Automated Continuous Process Control
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DESCRIPTION

Automated Continuous Process Control pulls together—in one compact and practical volume—the essentials for understanding, designing, and operating process control systems. This comprehensive guide covers the major elements of process control in a well-defined and ordered framework. Concepts are clearly presented, with minimal reliance on mathematical equations and strong emphasis on practical, real-life examples.

Beginning with the very basics of process control, Automated Continuous Process Control builds upon each chapter to help the reader understand and efficiently practice industrial process control. This complete presentation includes:

- A discussion of processes from a physical point of view
- Feedback controllers and the workhorse in the industry—the PID controller
- The concept and implementation of cascade control
- Ratio, override (or constraint), and selective control
- Block diagrams and stability
- Feedforward control
- Techniques to control processes with long dead times
- Multivariable process control
Applicable for electrical, industrial, chemical, or mechanical engineers, Automated Continuous Process Control offers proven process control guidance that can actually be used in day-to-day operations. The reader will also benefit from the companion CD-ROM, which contains processes that have been successfully used for many years to practice tuning feedback and cascade controllers, as well as designing feedforward controllers.

ABOUT THE AUTHOR

CARLOS A. SMITH is Professor of Chemical Engineering and Associate Dean of Academics in the College of Engineering, University of South Florida, Tampa. He not only teaches students but also teaches numerous short courses on process control to professionals. He is the coauthor of the bestselling textbook Principles of Automatic Process Control (Wiley).

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