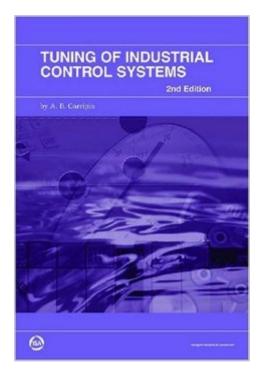
The book was found

# **Tuning Of Industrial Control Systems**





## Synopsis

Suitable for beginners, this book takes a practical but systematic approach to tuning. The aim is to provide insight into tuning procedures rather than a series of formulas to be memorized. The author gives helpful rules of thumb to speed the learning process during field training. The text begins with a discussion of common techniques for measuring the dynamic response of a process and choosing appropriate performance criteria. Later chapters cover selection and tuning of feedback control modes, including computer- and microprocessor-based controllers, and advanced modes. The second edition includes numerous examples of tuning, including the effect of hysteresis in flow control loops, averaging and tight level control, cascade control of a jacketed chemical reactor, feedforward control of a heater, and loop interaction and ratio control in a blender. Also included is an introduction to a model reference control and a chemical reactor control example to illustrate it. Contents: Feedback Controllers Open-Loop Characterization of Process Dynamics How to Select Feedback Control Modes How to Tune Feedback Controllers Computer Feedback Control Tuning Cascade Control Systems Feedforward, Ratio, Multivariable, Adaptive, and Self Tuning Control and more.

### **Book Information**

Hardcover: 254 pages Publisher: ISA; 2 edition (January 1, 2001) Language: English ISBN-10: 1556177135 ISBN-13: 978-1556177132 Product Dimensions: 0.5 x 7.2 x 10 inches Shipping Weight: 1.4 pounds Average Customer Review: 5.0 out of 5 stars Â See all reviews (1 customer review) Best Sellers Rank: #2,379,867 in Books (See Top 100 in Books) #165 in Books > Computers & Technology > Hardware & DIY > Microprocessors & System Design > Control Systems #537 in Books > Engineering & Transportation > Engineering > Industrial, Manufacturing & Operational Systems > Industrial Technology #1670 in Books > Computers & Technology > Graphics & Design > CAD

### **Customer Reviews**

A practical, but systematic approach to tuning. This book is designed as a self-study guide for both beginners and experienced practitioner who want to learn more about the tuning of industrial control

systems. The book is organized as follows:- Introduction and overview.- Feedback controlers.-Open-loop characterization of process dynamics.- How to tune feedback controlers.- Mode selection and tuning common feedback loops.- Computer feedback control.- Feedforward and ratio control.-Multivariable control systems.- Adaptive and self-tuning control.- Suggested reading and study material.- Solutions to all exercises.I am an Industrial Practitioner of Process Control. I have been working for more than 16 years as an Instrumentation, Automation, and Process Safety and Control Engineer for the Oil & Gas Industry. I have found this book to be a very useful refresher on tuning methods. If you are looking for a more in-depth and broad treatment of process control topics, but still oriented towards practical industrial applications, you might want to consider Bela Liptak's Instruments Engineer's Handbook Volume 2 - Process Control and Optimization. I own both books and I have made extensive use of both of them, proving to be a very effective combination to solve day to day problems in my job.

#### Download to continue reading...

Tuning of Industrial Control Systems Industrial Network Security, Second Edition: Securing Critical Infrastructure Networks for Smart Grid, SCADA, and Other Industrial Control Systems Industrial Network Security: Securing Critical Infrastructure Networks for Smart Grid, SCADA, and Other Industrial Control Systems Evaluation of Industrial Disability: Prepared by the Committee of the California Medical Association and Industrial Accident Commission of the State ... of Joint Measures in Industrial Injury Cases. Wind Turbine Control Systems: Principles, Modelling and Gain Scheduling Design (Advances in Industrial Control) Model Predictive Control System Design and Implementation Using MATLAB® (Advances in Industrial Control) Accelerating AIX: Performance Tuning for Programmers and Systems Administrators Designing and Tuning High-Performance Fuel Injection Systems Cyber-security of SCADA and Other Industrial Control Systems (Advances in Information Security) Hacking Exposed Industrial Control Systems: ICS and SCADA Security Secrets & Solutions Industrial Automated Systems: Instrumentation and Motion Control Cybersecurity for Industrial Control Systems: SCADA, DCS, PLC, HMI, and SIS Hacking SCADA/Industrial Control Systems: The Pentest Guide Protecting Industrial Control Systems from Electronic Threats Industrial Fluid Power, Vol. 1: Basic Text on Hydraulics, Air & Vacuum for Industrial and Mobile Applications Refrigeracià n comercial, doméstica, industrial y aire acondicionado / Commercial refrigeration, domestic, industrial and air conditioning (Spanish Edition) Manual de mantenimiento electrico industrial / Industrial electrical maintenance manual (Spanish Edition) Instrumentacià n Industrial (Instrumentacion Industrial) (Spanish Edition) Instrumentacià n Industrial (Curso de Instrumentacion Industrial) (Spanish Edition) Industrial Plastics: Basic

Chemistry, Major Resins, Modern Industrial Processes

<u>Dmca</u>