Academic Year 2013-2014

Applied Mathematics E-Notes, 14(2014), 69-85 © ISSN 1607-2510
Available free at mirror sites of http://www.math.nthu.edu.tw/∼amen/

Fixed Points Of (ψ, φ)-Almost Weakly Contractive Maps In G-Metric Spaces*

Gutti Venkata Ravindranadh Babu†, Dasari Ratna Babu‡,
Kanuri Nageswara Rao§, Bendi Venkata Siva Kumar†

Received 26 August 2013

Abstract

In this paper, we introduce (ψ, φ)-almost weakly contractive maps in G-metric spaces and prove the existence of fixed points. Our Theorem 4 generalizes the result of Aage and Salunke (Theorem 2, [1]). We also extend it to a pair of weakly compatible maps and prove the existence of common fixed points. We provide examples in support of our results.

1 Introduction and Preliminaries

The development of fixed point theory is based on the generalization of contraction conditions in one direction or/and generalization of ambient spaces of the operator under consideration on the other. Banach contraction principle plays an important role in solving nonlinear equations, and it is one of the most useful results in fixed point theory. In the direction of generalization of contraction conditions, in 1997, Alber and Guerre-Delabriere [3] introduced weakly contractive maps which are extensions of contraction maps and obtained fixed point results in the setting of Hilbert spaces. Rhoades [16] extended this concept to metric spaces. In 2008, Dutta and Choudhury [12] introduced (ψ, φ)-weakly contractive maps and proved the existence of fixed points in complete metric spaces. In 2009, Doric [11] extended it to a pair of maps. For more literature in this direction, we refer to Choudhury, Konar and Rhoades [9], Babu, Nageswara Rao and Alemayehu [4], Sastry, Babu and Kidane [17], Babu and Sailaja [5] and Zhang and Song [19]. In continuation to the extensions of contraction maps, Berinde [7] introduced 'weak contractions' as a generalization of contraction maps. Berinde renamed 'weak contractions' as 'almost contractions' in his later work [8]. For more works on almost contractions and its generalizations, we refer to Babu, Sandhya and Kameswari [6], Abbas, Babu and Alemayehu [2] and the related references cited in these papers.

Throughout this paper, we denote $\mathbb{R}_+ = [0, \infty)$ and

$$\begin{aligned} \Psi &= \{\psi/\psi : \mathbb{R}_+ \to \mathbb{R}_+ \text{ is continuous on } \mathbb{R}_+, \psi \text{ is nondecreasing,} \\ &\quad \psi(t) > 0 \text{ for } t > 0, \psi(0) = 0\}. \end{aligned}$$

*Mathematics Subject Classifications:47H10, 54H25.
†Department of Mathematics, Andhra University, Visakhapatnam-530 003, India
‡Department of Mathematics, PSCMRCET, Vijayawada-520 001, India
§Department of Mathematics, GIET, Rajahmundry, India

Academic Year 2015-2016

FATIGUE LIFE ESTIMATION OF STEEL ARCH BRIDGE BY USING S.N CURVE METHOD

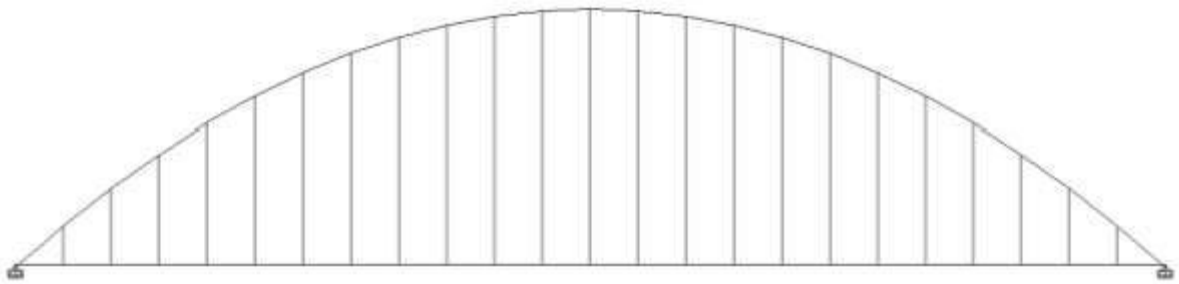
[1]K.PRUDHVI, [2]Y.NAGENDRA BABU, [3]N. VENU, [4]V.UMA MAHESH, [5]V.YESWANTH, [6] Y.SANTOSH

