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Sommario/riassunto

This book contains a collection of papers focused on hybrid intelligent systems based on soft computing techniques. In this book, new horizons on the theoretical developments of fuzzy logic, neural networks and optimization algorithms are envisioned. In addition, the abovementioned methods are discussed in application areas such as control and robotics, pattern recognition, medical diagnosis, decision-making, prediction and optimization of complex problems. There are a group of papers with the main theme of type-1, type-2 and type-3 fuzzy systems, which basically consists of papers that propose new concepts and algorithms based on type-1, type-2 and type-3 fuzzy logic and their applications. There is also a group of papers that offer theoretical concepts and applications of meta-heuristics in different areas. Another group of papers outlines diverse applications of hybrid intelligent systems in real problems. There are also a group papers that present theory and practice of neural networks in different applications. Finally, there are papers that offer theory and practice of optimization and evolutionary algorithms in different application areas.