

21世纪高等学校规划教材 | 计算机应用

实用IT英语

(第二版)

王翔 主编



清华大学出版社

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北京

内 容 简 介

本书依照“教、学、做”一体的 IT 英语课程建设要求,以提高学生在未来实际工作中使用 IT 英语的技能水平为目的;根据高职高专学生特点,较为系统地讲述 IT 英语知识和基本技能,强调实用性、基础性及 IT 英语学习的可持续性。

全书共有 32 单元,每个单元除专业课文及难度不大的配套练习外,还大量引用了知名企业当今主流产品的英文介绍和使用说明书,为学生提供与未来实际工作接轨的仿真环境。全书内容涵盖计算机软硬件基础知识、多媒体技术、网络技术、电子商务及嵌入式技术等专业英语知识,并将课文参考译文、练习参考答案等内容作为共享电子资源。

本书可作为高职高专学生的 IT 英语或计算机英语教材,也可供从事 IT 相关专业的从业人员或对 IT 业感兴趣的朋友们学习参考。

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出版说明

随着我国改革开放的进一步深化,高等教育也得到了快速发展,各地高校紧密结合地方经济建设发展需要,科学运用市场调节机制,加大了使用信息科学等现代科学技术提升、改造传统学科专业的投入力度,通过教育改革合理调整和配置了教育资源,优化了传统学科专业,积极为地方经济建设输送人才,为我国经济社会的快速、健康和可持续发展以及高等教育自身的改革发展做出了巨大贡献。但是,高等教育质量还需要进一步提高以适应经济社会发展的需要,不少高校的专业设置和结构不尽合理,教师队伍整体素质亟待提高,人才培养模式、教学内容和教学方法需要进一步转变,学生的实践能力和创新精神亟待加强。

教育部一直十分重视高等教育质量工作。2007年1月,教育部下发了《关于实施高等学校本科教学质量与教学改革工程的意见》,计划实施“高等学校本科教学质量与教学改革工程(简称‘质量工程’)”,通过专业结构调整、课程教材建设、实践教学改革、教学团队建设等多项内容,进一步深化高等学校教学改革,提高人才培养的能力和水平,更好地满足经济社会发展对高素质人才的需要。在贯彻和落实教育部“质量工程”的过程中,各地高校发挥师资力量强、办学经验丰富、教学资源充裕等优势,对其特色专业及特色课程(群)加以规划、整理和总结,更新教学内容、改革课程体系,建设了一大批内容新、体系新、方法新、手段新的特色课程。在此基础上,经教育部相关教学指导委员会专家的指导和建议,清华大学出版社在多个领域精选各高校的特色课程,分别规划出版系列教材,以配合“质量工程”的实施,满足各高校教学质量和教学改革的需要。

为了深入贯彻落实教育部《关于加强高等学校本科教学工作,提高教学质量的若干意见》精神,紧密配合教育部已经启动的“高等学校教学质量与教学改革工程精品课程建设工作”,在有关专家、教授的倡议和有关部门的大力支持下,我们组织并成立了“清华大学出版社教材编审委员会”(以下简称“编委会”),旨在配合教育部制定精品课程教材的出版规划,讨论并实施精品课程教材的编写与出版工作。“编委会”成员皆来自全国各类高等学校教学与科研第一线的骨干教师,其中许多教师为各校相关院、系主管教学的院长或系主任。

按照教育部的要求,“编委会”一致认为,精品课程的建设工作从开始就要坚持高标准、严要求,处于一个比较高的起点上;精品课程教材应该能够反映各高校教学改革与课程建设的需要,要有特色风格、有创新性(新体系、新内容、新手段、新思路,教材的内容体系有较高的科学创新、技术创新和理念创新的含量)、先进性(对原有的学科体系有实质性的改革和发展,顺应并符合21世纪教学发展的规律,代表并引领课程发展的趋势和方向)、示范性(教材所体现的课程体系具有较广泛的辐射性和示范性)和一定的前瞻性。教材由个人申报或各校推荐(通过所在高校的“编委会”成员推荐),经“编委会”认真评审,最后由清华大学出版

社审定出版。

目前,针对计算机类和电子信息类相关专业成立了两个“编委会”,即“清华大学出版社计算机教材编审委员会”和“清华大学出版社电子信息教材编审委员会”。推出的特色精品教材包括:

