中国科技论文统计源期刊(科技核心期刊)

ISSN 1007-757X CN 31-1634/TP

份微型電腦應用

第31卷第12期 2015.12.20

MICROCOMPUTER APPLICATIONS

责任者: 吴红泉



微信号: smcaa1985



上海市微型电脑应用学会



万方数据

微型电脑应用

Weixing Diannao Yingyong

主管单位:上海市科学技术协会

主办单位:上海市微型电脑应用学会

协办单位: 上海交通大学

出版单位:《微型电脑应用》编辑部

印刷单位:上海万卷印刷有限公司

创刊年份: 1985年

刊名题字: 江泽民

特约顾问: 倪光南 万 钢 朱寄萍 严隽琪(女) 吴启迪(女)

期刊理事会

理事长:何友声

副理事长: 张 杰 裴 钢 陈亚珠(女) 王行愚

邵世煌

编辑委员会

名誉主任:何友声 吴启迪(女) 朱寄萍

陈亚珠(女) 朱仲英

主 任: 吴红泉

副 主 任: 高传善 高毓乾 黄国兴

名誉主编: 吴启迪(女)

主 编: 吴红泉

副 主编: 白英彩 黄国兴

常务编委: 王景寅 白英彩 孙德文 朱仲英

朱隆泉 乔非(女) 汪 镭 吴红泉

李光亚 张素(女) 张礼平 高传善

高毓乾 黄国兴 虞慧群

编辑部主任:朱隆泉

外 文 审 校:张人允 陈 欢

编 务:谢志红 江 婷

责 任 编 辑:朱隆泉

国家科技部中国科技论文统计源期刊(中国科技核心期刊) 《中国期刊网》、《中国学术期刊(光盘版)》全文收录期刊

中国期刊数据库全文收录期刊

中国学术期刊综合评价数据库来源期刊

中国科学引文数据库来源期刊

中国科学计量指标数据库来源期刊

中信所万方数据库资源系统数字化期刊群期刊

《中国核心期刊(遴选)数据库收录期刊》

《中文科技期刊数据库》收录期刊

华东地区优秀期刊

上海市优秀科技期刊

2015年12月版

第31卷第12期(总第272期)

月刊

目 次

基金项目	
基金项目 基于串口的高速信号传输····································	(1)
基于ATMOS的校园云存储平台的构建与应用····································	\
·····································	(3)
基于提升万条小波的顺差图像质重可分级编码研究	(5)
基于也开方案小板的概定图像质量可为级编码机允 	(11)
基于遗传复法城市交叉路口交通流量优化控制	(/
	(12)
基于或传算法城中父义路口父姐沉重优化控制	>
·····································	(16)
《C语言程序设计》公共课任应用型本科院校中的教字模式传	(19)
计算机应用能力与城轨控制专业技能对接研究	(21)
地方高校转型发展背景下的计算机专业产学研合作模式探索	(21)
地方高校转型发展背景下的计算机专业产学研合作模式探索 赵建华,张林	(23)
美国国立癌症研究所SFFR数据库概述及应用······	
	(26)
以应用为导向的网络工程教学探索社红乐,张燕	(29)
基于BLOG/博各群的反思共享式实习指导模式构建与研究 经小格	(33)
研究与设计	(33)
研究与设计	
面向负载均衡的高性能环加星型云平台设计杨帆	(35)
基于电力载波通信的智能家居控制器设计…胡敦利,程凯鑫	(38)
结合光谱与森林纹理结构基元的遥感森林植被分割算法	(41)
世 TACR NITTONE 兴庆保IRDI 教兴系统研究上京初	(41)
基于ASP. NET的医学病例PBL教学系统研究与实现··················王伟全,陆攀,曹均阔,张学平	(44)
大数据背景下的上海市中职校报名系统的研究和实践	(11)
	(47)
企业级数据中心优化治理体系的研究与应用范叶平	(51)
<u> 公交公司实时信息管理系统的设计与实现············曾晓娟</u>	(54)
面向社会化导购的可信推荐方法研究…张挺,赵卫东,刘钢基于网络技术的未来移动医疗憧憬何光旭	(57)
基于网络拉木的木米移动医疗里原何兀旭	(64)
开发应用	
基于CA的激活方案的应用研究与实现王平	(67)
基于CA的激活方案的应用研究与实现······王平 Java动态绑定的方法重载的实现·····严忠林	(69)
技术交流 基于FSVM的二维经验模态分解域图像去噪···吴昌健,陈茹静	(72)
基于FSVM的一维经验模态分解项图像去噪…美首健,然如肝Web应用中的ActiveX控件的创建与使用邢素萍	(74)
一种数据质量服务管理方法何文金,顾昊旻	(77)

