

**Research Journal of Engineering and Technology  
(RJET)  
ISSN 0976-2973**

*Volume 03, Issue 01, January-March, 2012*

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**ADMINISTRATIVE, EDITORIAL, ADVERTISING AND SUBSCRIPTION OFFICE**

**A and V Publications, RJPT House, Lokmanya Grih Nirman Society, Rohanipuram,  
In-front of Sector- 1, Pt. Deendayal Upadhyay Nagar, Raipur 492 010. (CG) India.  
Phone No. +919406051618. E. mail: editor.rjet@gmail.com; Website: www.anvpublication.org**

**ABSTRACT**

**REVIEW ARTICLE**

**Natural Language Words Analysis for Affective Scene Generation from Written Text using Artificial Neural Network**

*Atul Deshkar<sup>1</sup>, Avinash Dhole<sup>1</sup> and Prafulla Vyas<sup>2</sup>.....1*

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**ABSTRACT:**

This paper presents an artificial neural network approach to word analysis to generate the 3 dimension scene or image from the textual description. We start with the recognition of characters and then form the words from these characters. The words used in natural language will have some special meaning and gives some information. Each word represents some inherited properties of some of the objects. The properties of each word will depend on the object being used in the sentence. Therefore the word itself gives lots of information about the objects. The neural network approach to lexical classifications is the first step to find the objects and its properties. The next step is neural network based approach to word classification is extracting words attribute and then relating it with the other words using artificial neural network. The multilayer feed forward neural network will be used. Here we will analyze the different parts of the speech with their inherit properties which the word have in the sentence.

A central issue in cognitive neuroscience today concerns how distributed neural networks in the brain that are used in language learning and processing can be involved in non-linguistic cognitive sequence learning. This issue is informed by a wealth of functional neurophysiology studies of sentence comprehension, along with a number of recent studies that examined the brain processes involved in learning non-linguistic sequences, or artificial grammar learning (AGL). The current research attempts to reconcile these data with several current neurophysiologically based models of sentence processing, through the specification of a neural network model whose architecture is constrained by the known cortico-striato- thalamo-cortical (CSTC) neuroanatomy of the human language system. The challenge is to develop simulation models that take into account constraints both from neuranatomical connectivity, and from functional imaging data, and that can actually learn and perform the same kind of language and artificial syntax tasks. Thus different distributed neural networks will be trained and integrated in such a way that it understands the language as being understand by the human being.

**KEYWORDS:** Part of speech, neural network, cognitive neuroscience, Computational Linguistic, Perception network.

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**Cadmium and Mercury Pollution and its Preventive Measures**

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**ABSTRACT:**

Cadmium and mercury both are very hazardous for human life, as well as aquatic and terrestrial animals. This paper contains valuable information of cadmium and mercury pollution as well as its health and environmental impacts and control management as well as its prevention. Authors of this paper are so much concerned about data collection regarding cadmium and mercury pollution. Several health impacts along with case studies for both cadmium and mercury are properly represented in this paper.

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## RESEARCH ARTICLE

### Protecting Java Code Via Code Obfuscation

Priyanka M. Kale\*, Akshay Gorle, Amit Khobragade, Ashish Bele and Sneha Shrungarpawar.....9

Department of Information Technology, Smt. Radhikatai Pandav College of Engineering, Dighori, Nagpur.

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#### ABSTRACT:

The language Java was designed to be compiled into a platform independent bytecode format. Much of the information contained in the source code remains in the bytecode, thus decompilation is easy. We will examine how code obfuscation can help to protect Java bytecodes. The objective of our work is to develop and use obfuscation techniques that produce obfuscated bytecode that is very hard to reverse engineer while at the same time not significantly degrading performance.

**KEY WORDS:** Obfuscators, Java, Decompilers

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### A Comprehensive Paper for Multicasting Routing Protocol

Mohammad Aqiel and A.K. Daniel.....12

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#### ABSTRACT:

This review paper presents an exhaustive survey on the different categories of multicast routing protocols that have been proposed for mobile ad hoc networks (MANETs). MANET multicast routing protocols are primarily classified as tree-based and mesh-based protocols depending on the underlying topology used for communication. Tree-based protocols are further classified to source-tree based and shared-tree based depending on whether the tree is rooted at the multicast source or a common node. Further, there are several subcategories of source-tree based and shared-tree based multicast routing protocols. The mesh-based multicast protocols are primarily categorized to source-initiated and receiver-initiated protocols depending on which entity (the source node or the receiver nodes) initiates the mesh formation. In this paper, we will explain in detail the working of eleven different multicast routing protocols, covering all of the sub-categories of tree-based and mesh-based routing protocols.

