

1. Record Nr.	UNINA9910299821103321
Titolo	Design of Intelligent Systems Based on Fuzzy Logic, Neural Networks and Nature-Inspired Optimization [[electronic resource] /] / edited by Patricia Melin, Oscar Castillo, Janusz Kacprzyk
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-17747-8
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XII, 637 p. 307 illus., 226 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 601
Disciplina	511.3
Soggetti	Computational intelligence Artificial intelligence Mathematical optimization Control engineering Robotics Mechatronics Computational Intelligence Artificial Intelligence Optimization Control, Robotics, Mechatronics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Part I Fuzzy Logic Theory -- Part II Neural Networks Theory -- Part III Neural Networks Applications -- Part IV Nature Inspired Optimization -- Part V Nature Inspired Optimization Applications -- Part VI Optimization: Theory and Applications -- Part VII Fuzzy Logic Applications -- Part VIII Fuzzy Logic and Metaheuristic.
Sommario/riassunto	This book presents recent advances on the design of intelligent systems based on fuzzy logic, neural networks and nature-inspired optimization and their application in areas such as, intelligent control and robotics, pattern recognition, time series prediction and optimization of complex problems. The book is organized in eight main parts, which contain a group of papers around a similar subject. The first part consists of papers with the main theme of theoretical

aspects of fuzzy logic, which basically consists of papers that propose new concepts and algorithms based on fuzzy systems. The second part contains papers with the main theme of neural networks theory, which are basically papers dealing with new concepts and algorithms in neural networks. The third part contains papers describing applications of neural networks in diverse areas, such as time series prediction and pattern recognition. The fourth part contains papers describing new nature-inspired optimization algorithms. The fifth part presents diverse applications of nature-inspired optimization algorithms. The sixth part contains papers describing new optimization algorithms. The seventh part contains papers describing applications of fuzzy logic in diverse areas, such as time series prediction and pattern recognition. Finally, the eighth part contains papers that present enhancements to meta-heuristics based on fuzzy logic techniques.
