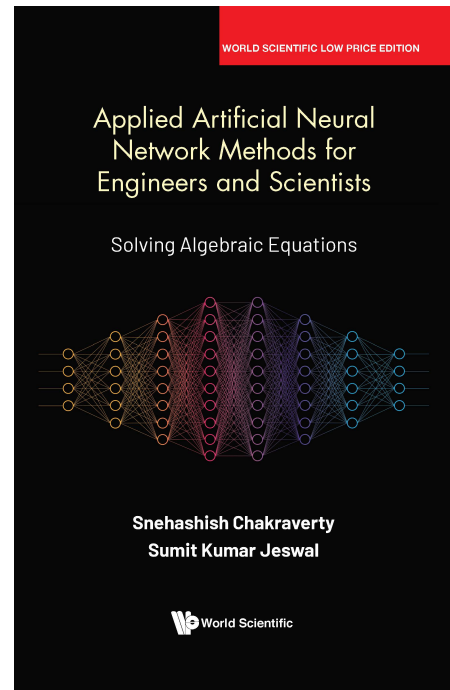


APPLIED ARTIFICIAL NEURAL NETWORK METHODS FOR ENGINEERS AND SCIENTISTS SOLVING ALGEBRAIC EQUATIONS

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ABOUT THE BOOK

The aim of this book is to handle different application problems of science and engineering using expert Artificial Neural Network (ANN). As such, the book starts with basics of ANN along with different mathematical preliminaries with respect to algebraic equations. Then it addresses ANN based methods for solving different algebraic equations viz. polynomial equations, diophantine equations, transcendental equations, system of linear and nonlinear equations, eigenvalue problems etc. which are the basic equations to handle the application problems mentioned in the content of the book. Although there exist various methods to handle these problems, but sometimes those may be problem dependent and may fail to give a converge solution with particular discretization. Accordingly, ANN based methods have been addressed here to solve these problems. Detail ANN architecture with step by step procedure and algorithm have been included. Different example problems are solved with respect to various application and mathematical problems. Convergence plots and/or convergence tables of the solutions are depicted to show the efficacy of these methods. It is worth mentioning that various application problems viz. Bakery problem, Power electronics applications, Pole placement, Electrical Network Analysis, Structural engineering problem etc. have been solved using the ANN based methods.

READERSHIP

Advanced graduate students, professionals and scientists in Artificial Neural Network and Machine Learning.

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With updated sources, keen insight, and cutting analysis, Mr Suryanarayana once again adroitly illustrates how elusive a positive tipping point in China-India relations can be and how the dynamic bilateral ties intertwine with their relations with Pakistan and other global powers. A timely book on important but understudied bilateral relations.

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Professor and Chair, Department of Diplomacy, School of International Studies, Peking University, China and Author of *Contemporary China's Diplomacy and China's Diplomacy in 40 years since Reform and Opening up*

If complexity has been the persistent feature of the Sino-Indian relationship since the middle of the 20th century, Suryanarayana unpacks the extended quest of the two Asian giants for that elusive tipping point in favour of a sustainable partnership. Coming amidst the fresh crises rocking bilateral ties, the author's account is timely, accessible and full of rich insights gleaned over decades of professional engagement with the geopolitical dynamic between Beijing and Delhi.

C Raja Mohan

Director, Institute of South Asian Studies, National University of Singapore Author of *Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific and Modi's World: Expanding India's Sphere of Influence*

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