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Disciplina	006.3
Soggetti	Artificial intelligence Image processing - Digital techniques Computer vision Application software Pattern recognition systems Data mining Artificial Intelligence Computer Imaging, Vision, Pattern Recognition and Graphics Computer Vision Computer and Information Systems Applications Automated Pattern Recognition Data Mining and Knowledge Discovery
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Paper -- Some Encounters on the Productive Use of a Failed Proof Attempt or a Counterexample -- Natural Language Processing -- Discourse Segmentation for Spanish Based on Shallow Parsing -- Towards Document Plagiarism Detection Based on the Relevance and Fragmentation of the Reused Text -- Lexicon Based Sentiment Analysis of Urdu Text Using SentiUnits -- A Semantic Oriented Approach to

Textual Entailment Using WordNet-Based Measures -- On Managing Collaborative Dialogue Using an Agent-Based Architecture -- Dialog Structure Automatic Modeling -- A Probabilistic Model Based on n-Grams for Bilingual Word Sense Disambiguation -- Information Retrieval with a Simplified Conceptual Graph-Like Representation -- Teaching a Robot to Perform Tasks with Voice Commands -- Music Composition Based on Linguistic Approach -- Robotics, Planning and Scheduling -- A Practical Robot Coverage Algorithm for Unknown Environments -- An Algorithm for the Automatic Generation of Human-Like Motions Based on Examples -- Line Maps in Cluttered Environments -- Fuzzy Cognitive Maps for Modeling Complex Systems -- Semantic Representation and Management of Student Models: An Approach to Adapt Lecture Sequencing to Enhance Learning -- An Effective Heuristic for the No-Wait Flowshop with Sequence-Dependent Setup Times Problem -- Optimizing Alternatives in Precedence Networks -- AI-Based Integrated Scheduling of Production and Transportation Operations within Military Supply Chains -- Turbo Codification Techniques for Error Control in a Communication Channel -- A New Graphical Recursive Pruning Method for the Incremental Pruning Algorithm -- A New Pruning Method for Incremental Pruning Algorithm Using a Sweeping Scan-Line through the Belief Space -- POMDP Filter: Pruning POMDP Value Functions with the Kaczmarz Iterative Method -- Computer Vision and Image Processing -- Testing Image Segmentation for Topological SLAM with Omnidirectional Images -- Automatic Image Annotation Using Multiple Grid Segmentation -- Spatio-temporal Image Tracking Based on Optical Flow and Clustering: An Endoneurosonographic Application -- One Trilateral Filter Based on Surface Normal -- Beta-Measure for Probabilistic Segmentation -- Robust Spatial Regularization and Velocity Layer Separation for Optical Flow Computation on Transparent Sequences -- SAR Image Denoising Using the Non-Subsampled Contourlet Transform and Morphological Operators -- Logic and Distributed Systems -- Scheme-Based Synthesis of Inductive Theories -- A Possibilistic Intuitionistic Logic -- Jason Induction of Logical Decision Trees: A Learning Library and Its Application to Commitment -- Extending Soft Arc Consistency Algorithms to Non-invertible Semirings -- Frequency Transition Based Upon Dynamic Consensus for a Distributed System -- AI-Based Medical Application -- Towards Ubiquitous Acquisition and Processing of Gait Parameters -- Intelligent Wheelchair and Virtual Training by LabVIEW -- Environmental Pattern Recognition for Assessment of Air Quality Data with the Gamma Classifier -- Massive Particles for Brain Tractography -- Emotional Conversational Agents in Clinical Psychology and Psychiatry -- Knowledge-Based System for Diagnosis of Metabolic Alterations in Undergraduate Students.

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## Sommario/riassunto

Artificial intelligence (AI) is a branch of computer science that models the human ability of reasoning, usage of human language and organization of knowledge, solving problems and practically all other human intellectual abilities. Usually it is characterized by the application of heuristic methods because in the majority of cases there is no exact solution to this kind of problem. The Mexican International Conference on Artificial Intelligence (MICAI), a yearly international conference series organized by the Mexican Society for Artificial Intelligence (SMIA), is a major international AI forum and the main event in the academic life of the country's growing AI community. In 2010, SMIA celebrated 10 years of activity related to the organization of MICAI as is represented in its slogan: "Ten years on the road with AI". MICAI conferences traditionally publish high-quality papers in all areas of artificial intelligence and its applications. The proceedings of the

previous MICA I events were also published by Springer in its Lecture Notes in Artificial Intelligence (LNAI) series, vols. 1793, 2313, 2972, 3789, 4293, 4827, 5317, and 5845. Since its foundation in 2000, the conference has been growing in popularity and improving in quality.

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