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1.

Authors: B. K. Narendra

Paper Title: Compressive Strength Development of Fly Ash Concrete for Different Cement Replacement Levels

Abstract: Compressive strength tests were conducted on design mixes M30, M40 and M50 for cement replacement levels (CRLs) of 20%, 35% and 50% for different curing periods of 3, 7, 28, 56 and 91 days. Three water binder (w/b) ratios for each CRL were considered for the study, so that the optimum w/b ratio could be chosen for further study, the optimum w/b ratio being that ratio, which gives a compressive strength equal to that of normal concrete for curing period of 28 days. Tabulated the test results of compressive strength of Fly ash concrete (FAC) and normal concrete (NC) for grades M30, M40 and M50 respectively. The test results of compressive strength development of Fly ash concrete for different cement replacement levels with different curing periods and of normal concrete all of grades M30, M40 and M50 are discussed in this paper.

Keywords: Compressive strength, Cement replacement level, Fly ash concrete.

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2.

Authors: Ahmed Ali Saihood, Rakesh Kumar

Paper Title: Enhanced Location Based Energy-Efficient Reliable Routing Protocol for Wireless Sensor Networks

Abstract: Designing energy efficient and reliable routing protocols for mobility centric applications of wireless sensor network (WSN) such as wildlife monitoring, battlefield surveillance and health monitoring is a great challenge since topology of the network changes frequently. Existing cluster-based mobile routing protocols such as LFCP-MWSN, LEACH-Mobile, LEACH-Mobile Enhanced and CBR-Mobile consider only the energy efficiency of the sensor nodes. However, reliability of routing protocols by incorporating fault tolerance scheme is significantly important to identify the failure of data link and sensor nodes and recover the transmission path. Most existing mobile routing protocols are not designed as fault tolerant. These protocols allocate extra timeslots using time division multiple access (TDMA) scheme to accommodate nodes that enter a cluster because of mobility and thus, increases end-to-end delay. Moreover, existing mobile routing protocols are not location aware and assume that sensor nodes know their coordinates. In this study the authors, enhanced the existing LFCP-MWSN to ELFCP-MWSN in which we reduce network energy consumptions and slightly less end-to-end data transmission delay than the existing LFCP-MWSN. ELFCP-MWSN also incorporates a simple range free approach to localise sensor nodes during cluster formation and every time a sensor moves into another cluster. Simulation results show that LFCP-MWSN protocol has about 25–30% less network energy consumptions and slightly less end-to-end data transmission delay than the existing LFCP-MWSN, in our study we try to decrease this percentage of energy consumption and more less end-to-end data transmission.

Keywords: WSN, CH, BS, ELFCP-MWSN.

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3.

Authors: **Pooja R. Bande, S. D. Bansod**

Paper Title: **Decimation Filter Design for Multistandard Wireless Communication**

Abstract: In this work, we propose a decimator filter able to deal with GSM, WCDMA, WLAN 802.11(a/b/g) and WiMAX By taking into account the operating frequency, bandwidth and intermodulation effects, an appropriate input sampling frequency is selected. Meanwhile, with the parameters of blocking and interference profile, Passband limits and Passband ripple, for all this radio communication standard, we are designing decimation filter design tool in Matlab using "GUIDE "environment for visual analysis. so, user can select required wireless standard among this standard and obtain corresponding multistage decimation filter design and analysis. Through the analysis of the frequency responses we can see how the filter selects signal channels for multimode communication. The decimation filter design toolbox helps the user or design engineer to perform a quick design and analysis of decimation filter for multiple standards without doing extensive calculation.

Keywords: Decimation filter, MATLAB toolbox, Multistandard Receiver, Sigma-delta A/D converter.

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23-27

Authors: **Deepak S. Gaikwad, Sampada Pimpale**

4.

