

Springer

1st
edition1st ed. 2019, XV, 137 p. 28
illus., 25 illus. in color.**Printed book**

Hardcover

Printed book

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ISBN 978-981-13-0082-0

£ 109,99 | CHF 141,50 | 119,99 € |
131,99 € (A) | 128,39 € (D)

Available

Discount group

Science (SC)

Product category

Monograph

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Engineering : Control

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Model Predictive Control

Approaches Based on the Extended State Space Model and Extended Non-minimal State Space Model

- **The first monograph on extended state space and extended non-minimal state space approaches to model predictive control design**
- **Introduces the multi-degree of freedom into the controller design of chemical processes**
- **Discusses useful technologies and algorithms for theoretical background development and industrial application**

This monograph introduces the authors' work on model predictive control system design using extended state space and extended non-minimal state space approaches. It systematically describes model predictive control design for chemical processes, including the basic control algorithms, the extension to predictive functional control, constrained control, closed-loop system analysis, model predictive control optimization-based PID control, genetic algorithm optimization-based model predictive control, and industrial applications. Providing important insights, useful methods and practical algorithms that can be used in chemical process control and optimization, it offers a valuable resource for researchers, scientists and engineers in the field of process system engineering and control engineering.

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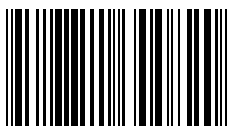
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