[1]ASSISTANT PROFESSOR, [2,3,4,5,6]B.Tech Student Scholar
DEPARTMENT OF CIVIL ENGINEERING, MVRCOE, PARITALA.

Abstract—Fatigue is the effect of alternating stresses acting for a long time over structural members. Such phenomenon is very common in bridges. In one passage of vehicle, generated stress may be very small but its cumulative effect will reduce the life span of the structure. In the present study fatigue life estimation of steel arch bridge with various hanger arrangements has been studied considering the passage IRC 70 vehicles. Finite Element Model of the steel arch bridge has been created in SAP2000 and stresses in the vulnerable members have been determined for different velocity of the **vehicle. The approach is based on Miner's hypothesis of damage** accumulation.

I. INTRODUCTION

An arch is sometimes defined as a curved structural member spanning an opening and serving as a support for the loads above the opening primarily by the axial compression which is eventually transferred to abutments or ties depending on type of arch bridge. Usually arch bridges are subjected to multiple loads (dead, live, wind and temperature loads, etc.) which will produce bending stresses in the arch rib that are generally small compared to axial compressive stresses. The damage (or) failure of materials under cyclic loads in engineering applications is called fatigue damage. Fatigue failure generally take place at stress much lower than ultimate stress(yield stress)-at a stress which is safe on the basis of static failure analysis. The failure is due primarily to the repeated stress from a maximum to a minimum. The fatigue strength is the stress level that a material can endure for N cycles. A plot of fatigue strength versus the number of cycles to failure gives an S-N curve. Bridge structures that have long service years or long spans, or that are frequently subjected to heavier loadings than their design loads, are greatly affected by heavy traffic induced vibrations. The most important parameters influencing the dynamic stresses in the bridge are: the frequency characteristics of bridge structures (i.e., the length, mass, and rigidity of individual members), the frequency characteristic of vehicles, weight of the vehicles, the damping in bridges and in vehicles, the velocity of vehicle movement, the track irregularities, and so on.The vehicles affect the bridges not only by vertical forces, but also by movements which generate longitudinal and transverse horizontal forces. This results in an increase or decrease of bridge deformations when compared to that due to static forces. Many bridge engineers treat such vibration problems by considering only impact factors, which state how many times the static effects must be multiplied in order to cover the additional dynamic loads, specified in their current design codes, even though the vibrations may depend on such factors as vehicle and bridge dynamic characteristics, vehicle speeds, and deck conditions.In general, two different methods can be used in order to carry out a fatigue assessment, namely, the S-N method and the fracture mechanics method. The former, which is based on the S-N curve of the fatigue detail in question, is used in conjunction with Miner's rule (Miner 1945). By contrast, the latter method considers explicitly the growth of fatigue cracks and for this reason, it is more appropriate in cases where a fatigue crack has been detected. Since crack detection is mostly case-specific, most of the fatigue assessment methodologies that have been developed for railway bridges are based on the S-N approach.



Front view of arch bridge with parabolic profile

II. MODELLING OF ARCH BRIDGES

Test model

An arch bridge of span 120m is tested for different rises with different profiles of arch and hanger arrangements in SAP2000. The rise-span ratio is varying from 0.1 to 0.25 (1/10 to 1/4). First dead load analysis is carried out. Then in every case it is loaded by an IRC70R, wheeled single lane load. Combined effect of dead load and live load has been found. The ends of the arch rib are

LABORATORY STUDY ON "COMPRESSIVE STRENGTH OF CONCRETE WITH GLASS POWDER AS PARTIAL REPLCEMENT OF CEMENT"

[1]K.PRUDHVI, [2]K.SAIPRASAD, [3]K.SRIKANTH REDDY, [4]K.MANOJ KUMAR, [5]D.VINAY

[1]ASSISTANT PROFESSOR, [2,3,4,5]B.Tech Student Scholar
DEPARTMENT OF CIVIL ENGINEERING, MVRCOE, PARITALA.

