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Nota di contenuto	Deep Learning Approach to Subepidermal Low Echogenic Band Segmentation in High Frequency Ultrasound -- A Review of Clustering Methods in Microorganism Image Analysis -- MRFU-Net: A Multiple Receptive Field U-Net for Environmental Microorganism Image Segmentation -- Deep Learning Approach to Automated Segmentation of Tongue in Camera Images for Computer-Aided Speech Diagnosis -- 3-D Tissue Image Reconstruction from Digitized Serial Histologic Sections to Visualize Small Tumor Nests in Lung Adenocarcinomas -- The Inuence of Age on Morphometric and Textural Vertebrae Features in Lateral Cervical Spine Radiographs -- Evaluation of Shape from Shading Surface Reconstruction Quality for Liver Phantom -- Pancreas and Duodenum – Automated Organ Segmentation.
Sommario/riassunto	The rapid and continuous growth in the amount of available medical information and the variety of multimodal content has created demand for a fast and reliable technology capable of processing data and delivering results in a user-friendly manner, whenever and wherever the information is needed. Multimodal acquisition systems, AI-powered

applications, and biocybernetic support for medical procedures, physiotherapy and prevention have opened up exciting new avenues in terms of optimizing the healthcare system for the benefit of patients. This book presents a comprehensive study on the latest advances in medical data science and gathers carefully selected articles written by respected experts on information technology. Pursuing an interdisciplinary approach and addressing both theoretical and applied aspects, it chiefly focuses on: Artificial Intelligence Image Analysis Sound and Motion in Physiotherapy and Physioprevention Modeling and Simulation Medical Data Analysis Given its scope, the book offers a valuable reference tool for all scientists who deal with problems of designing and implementing information processing tools employed in systems that assist in patient diagnosis and treatment, as well as students who want to learn more about the latest innovations in quantitative medical data analysis, data mining, and artificial intelligence. .