

《控制系统技术概论》

图书基本信息

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内容概要

本书的作者有长达10年的控制工程技术工作经历，加之非常明确的编著目的——培养学生掌握闭环控制系统构建、控制器设计、系统现场调试等方面的技术与方法，使本书具有理论联系实际、工程背景强的基本特色和鲜明特点。

1. 总体结构独特，突出工程实践；

全书正文由五部分组成，思路开阔，内容由浅入深，层次分明，系统性强。第一部分“引论”共四章，占全书除附录外的23.3%篇幅，这在其他同类书籍中较为少见，有利于初学者对自动控制的概念、闭环系统的基本组成与常用部件、系统类型、控制的目的与评价标准等有一个全面、清晰的认识。

2. 内容融合多门课程，结合技术标准；

本书以闭环控制系统的分析、设计为主线，涉及的被控对象包括电系统、气动系统、液压系统、热力系统、机械系统等，将自动控制理论、自动检测技术、自动检测技术、电机气动基础、电力电子技术、过程控制系统、运动控制系统、电气控制与PLC等多门课程融合在一起，形成一个有机的整体。

3. 论述深度把握合理，采用启发性方式叙述；

书中每章前都列出该章学习目的和需要重点掌握的内容，便于读者目标明确地学习，并自我衡量是否达到本章学习要求。全书的16章中有14章都引论。引论的内容起到如下几个作用：概括全章的内容；承上启下，提出问题，以便在此后的各节中逐一解决；阐明重要要领。

4. 插图强调联系实际，习题侧重工程训练。

全书的插图经过精心设计，直观、清晰，有助于概念的理解。书中有相当数量的工程图，如气动控制阀的机械结构图、工业传送带控制系统电气控制原理图等等，体现了与工程紧密联系的特点。一插图配有较大篇幅的文明说明，一方面方便了读者，另一方面使正文的文字简练。

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