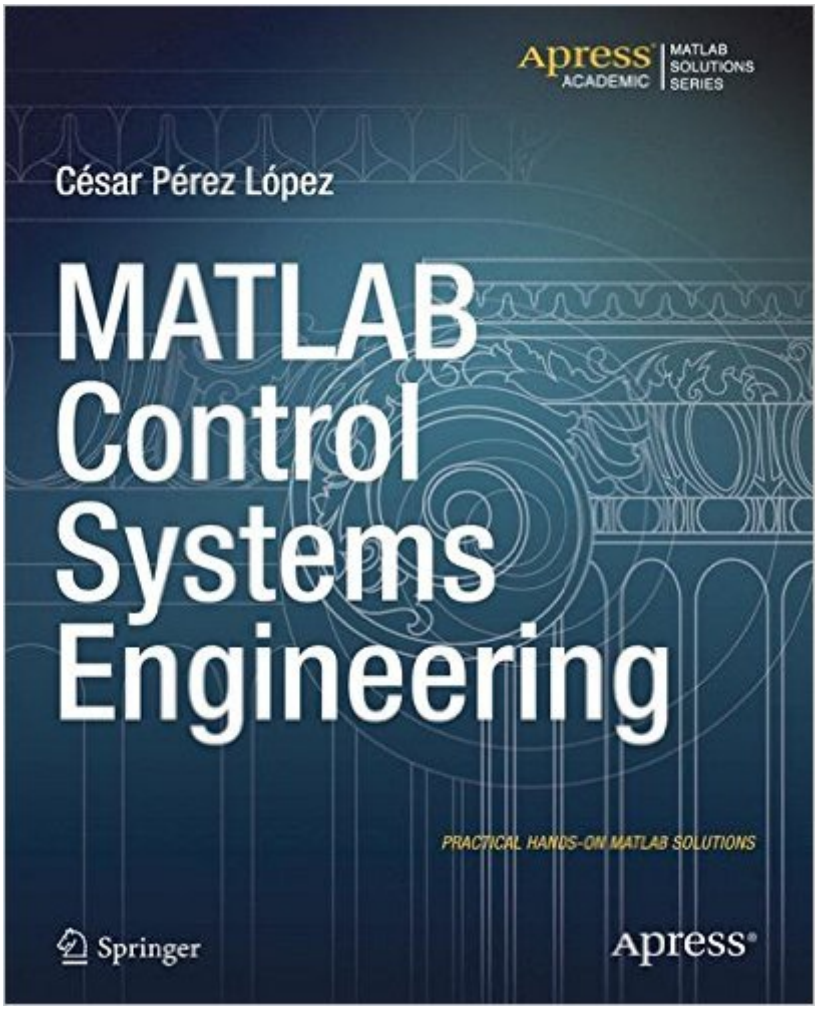
MATLAB Control Systems Engineering



Synopsis

MATLAB is a high-level language and environment for numerical computation, visualization, and programming. Using MATLAB, you can analyze data, develop algorithms, and create models and applications. The language, tools, and built-in math functions enable you to explore multiple approaches and reach a solution faster than with spreadsheets or traditional programming languages, such as C/C++ or Java.MATLAB Control Systems Engineering introduces you to the MATLAB language with practical hands-on instructions and results, allowing you to quickly achieve your goals. In addition to giving an introduction to the MATLAB environment and MATLAB programming, this book provides all the material needed to design and analyze control systems using MATLABâ ™s specialized Control Systems Toolbox. The Control Systems Toolbox offers an extensive range of tools for classical and modern control design. Using these tools you can create models of linear time-invariant systems in transfer function, zero-pole-gain or state space format. You can manipulate both discrete-time and continuous-time systems and convert between various representations. You can calculate and graph time response, frequency response and loci of roots. Other functions allow you to perform pole placement, optimal control and estimates. The Control System Toolbox is open and extendible, allowing you to create customized M-files to suit your specific applications.

Book Information

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MATLAB - Programming with MATLAB for Beginners - A Practical Introduction to Programming and

Problem Solving (Matlab for Engineers, MATLAB for Scientists, Matlab Programming for Dummies) MATLAB Control Systems Engineering Feedback Control Problems Using MATLAB and the Control System Toolbox (Bookware Companion (Paperback)) Modern Control Systems Analysis and Design Using MATLAB and Simulink Handbook of Networked and Embedded Control Systems (Control Engineering) Tissue Engineering I: Scaffold Systems for Tissue Engineering (Advances in Biochemical Engineering/Biotechnology) (v. 1) Engineering a Safer World: Systems Thinking Applied to Safety (Engineering Systems) Systems Engineering and Analysis (5th Edition) (Prentice Hall International Series in Industrial & Systems Engineering) Computer-Aided Control System Design Using Matlab Advanced Electric Drives: Analysis, Control, and Modeling Using MATLAB / Simulink Smart Antennas for Wireless Communications: With MATLAB (Professional Engineering) Scientific Computing with MATLAB and Octave (Texts in Computational Science and Engineering) Contemporary Linear Systems Using MATLAB (Bookware Companion) Discrete Systems and Digital Signal Processing with MATLAB, Second Edition Digital Communication Systems Using MATLAB and Simulink, Second Edition Signals and Systems using MATLAB, Second Edition Computer Explorations in Signals and Systems Using MATLAB (2nd Edition) Fundamentals of Signals and Systems Using the Web and MATLAB (3rd Edition) NLP: Neuro Linguistic Programming: Re-program your control over emotions and behavior, Mind Control - 3rd Edition (Hypnosis, Meditation, Zen, Self-Hypnosis, Mind Control, CBT) Wind Turbine Control Systems: Principles, Modelling and Gain Scheduling Design (Advances in Industrial Control)