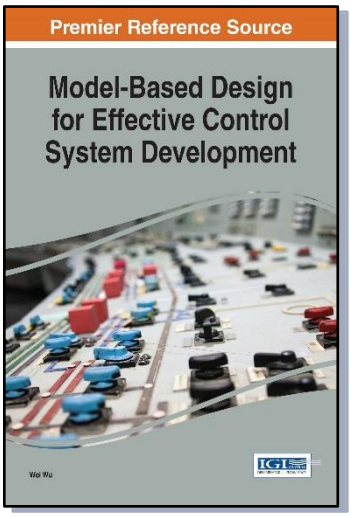
Model-Based Design for Effective Control System Development

Part of the Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series

Wei Wu (United Technologies, USA)



Description:

Control systems are an integral aspect of modern society and exist across numerous domains and applications. As technology advances more and more, the complexity of such systems continues to increase exponentially.

Model-Based Design for Effective Control System Development is a critical source of scholarly information on model-centric approaches and implementations for control and other similar dynamic systems. Highlighting innovative topics such as configuration management, controllability analysis, and modeling requirements, this book is ideally designed for engineers, researchers, academics, project managers, and professionals interested in the design of embedded control systems.

ISBN: 9781522523031 **Release Date:** June, 2017 **Copyright:** 2017 **Pages:** 255

Topics Covered:

- Configuration Management
- Control Algorithms
- Control Analysis and Simulation
- Controllability Analysis
- Controller Performance
- Model Coverage Analysis
- Modeling Requirements

Hardcover: $185.00

E-Book: $185.00

Hardcover + E-Book: $220.00

Table of Contents

Wei Wu is a model-based design technical lead at a global technology company. He has industrial controls experiences in semiconductor equipment, inkjet printer, unmanned aerial vehicle, and HVAC areas. His current research interests include model-based control design and novel controller synthesis strategies and applications. He graduated from Tongji University, Shanghai, China, with a B.E. and a M.E. degree in Bridge Engineering in 1992 and 1995, respectively. He received a M.S. degree in Civil Engineering from University of Missouri-Columbia, U.S.A. in 1996. He obtained a Ph.D. degree in System and Controls from the Mechanical Engineering department of Texas A&M University, U.S.A. in 2000. He has published thirty-seven journal and refereed conference papers, has one trade secret, was awarded the best session paper award twice at American Control Conference, and chaired or co-chaired four sessions at control conferences. He received Distinguished Graduate Student Award Doctoral from Texas A&M University in 2000. He was a Best Student Paper Award finalist at American Control Conference in 2001. He served as an Associated Editor for Dynamic System and Control Division, American Society of Mechanical Engineers, from 2010 to 2012. He is a member of American Society of Mechanical Engineers.