



Soft Computing

Author :	Ikvinderpal Singh
ISBN 13 :	978-93-80016-97-9
ISBN 10 :	93-80016-97-2
E-ISBN 13 :	978-93-80016-97-9
Edition :	1
Pages :	696
Type of book :	Paperback
Weight (g) :	928.00
Year :	2025
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 750.00
Categories :	Computer Science Engineering
Condition Type :	New
Country Origin :	India



Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Product Description

This book is meant for a wide range of readers, especially college and university students wishing to learn basic as well as advanced processes and techniques in Soft Computing. It can also meant for Programmers who may be involved in programming based on the soft computing applications. Modern aspects of soft computing have been introduced from the first principles and discussed in an easy manner, So that a beginner can grasp the concept of neural networks fuzzy, genetic algorithm and probabilistic reasoning, each chapter contains solved example problems and exercise problems. SALIENT FEATURES

- Detailed explanation of soft computing concepts
- Extensive coverage of fundamental concepts of Artificial neural network
- Present architecture and algorithm of every net in enough detail
- Provides examples of simple applications
- Gives mathematical development when it provides a guide to proper implementation of net
- Covers all supervised and unsupervised learning methods
- Discusses on the introduction to classical sets and fuzzy sets
- Fundamental idea on classical relations and fuzzy arithmetic explains in a lucid manner
- Detailed explanation of fuzzy rules is given
- Gives the architecture, operation and various applications of fuzzy logic systems
- Concepts of neuro-fuzzy and genetic algorithm are included
- Detailed analysis of each and every type of probability is explained with the help of examples
- Demonstrates the concept of fuzzy logic and probability.

This book will be useful for student of BE (Computer/Electronics), B. Tech, ME(Computer/Electronics), M. Tech, MCA, BCA, M.Sc., B.Sc., and also to students pursuing A/B/C-level course of DOEACC.

**Khanna Publishing House**

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: + +91-99109 09320

Table of Contents

Chapter 1: Fundamentals of Neural Networks. **Chapter 2:** Perceptrons. **Chapter 3:** Backpropagation. **Chapter 4:** Adaline and Madaline. **Chapter 5:** Supervised and Unsupervised Learning. **Chapter 6:** Counter Propagation Network. **Chapter 7:** Adaptive Resonance Theory. **Chapter 8:** Neocognitron. **Chapter 9:** Bidirectional Associative Memory. **Chapter 10:** Case Studies. **Chapter 11:** Introduction to Fuzzy System. **Chapter 12:** Fuzzy Logic. **Chapter 13:** Classical Sets and Fuzzy Sets. **Chapter 14:** Fuzzy Relations, Fuzzy Graphs and Fuzzy Arithmetic. **Chapter 15:** Fuzzy If-then Rules. **Chapter 16:** Applications of Fuzzy Logic. **Chapter 17:** Neuro-fuzzy Systems. **Chapter 18:** Genetic Algorithm. **Chapter 19:** Probability Theory. **Chapter 20:** Random Variable and Mathematical Expectation. **Chapter 21:** Theoretical Distributions. **Chapter 22:** Fuzzy Logic and Probability Theory.

Author

Ikvinderpal Singh Ikvinderpal Singh, is Lecturer of P.G. Deptt. Of Computer Science & Applications, Khalsa College, Amritsar which is a premier institute in North India. He obtained his MCA with distinction from Guru Nanak Dev University, Amritsar. He has always been excellence right from his student career. He has written five books. He brought name for himself when he topped the college in B.Sc. His other areas of interest include Fuzzy systems, digital electronics and java programming.



Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320