ABSTRACT----The sheet glass cutting industries producing waste glass material, which are not recycled at present and usually delivered to landfills for disposal. Using glass powder in concrete is an interesting possibility for economy on waste disposal sites and conservation of natural resources. Glass is unstable in the alkaline environment of concrete and could cause deleterious alkali-silica reaction problems.

This property has been used to advantage by grinding it into a fine glass powder (GLP) for incorporation into concrete as a pozzolanic material. In laboratory experiments it can suppress the alkali-reactivity of coarser glass particles, as well as that of natural reactive aggregates. It undergoes beneficial pozzolonic reactions in the concrete and could replace up to 20% of cement in some concrete mixes with satisfactory strength development. Waste glass powder in appropriate proportion could be used to resist chemical attack.

The aim of the project work is to use glass powder in the range of 2% to 20% as replacement of cement and concrete cube strength compared with conventional concrete cubes. In these work waste glasses is to be used so the cost will be comparatively low when compared with normal concrete

I. INTRODUCTION

Most of the glass produced in the World is discarded, stockpiled or land filled. This pattern has influenced environmental organizations to pressure the professional community to lower the amount of glass being discarded as well as find use to the non-recycled glass in new applications. The waste glass is one of the issues of environmental problem. Glass is used in a variety of applications right from construction, automobiles, nose-diving submarines, doors and windows, utensils, waste containers, windscreen, medicinal bottles, soft-drink bottles, tube lights, bulbs, electronic equipment's, etc. Hence, the usage of glass has increased considerably, which has in essence, contributed to the increase of waste disposal. In addition, glass waste is considered as non-decaying material that pollutes the surrounding environment.

Many researchers have thus come forward and have investigated usage of this waste glass into something of productive value. One such group of research scholars has highlighted the usage of glass in powdered form as a partial replacement of cement in concrete. In relation, the recycling of waste glass as a component in concrete gives waste glass a sustainable alternative to land filling and therefore makes it economically viable. A variety of public and private research was investigated to understand the limitations of glass concrete and its properties. Results found were promising as strength tests showed the glass concrete mixtures in question to have moderate to high strengths which shows that a concrete derived from recycled glass could be effectively applied to a multitude of services including structural applications. There is considerable interest in the use of recycled glass with port land cement in making a variety of different types of cement products. This interest has been motivated by the large quantity of recycled glass available through municipal recycling programs--which far exceeds the demand for such glass from conventional markets like container manufacturers. If glass could be incorporated in cement products, it would greatly reduce the disposal of recycled glass and/or its use in lower valued markets such as fill and road base material. The waste glass is one of the issues of environmental problem. Glass is used in a variety of applications right from construction, automobiles, nose-diving submarines, doors and windows, utensils, waste containers, windscreen, medicinal bottles, soft-drink bottles, tube lights, bulbs, electronic equipment's, etc. Henc e, the usage of glass has increased considerably, which has in essence, contributed to the increase of waste disposal. In addition, glass waste is considered as non-decaying material that pollutes the surrounding environment. Many researchers have thus come forward and have investigated usage of this waste glass into something of productive value. One such group of research scholars has highlighted the usage of glass in powdered form as a partial replacement of cement in fiber reinforced concrete. Glass Fiber Reinforced Concrete (GFRC) is a type of fiber reinforced concrete. Glass fiber concretes are mainly used in exterior building façade panels and as architectural precast concrete. Somewhat similar materials are fiber cement siding and cement boards. Composition Glass fiber reinforced concrete (GFRC) consists of high strength glass fiber embedded in a cementations matrix. In this form, both fibers and matrix retain their physical and chemical identities, while offering a synergism: a combination of properties that cannot be achieved with either of the components acting alone. In general, fibers are the principal load- carrying members, while the surrounding matrix keeps them in the desired locations and orientation, acting as a load transfer medium between them, and protects them from environmental damage. In fact, the fibers provide reinforcement for the matrix and other useful functions in fiber-reinforced composite materials. Glass fibers can be incorporated into a matrix either in continuous lengths or in discontinuous (chopped) lengths. Laminates a widely used application for fiber-reinforced concrete is structural laminate, obtained by adhering and

