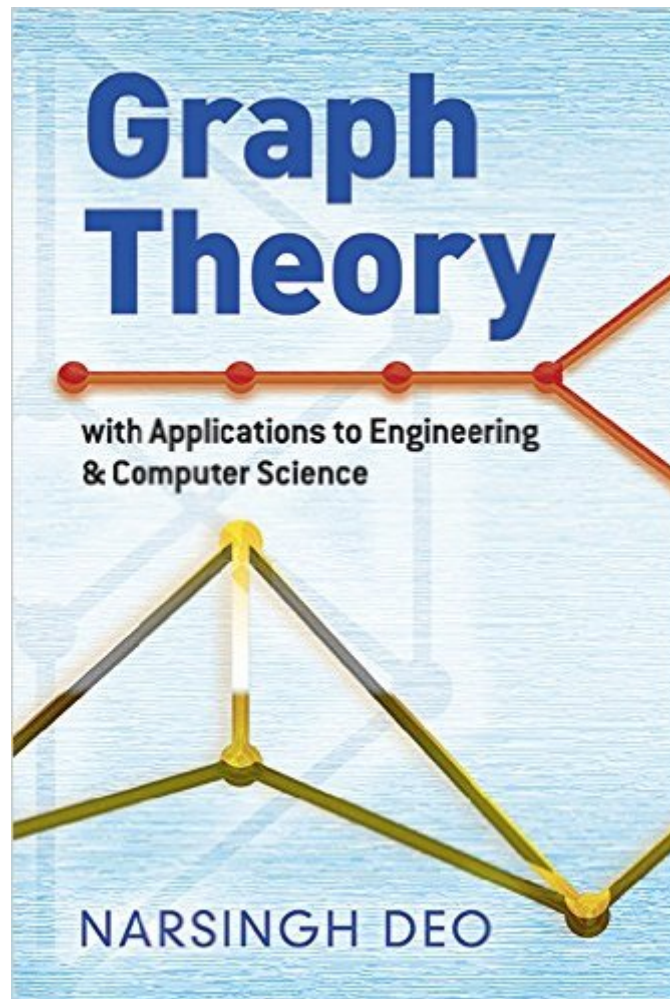# Graph Theory With Applications To Engineering And Computer Science (Dover Books On Mathematics)

Synopsis

This outstanding introductory treatment of graph theory and its applications has had a long life in the instruction of advanced undergraduates and graduate students in all areas that require knowledge of this subject. The first nine chapters constitute an excellent overall introduction, requiring only some knowledge of set theory and matrix algebra. Topics include paths and circuits, trees and fundamental circuits, planar and dual graphs, vector and matrix representation of graphs, and related subjects.The remaining six chapters are more advanced, covering graph theory algorithms and computer programs, graphs in switching and coding theory, electrical network analysis by graph theory, graph theory in operations research, and more. Instructors may combine these chapters with the preceding material for courses in a variety of fields, including electrical engineering, computer science, operations research, and applied mathematics.

Book Information

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Customer Reviews

The writing is excellent. I got an introduction to graph theory from Mark Allen Weiss' "Data structures and algorithm analysis in C++". That was a very good start and led me to think I could use graph theory to solve a problem. When I needed to probe deeper I found this book in Weiss' bibliography. I read the first few chapters and felt comfortable enough to go out on the internet and find a PhD thesis that applied directly to my problem.

This book represents a very good introduction to what is a fascinating branch of mathematics. The topics included represent all the "big" areas in graph theory. The discourse is just enough to whet the appetite for more advanced study, while remaining very accessible.

I was using this book as the first book for a Graph theory course and have choosen this from about 10 (pre-selected) books. It is interesting as it opens up new areas by solving interesting problems. I am not a professional in Graph Theory as i am doing Computer Science but i haven't found better introductory book so far.

Yes, this book exceeds my expectations. I'm finally back in the STEM swing and love the way Deo makes Diestal a lot easier or at least more concrete. Deistal , as you know is the German "go to guy" for hard hitting raw graph theory. Whereas Erdos is a global favorite. See also Proofs from THE BOOK 4th edition by Aigner and Ziegler. Wild open graphs are a favorite of mine, otherwise known as complex graphs. However letting your imagination run wild is important to seeing any asymmetrical graph in the REAL world, like stupid road maps that leave out critical details and get you lost or delayed or injured and left for dead. Google maps could use a few lessons from the above. Anyhow, Narsingh Deo's book is well worth the work thru, don't just skim it, or read it like a mystery novel: Interact with it!

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