Editorial

Srikanta Patnaik

Department of Computer Science and Engineering,
Faculty of Engineering and Technology,
SOA University,
Bhubaneswar, P.O. Jagamara PIN: 751030, Odisha, India
Email: patnaik_srikanta@yahoo.co.in

Biographical notes: Srikanta Patnaik is a Professor in the Department of Computer Science and Engineering, Faculty of Engineering and Technology, SOA University, Bhubaneswar, India. He received his PhD (Engineering) in Computational Intelligence from the Jadavpur University in 1999. He is the author of two text books and edited 12 books published by leading international publisher like Springer-Verlag, Kluwer Academic, etc. He is the Editor-in-Chief of *International Journal of Information and Communication Technology* and *International Journal of Computational Vision and Robotics* published from Inderscience Publishing House, England and also the Editor-in-Chief of book series on *Modeling and Optimization in Science and Technology* published from Springer, Germany.

The amount of data in our world has been exploding day by day. Organisations capture tera-bytes of information about their customers, suppliers, and operations, and millions of networked sensors are being embedded in the physical world in devices such as mobile phones and automobiles, sensing, creating, and communicating data. Multimedia and individuals with smart phones and on social network sites will continue to fuel exponential growth. This large pool of data, coined as big data, can be captured, communicated, aggregated, stored, and analysed, which is now part of every sector and function of the global economy. Like other essential factors of production such as physical assets and human capital, it is increasingly becoming important in modern economic activity, innovation, and growth. Management and analytics of big data is critical for achieving scientific and engineering breakthroughs, mining for timely and pertinent information, and decision making. The potential of big data can be translated into reality only through development of novel algorithms, effective software platforms to navigate data, and innovative use of hardware infrastructure to scale them. The convergence of big data software platforms and accelerated cyber-infrastructure is vital for transformative research. This special issue has covered some issues of big data and its applications.

The first paper entitled 'A trust-based sentiment delivering calculation method in microblog' by Bo Zhang et al. have addressed the public sentiment analysis in microblog which has become a frontier area of research in social network big data mining.

The second paper entitled 'Performance evaluation of logistics firms based on DEA model' by Hong Hong and Di Xu have addressed the data envelopment analysis (DEA) to evaluate the operation efficiency of the listed logistics firms in China.

The third paper entitled 'Improvisation of case-based reasoning and its application for software fault prediction' by Ekbal Rashid has explored the variants of case-based reasoning and its applications for software fault prediction.

The fourth paper entitled 'Value structure analysis for cloud service ecosystem' by Guohua Deng et al. have identified the major participants and environment factors in the cloud ecosystem based on the construction of the modern service sector ecosystem and subsequently the cloud ecosystem value model was set up on the base of various factors.

The fifth paper entitled 'Electronic governance service quality: a study in the state of Odisha' by Prasant Kumar Patra et al. presented the quality of service delivered by IT enabled governance.

The next paper entitled 'Big data structure and usage mining coalition' by R.B. Geeta et al. have presented the big data structure and usage of mining coalition to enhance link analysis considering web site structure and web log file.

The next paper entitled 'A hybrid CBR classification model by integrating ANN into CBR' by Saroj Kr. Biswas et al. presented the method which integrates back propagation neural network (BPNN) into CBR to develop an efficient model for classification tasks.

The next paper entitled 'Big data applications in traditional Chinese medicine research' by Bai Ming et al. have presented the characteristics of big data, clarify its applications in the study of Chinese medicine.

The next paper entitled 'Mining interesting infrequent and frequent itemsets based on multiple level minimum supports and minimum correlation strength' by Xiangjun Dong and Chuanlu Liu have proposed a new model IMLMS to prune those uninteresting item sets by improving the WUS pruning method, a method for pruning uninteresting item sets.

The last but net the least the paper entitled 'Live data migration approach from relational tables to schema-free collections with MapReduce' by Kun Ma and Fusen Dong have addressed the problems of MapReduce framework using the predicate logic of mathematical relation and QVT relations.

I hope this special issue shall be useful for the researchers and the professional who are working in the area of big data and analytics.

I extend my heartfelt thanks to all the contributors and lastly but not the least to the editorial team of the journal.