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1.

Authors: M. M. Manyuchi, A. Phiri., P. Muredzi, N. Chirinda

Paper Title: Effect of Drying on Vermicompost Macronutrient Composition

Abstract: Vermicomposting is widely being used for bio-conversion of organic wastes into bio-fertilizers. Vermicompost which was obtained from various food wastes was dried at 105◦C for 5 minutes in a moisture analyzer. The dried vermicompost macronutrient composition was analyzed and quantified over the raw vermicompost. The dried vermicompost total nitrogen content was 31.25% lower as compared to the raw vermicompost whereas , the phosphorous and potassium content were 63.75% and 72.86% higher in the dried vermicompost compared to the raw vermicompost respectively. Vermicompost can be dried for easier packaging, storage and transportation as the drying process in overall enhances nutritional value to the vermicompost.

Keywords: Drying, earthworms, food wastes, nutrient composition, vermicompost.

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2.

Authors: Gunjan Kotwani, Pawan Kalyani

Paper Title: Applicability of Open Source Software (OSS) with Cloud Computing

Abstract: Cloud computing is a very new and innovative technology being used in today's business scenario. Everything is available on the cloud; you can access the data, files, software, etc. from anywhere in the world. You do not need a particular type of hardware or software configuration. In large companies cloud computing is used as a strategic tool for outsourcing their IT or other requirements. The companies have to ensure maximum usage of expensive server and storage investments. Cloud computing data centers deploy input/output and networking solutions that scale to support any level of performance. Open Source Software is a unique concept where everybody is free to change the code of software and upgrade its utility. The concept behind the development of Open Source Software (OSS) has been sharing of source code for modification, improvement and dissemination. IT professionals from all over the world are joining in this revolution. We can just imagine the future of cloud computing and open source software, together. Open Source's main attributes of openness and community based collaboration make OSS and Cloud Computing strongly synergetic, thus laying the foundation for a technological revolution, majorly helping the small and middle sized companies with their services. Limitless opportunity of programming, website hosting, new business opportunity, strategic tool, cost effective, etc. could be the few reasons to make this technology popular in future. In this research paper we explore the options of Open Source Software that can add to the productivity and applicability of Cloud Computing.

Keywords: Cloud Computing, Open Source Software, Future technology, small and middle sized companies.

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3.

Authors: **K. Madhavi, B. Sreekanth Reddy, Ch. Ganapathy Reddy**

Paper Title: **Weighted Feature Points Extraction based Video Stabilization**

Abstract: Camera global motion estimation is critical to the success of video stabilization. An extension of Video stabilization using principal component analysis (PCA) and scale invariant feature transform (SIFT) in particle filter framework is proposed. In the proposed method the feature points are collected from based on Speeded Up Robust Features (SURF). Random Samples Consensus (RANSAC) is used to remove local motion vectors and incorrect correspondences. A particle filter is used to estimate the weight of feature points, solving the issue of Different Depth of Field (DDOF) for feature points weighted least square (WLS) algorithm is applied in the global motion estimation. Finally, a Kalman filter estimates the intentional motion, and the unintentional motion is compensated to obtain stable video sequences. The algorithm has the characteristics of high precision and good robustness.

Keywords: Particle filter, principal component analysis (PCA), scale invariant feature transform (SIFT), speeded up robust features (SURF).

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4.

Authors: **Shweta M. Kulkarni, Shubhada S. Kulkarni**

Paper Title: **Generation of Shorter Length Keys for Broadcast and Multicast Services Using 2-way Hash Chain Schemes**

Abstract: Broadcasting is the distribution of message to dispersed audience via communicating channels. Whereas, multicasting refers to sending of message to a selected group. Key management for multicast and broadcast services has difficulty to find an appropriate security mechanism because, a very high number of users consume data simultaneously. Thus our project is focused on new Key Management Scheme, called 2-way Hash Chains Scheme (2HCS), that focus on the reduction of transmission overhead caused above and thus, effectively reduces the number and the size of keying messages.

Keywords: Communication system security, multimedia systems, security, hash function.

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5.

Authors: **Dhiya A. Al-Nimma, Ali Saad Amin**

Paper Title: **Four Quadrant Operation of a Single Phase Improved Power Quality AC-DC Converters**

Abstract: This paper presents the four quadrant operation of a boost type single phase bidirectional ac-dc convertor via modeling and simulation. Improved power quality with unity input power factor has been achieved by adopting the hysteresis band current control technique. The simulation results confirm the efficacy of the hysteresis control that renders operation of the boost converter as the operating point transfers between the four quadrants at a unity power factor.

Keywords: Bidirectional ac-dc converter, improved power quality, boost convertors.

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6.

Authors: **Kunja viswasanthi, Chindam Hari Prasad, Ch. Ganapathy Reddy**

Paper Title: **Minimization of Loop-Back Self Interference in Full-Duplex Relaying**

Abstract: Full duplex relaying is more spectrally efficient than the half-duplex relaying. Multi-hop communication is a promising technique to provide more extensive coverage area, high throughput, better performance and it consumes low transmit power. Loop-back self interference maybe occurred due to signal leakage from relay transmission to its own reception. Previous technique i.e.; time-domain cancellation tackle the problem that it does not exploit the spatial domain. e.g., low rank cannot be exploited to improve the performance. In order to overcome the drawback of time-domain cancellation, propose a Spatial suppression scheme i.e., Null-space projection which exploits the spatial domain and improves the performance.

Keywords: Full-duplex, interference cancellation, multiple-input multiple-output (MIMO) relay, minimum mean square error (MMSE), null-space projection, self-interference.

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