期刊基本参数: CN 31-1634/TP*1985*m*16*80*zh*P*¥10.00*3200*26*2015-12*n

ISSN 1007-757X

Wu Hongquan

Microcomputer Applications

Editor-in-Chief

Vol.31, No.12 (General No.272)

Monthly (Since 1985)

December 2015

CONTENTS
FUND PROJECT
High Speed Signal Transmission System based on COM
Yuan Jiadong, Yin Xinghui (College of Computer and Information, Hohai University, Nanjing 211100, China) Abstract: With the high-speed development of modern communication, the effects of solar activity on the earth communication system also have received
widespread attention. The signal of solar sharp activity has a very high frequency and short duration. The signal is not easy to be observed. Therefore this paper
proposes a high-speed transmission mode based on COM. And some experiments have made to prove the feasibility of this method.
Key words: Solar Radio Radiation; COM; MSP430 Construction and Application of ATMOS based Compus Cloud Storage Platform (2)
Construction and Application of ATMOS-based Campus Cloud Storage Platform
Technology, Donghua University, Shanghai 201620, China; 3. Financial Department, Donghua University, Shanghai 201620, China)
Abstract: In order to solve the problems of data security and mobile business in the campus applications using a great number of unstructured data, the
characteristics and typical applications of the traditional and object storage ways are introduced. And the system architecture of the campus cloud storage platform based on ATMOS, one of Object Storages is proposed. The processes of the cloud data reading and writing are analyzed. The practice indicates that the cloud storage
platform based on ATMOS can guarantee remote disaster recovery and real-time access for the unstructured data efficiently. So the platform improves the data
security, and it also guarantees the reliability of the mobile office. Key words: Unstructured Data; Object-based Storage; Cloud Storage
Research of Scalable Coding for Frame Difference Image Quality Resed on Lifting Schame Wavelet (5)
Research of Scalable Coding for Frame Difference Image Quality Based on Lifting Scheme Wavelet
Novel Software Technology, Nanjing University, Nanjing 210093, China)
Abstract: With the appearances of digital TV and online meeting, more and more image information needs to transmit on the net. The improvement of video coding depends on how to reduce the use of motion compensation prediction residuals (MCPR), which also means the MCPR image should have the ability of progressive
transmission, multi-quality services and image database browsing, etc In this paper, a double-stage quantization method is proposed combining with the statistical
property of MPCR image. Then a scalable coding method for frame difference image quality based on bit-plane technique is proposed. The method constructs
different bit-planes according to the target bit rates so as to achieve the scalable decoding for frame difference image quality. Simulation results prove that the compression quality of the method is superior to the SPITH algorithm, especially at the very low bit rates.
Key words: Prediction Error Image; Statistical Property; Scalable Coding; Frame Difference Image; Lifting Scheme Wavelet
Research of Intelligent Network Scheme Based on OTN Technology(11)
Dan Rong (College of Mathematics and Information Science Weinan Normal University, Weinan 714000, China)
Abstract: Electric power communication network has high requirements for bandwidth, safe reliability, long distance transmission, and intelligence. This paper proposes a planning scheme of intelligent gird based on OTN technology, which can provide high capacity bandwidth, industrial protection, long distance
transmission and large particles business scheduling. The scheme can realize intelligent power transmission network, and reduce the cost of equipment and
manpower.
Key words: Intelligent Power Network; OTN; Long Distance Transmission; Bandwidth Ontimization of Traffic Flow in Urban Intersection Posed on Constitution of Traffic Flow in Urban Intersection Posed on Constitution (12)
Optimization of Traffic Flow in Urban Intersection Based on Genetic Algorithm
2. Department of Information and Science, Heilongjiang International University, Harbin 150025, China)
Abstract: In order to control the traffic flow in the intersection to ensure smooth traffic flow of traffic network, it does simulation and research for the problem of vehicle queue length and green time, signal cycle and the influence of yellow light. This paper uses genetic algorithm to optimize traffic flow control to find optimal
