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	Nota di contenuto	Basics -- What Is a Learning Classifier System? -- A Roadmap to the Last Decade of Learning Classifier System Research (From 1989 to 1999) -- State of XCS Classifier System Research -- An Introduction to Learning Fuzzy Classifier Systems -- Advanced Topics -- Fuzzy and Crisp Representations of Real-Valued Input for Learning Classifier Systems -- Do We Really Need to Estimate Rule Utilities in Classifier Systems? -- Strength or Accuracy? Fitness Calculation in Learning Classifier Systems -- Non-homogeneous Classifier Systems in a Macro-evolution Process -- An Introduction to Anticipatory Classifier Systems -- A Corporate XCS -- Get Real! XCS with Continuous-Valued Inputs -- Applications -- XCS and the Monk's Problems -- Learning Classifier Systems Applied to Knowledge Discovery in Clinical Research Databases -- An Adaptive Agent Based Economic Model -- The Fighter Aircraft LCS: A Case of Different LCS Goals and Techniques -- Latent Learning and Action Planning in Robots with Anticipatory Classifier Systems -- The Bibliography -- A Learning Classifier Systems Bibliography.

Sommario/riassunto

Learning Classifier Systems (LCS) are a machine learning paradigm introduced by John Holland in 1976. They are rule-based systems in which learning is viewed as a process of ongoing adaptation to a partially unknown environment through genetic algorithms and temporal difference learning. This book provides a unique survey of the current state of the art of LCS and highlights some of the most promising research directions. The first part presents various views of leading people on what learning classifier systems are. The second part is devoted to advanced topics of current interest, including alternative representations, methods for evaluating rule utility, and extensions to existing classifier system models. The final part is dedicated to promising applications in areas like data mining, medical data analysis, economic trading agents, aircraft maneuvering, and autonomous robotics. An appendix comprising 467 entries provides a comprehensive LCS bibliography.