

<<机电工程专业英语>>

图书基本信息

书名：<<机电工程专业英语>>

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## <<机电工程专业英语>>

### 前言

随着21世纪信息技术的发展,机电行业的国际学术交流和技术合作越来越频繁。英语作为国际交流的工具,其作用不可忽视。

然而因专业英语的特性,仅仅通过一般英语语言知识的学习无法解决生产实际问题。专业英语的应用能力已成为高等院校学生和科技工作者应有的基本素质。

本书的宗旨是提高机电工程、机械设计制造及其自动化、机械工程及自动化、工业工程等专业学生的专业英语实际应用能力,适应从大学英语教学基础阶段(一至二年级)到应用提高阶段(三至四年级)的过渡,为踏入工作岗位做好准备。

全书包括八个部分。

第一部分为科普短文,第二部分为电气工程,第三部分为机械零件、机构和机器,第四部分为设计,第五部分为机床和加工,第六部分为制造系统,第七部分为测试,第八部分为教育。

所有文章均选自相关具有权威性和代表性的专业书籍,注重实用性。

每篇课文配有参考译文,具有一定的参考价值。

教材由浅入深,增加了具有趣味性的机械专业科普短文,以提高学生的学习兴趣。

在编排上,每课都有两篇难度系数不同但内容密切相关的文章,每篇文章都附有生词表及疑难句注释,方便读者阅读和理解,也便于学生自学。

各校教师可以根据自己学校学生的具体情况选择其中的一篇进行教学,另一篇作为阅读材料。

每篇课文都配有相关练习题,以巩固文章的知识要点,进一步熟悉专业词汇。

本书在第一版的基础上进行了修订和改进,由于作者水平有限,对书中的不足之处,恳请广大读者指正。

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### 内容概要

本书以培养学生的机电专业英语能力为宗旨。

全书共分八个部分，包括科普短文、电气工程、机械零件、机构和机器、设计、机床和加工、制造系统、测试和教育。

本书紧密贴合学生所学的专业基础课和专业课内容，为配合提高学生的自学能力，每篇课文配有注释、课后练习、参考译文和习题答案。

本书可作为全国高等院校机电工程、机械设计制造及其自动化、机械工程及其自动化、工业工程等专业学生的教材，也可作为上述及相关专业工程技术人员的参考书。

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## 章节摘录

**Automatic Doors** When you next step through the doors of a super market spare a thought for Heron, a talented specialist of ancient high tech engineering. Nearly thousand years ago he designed automatically opening doors for the temples of the Egyptian city of Alexandria. Heron had a talent for designing mechanical wonders to surprise people and make people happy. His design for automatic temple doors was a gift to the Egyptian priests who for centuries had used wonders mechanical or otherwise, as a way of strengthening their authority. Employing relatively simple mechanical principles, Heron devised a means whereby the doors of a small temple would open — as if by unseen hands — when the priest lit a fire on the altar outside the temple. The fire heated the air in a metal globe placed beneath the altar, forcing the water in it through a pipe into an enormous bucket. The bucket was suspended by chains from a system of weights and pulleys, which turned the doors on their pivots as the bucket became heavier. A second surprise took place when the altar fire was put out. As a result of the sudden cooling of the air in the globe, the water was sucked the other way through the pipe. When the bucket emptied, it went upward, making the pulley system move in reverse and the doors closed again. Another design include in Heron's writings could make a trumpet blow when the temple doors opened—a combination of musical doorbell and burglar alarm. There need be little doubt that the automatic door system described by Heron was actually used in Egyptian temples and possibly elsewhere in the Greco-Roman world. Heron himself referred in passing to a similar system used by other engineers: "Some instead of water use quicksilver (mercury)." Using mercury instead of water in a machine similar to Heron's design would certainly have made it more efficient. &hellip;&hellip;

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### 编辑推荐

《机电工程专业英语（第2版）》在编排上，每课都有两篇难度系数不同但内容密切相关的文章，每篇文章都附有生词表及疑难句注释，方便读者阅读和理解，也便于学生自学。

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