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Descrizione fisica	1 online resource (XVIII, 276 p. 99 illus., 73 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 724
Disciplina	006.4
Soggetti	Computational intelligence Artificial intelligence User interfaces (Computer systems) Pattern recognition Computational Intelligence Artificial Intelligence User Interfaces and Human Computer Interaction Pattern Recognition
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di contenuto	Introduction -- Radon Transform based Automatic Posture Recognition in Ballet Dance -- Fuzzy Image Matching Based Posture Recognition in Ballet Dance -- Gesture Driven Fuzzy Interface System For Car Racing Game -- Type-2 Fuzzy Classifier based Pathological Disorder Recognition -- Probabilistic Neural Network based Dance Gesture Recognition -- Differential Evolution based Dance Composition -- EEG-Gesture based Artificial Limb Movement for Rehabilitative Applications -- Conclusions and Future Directions -- Index.
Sommario/riassunto	This book presents a thorough analysis of gestural data extracted from raw images and/or range data with an aim to recognize the gestures conveyed by the data. It covers image morphological analysis, type-2 fuzzy logic, neural networks and evolutionary computation for classification of gestural data. The application areas include the recognition of primitive postures in ballet/classical Indian dances, detection of pathological disorders from gestural data of elderly

people, controlling motion of cars in gesture-driven gaming and gesture-commanded robot control for people with neuro-motor disability. The book is unique in terms of its content, originality and lucid writing style. Primarily intended for graduate students and researchers in the field of electrical/computer engineering, the book will prove equally useful to computer hobbyists and professionals engaged in building firmware for human-computer interfaces. A prerequisite of high school level mathematics is sufficient to understand most of the chapters in the book. A basic background in image processing, although not mandatory, would be an added advantage for certain sections.