solution in the process of self-tuning. Firstly, genetic algorithm regards the current queue length as input, and then outputs the optimization green time of crossroads.
Finally, the result of genetic algorithm is further improved with introduction of the coming traffic flow during red time of each phase. Experiments show that the
application of genetic algorithm in the intersection can respond quickly to the problems such as varying vehicle queue, green time, signal cycle and so on. The simulations' results show that the genetic algorithm is a successful method used in the traffic flow control.
Key words: Traffic Control System; Traffic Flow; Genetic Algorithm; Intersection
A Implementation of DDS Signal Source Based on FPGA(16)
Zhang Linhang, Shang Xiaohu, Zhao Meicong, Liu Yang (College of Instrument Science and Electrical Engineering, Jilin University, Changchun 130021, China)
Abstract: In view of the wide use of signal sources in the fields of tests and experiments, a direct digital synthesis (DDS) signal source is designed based on field programmable gate array (FPGA). This design uses single chip microcomputer as control chip to complete the operation of input and display and transmit waveform
operation instructions to the FPGA. In the arithmetic unit FPGA, digital waveform codes are created by looking up a table. Through d/a conversion and filter circuit
it realizes the output of analog waveform. After tests, the precision of the output amplitude is 1mV. The output frequency ranges from 1mHz to 1MHz and its
accuracy is 0.01%. The signal source is flexible to control and it meets all the design requirements. Key words: DDS; FPGA; PLL
Teaching Mode of C Language as a Common Course in Local Application-oriented College(19)
Li Nan (Department of Mathematics and Computer Application, Shangluo University, Shangluo 726000, China)
Abstract: C-language is a required computer common course for science students in local application-oriented college. By the way of a questionnaire survey to both teachers and students, it is found that there are huge differences of the students in learning foundation, initiative and individuals in local application-oriented college.
From both aspects of teaching and learning, this paper analyzes these problems and discusses the solutions, and then it discusses the teaching thoughts which use
computational thinking as the guide. After that, it improves awareness of self-directed learning by the multimedia and multilevel teaching method and improves
interests by the combination of participation, teaching and discussion. In addition, the otherness of comprehension on teachers' teaching contents can be solved by group lesson preparation, mutual listening and evaluation.
Key words: C-language; Teaching-mode; Computer Common Course; Local Application-oriented College
Docking Study on Computer Application Ability and Professional Skills of Urban Rail Control(21)
Liang Ying (Xi'an railway vocational & technical institute, Xi'an 710014, China) Abstract: In this paper, through the analysis of the study on urban rail control professional job skills, it finds out the joint point of the professional and the computer
application technology, so as to make clear the professional comprehensive quality in computer skills. The research has important practical significance to training
skill talents for meeting the urban rail control professional job.
Key words: Urban Rail Control; Computer Technology; Skills Docking Exploration of Computer Professional Production study research Computer Model in the Background of Touristics of Touristics and Computer Professional Production of Computer Professional Professio
Exploration of Computer Professional Production-study-research Cooperation Model in the Background of Transformation and Development of Local Universities
Zhao Jianhua, Zhang Lin (School of mathematics and computer application, Shangluo University, Shangluo 726000, China)
Abstract: In order to effectively improve the abilities of practice and local service of computer professional students, a mode of production-study-research
cooperation is proposed in the background of the transformation and development to colleges of application and technology. Through down-to-earth, it finds a

