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Nota di contenuto	1. Introduction to Prediction with Neural Networks -- 2. Literature Review on Prediction with Neural Networks -- 3. Problem Description of Prediction with Neural Networks -- 4. Methodology for Prediction with Neural Networks5 -- Results of Prediction with Neural Networks -- 6. Discussion of Prediction Results with Neural Networks -- 7. Conclusions for Prediction with Neural Networks.
Sommario/riassunto	This book provides a new model for clustering, classification, and time series prediction by using artificial neural networks to computationally simulate the behavior of the cognitive functions of the brain is presented. This model focuses on the study of intelligent hybrid neural systems and their use in time series analysis and decision support systems. Therefore, through the development of eight case studies, multiple time series related to the following problems are analyzed: traffic accidents, air quality and multiple global indicators (energy consumption, birth rate, mortality rate, population growth, inflation, unemployment, sustainable development, and quality of life). The main contribution consists of a Generalized Type-2 fuzzy integration of multiple indicators (time series) using both supervised and

unsupervised neural networks and a set of Type-1, Interval Type-2, and Generalized Type-2 fuzzy systems. The obtained results show the advantages of the proposed model of Generalized Type-2 fuzzy integration of multiple time series attributes. This book is intended to be a reference for scientists and engineers interested in applying type-2 fuzzy logic techniques for solving problems in classification and prediction. We consider that this book can also be used to get novel ideas for new lines of research, or to continue the lines of research proposed by the authors of the book.
