Editorial

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Published online: 21 February 2019

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It is a matter of great privilege for me to unveil before you the twenty-sixth issue i.e., Volume 11 Number 02 of the “International Journal of Information Technology” [An official Journal of Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi] with acronym BJIT. The issue is live on the Springer content platform SpringerLink and available to the prospective readers through Springer CS package globally.

Throughout the world, nations have started recognizing that Information Technology (IT) is now acting as a catalyst in speeding up the economic activities in efficient governance, citizens' empowerment, sustainable development and in improving the quality of human life. Recent advancements in IT have touched almost every conceivable area of human life. Its degree of pervasiveness, in day to day life, is rapidly increasing, every new day. On the backdrop of this, BJIT has accepted the challenge to consistently showcase, disseminate and institutionalize the rapidly changing huge knowledgebase globally, with authenticity and accuracy, having special focus on the new researches pertaining to IT applications for improving the quality of day to day life.

Volume 11 Number 02 presents a compilation of twenty papers, chosen out of over 400 manuscripts, that span a broad variety of topics from various emerging areas of Information Technology and Computer Science, especially addressing current research problems related to Crowd Management, Image Compression, E-Services, Spam and Intrusion Detection, Cloud Load Prediction, Churn Prediction and Soft Computing to name a few.

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To increase the likelihood of usage of e-government services and initiatives in a developing country like Mauritius. The first manuscript in this issue “Assessment Tool for E-Services Take-up (ATEST): A Small Island States Context”, Hemchandra Betchoo et al. conceptualizes a framework to guide government subsidiaries in Mauritius to enhance the likelihood of usage and adoption of e-services by the citizens. For achieving data compression and reduction many innovative solutions have been proposed. However, physical realizations may result in further complexities. The second manuscript “DSP Implementation of Modified Variable Vector Quantization based Image Compression using DCT and Synthesis on FPGA”, Mahendra Dixit et al. propositions a novel Discrete Cosine Transform (DCT) based image compression solution that optimizes space. Performance enhancement has always been desirable in case of Optical Wireless Division Multiplexing solutions. The next manuscript “Performance Investigation of MLR Optical WDM Network Based on ITU-T Conforming Fibers in the Presence of SRS, XPM and FWM”, Shree Singh et al. suggests an enhancement algorithm for investigating the performance degradation in terms of Quality Factor for Optical WDMs. Effective crowd management mechanisms are important to avoid mass loss of human life and properties. The manuscript “Managing Crowds with Technology: cases of Hajj and Kumbh Mela”, Mohammad Yamin advises on effective crowd management in mass events like Hajj and Kumbh Mela through effective implementation of wireless and mobile technologies. Spam Classification is an important researched domain especially in the domain of natural language processing. The manuscript “Optimizing Semantic LSTM for Spam Detection”, Gauri Jain et al. intends a Long Short Term Memory (LSTM) based deep learning technique for efficient spam detection and

classification. Most Intrusion Detection System solutions suffer from lower detection rate and a higher false alarm rate for less frequent attack groups. The manuscript “Wavelet Neural Network Model for Network Intrusion Detection System”, Yasir Hamid et al. designs a hybrid method for intrusion detection. Effective load management on virtual machines is important to cloud computing. The manuscript “Load Prediction Analysis based on Virtual Machine Execution Time using Optimal Sequencing Algorithm in Cloud Federated Environment”, Shrinivas Sonkar et al. presents a novel algorithm to improve job allocation through makespan reduction in the cloud. The next manuscript “Component Based Metric for Evaluating Availability of an Information System: An Empirical Evaluation”, Suhail Qadir Mir et al. advises an empirical mechanism to evaluate the quantitative availability metric among the individual measurable components of an information system. In the current scenario success of any institution, business or enterprise is governed by its ability to acquire and process accurate and timely data. The manuscript “How to Keep your System Records Safe”, Junaid Ahmed Umrani Baloch et al. lays a computer laboratory record management system (CLRMS) to overcome issues of manual record management. Online journalism is affecting each sphere of our day to day life. The manuscript “Efficient Daily News Platform Generation using Natural Language Processing”, Ambethkumar Devadoss presents an AI based framework for automated daily news generation. The manuscript “Concurrent Bacterial Foraging with emotional Intelligence for Global Optimization”, Renu Nagpal et al. combines Concurrent Bacterial Foraging and emotional intelligence techniques to optimize functions with multiple local optima. The manuscript “Efficient DANNLO Classifier for Multi-Class Imbalanced Data on Hadoop”, Satyanarayana Sanakkayala et al. defines a novel deep artificial neural network based solution for classifying imbalanced data sets through hadoop. Ship collision detection and aversion is a major goal of space borne satellites. The manuscript “Design and Implementation of I2C Interface on FPGA for Space borne AIS receiver in Embedded System”, Rupal Gupta et al. propagates the design of I2C computers in satellites for Automatic Identification System (AIS) optimization. Effective identification and management of estate properties in geographically varied locations is a deep concern. The manuscript “Spatial Progression of estate Property Management System with Customized Freeware GIS”, Arati Paul et al. recommends integration of Oracle based system with GIS to enable affordable interception technology for widespread spatial visualization of aspatial data. The manuscript “Secure Routing in Mobile Ad hoc Networks: A Predictive Approach”, Aneri Mukeshbhai Desai et al. offers a proactive approach to alleviate sequence number attacks to

