Editorial

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It is a matter of great privilege for me to present before you the twentieth issue i.e. Volume 09 Number 04 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 09 Number 04 presents a compilation of twelve papers, chosen out of over 200 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 sharing, analyzing and securing images, website designing, robotics and the different kinds of networks being applied.

To deal with the complexity of current IT systems, the amount and volume of code has increased manifold. The first manuscript in this issue “An Analytical Automated Refinement Approach for Structural Modeling Large Scale Codes Using Reverse Engineering”, Alireza Souri et al. proposes an analytical automated refinement approach to facilitate behavioral modeling of large scale codes through reverse engineering methodologies. To optimize transmission in elastic optical networks, the second manuscript “Effect of Modulation Format's Transmission Reach on Spectrum Utilization in Elastic Optical Networks”, Sridhar Iyer formulates a heuristic algorithm to obtain solution to the optimization problem in elastic optical networks as an integer linear program. Outlier Removal is an important issue in Image Segmentation. The next manuscript “Intuitionistic Fuzzy Sets Based Credibilistic Fuzzy C-Means Clustering for Medical Image Segmentation”, Prabhjot Kaur proposes an intuitionistic fuzzy set based robust credibilistic IFCM approach for medical image segmentation. Software Product Line Engineering (SPLE) is focused on to enable software adaptation and reuse. The manuscript “A Study: Selection of Model Metamodel and SPL Tools for the verification of Software Product Lines”, Fazal Qudus Khan et al. analyzes the management tools, models and metamodels available for SPL (static as well as dynamic). Website development is today a growing concern for organizations worldwide due to the dynamic categories of stakeholders. The manuscript “Initial Framework for Website Design and Development”, Jatinder Manhas elaborates an initial framework for developing a specialized web development process model. Power saving and high throughput are two key issues in the design of multi-user ad-hoc wireless networks. The manuscript “Utility-based Performance Analysis of Cross-Layer Design in Multi-Flow Ad-Hoc Networks”, Ridhima Mehta

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et al. suggests a cross-layer optimization model to explore the effect of three classes of utility functions on the application performance of ad-hoc networks. Business Informatics amalgamates management concepts with Information Technology for efficient management of every business. The manuscript “Database Design and Implementation of CSR Functions: A Case Study of Saudi Arabian Banking Environment”, Mohammad Yamin demonstrates how Corporate Social responsibility (CSR) functions can be designed and implemented as database solutions to make their delivery effective and efficient. Robotics world is changing rapidly in the current scenario. The manuscript “Hardware Implementation of Autonomous Hexapod Spider Robot”, Gaurav Verma et al. represents the autonomous capabilities of a hexapod robot. Disruption Tolerant Network is a novel communication technology distinguished through intermittent connectivity. The manuscript “Encounter Record Trust-based Scheme against Flooding Attack in Delay Tolerant Networks”, Pooja Ravi Makawana et al. counters flooding attack using encounter record cum trust based scheme. Though available face recognition application are quite advantageous, they still suffer from significant challenges. The manuscript “Feature Selection for Face Recognition using DCT-PCA and Bat algorithm”, Preeti Malhotra et al. presents DCT-PCA combination based technique to extract facial features using Bat algorithm. The manuscript “Indian Sign Language (ISL) Biometrics for Hearing and Speech Impaired Persons: Review and Recommendation”, G. R. Sinha reviews important work in the field of Indian Sign language Biometrics. Modeling Visual attention mechanisms has been a very active area of research in past years owing to the challenges it poses. The last manuscript “Coalesced Global and Local Feature Discrimination for Content-Based Image Retrieval”, Ambethkumar Devadoss suggests a novel mechanism for image saliency detection.

This issue is an amalgamation of novel trends and technologies in domains like Elastic Optical Networks, Medical Image Segmentation, Software Product Line, Multi-Flow ad-hoc Networks, Indian Sign Language, etc. to name a few. I am sure, these contributions will definitely enrich our knowledgebase, our readers shall enjoy reading the research showcased in this issue and motivate many of us 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. Volker Gotzman, Ms. Rekha Rajkumar and Ms. Nidhi Chandok 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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