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Nota di contenuto	Edge-enhanced Knowledge Distillation System for Diabetic Retinopathy Lesions Computer-Aided Diagnosis -- Development of a Mobile Application for Dermatological Diagnosis Using Image Recognition: The DermAware Case Study -- Measuring the Diameter of Coronary Arteries via Skeletonization using a U-Net Architecture -- Deep Belief Networks for Efficient Macular Edema Detection in Retinal Fundus Images -- Automatic Spatial Localization of Coronary Stenosis in X-ray Angiograms Using Deep Learning -- Deep Learning for Pediatric Right Ventricle Segmentation in Echocardiography: Challenges and Strategies -- Challenges and Advances in Digital Processing of Fetal Phonocardiography Signal: A Review -- Implications of Model Loss and

Configuration for Sparse Histological Segmentation -- Metaheuristic Strategy in Automatic Robotics Navigation for Patient Care in Hospitals -- Orthosis Control based on Electromyographic Signals and Machine Learning -- Internet of Medical Things Focused on Home Hospitalization for Diagnostic and Monitoring Support -- Automatic Robotics Medication Delivery System: The ANDIS Case Study -- Making Better Medical Decisions Using Machine Learning: A Bayesian Model -- Determining the Influence of Socioeconomic and Clinical Factors in Diabetes in the Mexican Population Using Machine Learning Techniques -- Sphonic: Development of a Mobile Application Using AI and AR for Learning Biomedical Concepts -- A Case Study on Pigmentation of Marine Species in Captivity and a Possible Application of AI to Marine Biomedical Research -- Ligand-based Virtual Screening Workflow for Antimalarial Repositioning from Known Drugs and Chemical Libraries -- Redefining Care: Hospitals' Pivotal Role in Sustainable Development -- Cutting-Edge Technologies: Driving Sustainability in Hospital Operations.

Sommario/riassunto

This book provides an in-depth exploration of machine learning techniques and their biomedical applications, particularly in developing intelligent computer-aided diagnostic systems, creating groundbreaking healthcare technologies, uncovering novel biological applications, and fostering sustainable health solutions. Integrating artificial intelligence, mathematical modeling, and emergent systems, this book highlights the profound impact of these advanced tools in not only enhancing problem-solving within the biomedical field but also in catalyzing the development of novel solutions. This book is a valuable resource for readers interested in understanding the revolutionary impact of novel machine learning methodologies on the biomedical landscape. Furthermore, it offers a blend of theory and practical applications for those interested in biomedical education and training, biology, medicine, and sustainable health development.