VOL. 11, NO. 23, DECEMBER 2016 ISSN 1819-6608
ARPN Journal of Engineering and Applied Sciences

www.arpnjournals.com

NOISE REMOVAL IN IMAGE BY SOFT THRESHOLDING TECHNIQUE

Y. Kumari and N. V. Seshagiri Rao
Department of Electronics and Communication Engineering, PSCMR College of Engineering and Technology, Vijayawada, AP, India
E-Mail: nvsrab@gmail.com

ABSTRACT

Image acquisition is the process of obtaining a digitized image from a real world source. Each step in the acquisition process may introduce random changes into the values of pixels in the image. These changes are called noise and to remove noise from images so many researchers proposed different methods and techniques. This article is presenting a technique called soft thresholding technique, which will remove the noise like discrete wavelet transform from the images.

Keywords: discrete wavelet transform (DWT) noise removal, soft thresholding, acquisition.

1. INTRODUCTION

There are three standard noise models which model well the types of noise encountered in most images: additive, multiplicative, and impulse noise.

Additive noise is independent of the pixel values in the original image. Typically n(x, y) is symmetric about zero. This has the effect of not altering the average brightness of the image, or large parts thereof. Additive noise is a good model for the thermal noise within photo-electronic sensors. Multiplicative noise, or speckle noise, is a signal dependent form of noise whose magnitude is related to the value of the original pixel. Multiplicative noise is an approximation to the noise encountered in images recorded on film slides and from synthetic aperture radar [1-3].

Impulse noise has the property of either leaving a pixel unmodified with probability 1-p, or replacing it altogether with probability p. The source of impulse noise is usually the result of an error in transmission or an atmospheric or man-made disturbance. *Quantization noise* is due to the quantization of pixel values during the analog to digital conversion. For example, imagine an analog image with brightness values ranging from 0 to 10. If it is quantized to accuracy 0.1, the digitized image will have 101 distinct grey levels. A given intensity z, could have originally been anywhere in the range z±0.05. This uncertainty in the true value of z is called quantization noise [4].

2. REMOVING NOISE BY LINEAR FILTERING

You can use linear filtering to remove certain types of noise. Certain filters, such as averaging or Gaussian filters, are appropriate for this purpose. For example, an averaging filter is useful for removing grain noise from a photograph. Because each pixel gets set to the average of the pixels in its neighbourhood, local variations caused by grain are reduced.

3. REMOVING NOISE BY MEDIAN FILTERING

Median filtering is similar to using an averaging filter, in that each output pixel is set to an average of the pixel values in the neighbourhood of the corresponding input pixel. However, with median filtering, the value of an output pixel is determined by the *median* of the neighbourhood pixels, rather than the mean. The median is much less sensitive than the mean to extreme values (called outliers). Median filtering is therefore better able to remove these outliers without reducing the sharpness of the image.

