Guest Editorial Preface

Recent Trends and Advances of Informatics in E-Commerce: Opportunities, Challenges and Solutions

The objective of this special issue is to concentrate on all aspects and future research directions related to this specific area of E-commerce toward online shopping, online food services, E-healthcare, E-care, E-solution, service oriented modeling, reliable and secure systems design and analysis. We have received more than 50 manuscripts in total for this special issue across the globe and after the rigorous review process, only 13 manuscripts have been accepted for publication. A short review about the commitments for this Special Issue is as underneath:

Zhan Guo *et al.* contribute an article entitled "*Design and Study of Urban Rail Transit Security System Based on Face Recognition Technology*". This paper studies an urban rail transit security system based on face recognition. The analysis of the main mode of face recognition is carried out utilizing the practical application design ideas. ***Jun Ding*** *et al.* contributes an article entitled "*Big Data Intelligent Collection and Network Failure Analysis Based on Artificial Intelligence*". This paper presents intelligent data collection and network error analysis based on artificial to study smart data collection and network error analysis. ***Danna Su*** *et al.* contribute an article entitled "*Construction of lean control system of prefabricated mechanical building cost based on Hall multi-dimensional structure model*". This paper studies the prefabricated mechanical building cost lean control system. The results shows that the original design components and the number of open models is 72, the optimized types of components and the number of open models is 51, which reduce 21 models machining. This results reduction in the models cost up to 25%. ***Yongqing Tian*** *et al.* contribute an article entitled "*Improved artificial electric field algorithm based on multi-strategy and its application*". This article unveils that artificial electric field algorithm is a new swarm bionic optimization algorithm. In this paper, an artificial electric field algorithm based on opposition learning is proposed to improve the global exploration ability and local development ability of artificial electric field algorithms. The comparative results show that the IAEFA-SVM model has high prediction accuracy and provides an effective method for sand liquefaction identification when compared with the traditional methods. ***Haiyan Fan*** *et al.* contribute an article entitled "*Computer-aided architectural design optimization based on BIM Technology*". This paper explores the architectural design process based on the BIM platform and puts forward the structural design method based on the BIM platform. The results obtained for experimentation show that the period ratio,

displacement ratio, and the first six modes calculated by the two methods in the modal analysis are consistent. ***Xiaoming Liu*** *et al.* contribute an article entitled "*Chaotic association feature extraction of big data clustering based on Internet of Things*". This article addresses the stabilization of chaotic characteristics in abnormal data by proposing chaotic correlation feature extraction of big data clustering based on the Internet of things. The results show that when dealing with the same amount of data, the energy consumption of the proposed algorithm is significantly lower than that of the traditional algorithm. ***Hongwei Liang*** *et al.* contribute an article entitled "*Application and study of artificial intelligence in railway signal interlocking fault*". This paper utilizes the deep learning algorithm of artificial intelligence for investigating the interlocking faults in the railway transportation. It is demonstrated that deep learning integration is an effective method to improve the classification performance of turnout fault diagnosis model. ***Ying Zhang*** *et al.* contribute an article entitled "*Design and Implementation of a New Intelligent Warehouse Management System Based on MySQL Database Technology*". This article makes an overall design of the warehouse management system, builds a MySQL database, and realizes the design and application of a new intelligent warehouse management system. ***Rong Wang*** *et al.* contribute an article entitled "*Automatic classification of document resources based on naive Bayesian classification algorithm*". This paper introduces the relevant theories of naive Bayes classification and the automatic document classification system. Experiments show that the naive Bayesian classification algorithm can effectively complete the automatic capture, processing and classification of massive academic documents, which can not only improve the classification accuracy, but also reduce the running time of automatic classification. ***Zheng Zheng*** *et al.* contribute an article entitled "Intelligent analysis and processing technology of big data based on clustering algorithm". In this paper, an attribute category clustering method has been proposed to study the big data intelligent analysis and processing technology. The experimental results show that proposed the proposed method can effectively merge attributes, reduce the dimension after binary transformation and effectively reduce the amount of data under the condition of ensuring data information. ***Yujiao Liu*** *et al.* contribute an article entitled "The application of Internet of Things and Oracle database in the research of intelligent data management system". This paper demonstrates an intelligent data management consisting resource allocation mechanism to provide timely and effective decision

for the resource allocation. The comparison results show that the same bitmap index only occupies about 1/30 of the original table, and the data size is reduced by more than 10 times. *Jing Feng et al.* contribute an article entitled "Intelligent engineering management of prefabricated building based on BIM Technology". This paper solves the problem of China's construction industry adopted by the traditional extensive construction mode for a long time. This paper puts forward a new mode of fine construction management based on BIM. It is demonstrated that BIM Technology has brought good economic and social effects to aid fine management. *Boyang Li et al.* contributes an article entitled "Application of interactive Genetic Algorithm in landscape planning and design". This article aims at improving the design effect of garden landscape space environment and optimizes the structure of garden landscape space environment. The proposed method achieves better

optimization of landscape spatial environment structure, and achieves good landscape spatial environment design effect.

I hope that the quality research work published in this special issue will be able to serve the concerned science, environment, and technology.

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