

1. Record Nr.	UNINA9910746995103321
Titolo	Bio-inspired information and communications technologies : 14th EAI International Conference, BICT 2023, Okinawa, Japan, April 11-12, 2023, Proceedings // Yifan Chen, Dezhong Yao, and Tadashi Nakano, editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2023] ©2023
ISBN	3-031-43135-9
Edizione	[First edition.]
Descrizione fisica	1 online resource (xiii, 294 pages) : illustrations
Collana	Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering Series
Altri autori (Persone)	ChenYifan (Professor of electronic engineering)
Disciplina	006
Soggetti	Natural computation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Electromagnetic-induced Calcium signal with network coding for molecular communications -- Smart Farm Teaching Aids based on STEM concepts -- Reinforcement Learning for Multifocal Tumour Targeting -- Automatic Soil Testing Device for Agriculture -- A Novel Visualization Method of Vessel Network for tumour Targeting: A Vessel Matrix Approach -- Heterogeneous Group of Fish Response to Escape Reaction -- Modeling and Simulation of a Bio-inspired Nanorobotic Drug Delivery System -- Cooperative Relaying in Multi-Hop Mobile Molecular Communication via Diffusion -- Covid-19 Versus Monkeypox-2022: The Silent Struggle of Global Pandemics -- Monte Carlo Simulation of Arbitrium and the Probabilistic Behavior of Bacteriophages -- Instant Messaging Application for 5G Core Network -- Genetic Algorithm-based Fair Order Assignment Optimization of Food Delivery Platform -- Preliminary Considerations on Non-Invasive Home-Based Bone Fracture Healing Monitoring -- Features of Audio Frequency Content of Respiration to Distinguish Inhalation from Exhalation -- Management of the medical file in case of emergency -- A Novel Durable Fat Tissue Phantom for Microwave Based Medical Monitoring Applications -- ISI Mitigation with Molecular Degradation in Molecular Communication -- Signal Transmission Through Human

Body Via Human Oxygen Saturation Detection -- Simple ISI-Avoiding and Rate-Increasing Modulation for Diffusion-base Molecular Communications -- Range Expansion in Neuro-spike Synaptic Communication: Error Performance Analysis -- [Extended Abstract] Collective Bio-nanomachine Rotation via Chemical and Physical Interactions: A Three- dimensional Model -- Wearable Vibration Device to Assist with Ambulation for the Visually Impaired -- Development of Capacitive Sensors to Detect and Quantify Fluids in the Adult Diaper -- Energy Cyber Attacks to Smart Healthcare Devices: A Testbed -- [Extended Abstract] Wet-laboratory Experiments and Computer Simulation of Interacting Cell Spheroids -- Ensembles of Heuristics and Computational Optimisation In Highly Flexible Manufacturing System -- A Intelligent Nanorobots Fish Swarm Strategy for Tumor Targetting -- [Extended abstract] Design and Implementation of A General-purpose Multicellular Molecular Communication Simulator.

Sommario/riassunto

This book constitutes the refereed conference proceedings of the 14th International Conference on Bio-inspired Information and Communications Technologies, held in Okinawa, Japan, during April 11-12, 2023. The 17 full papers were carefully reviewed and selected from 33 submissions. The papers focus on the latest research that leverages the understanding of key principles, processes, and mechanisms in biological systems for development of novel information and communications technologies (bio-inspired ICT). BICT 2023 will also highlight innovative research and technologies being developed for biomedicine that are inspired by ICT (ICT-inspired biomedicine).
