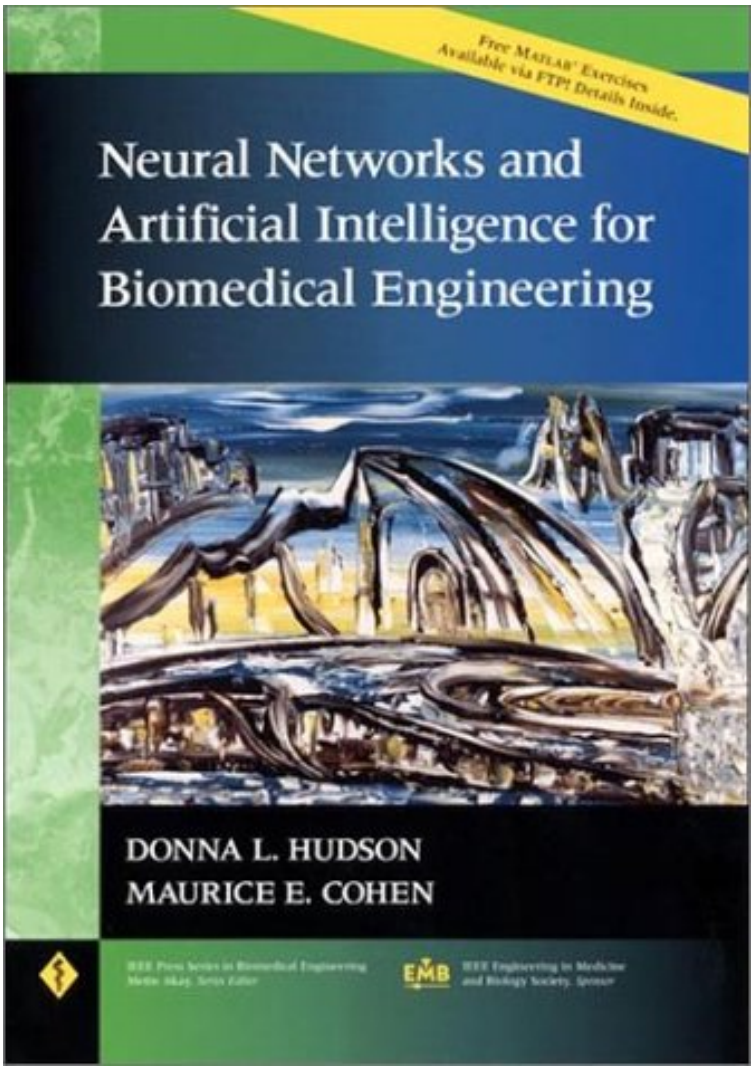
Neural Networks and Artificial Intelligence for Biomedical Engineering (IEEE Press Series on Biomedical Engineering)

Donna L. Hudson, Maurice E. Cohen



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Donna L. Hudson, Maurice E. Cohen : Neural Networks and Artificial Intelligence for Biomedical Engineering (IEEE Press Series on Biomedical Engineering) before purchasing it in order to gage whether or not it would be worth my time, and all praised Neural Networks and Artificial Intelligence for Biomedical Engineering (IEEE Press Series on Biomedical Engineering):

1 of 2 people found the following review helpful. Book unfortunately for undergraduate studentsBy Daniel

LavigneThis book addresses many subjects related to ANN AI fields. However, while it covers these topics, it does it too superficially and is further considered for undergraduate students.Daniel Lavigne, PhD student

Using examples drawn from biomedicine and biomedical engineering, this essential reference book brings you comprehensive coverage of all the major techniques currently available to build computer-assisted decision support systems. You will find practical solutions for biomedicine based on current theory and applications of neural networks, artificial intelligence, and other methods for the development of decision aids, including hybrid systems. Neural Networks and Artificial Intelligence for Biomedical Engineering offers students and scientists of biomedical engineering, biomedical informatics, and medical artificial intelligence a deeper understanding of the powerful techniques now in use with a wide range of biomedical applications. Highlighted topics include: Types of neural networks and neural network algorithms Knowledge representation, knowledge acquisition, and reasoning methodologies Chaotic analysis of biomedical time series Genetic algorithms Probability-based systems and fuzzy systems Evaluation and validation of decision support aids

From the Back CoverBiomedical/Electrical Engineering Neural Networks and Artificial Intelligence for Biomedical Engineering Using examples drawn from biomedicine and biomedical engineering, this reference text provides comprehensive coverage of all the major techniques currently available to build computer-assisted decision support systems. You will find practical solutions for biomedicine based on current theory and applications of neural networks, artificial intelligence, and other methods for the development of decision-making aids, including hybrid systems. Neural Networks and Artificial Intelligence for Biomedical Engineering offers students and scientists of biomedical engineering, biomedical informatics, and medical artificial intelligence a deeper understanding of the powerful techniques currently used with a wide range of biomedical applications. Highlighted topics include: Types of neural networks and neural network algorithms Knowledge-based representation and acquisition Reasoning methodologies and searching strategies Chaotic analysis of biomedical time series Genetic algorithms Probability-based systems and fuzzy systems Case study and MATLAB exercises Evaluation and validation of decision support aids About the AuthorDonna L. Hudson is professor of Family and Community Medicine at the University of California, San Francisco (UCSF), and Director of Medical Information Resources at the UCSF Fresno Medical Education Program. She is also a member of the executive committee for the Medical Information Sciences Program at UCSF and a member of the Bioengineering Graduate Group at UC Berkeley and UCSF. In 1987 Dr. Hudson received the Faculty Research Award at UCSF. She has published widely and is coauthor of Comparative Approaches to Medical Reasoning (World Scientific, 1995). She serves as the associate editor for Intelligent Systems for the ISCA International Journal of Computers and Their Applications. Dr. Hudson is a senior member of the Institute of Electrical and Electronics Engineers (IEEE), a member of the Administrative Committee of IEEE Engineering in Medicine and Biology Society, a Fellow of the American Institute of Medical and Biological Engineering, and president of the International Society for Computers and Their Applications. Maurice E. Cohen is professor of Radiology at the University of California, San Francisco; professor of Mathematics at California State University, Fresno; professor and Founding Member of the Graduate Group in Medical Information Science, and a member of the Bioengineering Graduate Group at UC Berkeley and UCSF. In 1977 Dr. Cohen solved a problem involving Jacobi functions that was believed to be impossible. He received the 1985 American Medical Informatics Association Best Paper Award, the 1991 Outstanding Professor Award at CSUF, and the 1996 Faculty Research Award at UCSF. Dr. Cohen is a Fellow of the American Institute for Medical and Biological Engineering and treasurer of the International Society for Computers and Their Applications. He has published widely and is coauthor of Comparative Approaches to Medical Reasoning (World Scientific, 1995). An accomplished artist, Dr. Cohen provided the cover art for this book. It is an oil painting entitled "Yosemite Vignettes."