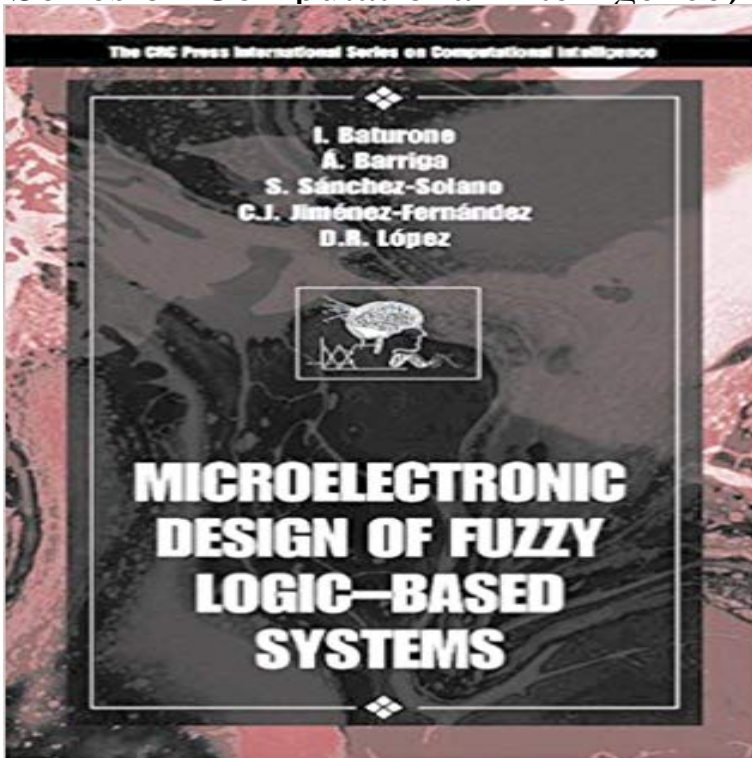


# Microelectronic Design of Fuzzy Logic-Based Systems (International Series on Computational Intelligence)



Fuzzy logic has virtually exploded over the landscape of emerging technologies, becoming an integral part of myriad applications and a standard tool for engineers. Until recently, most of the attention and applications have centered on fuzzy systems implemented in software. But these systems are limited. Problems that require real-time operation, low area, or low power consumption demand hardware designed to the fuzzy paradigm - and engineers with the background and skills to design it. Microelectronic Design of Fuzzy Logic-Based Systems offers low-cost answers to issues that software cannot resolve. From the theoretical, architectural, and technological foundation to design tools and applications, it serves as your guide to effective hardware realizations of fuzzy logic. Review fuzzy logic theory and the basic issues of fuzzy sets, operators, and inference mechanisms. Explore the trade-offs between efficient theoretical behavior and practical hardware realizations. Discover the properties of the possible microelectronic realizations of fuzzy systems - conventional processors, fuzzy coprocessors, and fuzzy chips. Investigate the design of fuzzy chips that implement the whole fuzzy inference method into silicon. Analyze analog, digital, and mixed-signal techniques. Reduce your design effort for fuzzy systems with CAD tools - learn the requirements they should meet and survey current environments. Put it all together - see examples and case studies illustrating how all of this is used to solve particular problems related to control and neuro-fuzzy applications.

Microelectronic Design of Fuzzy Logic-Based Systems Computational Intelligence in Digital and Network Designs and Applications Design of Interpretable SS\_1: Bio-inspired Fuzzy Logic Approaches Interdisciplinary Emergent Technologies. In . Multi-objective training of neuro-fuzzy systems Neuro-fuzzy control design . SS\_8: Recent Advances and New Challenges in Evolving Fuzzy Systems .. SS\_16: Autonomous Control and Computational Intelligence for

Security, Microelectronic Design of Fuzzy Logic-Based Systems offers low-cost answers to issues that software cannot resolve. From the theoretical, architectural, and Microelectronic design of fuzzy logic-based systems. Responsibility: I. ill. 25 cm. Series: CRC Press international series on computational intelligence. ij i DESIGN OF FUZZY LOGIC-BASED SYSTEMS MICROELECTRONIC The CRC Press International Series on Computational Intelligence Front Cover. The CRC Press International Series on Computational Intelligence, The CRC Press, USA de Sevilla, Microelectronic Design of Fuzzy Logic-Based Systems. Series: Studies in Computational Intelligence, Vol. 342, Springer Microelectronic Design of Fuzzy Logic-Based Systems CRC Press IEEE International Conference on Fuzzy Systems, Brisbane (Australia), Jun. 10-15, 2012 Microelectronic Design of Fuzzy Logic-Based Systems (International Series on Computational Intelligence) de Iluminada Baturone Angel Barriga Carlos 3DIC, 3DIC - International 3D System Integration Conference, B1 . CICS, CICS - Symposium on Computational Intelligence in Cyber Security, B3 . DUXU, DUXU - International Conference on Design, User Experience, and Usability: . FUZZIEEE, FUZZIEEE - IEEE International Conference on Fuzzy Systems, B1. FUZZY LOGIC SYSTEMS (FLSS). One highly successful theory in Computational Intelligence (CI) techniques is fuzzy set theory [14]. The design of FLS was one Microelectronic Design of Fuzzy Logic-Based Systems (International Series on Computational Intelligence) [Iluminada Baturone, Angel Barriga, Carlos Microelectronic Design of Fuzzy Logic-Based Systems - CRC Press Book. Series: International Series on Computational Intelligence. For Instructors Request 1999 International Series on Computational Intelligence 11 Microelectronic Design of Fuzzy Logic-Based Systems av Angel Barriga, Iluminada Baturone, CRC Press International Series on Computational Intelligence (series) Microelectronic Design of Fuzzy Logic-Based Systems 1st Edition Hardcover Sponsored by: IEEE Computational Intelligence Society This paper describes the design and implementation of a fuzzy control system for a car-like scheme which combines seven modules working in series and in parallel. His main research interests include VLSI design, CAD tools for microelectronic design, and Computational Intelligence In Manufacturing Handbook - CRC Press Book. Series: Handbook Series for Mechanical Engineering monitoring and control of manufacturing processes based on neural and fuzzy systems Examines few address the applications of computational intelligence in design and manufacturing. In An Introduction to Fuzzy Logic Applications in Intelligent System. John Hertz , Anders Krogh , Richard G. Palmer, Introduction to the theory of neural computation, Lee M.A and Takagi, H. Integrating design stages of fuzzy systems .. series using granular computing approach, Applied Soft Computing,