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 Autore Kalia Susheel

Polymers for Advanced Technology: Select Proceedings of APA 2023 / /

edited by Susheel Kalia, Mohammad Jawaid, Bhuvanesh Gupta

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Edizione [1st ed. 2024.]

Descrizione fisica 1 online resource (188 pages)

Collana Springer Proceedings in Materials, , 2662-317X ; ; 1

Altri autori (Persone) JawaidMohammad

GuptaBhuvanesh

Disciplina 620.192

Soggetti Polymers

Polymerization Biopolymers Biomaterials Building materials Nanotechnology Polymer Synthesis

Wood, fabric, and textiles

Nanoengineering

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto This book presents select proceedings of the International Conference

on Polymers for Advanced Technology (APA 2023). Polymers offer enormous opportunities for newer applications in technologically important areas. This book includes comprehensive step-by-step chapters with details of the processing and functionalization of polymers and their applications. This book will help the readers to know the recent developments and comprehensive research on polymers for advanced technology. All chapters in this book include illustrations, tables, figures, graphs, bibliographies, and extensive references to provide comprehensive information to the readers. This book can be a valuable reference for researchers and professionals

interested in polymeric materials and biomaterials.

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Autore Mirjalili Seyedali

Titolo Evolutionary Algorithms and Neural Networks: Theory and Applications

// by Seyedali Mirjalili

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2019

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Descrizione fisica 1 online resource (XIV, 156 p. 68 illus., 60 illus. in color.)

Collana Studies in Computational Intelligence, , 1860-9503 ; ; 780

Disciplina 006.32

Soggetti Computational intelligence

Artificial intelligence

Neural networks (Computer science)

Computer simulation
Computational Intelligence

Artificial Intelligence

Mathematical Models of Cognitive Processes and Neural Networks

Computer Modelling

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Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Part I: Evolutionary algorithms -- Introduction to Evolutionary Single-

objective Optimisation -- Particle Swarm Optimisation -- Ant Colony

Optimization -- Genetic Algorithm -- Biogeography-Based

Optimization -- Part II: Evolutionary Neural Networks -- Evolutionary Feedforward Neural Networks -- Evolutionary Multi-Layer Perceptron -- Evolutionary Radial Basis Function Networks -- Evolutionary Deep

Neural Networks.

Sommario/riassunto This book introduces readers to the fundamentals of artificial neural

networks, with a special emphasis on evolutionary algorithms. At first, the book offers a literature review of several well-regarded evolutionary algorithms, including particle swarm and ant colony optimization, genetic algorithms and biogeography-based optimization. It then

proposes evolutionary version of several types of neural networks such as feed forward neural networks, radial basis function networks, as well as recurrent neural networks and multi-later perceptron. Most of the challenges that have to be addressed when training artificial neural networks using evolutionary algorithms are discussed in detail. The book also demonstrates the application of the proposed algorithms for several purposes such as classification, clustering, approximation, and prediction problems. It provides a tutorial on how to design, adapt, and evaluate artificial neural networks as well, and includes source codes for most of the proposed techniques as supplementary materials.