



*diagnostics*



*Special Issue Reprint*

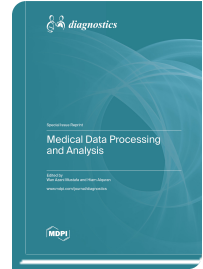
## Medical Data Processing and Analysis

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Medical data can be defined as obtaining information from patients (such as signals, images, sounds, chemical components and their concentration, body temperature, respiratory rate, blood pressure, and different treatment measurements) to quantify the patient's status and disease stage. Computer-aided diagnostic (CAD) systems use classical image processing, computer vision, machine learning, and deep learning methods for image analysis. Using image classification or segmentation algorithms, they find a region of interest (ROI) pointing to a specific location within the given image or an outcome of interest in the form of a label pointing to a diagnosis or prognosis. Computer science, with the evolution of artificial intelligence and machine learning techniques, facilitates the modeling and interpretation of results—from carrying out measurements to experiments and observations. Employing technological tools for collection, processing, and analysis incorporates understanding the patient's status and developing the treatment plan. Achieving highly accurate models requires a huge dataset. This issue can be solved by having enough knowledge around medical data processing and their analysis. This reprint shows state-of-the-art research in the field of medical data processing and analysis. The medical data are represented in signals, images, raw data, protein sequences, etc. Processing and analysis of any kind can indicate specific issues in the medical sector such as diagnosis, detection, prediction, and segmentation to enhance the visualization of the processed data



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