(1) 21世纪高等学校规划教材·计算机应用——高等学校各类专业,特别是非计算机专业的计算机应用类教材。

(2) 21世纪高等学校规划教材·计算机科学与技术——高等学校计算机相关专业的教材。

(3) 21世纪高等学校规划教材·电子信息——高等学校电子信息相关专业的教材。

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清华大学出版社经过三十多年的努力,在教材尤其是计算机和电子信息类专业教材出版方面树立了权威品牌,为我国的高等教育事业做出了重要贡献。清华版教材形成了技术准确、内容严谨的独特风格,这种风格将延续并反映在特色精品教材的建设中。

清华大学出版社教材编审委员会

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在 IT 知识与技能迅速更新和 IT 产业不断升级的信息时代背景下,IT 英语在计算机类专业学生的技能培训方面,正在扮演着越来越重要的角色。特别是,伴随着我国在计算机软硬件外包领域所取得的长足发展,IT 企业对于员工的专业英语水平提出了更高的要求。具备良好的 IT 英语应用技能,已成为求职者进入 IT 行业、企业的“敲门砖”。

本书在教学要求上,强调 IT 领域的专业术语及相关技术的英语表述和阅读方法,不将公共英语方面的内容作为教学重点,从而避免与《大学英语》、《实用英语》等教材的重叠;在编写内容上,强调广泛地讲述和介绍 IT 英语知识与技能,力求使读者能较为全面地掌握使用 IT 英语的思想和方法,并对以后继续深入学习 IT 英语奠定基础,不对某一知识或某一技术细节着太多笔墨,从而避免与 IT 类其他专业中文教材的重叠。

培养高素质、技能型人才已经成为高职高专类院校的人才培养目标。因此,学习企业和行业工作者需要的 IT 英语知识和技能,避免今天所学内容与明天工作需求不相吻合的情况,是本书编写的出发点。本书大量引用国内外知名 IT 企业当今主流产品的介绍和使用说明书,力求为读者提供一个仿真的工作环境,全面提升学生在未来实际工作中使用 IT 英语的技能水平和职业素养。

本书在编写过程中,参考了大量的文献资料,其中部分内容来自互联网,特别是 IT 领域一些知名厂商和机构官方网站,在此向这些文献资料的作者深表谢意。来自 IT 行业和企业界的专家、学者也对本书的编写提出了宝贵建议,编者在此一并表示感谢。自 2011 年 9 月本书第一版出版以来,高职院校广大师生对本书给予了充分的认可和热情的鼓励,并对本书第二版的编写工作提出了中肯的建议,为此我们表示欣慰和感谢。第二版在第一版的基础上进行了适当的修改与更新,并着重于保持教材编写风格的一致性、内容的连贯性以及知识的延续性。我们愿意为使用本书的教师、学生、IT 业工作人员及计算机爱好者提供该领域的帮助,请通过电子邮箱 wangxiang7504@163.com 与我们联系。为更好地服务于教学,编者已将本书课文部分的译文及习题参考答案作为共享资源供大家下载使用。

本书由王翔任主编。第 1~12 单元和第 17~20 单元由王翔编写,第 13~16 单元由高博编写,第 21~28 单元由张臻编写,第 29~32 单元由王彦编写。赵家华、李莉、高本才参与了本书的译文、专业词汇整理等部分的编写工作。

尽管我们依照“教、学、做”一体的 IT 英语课程建设要求,在 IT 英语教材建设突破方面,做出了许多努力,但由于编者的水平有限,加之时间仓促,书中内容难免有错误、不足和疏漏之处,恳请各教学单位、行业和企业的工作人员及广大读者不吝赐教和批评指正。