breakthrough in computer professional services for local development; through the foundation, to build a "double" teachers team with theoretical knowledge, practical ability and the industry background. Then it establishes a teacher team of double-certificated type with solid theoretical knowledge, good practical ability and industry background by fortifying the foundations. After that, it strives for excellence and conducts in-depth cooperation so as to cultivate applied talents of high quality and enterprise counterparts. The program has a certain reference value for the local undergraduate colleges in the transformation and development.

Key words: Transformation and Development; Applied Technology College and University; Production-study-research Cooperation; Service Area

Abstract: 'Surveillance, epidemiology and result database(SEER)' is a program developed by American National Cancer Institute. It is one of the most Abstract: Survemance, epidemiology and result database(SEER) is a program developed by American National Cattlet Institute. It is one of the most representative databases registered in the North America, which has collected a great amount of data in respect of evidence-based medicine, and provided practice clinicians in field of clinical medicine evidence with systematic evidence support and valuable first-hand materials. This paper firstly introduces in general about SEER, the way of access and the database structure. Secondly, detailed description is given about the SEER data dictionary, and interpretation made of the main statistical SEER analysis reports. Then, cases have been collected, which had been conducted on basis of SEER data in recent years, home and abroad. In the last, discussion and expectation on application of SEER are carried out.

Key words: SEER; Large Database of Cancer Registration; Data Dictionary; Statistical Analysis Report; Clinical Applications

Researching of Application-oriented Teaching Method of Network Engineering...... (29) Du Hongle, Zhang Yan (School of mathematics and computer application, Shangluo University, Shangluo 726000, China)

Abstract: For application-oriented positioning of my school, combined with the talent demand and deep learning, it carry out application-oriented, project-driven and situation-introduced teaching reform on the course of 'network engineering'. Under this teaching mode, the purpose of curriculum design and unit design is to build capacity and develop the professional quality. The five-step teaching method of deep learning, containing creation of scenarios, enlightens self-exploration, cooperation and exchange, summary and improvement, is introduced into the unit design and teaching. Assessment methods are diversification according to combining process and results, theory and practice. It can cultivate students' capacity of knowledge acquisition, application of knowledge, innovative ability and professional quality. It achieves the better teaching effect in the course of computer network experiment. Key words: Deep Learning; Network Engineering; Teaching Reform

Abstract: Through introducing BLOG/BLOG group of college students in the process of the internship, it combines the education characteristics with the function of BLOG, and analyses the problems existing in the current education practice. Then it builds up a rethinking-sharing practice guidance mode based on BLOG/BLOG group, and researches this mode to solve the problems of poor communication between teachers and students and low capacity for rethinking of students in the education intenship. It provides some references for the management and improvement of the college education practice.

Key words: BLOG; Education Practice; Guidance Mode

RESEARCH AND DESIGN

² (1.School of Computer Science, Fudan University, Shanghai 201203, China; 2.Shanghai Key Laboratory of Data Science, Fudan University, Shanghai Yang Fan^{1,2} (1.S 201203, China)

Abstract: The cloud platform has the problems such as the waste of hardware resource caused by the update of servers, high cost backup using several high-performance servers. Based on the use of load balancing and cluster technology, this paper proposes a reliable cloud platform, which has high performance and low cost. It uses a combination of ring and star network structure to make the form of computing resource diverse, and uses multiple data backup to improve performance and security. Through the load balancing technology, it solves the network bottleneck problem so that the customer's visit will not focus on a certain point. It can reduce the bottleneck in the communication process. Finally, through the reliability and performance analysis, it is proved that the performance of this

design is better, and the platform can be maintained for a long time.

Key words: Ring and Star Network; Horizontal and Vertical Segmentation in Database; Load Balancing

Hu Dunli, Cheng Kaixin (North China University of Technology, Beijing 100144, China)

Abstract: This paper introduces the composition and working principle of smart homes controller based on PLC communication technology. The core processor is the S3C2440 with ARM9 core with UC/OS-II real time operating system embedded. It builds up LonWorks network based on LonWorks bus technology to realize the information interaction, and selects PL3120 power line smart transceiver as the Communication module. The communication medium is the power lines. This paper proposes the controller with composition of hardware and design principle of software. Key words: PLC; Embedded System; LonWorks Bus

Segmentation Algorithm of Remote Sensing Forest Vegetation Based on Combination of Spectral and Structure Element of Forest Texture.......(41)

Abstract: To utilize multiple features for segmentation of forest vegetation, a combination method of spectral and other textural features to build SEFT has come up. This method could detect the typical area blue noise characteristics of forest vegetation to calculate its scale and gray distribution. It uses NDVI to calculate the vegetation-covered ratio. Then it constructs the SEFT of various scales by combining grey level, color and other texture features of the area. Match the structural

student-centered, teacher-oriented and task-driven. This paper describes PBL teaching mode briefly first. Then do demand analysis and UML modeling to the medical case teaching, and detail the main functional modules of system. At last, it explores the system architecture model and key technology combining with

Key words: PBL; ASP.NET; Case Training; Extended RBAC Model; Cache Technology

**Record School Enrolment States | School E

Research and Practice of Secondary Vocational School Enrolment System under the Background of Big Data in Shanghai City

Pei Wenjun (Shanghai I&C Foreign Languages School, Shanghai 200231, China)

Abstract: With the promotion of work standardization for Shanghai municipal secondary school enrolment, it is important to use government policies to support this work by the analysis of enrollment data. Since the number of enrolment increases, the rational use of big data technology is a trend. According to the current situation of enrollment system, this paper does research and analysis on development and design of the enrollment system under the background of big data from the

aspect of enrolling informatization, which combines with the practice and application. **Key words:** Big Data; Secondary Vocational School; Enrolment Registration System

Research and Application of Optimization and Management System for Enterprise Data Center......(51)

Fan Yeping (Anhui Nari Software Co.,LTD., Hefei 230088, China)