**KEY WORDS:** Mobile Ad hoc Networks, Multicasting, Routing Protocols, Mesh, Tree, Survey.

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### A Real Time Hand Tracking and Multimedia Based System for Breast Muscle Self-Examination: A Perspective Study - Indian European Point of View (Simplified 3D Hand Model)

Venkateshwarla Rama Raju\*.....19

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#### ABSTRACT:

Breast Muscle Self-Examination (BMSE) is a non-invasive technique, self administered method, traditionally well designed and simple but elegant screening procedure for detecting breast muscle cancer at an early stage. This procedure can be performed in private at any time. A variety of leaflets, flyers, advertisements/ promotional materials and websites/ direct e-mails, Web centers/ Netscape's, net/ web cave's etc subsist, which attempt to train women on how to perform BMSE. There are some learning systems also which envisages videos and audio cassettes. However, there are neither fully interactive system's in contemporary nor no real-time feedback is given to a user on whether she is correctly performing the procedure. Our goal is to develop an intelligent user friendly interactive multimedia system (IUFIMMS) as an interface incorporating pattern recognition, machine vision and perceptive techniques, and provide real-time feedback to help, direct women to perform BMSE test for accuracy. Using her hand in a technical specific configuration to conduct -palpate breast muscle is the basic means available for a woman to perform BMSE.

Woman with nails grown not only harm her baby but it is also a major health hazard to her breasts and also danger. Nonetheless, a human hand is highly articulated and deformable with 27 degree-of-freedom (DoF) parameters

according to its anatomical structure. Recognizing hand gestures and/or postures is a challenging task that has been studied in many areas and applications. Too much palpation may lead to tumors to the breasts. In this paper, a simplified three-dimensional (3D) hand model is presented, which has only 8 DoF parameters and is especially adapted for ease of use with the BMSE system. This model will be potentially effective simulation modeling paradigm and tracking tool which will contribute to BMSE learning, thus to the development of an intelligent interactive user friendly BMSE system. We focused on Indian and European scenario. It may be said that India's breast feeding is the best compare to all other methods and modalities. Since traditionally Indian woman are breast feeders to their babies and they will not keep the nails grown unlike their European counter parts long and sharp nail polishing styles. Further to say that sharp nail polishing may harm the babies and also problem to the breasts during palpation. According to the techniques of BMSE, a woman is required to join her three middle fingers F1, F2 and F3 in a flat manner in order to make small circular motions around her breast. Therefore, the joined three middle fingers are treated as one rigid object, and labeled as F123 in the simplified hand model. Only the DoF of the Meta Carpo Phalangeal (MCP) is taken into account in F123, i.e. the Distal Inter Phalangeal (DIP) and Proximal Inter Phalangeal (PIP) flex parameters from fingers F1 to F3 are removed and all the parameters about the thumb F0 and the little finger F1 are equally ignored. The general tendency of English woman is she doesn't want to cut the nails because she doesn't want to lose her nails polished for style. necessary to combine performing monthly BSE, regular clinical and/or diagnostic breast examination and mammography [5] testing. Breast self-examination has the advantage of being performed privately by the woman herself, at any time, and it is simple and non-invasive Performing BSE in a correct manner is essential to detect tumours efficiently. A variety of leaflets and websites exist, which attempt to train women on performing the procedure. The MammaCare Personal Learning system relies on a breast silicone model in addition to video and audio cassettes, but there is no real-time feed-back provided to women while they are watching video and practicing these techniques [6]. Our research group is embarking on an ambitious project aimed at developing an intelligent interactive multimedia system incorporating multimedia, image processing, patternrecognition and machine vision techniques for assisting and guiding woman to perform BSE correctly

**KEY WORDS:** Breast muscle cancer, machine vision, pattern recognition, 3D hand model, biomedical image processing, image tracking, BMSE – Breast Muscle Self Examination, DoF – Degree of Freedom, Meta Carpo Phalangeal (MCP), Distal Inter Phalangeal (DIP), Proximal Inter Phalangeal (PIP), Mamma Care Personal Learning System (MCPLS)

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**Theft Detection in Distribution Systems Using Intelligent Systems**

*M. Vivek<sup>1</sup>, G. Rajkumar<sup>1</sup> and L. Ramesh<sup>2</sup>.....22*

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<sup>2</sup>Head of the Department (EEE), Dr. M.G.R. University, Madhuravoyal, Chennai.