discover misbehaving nodes. The manuscript “Resource Provision and QoS Support with Added Security for Client Side Applications in Cloud Computing”, Mamata Rath et al. details a framework for optimized resource provisioning and security for client side applications in varied cloud deployments. Social media plays an important role in curiosity management. The manuscript “Research and Implementation of event extraction from twitter using LDA and Scoring Function”, Monika Gupta et al. evaluates an algorithm to extract and conclude major life events from social media. Imperceptibility of digital watermarking is non-trivial. The manuscript “Histogram and Entropy based Digital Image Watermarking Scheme”, Sunesh Malik et al. illustrates a noise and scaling attack resilient watermarking scheme. The telecom industry due to its large number of customer churn necessitates accurate churn prediction models. The manuscript “An Enhanced Ensemble Classifier for Telecom Churn Prediction using Cost based Uplift Modelling”, Ammar A. Q. Ahmed et al. presents an ensemble stacking framework for telecom churn prediction. The last manuscript, “A Study of SQL Query Processing using Soft Computing Techniques: A Hybrid Vague Logic Approach”, Ramjeet Singh Yadav formulates an effective scheme to compare fuzzy and vague sets for handling Structured Query Language processing problems.

I am sure the contributions in this issue, which is an amalgamation of novel trends and technologies in domains like Intrusion Detection Systems, Satellite Monitoring, Fuzzy Classifiers, Soft Computing Techniques, Video Scene Change Detection, Healthcare Services, etc. will not only enrich our reader’s knowledgebase but will also motivate many of the potential researchers to take up these challenging application areas and contribute effectively for the overall prosperity of the mankind.

As a matter of policy, all the manuscripts received and considered for the Journal, are double blind peer reviewed by at-least two independent referees. Our panel of expert referees posses a sound academic background and have a rich publication record in various prestigious journals representing Universities, Research Laboratories and other Institutions of repute, globally. Finalizing the constitution of the panel of referees, for double blind peer review(s) of the considered manuscripts, was a painstaking process, but it helped us to ensure that only the best, interesting and novel of the considered manuscripts are showcased and that too after undergoing multiple cycles of review, as required.

I wish to express my sincere gratitude to the entire editorial board, members of the resident editorial team and our panel of experts in steering the considered manuscripts through multiple cycles of review and bringing out the best from the contributing authors. I thank my esteemed authors for having shown confidence in BJIT and considering it a

platform to showcase and share their original research work. I would also wish to thank the authors whose papers could not have been published in this issue of the Journal, probably because of the minor shortcomings. However, I would like to encourage them to actively contribute for the forthcoming issues.

I will fail in my duty, if I do not thank the members of the team from the Springer, particularly Ms. Suvira Srivastav, Mr. Madan Ellappan, Mr. Abilash Nair and Ms. Nidhi Chandoke from Springer for their constant support in realizing the issue and presenting it before you.

The undertaken Quality Assurance Process involved a series of well defined activities that, I hope, went a long way in ensuring the quality of the publication. Still, there is always a scope for improvement, and so, I request the contributors and readers to kindly mail me their criticism, suggestions and feedback at bjit@bvicam.ac.in and help in further enhancing the quality of forthcoming issues.

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