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Sommario/riassunto

Process Identification and PID Control enables students and engineers to understand the essential concepts of feedback control, process identification, autotuning, and design of real feedback controllers, especially PID controllers. Sung, Lee, and Lee introduce the fundamentals of process control and dynamics, analysis tools (Bode plot, Nyquist plot), PID controllers and tuning, controller designs, along with the advances control strategies which have been widely used in industry. Included are numerous numerical examples and MATLAB codes to aid the reader in solving real problems. Readers will be able to design their own controllers, implement them, and confirm performance in real-time using real-time virtual processes. Combines the basics with recent research, helping the novice grasp advanced

topics Brings several industrially important topics together: . Finishing topics with implementation codes. Process identification and implementation. PID controller tuning and implementation. Enhanced control strategies and implementation Includes all source codes and real-time virtual processes for self-practice and modeling/controller design courses Contains problems at the end of every chapter Written by a team of recognized experts in the area Process Identification and PID Control is ideal for undergraduate and graduate students in process control, advanced process control, and process identification. Practicing control engineers and R&D personnel in refineries and chemical plants will find this book to be a key reference. Professionals in industry in particular will appreciate the techniques for developing process identification and control software, as well as implementing microprocessor controllers. Source code for readers and course supplements for instructors available at www.wiley.com/go/swsung.