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Record Nr.	UNINA9910728935403321
Autore	Koundal Deepika
Titolo	Data Analysis for Neurodegenerative Disorders / / edited by Deepika Koundal, Deepak Kumar Jain, Yanhui Guo, Amira S. Ashour, Atef Zaguia
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-9921-54-6
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (267 pages)
Collana	Cognitive Technologies, , 2197-6635
Altri autori (Persone)	JainDeepak Kumar GuoYanhui AshourAmira S ZaguiaAtef
Disciplina	616.800285
Soggetti	Medical informatics Image processing—Digital techniques Computer vision Image processing Machine learning Artificial intelligence—Data processing Health Informatics Computer Imaging, Vision, Pattern Recognition and Graphics Image Processing Machine Learning Data Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Introduction to neurodegenerative disorders -- Chapter 2. Neurodegenerative Disorders and available therapies: A review -- Chapter 3. Role of peptides in Neurodegenerative disorders by using Machine Learning techniques -- Chapter 4. Deep learning based classification of neurodegenerative disorders -- Chapter 5. EEG Processing and Machine Learning based Categorization of Epilepsy -- Chapter 6. An Automatic Edge-Region Based Level set Method for MRI Brain Image Segmentation -- Chapter 7. Multimodal Medical Image Fusion for identification of Neurodegenerative disorders Using

Neutrosophic CNN Technique -- Chapter 8. Automated EEG temporal lobe signal processing for diagnosis of Alzheimer disease -- Chapter 9. Alzheimer Disease Identification based on the EEG Processing and Machine Learning -- Chapter 10. Deep Learning Models for Automatic Classification and Prediction of Alzheimer's Disease -- Chapter 11. Machine learning models for Alzheimer Disease Detection using medical images -- Chapter 12. Transfer learning for precise classification of Parkinson disease from EEG signals -- Chapter 13. Analysis of Convolutional Neural Network Based Architecture for Parkinson -- Chapter 14. Challenges and Possible research directions.

Sommario/riassunto	This book explores the challenges involved in handling medical big data in the diagnosis of neurological disorders. It discusses how to optimally reduce the number of neuropsychological tests during the classification of these disorders by using feature selection methods based on the diagnostic information of enrolled subjects. The book includes key definitions/models and covers their applications in different types of signal/image processing for neurological disorder data. An extensive discussion on the possibility of enhancing the abilities of AI systems using the different data analysis is included. The book recollects several applicable basic preliminaries of the different AI networks and models, while also highlighting basic processes in image processing for various neurological disorders. It also reports on several applications to image processing and explores numerous topics concerning the role of big data analysis in addressing signal and image processing in various real-world scenarios involving neurological disorders. This cutting-edge book highlights the analysis of medical data, together with novel procedures and challenges for handling neurological signals and images. It will help engineers, researchers and software developers to understand the concepts and different models of AI and data analysis. To help readers gain a comprehensive grasp of the subject, it focuses on three key features: Presents outstanding concepts and models for using AI in clinical applications involving neurological disorders, with clear descriptions of image representation, feature extraction and selection. Highlights a range of techniques for evaluating the performance of proposed CAD systems for the diagnosis of neurological disorders. Examines various signal and image processing methods for efficient decision support systems. Soft computing, machine learning and optimization algorithms are also included to improve the CAD systems used.