

图书基本信息

书名：<<机械设计。
第1册, 机构设计>>

13位ISBN编号：9787502151485

10位ISBN编号：7502151486

出版时间：2005-8

出版时间：石油工业出版社

作者：方华灿

页数：460

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>

内容概要

This textbook is intended for students beginning the study of mechanical engineering design , and used for bilingual (Chinese and English) teaching. The contents of this textbook (Machine Design) include two parts : Mechanism Design , and Design of Mechanical Elements. Mechanism Design may be dividod into three parts. Part 1 is the methods of analysis of mechanism which is composed of an introduction to kinematics and mechanism , and the analysis methods of velocity , acceleration , force , etc. Part 2 is the methodolgy of mechanism design including the basic methodology of mechanism design , the methodology of design of overall scheme , executive system of machine , etc. Part 3 is the detail of design of various mechanisms including planar linkage design , cam design , design of gears and gear trains , design of intermittent motion mechanism and miscellaneous mechanisms , etc.

书籍目录

Chapter 1 Introduction to Kinematics and Mechanism
 1.1 Basic Concepts
 1.2 Kinematic Diagrams
 1.3 Degrees of Freedom
 Guide of Reference Books
 Problems and Exercises
 Chapter 2 Analysis of Mechanisms
 2.1 Structure Analysis of Mechanisms
 2.2 Kinematic Analysis of Mechanisms
 2.3 Forces Analysis of Planar Mechanisms
 2.4 Mechanical Advantage Analysis of Mechanisms
 2.5 Computer Program for the Analysis of Mechanisms
 Guide of Reference Books
 Problems and Exercises
 Chapter 3 Methodology of Mechanism Design
 3.1 A Need for Mechanisms
 3.2 Basic Building Blocks
 3.3 Design Categories and Mechanism Parameters
 3.4 Troubleshooting Guide: Symptoms, Causes and Sources of Assistance
 3.5 Computer-aided Mechanism Design
 Guide of Reference Books
 Problems and Exercises
 Chapter 4 Planar Linkage Design
 4.1 Introduction
 4.2 Motion Generation in Planar Linkage Design
 4.3 Function Generation in Planar Linkage Design
 4.4 Rigid Body Guidance in Planar Linkage Design
 4.5 Path Synthesis in Planar Linkage Design ...
 4.6 Rocker Amplitude Synthesis in Planar Linkage
 4.7 Analytical Synthesis of Planar Linkage Using Complex Algebra
 Guide of Reference Books
 Problems and Exercises
 Chapter 5 Cam Design
 5.1 Introduction
 5.2 Synthesis of the Motion Program for the Follower
 5.3 Graphical Layout of Cam Profiles
 5.4 Analytical Cam Profile Synthesis
 5.5 Determination of Fundamental Dimensions of Cam Mechanism
 5.6 Computer - Aided Design of Cam Mechanism
 Guide of Reference Books
 Problems and Exercises
 Chapter 6 Gears and Gear Trains
 6.1 Simple Introduction of Gears and Spur Gears
 6.2 Helical, Bevel, and Worm Gears
 6.3 Introduction of Gear Trains
 6.4 Dimensional Synthesis Method of Planetary Gear Trains
 6.5 Design of Planetary Gear Train Set
 Guide of Reference Books
 Problems and Exercises
 Chapter 7 Intermittent Motion Mechanisms and Miscellaneous Mechanisms
 7.1 Simple Introduction
 7.2 Intermittent Motion Mechanisms
 7.3 Screw Mechanisms
 7.4 Universal Joints and Constant - Velocity Couplings
 7.5 Frictional Transmission Mechanisms
 7.6 Flexible Transmission Mechanisms
 7.7 Hydraulic and Pneumatic Mechanisms
 7.8 Combined Mechanisms
 Guide of Reference Books
 Problems and Exercises
 Chapter 8 Dynamic Design of Machine and Scheme Design of Mechanical Transmission and Executive System
 8.1 Simple Introduction of Dynamics of Mechanical System
 8.2 Speed Fluctuation of Machine and its Adjustment
 8.3 Balancing of Machine
 8.4 Scheme Design of Mechanical Transmission and Executive System
 Guide of Reference Books
 Problems and Exercises
 References
 Appendix

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>