编者

2014 年 10 月

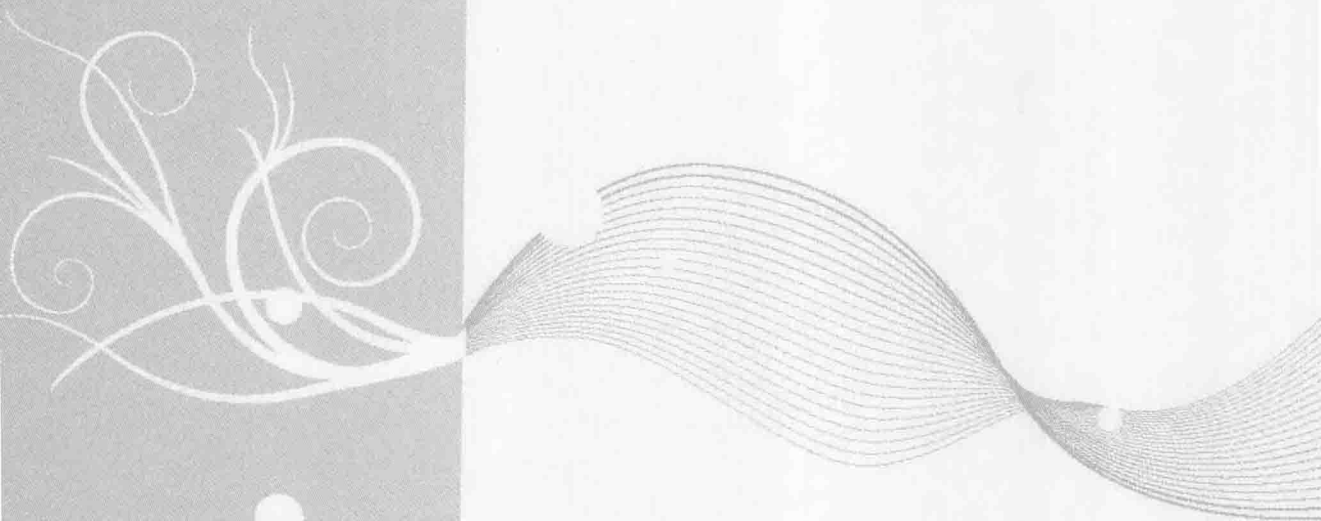


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Computer and Internet



Unit 1

The Development of Computer Technology

WORDS AND EXPRESSIONS

manipulate [mə'nɪpjuleɪt] 操作

Maryland ['mæərɪlənd] 马里兰州

Pennsylvania [pensɪl'veɪnjə] 宾夕法尼亚州

semiconductor ['semɪkən'daɪktə] 半导体

transistor [træn'zɪstə] 晶体管

finger nail ['fɪŋgəneɪl] 手指甲

Harvard ['hɑ:vəd] 美国哈佛大学

Dartmouth ['dɑ:tməθ] 美国达特茅斯

enthusiast [ɪn'θju:ziæst] 热心家, 狂热者

fledgling ['fledʒlɪŋ] 无经验的人

unprecedented [ʌn'presɪdəntɪd] 空前的

kilobyte ['kɪləubəɪt] 千字节, 1024 字节

automate ['ɔ:təmeɪt] 使自动化, 自动操作

novice ['nɒvɪs] 新手, 初学者

underestimate [ʌndər'esteɪmeɪt] 低估, 看轻

abruptly [ə'brʌpt] 突然地, 唐突地

dub [dʌb] 授予...以称号; 给...起(绰号)

prestige [pres'ti:ʒ] 声望; 威望

fad [fæd] 时尚

productivity [prɒdʌk'tɪvɪti] 生产力

drop-out ['drɒp.aʊt] 中途退学的人

vacuum tube 电子管

ENIAC Electronic Numerical Integrator And Calculator [Computer] 电子数字积分计算机

Ballistics Research Laboratory 弹道学研究工作实验室

large-scale integrated ['ɪntɪgreɪtɪd] (LSI) circuit 大规模集成电路

very large-scale integrated (VLSI) circuit 超大规模集成电路
International Business Machines (IBM) 美国国际商用机器公司
Intel 美国英特尔公司
Microsoft 美国微软公司

QUESTIONS AND ANSWERS

1. Do you think that computers have become one of the most important helpful “partners” of human beings? Why?
2. What did engineers develop in the late 1960s and early 1970s?
3. What is the phylogeny of Microsoft?
4. Who designed and developed Apple?
5. What is the difference between IBM and Apple?
6. What were the first generation programs?
7. Can you tell us something about Bill Gates?
8. What is the relationship between Computers and Internet?
9. When did many application packages begin to appear?
10. when did IBM introduce its own microcomputer IBM PC?

TEXT

As is known to all that computers have played an important role in the modern society. High up in space and deep down in oceans, they are used to make the scientific discoveries; on farms and in factories, they help us to do difficult work and take the place of routine jobs. Computer to human being is like food to our bodies, without food we cannot survive; without computers the world would not be what it is today.

The first electronic computers were built in the 1940s. At that time, John Louis von Neumann announced the famous stored program concept which says that the program is stored as data in the computer's memory and the computer is able to manipulate it as data—for example, to load it from disk, store it back on disk, and move it in memory. This concept became a fundamental of modern computing. Meanwhile, the Ballistics Research Laboratory in Maryland decided to build a high-speed electronic computer to assist in the preparation of firing tables for artillery. It was built at the University of Pennsylvania's Moore School of Electrical Engineering. This machine became known as ENIAC (Figure 1-1).