**ABSTRACT:**

In this paper we are going to found out the theft in the distribution line using intelligent systems with the help of PMU. By measuring the voltage and current in a multiple bus system and comparing it with a reference bus having known voltage and current using MATLAB/ETAP.

In the case of wide area power monitoring, we are going to use an intelligent technique, to find out the unauthorized person, who is consuming the power in unofficially and which bus, which place it gets consumed.

**KEYWORDS:** PMU-Phase Monitoring Unit,  $\Phi$ - phase angle

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**A Study on Influence of A Index and Southwest Monsoon Over Northeast Monsoon Using Back Propagation Neural Network**

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**ABSTRACT:**

Tamil Nadu is the sub – division of the Indian union which receives most of the rainfall during North East monsoon season than South West monsoon. The North East monsoon rainfall over Tamil Nadu depends on several factors such as solar variability(aa index), southern oscillation index, ElNino, Outgoing long wave radiation, Tropical Easterly jet, Quasibinneal Oscillation and South West monsoon etc. The aa index is a measure of the

disturbance level of Earth's magnetic field based on magnetometer observations at two, nearly antipodal, stations in Australia and England. The objective of the paper is to find the relationship between aa index and SouthWest monsoon and the North East monsoon. A correlation analysis between the South West and the North East rainfall series revealed that the South West monsoon rainfall is negatively correlated (-0.03400397) with that of the North East monsoon rainfall. Similarly, the correlation analysis between the aa index and the North East rainfall series revealed that the aa index is negatively correlated (-0.272399) with that of the North East monsoon rainfall. Using Back Propagation Neural Network method North East monsoon can be predicted.

**KEY WORDS:** solar variability (aa index), correlation, rainfall, ElNino, Back Propagation Neural Network.

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**A Comprehensive Paper for Performance Evaluation between DSDV and AODV Routing Protocol**  
*Ashutosh Patel and A.K. Denial*.....29

M.M.M. Engineering College, Gorakhpur

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**ABSTRACT:**

Ad-hoc networking is a concept in computer communications, which means that users wanting to communicate with each other form a temporary network, without any form of centralized administration. Each node participating in the network acts both as host and a router and must therefore be willing to forward packets for other nodes. For this purpose, a routing protocol is needed. An ad-hoc network has certain characteristics, which imposes new demands on the routing protocol. The most important characteristic is the dynamic topology, which is a consequence of node mobility. Nodes can change position quite frequently, which means that we need a routing protocol that quickly adapts to topology changes. The nodes in an ad-hoc network can consist of laptops and personal digital assistants and are often very limited in resources such as CPU capacity, storage capacity, battery power and bandwidth. This means that the routing protocol should try to minimize control traffic, such as periodic update messages. Instead the routing protocol should be reactive, thus only calculate routes upon receiving a specific request. In this paper we focus the DSDV and AODV routing protocol with various constraints like packet delivery ratio, end to end to delay etc.

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**A Comparative Analysis of Thresholding Techniques for Denoising of MRI Image Using Wavelets**  
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**ABSTRACT:**

The image de-noising naturally corrupted by noise is a classical problem in the field of signal or image processing. Additive random noise can easily be removed using simple threshold methods. Image denoising has become an essential exercise in medical imaging especially the Magnetic Resonance Imaging (MRI). This paper proposes a medical image denoising algorithm using Discrete Wavelet Transform (DWT). Numerical results show that the algorithm can obtain higher peak signal to noise ratio (PSNR) through wavelet based denoising algorithm for MR images corrupted with random noise.

**Index Terms**— Image Processing, Denoising, DWT, MRI, Thresholding, Random Noise. PSNR, MSE and MAE.

**KEY WORDS:**

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**Determination of Thermal Conductivity of Material using fin Analysis with Offline Software Assistance.**

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**ABSTRACT:**

The project demonstrates the use of fin analysis as one of the possible ways for determination of thermal conductivity of material. In the experimental set-up, a suitably designed oil reservoir is used as a heat source. An Aluminium rod is used as reference material and the provision is made in the reservoir to attach a test rod of which thermal conductivity is to be determined. A Multipole Digital Temperature indicator with four PT-100 thermocouples are used to measure the temperatures. The geometries of the test and reference rods are mandatory to be exactly same for analysis. A small software package “THERMOSOFT” is developed using Visual Basic 6.0 in which the temperature readings are to be entered manually to get the thermal conductivity of test material.

**KEY WORDS:** Thermal conductivity determination. Use of fin analysis, offline software assistance

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