Structured Fortran 77 For Engineers And Scientists
This text was designed with three objectives in mind: to introduce engineering and science students to a problem solving technique that they can use in solving engineering problems; to provide a fundamental understanding of computers and to specifically develop a working knowledge of FORTRAN 77; and to motivate and excite students about engineering, and help them understand the types of problems that engineers solve. * Engineering and Science Applications. Over 600 examples and problems representing a wide range of engineering and science applications, related to engineering disciplines ranging from mechanical, chemical, and electrical engineering to cutting-edge fields such as genetic, robotic and environmental engineering. * Five-Step Problem Solving Methodology. The five-step problem solving methodology is consistently used throughout this Edition. The five steps are: * State the problem clearly. * Describe the input and the output. * Work the problem by hand (or with a calculator) for a specific set of data. * Develop a solution that is general in nature. * Test the algorithm with a variety of data sets. * Engineering Case Studies. The application sections form a set of 30 engineering case studies. Each case study includes a detailed development of the problem’s solution along with sample data to illustrate testing the algorithm. * Complete FORTRAN 77 Coverage. Complete coverage of FORTRAN 77 makes this book not only suitable for the first-time computer user but also as a valuable reference for the experienced user. In addition, only standard FORTRAN 77 statements and structures are used so all programs and statements are compatible with any FORTRAN 77 compiler. * Fortran 90 Coverage. Fortran 90 is discussed in detailed notes throughout the text and in a special chapter at the end.

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Customer Reviews

I used a copy of a previous edition of this book when completing my undergraduate degree. When I had to do a fair bit of programming recently, and needed to brush up on FORTRAN, I purchased this book. It is a simple book that outlines the fundamentals of FORTRAN. It is more of a beginners guide than anything else. The shortcoming of this book is that there is no reference or summary section of all the commands - it really isn't a desktop reference. The advantage of this type of book is the number of good examples that it contains.

I needed a quick introduction to FORTRAN77 for my project. This book provides numerous real life examples and clear and concise. If you are from non-programming background and need a FORTRAN77 book, this is recommended.

I have used this book in my programming class for many years and it has proven to be reliable and well written. It has a good number of exercises and even some numerical methods applications.

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