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Autore	LAMBERTI, Jean-Claude
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 4.4 Discussion and Conclusion 4.5 References; Part II Segmentation; Chapter 5 Overview and Fundamentals of Medical Image Segmentation; 5.1 Introduction; 5.2 Thresholding; 5.3 Region Growing; 5.4 Watershed Algorithm; 5.5 Edge-Based Segmentation Techniques; 5.6 Multispectral Techniques; 5.7 Other Techniques; 5.8 Concluding Remarks; 5.9 References; Chapter 6 Image Segmentation by Fuzzy Clustering: Methods and Issues; 6.1 Introduction; 6.2 The Quantitative Basis of Fuzzy Image Segmentation; 6.3 Qualitative Discussion of a Few Fuzzy Image Segmentation Methods; 6.4 Conclusions and Discussion 6.5 References Chapter 7 Segmentation with Neural Networks; 7.1 Introduction; 7.2 Structure and Function of the GRBF Network; 7.3 Training Procedure; 7.4 Application to Medical Image Segmentation; 7.5 Image Data; 7.6 Preprocessing; 7.7 Vector Quantization; 7.8 Classification; 7.9 Results; 7.10 Discussion; 7.11 Topical Applications, Conceptual Extensions, and Outlook; 7.12 Conclusion and Outlook; 7.13 References; Chapter 8 Deformable Models; 8.1 Introduction; 8.2 Mathematical Foundations of Deformable Models; 8.3 Medical Image Analysis with Deformable Models; 8.4 Discussion; 8.5 Conclusion 8.6 References Chapter 9 Shape Information in Deformable Models; 9.1 Background; 9.2 Global Shape Constraints; 9.3 Level Set Methods Incorporating Generic Constraints; 9.4 Conclusions; 9.5 References; Chapter 10 Gradient Vector Flow Deformable Models; 10.1 Introduction; 10.2 Background; 10.3 GVF Deformable Contours; 10.4 Experiments; 10.5 3D GVF Deformable Models and Results; 10.6 Discussion; 10.7 Conclusions; 10.8 References; Chapter 11 Fully Automated Hybrid Segmentation of the Brain; 11.1 Introduction; 11.2 Brain Segmentation Method; 11.3 Other Brain Segmentation Techniques; 11.4 Summary 11.5 References

Sommario/riassunto

The Handbook of Medical Image Processing and Analysis is a comprehensive compilation of concepts and techniques used for processing and analyzing medical images after they have been generated or digitized. The Handbook is organized into six sections that relate to the main functions: enhancement, segmentation, quantification, registration, visualization, and compression, storage and communication. The second edition is extensively revised and updated throughout, reflecting new technology and research, and includes new chapters on: higher order statistics for tissue segmentation; tumor g

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Nota di contenuto	Front Cover -- Microbial Corrosion and Deterioration of Engineering Materials: Analysis and Mitigation Techniques for Engineers -- Copyright Page -- Dedication -- Contents -- About the author -- Preface -- General description -- 1 Corrosion, microbiologically influenced corrosion, and microbiologically influenced deterioration -- 1.1 Introduction -- 1.2 Necessity for writing this book-introduction -- 1.3 Myths and misunderstandings -- 1.4 A brief on microbiologically influenced corrosion publication -- 1.5 Why is microbiologically influenced corrosion so complicated? -- 1.5.1 Motility -- 1.5.2 The existing gap between academia and industry -- 1.6 Approaches toward microbiologically influenced corrosion/microbiologically influenced deterioration cases -- 1.6.1 Materials-based papers -- 1.6.2 Industry-based papers -- 1.7 How is this book looking at microbiologically influenced corrosion/microbiologically influenced deterioration issues? Chapters arrangement -- References -- Further reading -- 2 Environmental aspect of corrosion: not yet looked at in detail side of corrosion management -- 2.1 Introduction -- 2.2 Developing a terminology system to make junction between ecologists and corrosionists -- 2.3 Four features of corrosion and environment interaction -- 2.3.1 Leakage, environment and pollution -- 2.3.2 Pollution-induced corrosion -- 2.4 Modelling environment effects including corrosion -- 2.4.1 Future studies and corrosion -- 2.5

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buried pipeline.

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Sommario/riassunto

Microbial Corrosion and Deterioration of Engineering Materials: Analysis and Mitigation Techniques for Engineers aims to fill the gap between research and engineering practice when it comes to microbially influenced corrosion (MIC) and deterioration (MID).
