The use of control systems is necessary for safe and optimal operation of industrial processes in the presence of inevitable disturbances and uncertainties. Plantwide control (PWC) involves the systems and strategies required to control an entire chemical plant consisting of many interacting unit operations. Over the past 30 years, many tools and methodologies have been developed to accommodate increasingly larger and more complex plants.

This book provides a state-of-the-art of techniques for the design and evaluation of PWC systems. Various applications taken from chemical, petrochemical, biofuels and mineral processing industries are used to illustrate the use of these approaches. This book contains 20 chapters organized in the following sections:

- Overview and Industrial Perspective
- Tools and Heuristics
- Methodologies
- Applications
- Emerging Topics

With contributions from the leading researchers and industrial practitioners on PWC design, this book is key reading for researchers, postgraduate students, and process control engineers interested in PWC.
Plantwide Control
Plantwide Control

Recent Developments and Applications

Edited by

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