1. Record Nr. UNINA9910299900703321 Autore Melin Patricia Titolo New Hybrid Intelligent Systems for Diagnosis and Risk Evaluation of Arterial Hypertension / / by Patricia Melin, German Prado-Arechiga Pubbl/distr/stampa Cham: .: Springer International Publishing: .: Imprint: Springer. . 2018 **ISBN** 3-319-61149-6 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (88 pages): illustrations, tables SpringerBriefs in Computational Intelligence, , 2625-3704 Collana Disciplina 616.132075 Soggetti Computational intelligence Biomedical engineering Health informatics Computational Intelligence Biomedical Engineering and Bioengineering **Health Informatics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto From the Content: Introduction -- Fuzzy Logic for Arterial Hypertension Classification -- Design of a Neuro Design of a Neuro Design of Arterial Hypertension. Sommario/riassunto In this book, a new approach for diagnosis and risk evaluation of arterial hypertension is introduced. The new approach was implement-ed as a hybrid intelligent system combining modular neural net-works and fuzzy systems. The different responses of the hybrid system are combined using fuzzy logic. Finally, two genetic algo-rithms are used to perform the optimization of the modular neural networks parameters and fuzzy inference system parameters. The experimental results obtained using the proposed method on real pa-tient data show that when the optimization is used, the results can be better than without optimization. This book is intended to be a refer-ence for scientists and physicians interested in applying soft compu-ting techniques, such as neural networks, fuzzy logic and genetic

algorithms, in medical diagnosis, but also in general to classification

and pattern recognition and similar problems.	