

1. Record Nr.	UNINA9910828000603321
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Titolo	Tuning and control loop performance // Gregory K. McMillan
Pubbl/distr/stampa	New York, [New York] (222 East 46th Street, New York, NY 10017) : , : Momentum Press, , 2015
ISBN	1-60650-171-2
Edizione	[Fourth edition.]
Descrizione fisica	1 online resource (584 pages)
Collana	Manufacturing and engineering collection
Disciplina	629.83
Soggetti	Process control Feedback control systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (pages 523-527) and index.
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Sommario/riassunto

The proportional-integral-derivative (PID) controller is the heart of every control system in the process industry. Given the proper setup and tuning, the PID has proven to have the capability and flexibility needed to meet nearly all of industry's basic control requirements. However, the information to support the best use of these features has fallen behind the progress of improved functionality. Additionally, there is considerable disagreement on the tuning rules that largely stems from a misunderstanding of how tuning rules have evolved and the lack of recognition of the effect of automation system dynamics and the incredible spectrum of process responses, disturbances, and performance objectives. This book provides the knowledge to eliminate the misunderstandings, realize the difference between theoretical and industrial application of PID control, address practical difficulties, improve field automation system design, use the latest PID features, and ultimately get the best tuning settings that enables the PID to achieve its full potential.