Paper Title: **Routing Alternatives for Network Lifetime Maximization of WSNs Using Heuristic and Fuzzy Logic Approach**

Abstract: Recently many network lifetime maximization approaches and techniques have gained importance and are proposed for enhancing the lifetime of the wireless sensor networks. The distributed and dynamic nature of the WSNs, demand for special requirements in routing protocols in order to minimize the energy consumption and enhance the network lifetime. A large number of routing strategies based on Fuzzy logic approach are proposed in the past for energy aware routing in WSNs. Also heuristic method such as A star routing scheme which is based on informed search method is used to increase network life. A star algorithm finds an optimal shortest path from a source node to target node taking a minimum number of hops and also avoids network partitioning. In this paper the effectiveness of two methods in terms of maximization of network lifetime and balancing the energy consumption has been compared. The simulation results show that the Fuzzy logic approach gives more good results than the A star algorithm in different topographical situations.

Keywords: Wireless sensor Network, Network lifetime maximization, A star algorithm, Fuzzy logic.

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28-35

5.

Authors: **Deepak Kumar Gupta, Bhupendra Kumar**

Paper Title: **Study of Power Generation of Doubly Fed Induction Generator in Wind Energy Conversion System**

Abstract: In recent days the wind power is rapidly growing renewable energy source The combustion of conventional fossil fuel across the globe has caused increased level of environmental pollution. Several international conventions and forums have been set up to address and resolve the issue of climate change. Renewable energy like solar, wind, and tidal currents of oceans is sustainable, inexhaustible and environmentally friendly clean energy. In this paper firstly we present the literature survey DFIG application in wind energy conversion system. The main problem of grid is being discussed and analytical approach is given for the issues. Future we study the different topology of wing turbines advantage, application. This paper we study the measure grid problem and grid codes operation and grid connection of wind farms.

Keywords: Fixed speed turbine, variable speed turbine, grid problem, DFIG.

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36-41

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6.

Authors:	**Akashdeep Gupta, Anjali Gautam, Chirag Jain, Himanshu Prasad, Neeta Verma**
Paper Title:	**Time Series Analysis of Forecasting Indian Rainfall**

Abstract: This paper presents a study of neural network model for prediction of Indian rainfall. The purpose of this paper is to evaluate the applicability of ANN. In this paper the performance of different networks have been evaluated and tested.The multilayered artificial neural network with learning by back-propagation algorithm is used .The paper implements weather prediction by building training and testing data sets and finding the number of hidden neurons in these layers for the best performance. The proposed model has been able to predict values with suitable results. The prediction is made on the bases of previous data. The criteria for prediction in the model are correlation, RMSE, standard deviation .Prediction of Rainfall is necessary for Agricultural & Metrological Department. In India, most of our Economy is dependent on agriculture. A big percentage of GDP is contributed by agriculture. In India, agriculture provides around 70% of employment either directly or indirectly. This is major reason for analysis of prediction of rainfall.

Keywords: Artificial Neural Network, Root Mean Square Error, Standard Deviation, and Backpropagation.

42-45

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7.

Authors:	**Syed Asif Ali, Monir Ahmed**
Paper Title:	**ICT's Impact on HRM: Special Peoples Endeavors**

Abstract: This research focuses on Information and communication technology (ICT) impact of human resource management for endeavoring of special people. Special people are the part of every country all over the world. They need special requirements to spend their life successfully. In most of the aspects of life they are fully or partially depend on their family or other social persons. Their family even supposes them as a social burden. There is no doubt to say that they are also financially disabled. They have no resource to fulfill their social needs and are dependent on others. Especially in developing or under developing countries their condition is very worst. The unemployment rate of special persons is almost double to normal person's employment. This research work represents how Information and communication technology (ICT) is used to help out special people to accommodate them in workplace to overcome their financial needs so that they spend their life successfully.

Keywords: Special People, Human Resource Management, Information and communication technology (ICT).

46-49

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8.

Authors: **Syed Asif Ali**

Paper Title: **Detection of Urdu Sign Language using Harr Algorithms**

Abstract: This research focuses on detecting process of Urdu sign language. Sign language is a language used in culture of deaf people. There are two approaches used in the development of this work, the first one is text to sign conversion and the other is sign to text conversion. In the first strategy, 'text to sign' involves a text input from a text box and the output will be displayed in image form on the screen. In the second strategy, 'sign to text' involves a sign as an input through webcam and its output will be in text form which will actually stand for the actual sign. The purpose of developing this project is to reduce the communication gap between the normal and physically challenged persons such as deaf people as they are also part our community.

Keywords: Sign Language, Urdu Sign Language, Sign Detection, Haar Algorithms.

50-54

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