

1. Record Nr.	UNISA996466152403316
Titolo	Evolvable Systems: From Biology to Hardware [[electronic resource]] : 7th International Conference, ICES 2007, Wuhan, China, September 21-23, 2007, Proceedings / / edited by Sanyou Zeng
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2007
ISBN	3-540-74626-9
Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (XIV, 450 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4684
Disciplina	005.1
Soggetti	Computer systems Artificial intelligence Computer science Logic design Computer simulation Bioinformatics Computer System Implementation Artificial Intelligence Theory of Computation Logic Design Computer Modelling Computational and Systems Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Digital Hardware Evolution -- An Online EHW Pattern Recognition System Applied to Sonar Spectrum Classification -- Design of Electronic Circuits Using a Divide-and-Conquer Approach -- Implementing Multi-VRC Cores to Evolve Combinational Logic Circuits in Parallel -- An Intrinsic Evolvable Hardware Based on Multiplexer Module Array -- Estimating Array Connectivity and Applying Multi-output Node Structure in Evolutionary Design of Digital Circuits -- Research on the Online Evaluation Approach for the Digital Evolvable Hardware -- Research on Multi-objective On-Line Evolution Technology of Digital

Circuit Based on FPGA Model -- Evolutionary Design of Generic Combinational Multipliers Using Development -- Analog Hardware Evolution -- Automatic Synthesis of Practical Passive Filters Using Clonal Selection Principle-Based Gene Expression Programming -- Research on Fault-Tolerance of Analog Circuits Based on Evolvable Hardware -- Analog Circuit Evolution Based on FPTA-2 -- Bio-inspired Systems -- Knowledge Network Management System with Medicine Self Repairing Strategy -- Design of a Cell in Embryonic Systems with Improved Efficiency and Fault-Tolerance -- Design on Operator-Based Reconfigurable Hardware Architecture and Cell Circuit -- Bio-inspired Systems with Self-developing Mechanisms -- Development of a Tiny Computer-Assisted Wireless EEG Biofeedback System -- Steps Forward to Evolve Bio-inspired Embryonic Cell-Based Electronic Systems -- Evolution of Polymorphic Self-checking Circuits -- Mechanical Hardware Evolution -- Sliding Algorithm for Reconfigurable Arrays of Processors -- System-Level Modeling and Multi-objective Evolutionary Design of Pipelined FFT Processors for Wireless OFDM Receivers -- Reducing the Area on a Chip Using a Bank of Evolved Filters -- Evolutionary Design -- Walsh Function Systems: The Bisectional Evolutional Generation Pattern -- Extrinsic Evolvable Hardware on the RISA Architecture -- Evolving and Analysing "Useful" Redundant Logic -- Adaptive Transmission Technique in Underwater Acoustic Wireless Communication -- Autonomous Robot Path Planning Based on Swarm Intelligence and Stream Functions -- Research on Adaptive System of the BTT-45 Air-to-Air Missile Based on Multilevel Hierarchical Intelligent Controller -- The Design of an Evolvable On-Board Computer -- Evolutionary Algorithms in Hardware Design -- Extending Artificial Development: Exploiting Environmental Information for the Achievement of Phenotypic Plasticity -- UDT-Based Multi-objective Evolutionary Design of Passive Power Filters of a Hybrid Power Filter System -- Designing Electronic Circuits by Means of Gene Expression Programming II -- Designing Polymorphic Circuits with Evolutionary Algorithm Based on Weighted Sum Method -- Robust and Efficient Multi-objective Automatic Adjustment for Optical Axes in Laser Systems Using Stochastic Binary Search Algorithm -- Minimization of the Redundant Sensor Nodes in Dense Wireless Sensor Networks -- Evolving in Extended Hamming Distance Space: Hierarchical Mutation Strategy and Local Learning Principle for EHW -- Hardware Implementation of Evolutionary Algorithms -- Adaptive and Evolvable Analog Electronics for Space Applications -- Improving Flexibility in On-Line Evolvable Systems by Reconfigurable Computing -- Evolutionary Design of Resilient Substitution Boxes: From Coding to Hardware Implementation -- A Sophisticated Architecture for Evolutionary Multiobjective Optimization Utilizing High Performance DSP -- FPGA-Based Genetic Algorithm Kernel Design -- Using Systolic Technique to Accelerate an EHW Engine for Lossless Image Compression.