Abstract: Data gradually becomes the core assets of enterprises. The core of enterprise management is decision, while the basis of decision is data. It can control the production and operation of the enterprises well only by controlling the core information and data of the enterprises accurately. According to the current situation of resource management and application in the data center, this paper researches the source of the data center. Then it proposes the Optimization and Management objectives of the data center and clears the responsibility of data management by analyzing the reason for the data quality problems. At last, it constructs the optimization and management system model of the data center in four aspects of organizing, standard, management and technology to improve the execution of data

management in the data center. It forms normalizing operation mechanism of enterprise data control to guarantee the data quality of the data center and fully uses the value of the data assets in data center. Then it can improve the service ability of the data center.

Key words: Governance System; Data Control; Data Quality; Data Assets

Design and Implementation of Real Time Information Management System of Public Transportation Company..... Zeng Xiaojuan (Department of Information Engineering, Higher Vocational School of Electrical and Mechanical Services in Jiangsu Xuzhou, Xuzhou 221011, China)

Abstract: With the development of public transport field, bus operators need to provide better service to their passengers. In order to achieve this goal, safe and reasonable information services must be provided for the passengers to improve and extend the service. These improvements are too expensive to the public transportation company so that it maybe effects the sustainable development of the company. This paper designs an intelligent transportation system (ITS), which can provide monitoring and management tools to improve the management level of passenger transport system (RTPI). The SITREPA system includes hardware and software, which can collect the information of the bus and provide the corresponding information service for the different needs of the public transport environment. This system with low complexity and low cost is enough to meet the needs of most of the medium and small bus companies. After testing, the system can become an important tool for passengers and can improve the quality of public transport services.

Key words: Bus Company; Real Time; Information Management System; Prediction Accuracy Evaluation

Zhang Ting^{1, 2}, Zhao Weidong^{1, 2}, Liu Gang^{1, 2} University, , Shanghai 201203, China)

Abstract: Providing high quality recommendations to users is very important in e-commerce systems. The traditional collaborative recommendation systems are suffering a lot of problems, like data sparsity and cold start. In order to solve these problems, a credible recommendation method for social shopping platforms is proposed. This method builds up a web of trust without explicit trust relationships by mining users' behavior data. The trust is derived by both users and users' global reputation. It applies user's social preference mining and sentiment analysis in the approach. The experimental results showed that the approach based on trust increased the recommendation accuracy(MAE=0.774) as well as the coverage(50.4%).

Key words: Social Shopping; Trust; Collaborative-filtering; Sentiment Analysis

Longings of Mobile Medical Treatment Based on Network Technology......(64)

He Guangxu (Jiao Zuo People's Hospital of He Nan Province, Jiaozuo 454002, China)

Abstract: With the development of computer, communication and network technology, modern society comes into the mobile era. The mobile medical era based on network technology is coming. The development of mobile medical treatment will make great changes of hospital, medical, diagnosis and treatment in the future. Among all of them, all elements of future hospital will have unprecedented changes. It will not only break down the traditional limits, but also move all elements including clinical information, remote medical treatment, health management and health platform construction into the network. Such era is coming soon, and many projects are in operation. The theoretical foundations and technology supports of mobile medical treatments are to generally applied computer technology into every aspect of life, and then it is presented in the reality in an invisible way. Mobile medical treatment is just a practical application of such technology. Key words: Network Technology; Mobile Medical Treatment

DEVELOPMENT AND APPLICATION

Application Research and Implementation of Activation Scheme Based on CA...... (67)

Wang Ping (China University of Petroleum (East China), Qingdao 266580, China)

Abstract: This paper firstly introduces two authorization activation methods in agreement on campus procurement which are called key management service and multiple-activation key. Then the activation method for a specific network is determined according to the specific situation of the unit network. Finally the implementation of analysis results in practice shows the effectiveness of the analysis.

Key words: Genuine Software; Campus Agreement; Volume Activation; Key Management Service; Multiple Activation Key

Implementation of Dynamic Binding Method Overloading in Java.....

Yan Zhonglin (College of Information, Mechanical and Electrical Engineering, Shanghai Normal University, Shanghai 200234, China)

Abstract: Java allows 'method overloading'. Its execution code is determined at compile time, and cannot be changed at runtime based on the actual object. This may increase the complexity of the program. By using the JSR-292, this paper implements a framework to bind overloaded method at runtime. The program can be more simple, reusable and extensible.