ENIAC covered an area of 1,800 square feet, weighted 30 tons. This machine was so huge, because it used 18,000 vacuum tubes. The use of the transistor in computers in the late 1950s meant more powerful, more reliable, and less expensive computers that would

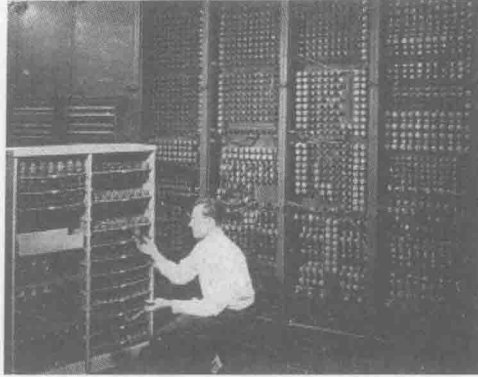


Figure 1-1. ENIAC

occupy less space and give off less heat than did vacuum tube powered computers.

In the late 1960s and early 1970s, engineers made great strides in reducing the size of electronic components. They developed the semiconductor chip, which was about the size of a fingernail and could contain hundreds of transistors. The semiconductor chips enabled engineers to miniaturize the circuits contained in all electronic devices. Most importantly, it produced a new generation of mainframes and minicomputers with increased capability, greater speed, and smaller size.

The microprocessor became a reality in the mid-1970s with the introduction of the large-scale integrated (LSI) circuit and the very large-scale integrated (VLSI) circuit (microchip), with many thousands of interconnected transistors etched into a single silicon substrate. In late 1970 Intel introduced a 1k RAM chip and the 4004, a 4-bit microprocessor. Four years later came the 8080, an 8-bit microprocessor. The earliest microcomputer, the Altair 8800, was developed in 1975 by Ed (Edwin) Roberts; this machine used the Intel 8080 microprocessor and had less than 1 kilobyte of memory.

In order for microcomputers to become problem-solving tools, a number of hurdles needed to be overcome. The first was to simplify the program for the machines. One step in this direction was taken by a young Harvard drop-out named Bill Gates, who wrote a version of the programming language BASIC for one of the earliest microcomputers. BASIC had been introduced at Dartmouth College in the mid-1960s by John Kemeny and Kenneth Kurtz. Thus it was a popular programming language on mainframe computers. Gates founded a computer company called Microsoft, which has become one of the major producers of software for microcomputers.

In 1977, Steven Jobs and Stephen Wozniak, two microcomputer enthusiasts, working in a garage, designed their own microcomputer. This was to be named the Apple (Figure 1-2). And their fledgling business was to become the Apple Computer Corporation. Business grew at an unprecedented rate. In no time, Apple was selling hundreds and then thousands of machines per month.



Figure 1-2 APPLE II

One reason behind Apple's success was the availability of number of useful application programs. The most important of these was spreadsheet VISICALS, which allowed accountants and financial planners to automate many of the calculations that they were accustomed to doing on adding machines, or with pencil and paper. Hours of calculations were thus completed in a matter of seconds. Such raw power did much to convince peoples that microcomputers were real problem-solving tools, not toys.

At about the same time as the introduction of the Apple II, a number of the microcomputers appeared on the market. One of the most popular computers was Tandy Corporation's TRS-80. Apple and Tandy were the two largest manufacturers, each with about a 25 percent share of the market.

Early microcomputer users banded together into groups to exchange ideas and to share solutions to problems. A strong spirit of adventure encouraged users to feel they were participating in a major intellectual turning point in computer use. Part of the excitement was created by the unusual mixture of people who participated. In addition to computer scientists and engineers, physicians, business people, and students become microcomputer enthusiasts, at work as well as at home. All were interested in the same goal: using microcomputers to solve problems.

So many application packages began to appear around 1980. The first generation programs for word processing, data management, spreadsheets, and communication allowed novice users to experience the power of microcomputing.

However, most corporations underestimated the significance of bringing computing power down to the level of the individual users. This view abruptly changed in 1981 when International Business Machines (IBM), the largest computer company in the world, introduced its own microcomputer, dubbed the IBM PC ("PC" being the abbreviation for personal computer). The fact that IBM, a company of such corporate prestige, would enter this market convinced businesses that the microcomputer was more than a passing fad. Within a short time, the microprocessor was recognized as a productivity tool to be used by workers at all levels to process, store, retrieve, and analyze information. Almost every business could find a legitimate place for the microcomputer(Figure 1-3).



Figure 1-3 IBM 386

Now, there is a light-weight, notebook computer, or portable computer (Figure 1-4), designed to be moved easily. With the development of mobile technology, human beings are entering the post-PC ear. Intelligent terminal like smartphone (Figure 1-5) or pad (Figure 1-6) is profoundly changing our life admirably, making our jobs more efficiently and making our life more enjoyable. We have every reason to believe that computers will be further proved to work more wonders in the new century to serve for the social development.



