to ensure the full capability of digital image processing is utilised. This period has also been a busy one in relation to digital data supply. Several nations have become satellite data gatherers and providers, using both optical and microwave technology. Practitioners and researchers are now faced, therefore, with the need to be able to process imagery from several sensors, together with other forms of spatial data. This has been driven, to an extent, by developments in Geographic Information Systems (GIS) which, in tum, have led to the appearance of newer image processing procedures as adjuncts to more traditional approaches.