

1. Record Nr.	UNINA9910863112203321
Titolo	Bio-inspired Algorithms for Data Streaming and Visualization, Big Data Management, and Fog Computing // edited by Simon James Fong, Richard C. Millham
Pubbl/distr/stampa	Springer Singapore, 2021 Singapore : , : Springer Singapore : , : Imprint : Springer, , 2021
ISBN	981-15-6695-X
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (228 pages)
Collana	Springer Tracts in Nature-Inspired Computing, , 2524-552X
Disciplina	571.0284
Soggetti	Computational intelligence Algorithms Big data Database management Application software Computational Intelligence Algorithm Analysis and Problem Complexity Big Data Database Management Information Systems Applications (incl. Internet)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. The Big Data Approach Using Bio-Inspired Algorithms: Data Imputation -- Chapter 2. Parameter Tuning onto Recurrent Neural Network and Long Short Term Memory (RNN-LSTM) Network for Feature Selection in Classification of High-dimensional Bioinformatics Datasets -- Chapter 3. Data Stream Mining in Fog Computing Environment with Feature Selection Using Ensemble of Swarm Search Algorithms -- Chapter 4. Pattern Mining Algorithms -- Chapter 5. Extracting Association Rules: Meta-Heuristic and Closeness Preference Approach -- Chapter 6. Lightweight Classifier-based Outlier Detection Algorithms from Multivariate Data Stream -- Chapter 7. Comparison of Contemporary Meta-heuristic Algorithms for Solving Economic Load

Dispatch Problem -- Chapter 8. The paradigm on fog computing with bio-inspired search methods and the '5Vs' of big data -- Chapter 9. Approach for sentiment analysis on social media sites -- Chapter 10. Data Visualisation techniques and Algorithms -- Chapter 11. Business Intelligence -- Chapter 12. Big Data Tools for Tasks.

---

## Sommario/riassunto

This book aims to provide some insights into recently developed bio-inspired algorithms within recent emerging trends of fog computing, sentiment analysis, and data streaming as well as to provide a more comprehensive approach to the big data management from pre-processing to analytics to visualization phases. The subject area of this book is within the realm of computer science, notably algorithms (meta-heuristic and, more particularly, bio-inspired algorithms). Although application domains of these new algorithms may be mentioned, the scope of this book is not on the application of algorithms to specific or general domains but to provide an update on recent research trends for bio-inspired algorithms within a specific application domain or emerging area. These areas include data streaming, fog computing, and phases of big data management. One of the reasons for writing this book is that the bio-inspired approach does not receive much attention but shows considerable promise and diversity in terms of approach of many issues in big data and streaming. Some novel approaches of this book are the use of these algorithms to all phases of data management (not just a particular phase such as data mining or business intelligence as many books focus on); effective demonstration of the effectiveness of a selected algorithm within a chapter against comparative algorithms using the experimental method. Another novel approach is a brief overview and evaluation of traditional algorithms, both sequential and parallel, for use in data mining, in order to provide an overview of existing algorithms in use. This overview complements a further chapter on bio-inspired algorithms for data mining to enable readers to make a more suitable choice of algorithm for data mining within a particular context. In all chapters, references for further reading are provided, and in selected chapters, the author also include ideas for future research. .

---