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Sommario/riassunto	This book aims to handle dynamic equations on time scales using artificial neural network (ANN). Basic facts and methods for ANN modeling are considered. The multilayer artificial neural network (ANN) model is introduced for solving of dynamic equations on arbitrary time scales. A multilayer ANN model with one input layer containing a single node, a hidden layer with m nodes, and one output node are investigated. The feed-forward neural network model and unsupervised error back-propagation algorithm are developed. Modification of network parameters is done without the use of any optimization technique. The regression-based neural network (RBNN) model is introduced for solving dynamic equations on arbitrary time scales. The RBNN trial solution of dynamic equations is obtained by using the RBNN model for single input and single output system. A variety of initial and boundary value problems are solved. The Chebyshev neural network

(ChNN) model and Levendre neural network model are developed. The ChNN trial solution of dynamic equations is obtained by using the ChNN model for single input and single output system. This book is addressed to a wide audience of specialists such as mathematicians, physicists, engineers, and biologists. It can be used as a textbook at the graduate level and as a reference book for several disciplines.
