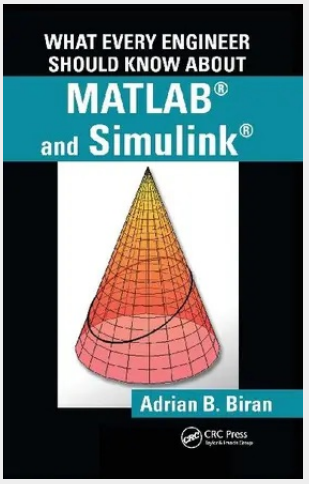
Biran

What Every Engineer Should Know about MATLAB® and Simulink®



MATLAB can be used to execute many mathematical and engineering calculations, as well as a handheld computer can if not better. Moreover, like many other computer languages, it can perform tasks that a handheld computer cannot. Compared to other computer languages, MATLAB provides many built-in functions that make learning easier and reduce prototyping time. Simulink is a toolbox that extends the possibilities of MATLAB by providing a graphical interface for modeling and simulating dynamical processes. Using examples from mathematics, mechanical and electrical engineering, and control and signal processing, What Every Engineer Should Know About MATLAB and Simulink provides an introduction to these two computer environments and examines the advantages and limitations of MATLAB. It first explores the benefits of how to use MATLAB to solve problems and then process and present calculations and experimental results. This book also briefly introduces the reader to more advanced features of the software, such as object-oriented programming (OOP), and it draws the attention to some specialized toolboxes. Key features of the book include demonstrations of how to: Visualize the results of calculations in various kinds of graphical representations Write useful script files and functions for solving specific problems Avoid disastrous computational errors Convert calculations into technical reports and insert calculations and graphs into either MS Word or LaTeX This book illustrates the limitations of the computer, as well as the implications associated with errors that can result from approximations or numerical errors. Using selected examples of computer-aided errors, the author explains that the set of computer numbers is discrete and bounded a feature that can cause catastrophic errors

Using examples from mathematics, mechanical and electrical engineering, and control and signal processing, this book provides an introduction to MATLAB[registered] and Simulink and examines the advantages and limitations of both.

299,10 €
299,10 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781138422124
Medium: Buch
ISBN: 978-1-138-42212-4
Verlag: CRC Press
Erscheinungstermin: 27.07.2017
Sprache(n): Englisch
Auflage: 1. Auflage 2017
Serie: What Every Engineer Should Know
Produktform: Gebunden
Gewicht: 1000 g
Seiten: 452
Format (B x H): 161 x 240 mm

Kundenservice Verlag Dr. Otto Schmidt KG
Neumannstraße 10, 40235 Düsseldorf | kundenservice@otto-schmidt.de | 0221-93738-997 (Inland)