Record Nr. UNINA9910437762603321 Recent advances on hybrid intelligent systems / / Oscar Castillo, **Titolo** Patricia Melin, and Janusz Kacprzyk (eds.) Pubbl/distr/stampa Berlin; ; Heidelberg, : Springer, c2013 **ISBN** 3-642-33021-5 Edizione [1st ed. 2013.] 1 online resource (XII, 572 p.) Descrizione fisica Collana Studies in computational intelligence, , 1860-949X;; 451 Altri autori (Persone) CastilloOscar <1959-> MelinPatricia <1962-> KacprzykJanusz Disciplina 006.3 Artificial intelligence Soggetti Soft computing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and author index. Nota di contenuto Part I Hybrid Intelligent Systems for Control and Robotics -- Part II Hybrid Intelligent Systems for Pattern Recognition and Time Series Prediction -- Part III Bio-Inspired and Genetic Optimization Methods .-Part IV Intelligent Optimization and Applications -- Part V Evolutionary Methods and Intelligent Computing. Sommario/riassunto This book presents recent advances on hybrid intelligent systems using soft computing techniques for intelligent control and robotics, pattern recognition, time series prediction and optimization of complex problems. Soft Computing (SC) consists of several intelligent computing paradigms, including fuzzy logic, neural networks, and bioinspired optimization algorithms, which can be used to produce powerful hybrid intelligent systems. The book is organized in five main parts, which contain groups of papers around a similar subject. The first part consists of papers with the main theme of hybrid intelligent systems for control and robotics, which are basically state of the art papers that propose new models and concepts, which can be the basis for achieving intelligent control and mobile robotics. The second part contains papers with the main theme of hybrid intelligent systems for

pattern recognition and time series prediction, which are basically papers using nature-inspired techniques, like evolutionary algorithms,

fuzzy logic and neural networks, for achieving efficient pattern recognition or time series prediction. The third part contains papers with the theme of bio-inspired and genetic optimization methods, which basically consider the proposal of new methods and applications of bio-inspired optimization to solve complex optimization of real problems. The fourth part contains papers that deal with the application of intelligent optimization techniques in real world problems in scheduling, planning and manufacturing. The fifth part contains papers with the theme of evolutionary methods and intelligent computing, which are papers considering soft computing methods for applications related to diverse areas, such as natural language processing, recommending systems and optimization.