

<<机械设计制造及其自动化专业英语>>

图书基本信息

书名：<<机械设计制造及其自动化专业英语>>

13位ISBN编号：9787122036766

10位ISBN编号：7122036766

出版时间：2009-1

出版时间：化学工业出版社

作者：马玉录，刘东学 主编

页数：209

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<机械设计制造及其自动化专业英语>>

内容概要

本教材的内容覆盖了机械设计制造及其自动化专业的基本内容。

各单元之间,既有一定的内在联系又独立成章,可根据不同学时数灵活选用。

第二版保留了第一版的风格,对部分内容作了更换与调整,增加了如模具设计与制造、过程控制系统状态监测、精益制造等内容,使教材适应性更广,也更加通俗易懂。

本教材共分为三部分(Part),30个单元(Unit)。

第一部分为机械设计与制造的基本知识,包括金属材料、非金属材料、材料的机械性能、选材、制造工艺、加工设备、数控机床、化工机器、热力学、流体力学、机械及机械零件设计等。

第二部分为自动控制的基本知识,其中包括控制原理、控制系统类型、反馈控制原理、信号转换、测量系统等。

第三部分为现代先进制造技术,主要介绍计算机技术、机电一体化、计算机数控、机器人、计算机辅助制造、柔性制造系统、计算机集成制造、自动组装、质量保证与控制、虚拟制造、敏捷制造、绿色产品制造等。

本教材可供机械工程及相关专业本科生使用,也可作为同等程度的专业技术人员的自学教材。

书籍目录

PART I FUNDAMENTALS OF MACHINE DESIGN & MANUFACTURING

Unit 1 Metals Reading Material 1 Stainless Steels

Unit 2 Selection of Construction materials Reading Material 2 Polymer and Composites

Unit 3 Mechanical Properties of Materials Reading Material 3 Tests of Mechanical Properties

Unit 4 Application of Intensive Quenching Technology for Steel Parts Reading Material 4 An Overview of Advances in Vacuum Heat Treatment

Unit 5 Design of Machine and Machine Elements Reading Material 5 Design and Implementation of a Novel Dexterous Robotic

Unit 6 Manufacturing Process (1) Reading Material 6 Manufacturing Process (2)

Unit 7 Shaper, Planer, Milling and Grinding Machines Reading Material 7 The Lathe

Unit 8 Die Machines Reading Material 8 Injection molds

Unit 9 NC Manufacture Reading Material 9 Numerical Control

Unit 10 Hydraulic System Reading Material 10 Pump Controls and Systems

Unit 11 Thermodynamics Reading Material 11 Energy of a System

Unit 12 Fluid Mechanics in Engineering Reading Material 12 Regimes of Flow in a Straight Pipe or Duct

Unit 13 Compressors—General Type Selection Factors Reading Material 13 Pumps

Unit 14 Quality Assurance and Control (1) Reading Material 14 Quality Assurance and Control(2)

PART II FUNDAMENTALS OF AUTOMATION

Unit 15 Control System Fundamentals Reading Material 15 Applications of Automatic Control

Unit 16 Open-loop and Closed-loop Control Reading Material 16 PID controller

Unit 17 Feedback and Its Effects Reading Material 17 Types of Feedback Control Systems

Unit 18 Adaptive Control Reading Material 18 Digital Control Development

Unit 19 Process Control(1) Reading Material 19 Process Control(2)

Unit 20 Measurement Systems Reading Material 20 Measurement

Unit 21 The World of Sensors Reading Material 21 Signal Conversion

Unit 22 Introduction to Vibration Reading Material 22 Vibration Analysis and Fault Diagnosis

PART III COMPUTERIZED MANUFACTURING TECHNOLOGIES

Unit 23 What is “ Mechatronics ” ? Reading Material 23 Benefits of mechatronics

Unit 24 Computerized Numerical Control(1) Reading Material Computerized Numerical Control(2)

Unit 25 Robots(1) Reading Material 25 Robots(2)

Unit 26 Computer-Aided Manufacturing(1) Reading Material 26 Computer-Aided Manufacturing(2)

Unit 27 Flexible Manufacturing Systems(1) Reading Material 27 Flexible Manufacturing Systems(2)

Unit 28 Computer-Integrated manufacturing(1) Reading Material 28 Computer-Integrated manufacturing(2)

Unit 29 Automatic Assembly(1) Reading Material 29 Automatic Assembly(2)

Unit 30 Lean Production , Agile Manufacturing and Mass Customization Production Reading Material 30 Agile Manufacturing and Green Product Manufacturing

Appendix 1 Vocabulary

Appendix 2 A List of Common Prefixes and Suffixes

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>