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Titolo	Nature-inspired optimization algorithms : recent advances in natural computing and biomedical applications / / edited by Aditya Khamparia [and three others]
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ISBN	3-11-067611-7
Descrizione fisica	1 online resource (170 pages)
Collana	Intelligent biomedical data analysis (IBDA) ; ; Volume 4
Disciplina	006.38
Soggetti	Natural computation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Frontmatter -- Preface -- Contents -- About the editors -- List of contributors -- 1 Selecting and assessing the importance of malware analysis methods for web-based biomedical services through fuzzy-based decision-making procedure -- 2 A medical intelligent system for diagnosis of chronic kidney disease using adaptive neuro-fuzzy inference system -- 3 Contrast enhancement approach for satellite images using hybrid fusion technique and artificial bee colony optimization -- 4 Role of intelligent IoT applications in fog computing -- 5 Energy-efficient routing employing neural networks along with vector-based pipeline in underwater wireless sensor networks -- 6 A review of global optimization problems using meta-heuristic algorithm -- 7 Secure indexing and storage of big data -- 8 Genetic algorithm and normalized text feature based document classification -- 9 Nature-inspired optimization techniques -- Index
Sommario/riassunto	This book will focus on the involvement of data mining and intelligent computing methods for recent advances in Biomedical applications and algorithms of nature-inspired computing for Biomedical systems. The proposed meta heuristic or nature-inspired techniques should be an enhanced, hybrid, adaptive or improved version of basic algorithms in terms of performance and convergence metrics. In this exciting and emerging interdisciplinary area a wide range of theory and methodologies are being investigated and developed to tackle complex

and challenging problems. Today, analysis and processing of data is one of big focuses among researchers community and information society. Due to evolution and knowledge discovery of natural computing, related meta heuristic or bio-inspired algorithms have gained increasing popularity in the recent decade because of their significant potential to tackle computationally intractable optimization dilemma in medical, engineering, military, space and industry fields. The main reason behind the success rate of nature inspired algorithms is their capability to solve problems. The nature inspired optimization techniques provide adaptive computational tools for the complex optimization problems and diversified engineering applications.

Tentative Table of Contents/Topic Coverage: - Neural Computation - Evolutionary Computing Methods - Neuroscience driven AI Inspired Algorithms - Biological System based algorithms - Hybrid and Intelligent Computing Algorithms - Application of Natural Computing - Review and State of art analysis of Optimization algorithms - Molecular and Quantum computing applications - Swarm Intelligence - Population based algorithm and other optimizations
