Guest Editorial Preface

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

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Enterprise solutions are considerable 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 to be a common platform for worldwide 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 the advancements as the technological solutions to drive everyday with new implementations.

INSIDE THE ISSUE

Article 1: Ransomware Traffic Classification Using Deep Learning Models: In this research, the authors have shown how ransomware propagates and infects the devices.Further, the author has presented a novel method for classification of ransomware traffic by using deep learning methods. Based on the classification, detection of ransomware is approached with the characteristics of the network traffic and its communications

Article 2: Effective Feature Selection Using Hybrid GA-EHO for Classifying Big Data SIoT. The author extracted the big data SIoT using the well-known model named MapReduce framework. Moreover, the unwanted data and noise from the database are reduced using the Gabor filter, the big databases are mapped and reduced using the Hadoop MapReduce (HMR) technique for improving the efficiency of the proposed GA-EHO. From the simulation results, the specificity, maximum accuracy, and sensitivity of the proposed GA-EHO are producing about 87.88%, 99.1%, and 81%.

Article 3: Learnability of Interestingness with Semantic Similarity and Reasoning in Knowledge Base of decision support systems. The evolution of deep learning blended with GPU/TPU has elicited to faster computation and assimilation of big data at a rapid pace with exponential learning rate of models. These things, mobile technologies, and cloud-based services are yielding massive data irrespective of the geographic locations at a rapid pace. Learning from semantic Similarity utility algorithm turns this data into machine perceivable information, through learnability and utilization of Senticnet. The aspect of learning may further extend for rapidly generated sensor data through things and mobile devices.

Article 4: A Novel Sequence Graph-based Approach to Find Academic Research Trends. Research trends are dynamic, changing from time to time. The author proposes an efficient method to find research trends in each field of research in any subject area by using the graph-based subject classification of published papers. This methodology can be efficiently used to find research trends at any point of time based on the published year of academic publications. A study of change in research

trends in three subject areas - physics, mathematics, and computer science have been successfully conducted based on a total of 4500 publications since 2004.

Article 5: Enhanced Learning Vector Quantization for detecting Intrusions In IDS In this paper, the intrusion detection system is performed through various detection methods. The efficient proposed method is Enhanced Learning Vector Quantization (ELVQ) algorithm for detecting the intrusions presented in network traffic. Also,the Pearson Correlation Coefficient Function (PCCF) for similarity determination is introduced. The proposed ELVQ classification achieves higher classification accuracy. In the end, risk factors are analyzed using the Hidden Bernoulli Model (HBM). The proposed system is evaluated with KDD CUP99 dataset for efficient results.

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.

As a 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 IGI Global 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.

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