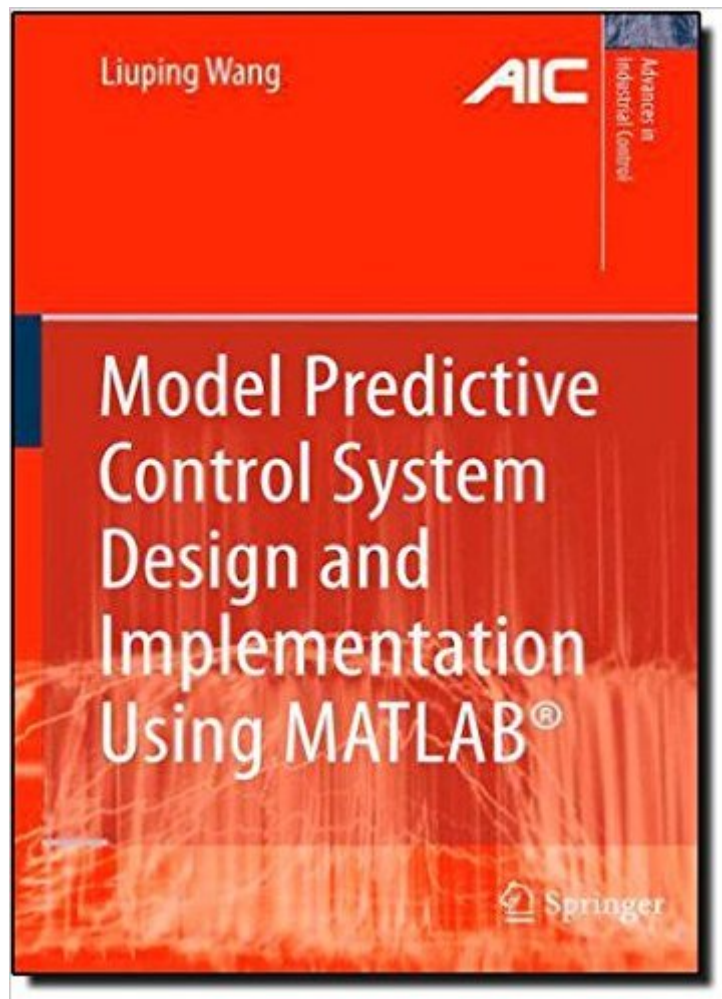


The book was found

Model Predictive Control System Design And Implementation Using MATLAB® (Advances In Industrial Control)



Synopsis

Model Predictive Control System Design and Implementation Using MATLAB® proposes methods for design and implementation of MPC systems using basis functions that confer the following advantages: - continuous- and discrete-time MPC problems solved in similar design frameworks; - a parsimonious parametric representation of the control trajectory gives rise to computationally efficient algorithms and better on-line performance; and - a more general discrete-time representation of MPC design that becomes identical to the traditional approach for an appropriate choice of parameters. After the theoretical presentation, coverage is given to three industrial applications. The subject of quadratic programming, often associated with the core optimization algorithms of MPC is also introduced and explained. The technical contents of this book is mainly based on advances in MPC using state-space models and basis functions. This volume includes numerous analytical examples and problems and MATLAB® programs and exercises.

Book Information

Series: Advances in Industrial Control

Hardcover: 378 pages

Publisher: Springer; 2009 edition (March 4, 2009)

Language: English

ISBN-10: 1848823304

ISBN-13: 978-1848823303

Product Dimensions: 6.4 x 1 x 9.4 inches

Shipping Weight: 1.7 pounds (View shipping rates and policies)

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