

1. Record Nr.	UNINA9910409691903321
Titolo	Advances in Bioengineering // edited by Renu Vyas
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
ISBN	981-15-2063-1
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (229 p.)
Disciplina	660.6
Soggetti	Biomedical engineering Molecular biology Proteins Bioinformatics Human physiology Biomedical Engineering/Biotechnology Molecular Medicine Protein Structure Human Physiology Bioinginyeria Bioinformàtica Materials nanoestructurats Nanopartícules Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Modeling of protein complexes involved in signaling pathway for Non-Small Cell Lung Cancer -- Chapter 2. Role of BioJava in the Department of Bioinformatics Tools -- Chapter 3. Overview of machine learning methods in ADHD prediction -- Chapter 4. Simplified Protein Structure Prediction Using Parallel Genetic Algorithms -- Chapter 5. Applications of deep learning in drug discovery -- Chapter 6. Big Data Analytics for Handling NGS Data & its Applications in Identifying Cancer Mutations -- Chapter 7. Medicinal Properties of Fruit waste -- Chapter 8. Epigenetic toxicity of nanoparticles -- Chapter 9. Protein Misfolding and Aggregation in Neurodegenerative diseases --

Chapter 10. Enzyme technology prospectus & their Biomedical Applications -- Chapter 11. Polyunsaturated fatty acids enhance the recovery of bone marrow impairment caused after radiation -- Chapter 12. Nanomaterial Enabled Rapid Electrochemical Biosensors For Bacterial Pathogens -- Chapter 13. Heart Rate Variability Analysis in lung cancer patients to study the effect of treatment -- Chapter 14. Co-Relation of Physiological Signals And Therapy for Diagnostics Purpose of Periodic Limb Movement Disorder (Plmd) -- Chapter 15. Analysis of Forward Head Posture -- Chapter 16. Biopolymeric Smart Nano-Carriers for Drug Delivery Applications.

Sommario/riassunto

This book provides a single source of information on three major bioengineering areas: engineering at the cellular and molecular level; biomedical devices / instrument engineering; and data engineering. It explores the latest strategies that are essential to advancing our understanding of the mechanisms of human diseases, the development of new enzyme-based technologies, diagnostics, prosthetics, high-performance computing platforms for managing huge amounts of biological data, and the use of deep learning methods to create predictive models. The book also highlights the growing importance of integrating chemistry into life sciences research, most notably concerning the development and evaluation of nanomaterials and nanoparticles and their interactions with biological material. The underlying interdisciplinary theme of bioengineering is addressed in a range of multifaceted applications and worked out examples provided in each chapter.
