Feedback Control Problems Using MATLAB and the Control System Toolbox (Bookware Companion (Paperback))

By Dean K. Frederick, Joe Chow

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This book is a supplement for any standard control systems text. It serves to reinforce the learning process for those who are studying introductory aspects of control systems. The authors accomplish this by teaching the use of MATLAB and its CONTROL SYSTEM TOOLBOX to rapidly solve a wide range of numerical problems. This book also provides the user with opportunities to apply techniques of linear system analysis, which forms the basis for the analysis and design of feedback control systems. This approach frees the user from the laborious calculations required to solve meaningful problems, thus allowing him or her to concentrate on interpreting the analysis and design results. Topical coverage includes both classical control design method and state-space models and design methods. Some specific topics covered are root-locus plots, frequency-response analysis, system performance, proportional-integral-derivative control, and frequency-response design. This updated printing revises the book and code examples (available for downloading from the Brooks/Cole Web site) to MATLAB V5.

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Dean K. Frederick Ph.D. Stanford University

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