



## Editorial

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It is a matter of great privilege for me to unveil before you the 25th issue i.e. Volume 11 Number 01 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 01 presents a compilation of 19 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 IoT, Information Retrieval, Wireless Communications, IP Tracking, Language Translation, LTE Systems and Soft Computing to name a few.

To avoid selection of unrelated web services during web service discovery through keyword matching. The first manuscript in this issue “Transformation of Complex Type WSDL into OWL-S for Facilitating SWS Discovery”, Sagayaraj et al. conceptualizes a framework for conversion of Web Service into machine understandable Semantic Web Service. For achieving efficient task scheduling in distributed systems, the second manuscript “Fuzzy based Task Allocation Technique in Distributed Computing System”, Seema Yadav et al. propositions a novel fuzzy based task allocation algorithm to efficiently allocate tasks over multiple processors while optimizing execution and response time. Concurrency enables parallel execution of multiple transactions. The next manuscript “An Efficient Algorithm for Deadlock Free Cell Lock”, Marwa Mohamed Sharaf et al. suggests an enhancement algorithm of Two phase locking to achieve deadlock free cell locking while enhancing database and transaction performance. Personalised Ecommerce web search has emerged as an important offering to overcome product overload and appease customers. The manuscript “A Semantic Framework for Ecommerce Search Engine Optimization”, Sunny Sharma et al. advises web search personalization through data mining and web mining. Software Fault Prediction is a useful practice to ensure high quality, reliable software. The manuscript “A Comparative Analysis of Soft Computing Techniques in Software Fault Prediction Model Development”, Deepak Sharma et al. analyzes various soft computing techniques applied to software fault prediction. Video Data Watermarking has gained recognition due to digital broadcasting. The manuscript “A Novel Video Scene Change Detection using Successive Estimation of Statistical Measure and HiBiSLI Method”, Dolley Shukla et al. designs a novel scene change detection algorithm using Successive Estimation of Statistical Measure

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(SESAME) and HiBiSLI algorithm. As the demand for mobile wireless services continues to proliferate the capacity of mobile wireless networks also needs to be strengthened. The manuscript “A Wireless Networks Flexible Adoptive Modulation and Coding Technique in Advanced 4G LTE”, Arun Kumar Singh et al. presents the several basic strategies applied to intensify the capacity of mobile wireless networks. The next manuscript “Total Variability Factor Analysis for Dysphonia Detection”, Nikunj Rajesh Lad et al. advises a novel technique named I-Vectors for feature extraction in order to detect and classify Dysphonic voice data. Maintaining resilient and attack free communication among MANET nodes is a challenge due to its infrastructure-less background. The manuscript “An Analysis on Data Reduction Methods for MANETs to Reduce Incoming Data as a Preprocessing Technique”, Bandana Mahapatra et al. reviews the varied reduction techniques applied to incoming data in MANET nodes. The Internet of Things is transforming lives with home automation, health services, smart cities etc. The manuscript “New Approach based Internet of Things for a Clean Atmosphere”, Azeddine Khiat presents pollution measurement through connected objects crowdsourcing. The manuscript “Multi-objective Optimization of Electrical Discharge Machining for Inconel 825 using Taguchi-Fuzzy Approach”, Himanshu Payal et al. combines the robustness feature of Taguchi with the uncertainty accountability of fuzzy logic for optimizing the electrical discharge machining process with multiple performance parameters. The manuscript “A Novel and Proposed Comprehensive Methodology using Deep Convolutional Neural Networks for Flue Cured Tobacco Leaves Classification”, Siva Krishna Dasari et al. defines a convolutional neural network based solution for the grading of flue cured tobacco leaves. Task scheduling problem for workflow load balancing in cloud environment is an important concern. The manuscript “Meta-heuristic based Framework for Workflow Load Balancing in Cloud Environment”, Amanpreet Kaur et al. propagates a cloud-based load balancing framework for effective overflow and underflow virtual machine identification. Content-based Image Classification is the basis for many automated applications in the services and app industries. The manuscript “Content-Based High-resolution Satellite Image Classification”, Malay S. Bhatt et al. recommends a high-resolution satellite scene classification technique coined Confidence Co-occurrence Matrix. Median Filter is a well-known filter to de-noise impulse noise. The manuscript “Application of ‘Most’ Fuzzy Linguistic Quantifier to Filter Impulse Noise”, Ruchika Rani et al. applies ‘at least half’, ‘as many as possible’, and ‘most’ fuzzy linguistic quantifier to de-noise images corrupted by impulse noise. The manuscript “Movement Guided Management of Topology (MGMT)

with Balanced Load in Mobile Ad Hoc Networks”, Anuradha Banerjee et al. details MGMT a movement guided topology management scheme that suggests movement between nodes without hampering their links with other neighboring nodes. Optimal neural network architecture plays an important role in deciding the network performance. The manuscript “Designing Optimal Architecture of Recurrent Neural Network (LSTM) with Particle Swarm Optimization Technique Specifically for Educational Dataset”, Devika Chhachhiya et al. evaluates Particle Swarm Optimization to Recurrent Neural Networks (LSTM) algorithm to obtain an optimal architecture for a feed-forward neural network. Preventive Maintenance is being applied in modern industries to enhance the lifespan of machines. The manuscript “FPGA based On-Line Fault Diagnostic of Induction Motors using Electrical Signature Analysis”, Imtiaz Hussain et al. employs electrical signature analysis to monitor the development of faults in an induction motor through real-time frequency analysis of the motor current. The last manuscript, “The Hindi to Dogri Machine Translation System: Grammatical Perspective”, Preeti Dubey formulates an effective scheme to convert Hindi text to Dogri.

I am sure the contributions in this issue, which is an amalgamation of novel trends and technologies in domains like Translation Systems, Internet of Things (IoT), Fuzzy Classifiers, Soft Computing Techniques, Video Scene Change Detection, Healthcare Services, etc. will not only enrich our reader’s knowledgebase in the new year 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](mailto:bjit@bvicam.ac.in) and help in further enhancing the quality of forthcoming issues.

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Editor-in-Chief,  
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