Key words: Method Overloading; Method Overriding; Invoke Dynamic Instruction; Method Handle; Java Class File Handling

TECHNICAL COMMUNICATION

Image Denoising Using FSVM Classification in BEMD Domain..... Wu Changjian, Chen Rujing (School of Computer and Information Technology, Liaoning Normal University, Dalian 116029, China)

Abstract: BEMD(Bidimensional Empirical Mode Decomposition) is a kind of excellent multi-resolution analysis tool, and it can analyze nonlinear or non-stationary signal effectively. Based on BEMD transformation, an image denoising using fuzzy support vector machine (FSVM) is proposed. First, the noisy image is decomposed into different subbands of frequency using the BEMD transformation. Secondly, the BEMD coefficients are divided into two classes (edge-related coefficients and noise-related ones) by FSVM training model. Finally, the coefficients containing noise are denoised by using adaptive threshold value. Extensive experimental results demonstrate that the method can obtain better performances in terms of both subjective and objective evaluations than other current denoising techniques. Especially, the proposed method can preserve edges very well while removing noise. **Key words:** Image Denoising; BEMD; FSVM; Parameters Estimation; Edges Preserving

Creation and Use of ActiveX Control in Web Application....(74)

Aing Suping(Nanjing Institute of Industry Technology, Nanjing 210023, China)

Abstract: This paper introduces the creation and use of ActiveX tool set proposed by Microsoft Corporation, which is widely used in desktop and web applications. ActiveX control is a reusable software component, which is based on COM. It is very convenient to add special functions in web and desktop applications with this tool. In this paper, it uses VS2010 to create an ActiveX control containing methods of adding attributes to the control, rewriting related functions, adding function, adding events excitation function and so on. Using ActiveX controls can enrich programming language function and broaden the application field of Web application.

Key words: Control; Web Pages; Attributes; Dialog Box

Management Methods For Quality of Data Service.....

He Wenjin, Gu Haomin (Anhui Jiyuan Software Co., LTD. State Grid Information & Telecommunication Group, Hefei 230088, China)

Abstract: The level of service delivered by the data center is mainly influenced by the quality of data and the service quality of the software and hardware of the data center. At present, there is no model or system being able to measure these two aspects of factors uniformly. Therefore, this paper proposes a management method of data service quality, and the data quality and service quality are unified for data service quality. First, put forward a data model of service quality containing the definition and algorithm. Then it achieves the model through the research and development of a data management platform of service quality. Finally, from the application case of the data center in power sid development is described by the data center in power sid development of a data management platform of service quality. from the application case of the data center in power grid enterprise, it demonstrates the effectiveness of the model and management platform. **Key words:** Data Center; Data Quality; Data Service Management Platform

Address: 1954 Huashan Rd., Shanghai, P.R.China

Zip Code: 200030

Tel: 86-21-62933230 Fax: 86-21-62933230

Email: smcaa@sjtu.edu.cn URL: http://wxdy.chinajournal.net.cn

IP: 202.96.210.198 Publisher: Shanghai Microcomputer Application Association

Code Number: M 6329 Distributor: International Book Trading Corporation (P.O.Box 399, Beijing)



中国科技核心期刊

(中国科技论文统计源期刊)

收录证书

CERTIFICATE OF SOURCE JOURNAL

FOR CHINESE SCIENTIFIC AND TECHNICAL PAPERS AND CITATIONS

微型电脑应用

经过多项学术指标综合评定及同行专家 评议推荐,贵刊被收录为"中国科技核心期 刊"(中国科技论文统计源期刊)。

特颁发此证书。

中国科学技术信息研究所

Institute of Scientific and Technical Information of China

北京复兴路 15号 100038

www.istic.ac.cn

2014年9月

证书编号: 3033-2014

有效期至: 2015 年 12 月

主办单位: 上海市微型电脑应用学会

创刊年份: 1985年

出版年月: 2015年12月20日

主 编: 吴红泉

卷 号期: 第31卷第12期(总第272期)

编辑部地址: 上海市华山路1954号上海交通大学铸锻楼314室

电话 / 传真: 021-62933230

国内总发行:上海市邮电局报刊发行局

国内订购:全国各地邮局(所)

中国标准连续出版物: 188N 1007-757X CN 31-1634/TP

URL:http://wxdy.chinajournal.net.cn

http://wxdnyy.periodicals.net.cn

http://www.smcaa.biz.sh.cn

E-mail:smcaa@sjtu.edu.cn

定价: 10.00元

邮编: 200030

邮发代号: 4-506

国外代号: M 6329

IP: 202.96.210.198

