Guest Editorial Preface

Special Issue on Advancements and Frontiers of Engineering Applications and Responsive Enterprise Solutions

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INTRODUCTION

Enterprise solutions are substantial elements in business integrations irrespective of their applications. This issue contains research articles from service portals, engineering practices, and innovative technologies for today's digital era. This aids practitioners, scholars, students, to showcase their practical establishments in business, medical, technological, social and organizational aspects, communication, security and networking protocols between devices and organizations, etc. This issue was made to deliver a complete solution for enterprises which are in need of advancements as technological solutions drive everyday with new implementations.

INSIDE THE ISSUE

Article 1: Hybrid Model for Movie Recommendation System Using Fireflies and Fuzzy C-means. A hybrid model for movie-based recommender system using fuzzy c-means (FCM) clustering technique was introduced. Various metrics are used in a movie lens dataset like mean absolute error (MAE), precision and recall. The experimental result delivered by the author provides more efficient performance compared to the existing system in terms of mean absolute error (MAE).

Article 2: Ameliorating the Privacy on Large Scale Aviation Dataset by Implementing MapReduce Multi-Dimensional Hybrid k-Anonymization. A hybrid k anonymity algorithm was introduced to handle large scale aircraft datasets with combined concepts of big data analytics and privacy preservation of storing the dataset with the help of MapReduce. This published anonymized data are moved by MapReduce to the Hive database for data storage process. The author has proposed a multi-dimensional hybrid k-Anonymity technique to solve the privacy issue. Three experiments were performed for evaluating classifier error, calculating disruption value and p% hybrid anonymity and estimation of processing time.

Article 3: Personalized Content Extraction and Text Classification using Effective Web Scraping Techniques. The author has implemented an effective web scraping methodology, where the data is initially extracted from the websites, then transformed into a structured form. Based on the keywords from the data, the documents are classified and labeled. Recursive feature elimination technique is applied to the data to select the best candidate feature subset. The final data set was trained with standard machine learning algorithms. The proposed model performs well on classifying the documents from the extracted data with a better accuracy rate.

Article 4: Fusion of health care architecture for predicting vulnerable diseases using automated decision support systems. Healthcare industries are presented with tremendous innovative headways consistently. With the perfect learning of foundation data, writing and proposed calculation, the proposition conveys engineering for supporting computerized choices to medicinal services organizations. Electronic records are constantly gathered and sorted out to give a point by point history of patients, their sicknesses and determination plans. From the acquired data, the virtual doctoring engine (VDE) endeavors to break down the discernible attributes from the datasets utilizing known-yet-predict (KYP) calculation to propose an ideal finding plan. This treatment plan will later be directed by a specialist for treating the patients.

Article 5: A novel approach to find author's research areas of interests using graph database. This paper proposes a graph-based approach for automatic creation of author profile by finding the author's area of interests in research using subject classification of their published papers. Classification accuracy of the author's research areas of interest also tested manually for 415 authors by comparing classified areas of interests of each author with areas of interests given in Google scholar profile. Results showed that accuracy could be improved by adding more papers.

CONCLUSION

The issue delivers promising solutions to organizations, in the forms of enterprise solutions that attempts to cover heterogeneous aspects in technological and engineering sectors. Ranging from Governmental organizations, the implementation covers all corporate to campus solutions with a priority to follow a systematic approach, simplifying overall administration and maintenance and finally adding intelligence to machines to deliver results with minimal human interventions. Many authors have contributed their research ideas for this issue, and they are discussed below.

As guest editors, we would like to convey our thanks to all the authors submitted the quality papers for this special issue. We would like to convey our special thanks to the IGI Global Publishers for their kind support and great efforts in bringing the special issue to execution. In addition, we would like to thank all the reviewers for spending their valuable time in reviewing and suggesting good points for improving the quality of the paper in various aspects.

Our special thanks to Editors-in-Chief: Maria Manuela Cruz-Cunha (Polytechnic Institute of Cavado and Ave, Portugal) and Emanuel Soares Peres (University of Trás-os-Montes and Alto Douro, Portugal), Donna Wilkie, Assistant Development Editor and the IGI Global Publishers for spending their valuable time for this issue.

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R. V. Siva Balan, Professor, Department of Computer Applications, Noorul Islam Centre for Higher Education, Nagercoil. He has 12 years of successful experience in teaching and research with an extensive pool of knowledge. He has published more than 30 Scopus journals and six SCI indexed papers in well reputed journals. Guided 8 doctoral scholars and they have successfully completed their doctoral degrees and 3 research scholars are doing their research currently. He is also serving as an editorial board member for various journals.