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Nota di contenuto	Generating New Sounds by Vector Arithmetic in the Latent Space of the MelGAN Architecture -- Graph Neural Networks for Topological Feature Extraction in ECG Classification -- Manifold Learning by a Deep Gaussian Process Variational Autoencoder -- Analysis of Sensors for Movement Analysis -- Dual Seep Clustering -- Learning-Based Approach to Predict Fatal Events in Brugada Syndrome -- Breast Cancer Localization and Classification in Mammograms Using YoloV5 -- Deep Acoustic Emission Detection Trained on Seismic Signals -- A Deep

Learning Framework for the Classification of Pre-Prodromal and Prodromal Alzheimer's Disease Using Resting-State EEG signals -- Imitation Learning Through Prior Injection in Markov Decision Processes -- Vision-Based Human Activity Recognition Methods Using Pose Estimation -- Identifying Exoplanets in TESS Data by Deep Learning -- Computational Intelligence for Marine Litter Recovery -- A Synthetic Dataset for Learning Optical Flow in Underwater Environment -- An Interpretable BERT-Based Architecture for SARS-CoV-2 Variant Identification.

Sommario/riassunto

This book provides an overview on the current progresses in artificial intelligence and neural nets in data science. The book is reporting on intelligent algorithms and applications modeling, prediction, and recognition tasks and many other application areas supporting complex multimodal systems to enhance and improve human-machine or human-human interactions. This field is broadly addressed by the scientific communities and has a strong commercial impact since investigates on the theoretical frameworks supporting the implementation of sophisticated computational intelligence tools. Such tools will support multidisciplinary aspects of data mining and data processing characterizing appropriate system reactions to human-machine interactional exchanges in interactive scenarios. The emotional issue has recently gained increasing attention for such complex systems due to its relevance in helping in the most common human tasks (like cognitive processes, perception, learning, communication, and even "rational" decision-making) and therefore improving the quality of life of the end users.
