Editorial

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It is a matter of great privilege for me to unveil before you the twenty-fourth issue i.e. Volume 10 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 10 Number 04 presents a compilation of seventeen papers, chosen out of over 300 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, Healthcare Management, Recommendation Systems and Intrusion Unearthing to name a few.

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Approximating the tracking efficiency of vehicles from traffic videos in demanding weather conditions is an important concern. The first manuscript in this issue “A Fine Tuned Tracking of Vehicles under Different Video Degradations”, Mohamed Maher Ata et al. conceptualizes a fine-tuning Kalman filter based tracking system to work robustly on the traffic videos. For unveiling communities in complex social networks, the second manuscript “CILPA: A Cohesion Index based Label Propagation Algorithm for Unveiling Communities in Complex Social Networks”, Raju Enugala et al. simulates a novel label propagation algorithm named Cohesion Index based Label Propagation Algorithm (CILPA) to unveil communities in complex social networks. Timely detection of varied internet attacks ensures that legitimate users get timely access to authorized services. The next manuscript “Ant Colony Based IP Traceback Scheme”, Virender Ranga et al. proposes a novel scheme to find three best shortest paths from many available paths from victim to attacker. Cross language information retrieval (CLIR) technique maps a query written in a source language to document collection in another target language. The manuscript “Embedded Fuzzy Bilingual Dictionary Model for Cross Language Information Retrieval System”, Olufade Onifade et al. suggests a Fuzzy Bilingual Dictionary (FBD) with a dual concept driven document level language model for retrieval tasks. Efforts are on to enable smart devices communicate with each other throughout the time through Internet of Things (IoT). The manuscript “Energy Efficient Link Stable Routing in Internet of Things”, Kirshna Kumar et al. recommends an energy efficient link stable routing (EELSR) model to conserve energy of the smart devices and to account link stability for enhancing network lifetime. The manuscript “The Performance Evaluation of Wideband Rectangular Patch Antenna with Elliptical Slots

for Wireless Communications”, Shashi B. Rana et al. designs a novel rectangular microstrip patch antenna for varied wireless applications. The manuscript “PL-IDS: Physical Layer Trust Based Intrusion Detection System for Wireless Sensor Networks”, Umashankar Ghugar et al. presents a physical layer trust based intrusion detection system (PL-IDS) to compute the trust for wireless sensor networks (WSNs) at the physical layer. E-Commerce websites have today emerged as the new market for millions of products. The manuscript “Recommendation System Techniques and Related Issues: A Survey”, Pushpendra Kumar et al. reviews the varied methods, algorithms, metrics etc. used in recommender systems. The manuscript “IT Applications in Healthcare Management: A Survey”, Mohammad Yamin analyzes the role of IT in reshaping Healthcare management, healthcare services and hospital industry. India is considered to be a young nation with the largest number of young population in the age group of 20–40 years. The manuscript “Identification of Essential Parameters for Post Graduate Students Job Placement in Computer Applications in India”, Chirag Patel accumulates computer applications students data and filters all parameters essential for placement. The manuscript “Wireless Power Transmission System using Magnetic Resonant Coupling to Operate Low Power Devices”, Ali Akbar Siddique et al. advocates a magnetic resonant coupling based system to transmit power wirelessly to operate electronic devices like mobile phones, laptop, LED bulbs etc. Collaborative Filtering based Recommender Systems analyze the mutual interests of similar users. The manuscript “Analysis of Similarity Measures in User-Item Subgroup based Collaborative Filtering via Genetic Algorithm”, Ayangleima Laishram et al. propagates a user-item subgroup based local least squares collaborative filtering technique to impute the missing ratings of a user-item subgroup. The manuscript “Cellular Automata-based efficient method for the removal of high-density impulsive noise from digital images”, Fasel Qadir et al. recommends a Two dimensional Cellular Automata with hybrid rules for filtering high-density impulsive noise from corrupted digital images. The manuscript “Increasing the Lifespan of Wireless Adhoc Network using Probabilistic Approaches: A Survey”, Suresh Shioprasad Kurumbanshi et al. provides the metrics for testing the efficacy of a wireless adhoc network. The manuscript “Dual Tree Complex Wavelet Transform based Analysis of Epileptiform Discharges”, Ayesha Tooba Khan et al. details an insight to the epileptiform discharges during seizures through Dual Tree Complex Wavelet Transform. The manuscript “Grating based Pressure Monitoring System for Subaquatic Application”, Regina Mathias et al. evaluates fiber Bragg grating

based pressure sensor to detect the pressure in sub aquatic applications. The last manuscript, “Watermarking of Audio Signals using Iris Data for Protecting Intellectual Property Rights of multiple Owners”, Saurav Joshi et al. formulates an effective strategy of incorporating biometrics of multiple owners of multimedia content in audio signals as a watermark for audio copyright and digital rights management.

This issue is an amalgamation of novel trends and technologies in domains like Recommender Systems, Internet of Things (IoT), Image Watermarking, Digital Rights Management, Wavelet Transform, Healthcare Services, 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. Harish Krishnan, Ms. Julia Dilger, 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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