Figure 1-4 Asus S551

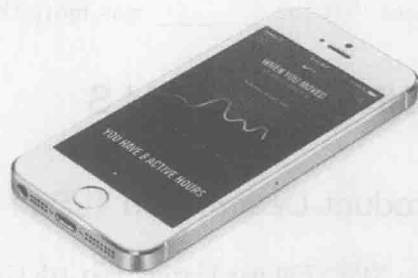


Figure 1-5 iPhone 5S



Figure 1-6 HUAWEI MediaPad

EXERCISES

1. Judge whether the following given statements are true or false. If correct, write T in parentheses; otherwise, write F.

- (1) () The first electronic computers were built in the 1950s.
- (2) () ENIAC used 18,000 transistors.
- (3) () Intel 8080 is an 16-bit microprocessor.
- (4) () In 1977, Steven Jobs and Stephen Wozniak designed their own microcomputer in a garage.

2. Complete the following note-taking with the information mentioned in the text.

(1) John Louis von Neumann announced the famous _____ concept which says that the program is stored as data in the computer's memory and the computer is able to manipulate it as data.

(2) The use of the _____ in computers in the late 1950s meant more powerful, more reliable, and less expensive computers.

(3) In addition to computer scientists and engineers, physicians, business people, and students become _____, at work as well as at home.

(4) IBM, a company of such corporate prestige, would enter this market convinced businesses that the _____ was more than a passing fad.

READING MATERIALS

Product Description 1: Dell XPS 8700 Desktop (Figure 1-7)

The XPS 8700 has blazing-fast 4th Gen Intel® Core™ processors, Windows 8.1, large storage and easy expandability, so you can be ready for anything. Keep your standards high.

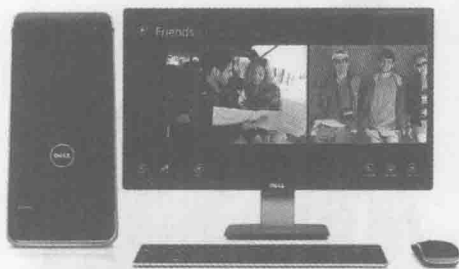


Figure 1-7 Dell XPS 8700 Desktop

Fast, seamless performance

Own the fastest XPS mini tower ever (16.01" high). With 4th Gen Intel® Core™ processors that perform 15% better than the previous generation, you can blaze through system-intensive applications like video editing, HD video playback, serious multitasking and extreme gaming.

Ample storage and expandability

Opt for 2TB hard-drive storage and keep an impressive digital media library—around half a million photos or songs, 240 hours of video or 550 movies. And if even that's not enough, you have the ability to expand to 4TB. The more memory, the better. At any time, installing more memory is a simple operation. Choose up to 16GB RAM now, with room for additional 16GB RAM when you're ready.

More ports, faster connections

Connect super fast with your six USB 3.0 ports, which can transfer data at speeds up to ten times faster than USB 2.0. Hook up HD displays and stream content to an HDTV using your HDMI port. 19-in-1 media card reader lets you upload photos, videos and more without wires. Sync Bluetooth devices and connect to the internet with Dell Wireless-N 1703 card.

Advanced graphics and sound

Opt for NVIDIA® GeForce® GTX 660 graphics for smooth, sharp images and movement that won't slow you down. GRAMMY Award-winning Waves MaxxAudio® Pro software and integrated 7.1-channel (6 jack) audio is built right in.

Experience Windows 8

A new desktop design with tiles you can swap out and arrange so that the information you need to see most is always front and center. Stay up to date with social media, news, stocks and more that refresh even while your system is in sleep mode. Add a Dell multi-touch display at checkout (sold separately) for a more fluid and natural way of interacting with your Windows 8 PC; it makes daily tasks-like photo editing-faster, easier, and more exciting.

Essential accessories for your XPS 8700

- Dell S2340L Monitor: Take advantage of your premium graphics with a 23" Full HD (1920 × 1080) display. Images look rich and clear on this glossy, virtually borderless screen-you can even set auto controls for each application you use.
- Dell KM714 Wireless Premium Keyboard & Mouse Combo: Work in a clean space with a wireless keyboard and mouse that are as high-performance as they are sleek. Scissor chiclet keys, Windows 8 gesture controls and LED tracking help you get things done quickly.

Your content. Anywhere, anytime.

Retrieve that document you forgot to take to the meeting. Edit a photo and share it with friends. Collaborate on a project. Show a video. With PocketCloud or Dropbox, you