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Sommario/riassunto

The practical guide to the integration of soft and hard computing for today's engineering applications Over the next decade, the fusion of soft and hard computing will play an increasingly important role in the development of intelligent systems for aerospace, electric power generation, and other safety-critical applications. Computationally Intelligent Hybrid Systems is the only book to examine the practical issues involved in the creation of high-performance, cost-effective applications using a synthesis of neural networks, fuzzy systems, and evolutionary computation with traditional computing methods. This uniquely crafted work combines the experience of many internationally recognized experts in the soft and hard computing research worlds to present practicing engineers with the broadest possible array of methodologies for developing innovative and competitive solutions to real-world problems. Each of the chapters illustrates the wide-ranging applicability of the fusion concept in such critical areas as: Computer security and data mining. Electrical power systems and large-scale plants. Motor drives and tool wear monitoring. User interfaces and the World Wide Web . Aerospace and robust control This is an essential guide for practicing engineers, researchers, and R&D managers who wish to create or understand computationally intelligent hybrid systems, as well as an excellent primary source for graduate courses in soft computing, engineering applications of artificial intelligence, and related topics.