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Soggetti	Artificial intelligence User interfaces (Computer systems) Pattern perception Computer simulation Artificial Intelligence User Interfaces and Human Computer Interaction Pattern Recognition Simulation and Modeling
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Nota di contenuto	Research challenges in gesture: Open issues and unsolved problems -- Progress in sign language recognition -- Movement phases in signs and co-speech gestures, and their transcription by human coders -- Classifying two dimensional gestures in interactive systems -- Are listeners paying attention to the hand gestures of an anthropomorphic agent? an evaluation using a gaze tracking method -- Gesture-Based and haptic interaction for human skill acquisition -- High performance real-time gesture recognition using Hidden Markov Models -- Velocity profile based recognition of dynamic gestures with discrete Hidden Markov Models -- Video-based sign language recognition using Hidden Markov Models -- Corpus of 3D natural movements and sign language primitives of movement -- On the use of context and a priori knowledge in motion analysis for visual gesture recognition --

Automatic estimation of body regions from video images -- Rendering gestures as line drawings -- Investigating the role of redundancy in multimodal input systems -- Gesture recognition of the upper limbs — From signal to symbol -- Exploiting distant pointing gestures for object selection in a virtual environment -- An intuitive two-handed gestural interface for computer supported product design -- Detection of fingertips in human hand movement sequences -- Neural architecture for gesture-based human-machine-interaction -- Robotic gesture recognition -- Image based recognition of gaze direction using adaptive methods -- Towards a dialogue system based on recognition and synthesis of Japanese sign language -- The recognition algorithm with non-contact for Japanese sign language using morphological analysis -- Special topics of gesture recognition applied in intelligent home environments -- BUILD-IT: An intuitive design tool based on direct object manipulation.

Sommario/riassunto

This book presents the thoroughly refereed post-workshop proceedings of an International Workshop on Gesture and Sign Language in Human-Computer Interaction held in Bielefeld, Germany, in 1997. The book presents 25 revised papers together with two invited lectures. Recently, gesture and sign language have become key issues for advanced interface design in the humanization of computer interaction: AI, neural networks, pattern recognition, and agent techniques are having a significant impact on this area of research and development. The papers are organized in sections on semiotics for gesture movement, hidden Markov models, motion analysis and synthesis, multimodal interfaces, neural network methods, and applications.