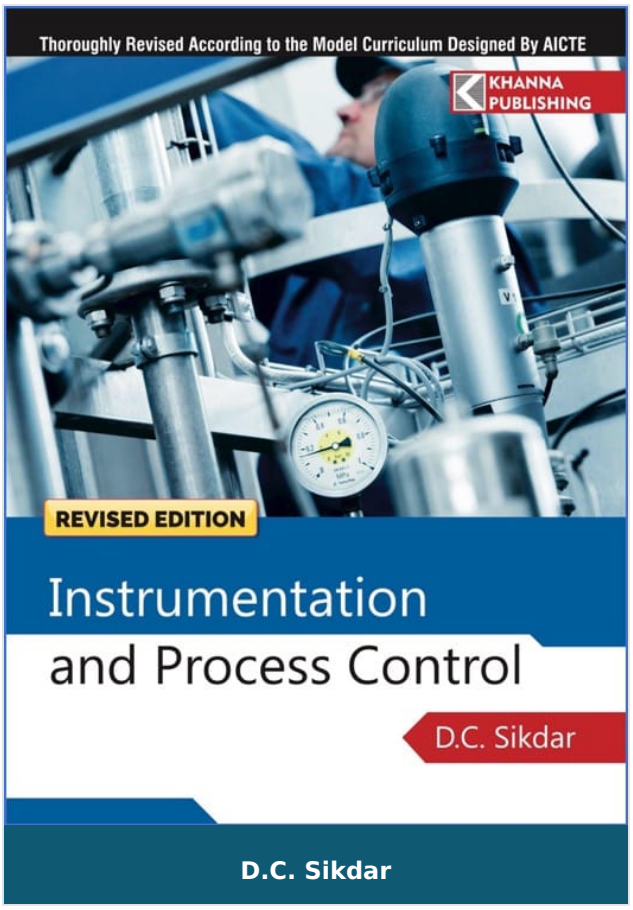


Instrumentation and Process Control

Author :	D.C. Sikdar
ISBN 13 :	978-93-82609-04-9
ISBN 10 :	9382609040
E-ISBN 13 :	978-93-82609-04-9
Edition :	1
Pages :	368
Type of book :	Physical
Year :	2022
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 399.00
Categories :	Chemical Engineering, UNIVERSITY RECOMMENDED, Chemical Engineeringg, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House
4C/4344, Ansari Road, Daryaganj, New Delhi-110002
Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Product Description

This book is students friendly. It also demonstrates how to solve the industry related problems that crop up in Chemical Engineering Practice. The chapters are organized in a simple way that enables that students to acquire and in depth understanding of the subject. The emphasis is given to the fundamental of measuring instrument, Laplace Transform, Basic Concept of process control, first order and Second order system, Control of Industrial Bio-processes, Controller and Final control elements, Block diagram reduction techniques, Determination of Stability of a process, Advanced control techniques and control Structure of unit operations, all coming under the realm of Process Control. Apart from the numerous illustrations, the book contains review questions, exercises and aptitude test in chemical Engineering which bridge the gap between theoretical learning and practical implementation. All numerical problems are solved in a systematic manner to reinforce the understanding of the concepts.

This book is primarily intended as a textbook for the under graduate students of Chemical Engineering, It will also be useful for other allied branches such as Medical Electronics, Aeronautical Engineering, Polymer Science and Engineering, Bio-technology as well as diploma in Chemical Engineering.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- Instrumentation Fundamental
- Pressure Measurements
- Temperature Measurements
- Flow Measurements
- Level Measurements
- Laplace Transform
- Basic Concept of Process Control and First Order System
- First Order System in Series
- Second Order System
- Industrial Bio-processes
- Controllers and Final Control Elements
- Block Diagram and Transient Response of Closed Loop Control System
- Stability
- Advanced Control Techniques
- Control Structure of Unit Operations
- Answer to Exercise Problems
- Appendix
- Index

Author

D.C. Sikdar

D.C. Sikdar D. C. Sikdar (Ph.D.) is an associate professor, Department of Chemical Engineering, Dayananda Sagar College of Engineering, Bangalore, with more than two

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

and half decades of teaching experience. Prof. Sikdar has published many papers in national and international journals of repute. he has received Best Research Thesis Award from Karnataka State Bio-fuel Development Board for guiding M.Tech Thesis on "Development of Bio-Hydrogen Dependent Fuel Cell using Micro Algae" in 2012. Prof. Sikdar is also a member of Indian Society of Technical Education (ISTE) and Indian Institute of Chemical Engineers (IIChE).

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320