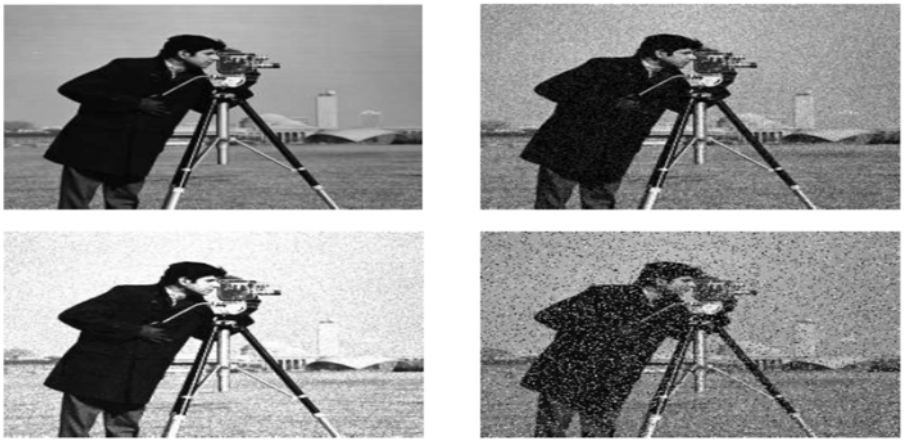


Figure-1. Different types of noise: (a) original image; (b) additive noise; (c) Multiplicative noise; (d) impulse noise.

Far East Journal of Electronics and Communications

Published Online: January 2016
http://dx.doi.org/10.17654/EC016010081
Volume 16, Number 1, 2016, Pages 81-88 **ISSN: 0973-7006**

DESIGN AND ANALYSIS OF PRINTED DUAL BAND PLANAR INVERTED FOLDED FLAT ANTENNA FOR LAPTOP DEVICES

N. Venkata Seshagirirao[1], **Kumari Yakalli**[1],
M. Ajay Babu[2] **and B. T. P. Madhav**[2]

[1]Department of ECE
Pottisriramulu College of Engineering and Technology
Vijayawada, AP, India

[2]Department of ECE
K L University
AP, India

Abstract

Laptop industries need compact and efficient planar antennas which should fit into their cabin comfortably in the allotted limited space. This paper provides the design of such planar inverted folded antenna with dual band operation and analysis based on its performance characteristics. The proposed planar inverted folded antenna model is suitable to operate for Bluetooth and WLAN applications. High bandwidth with good radiation characteristics and compactness with adoptable nature makes this antenna as attracting device in the laptop devices.

Received: August 7, 2015; Accepted: October 17, 2015

Keywords and phrases: compact, dual band, planar inverted folded antenna (PIFA), wireless LAN (WLAN).

International Journal of Electrical and Computer Engineering (IJECE)
Vol. 6, No. 2, April 2016, pp. 583~595
ISSN: 2088-8708, DOI: 10.11591/ijece.v6i2.8809

Comparative Assessment on Linearity Test based V2π and Vπ/2 Voltage Variations of Closed Loop IFOG

T. Sireesha[1], K. Krishna Murthy[2]
[1]Department of ECE, Potti Sriramulu Chalavadi Mallikharjuna Rao College of Engineering and Technology, Vijayawada, Krishna (Dt), Andhra Pradesh, India
[2]Department of Electronics, P.G. Center, P.B. Siddhartha Arts & Science College, Vijayawada, Krishna (Dt), Andhra Pradesh, India.

Article Info

Article history:

Received Aug 14, 2015
Revised Nov 30, 2015
Accepted Dec 22, 2015

Keyword:

Biasing square wave signal
Voltage (Vπ/2)
Closed loop approach
Interferometric fiber optic
Gyroscope (IFOG)
Linearity
Ramp voltage (V2π)

ABSTRACT

Interferometric Fiber Optic Gyroscope (IFOG) has to operate in closed loop condition to achieve inertial grade performance. The closed loop system is mainly depends upon the amplitude of the ramp signal (V2π of IOC) and bias (square wave) signal frequency (f_{bias}). The digital phase ramp function is given as feedback to the optical system and makes gyro to null condition. The peak-to-peak amplitude (Vπ/2) of biasing signal is one-fourth of the ramp amplitude (V2π). If there are any variations in the amplitude of the ramp and biasing signals, then it introduces variations in the gyro performance. In this paper, a comparative discussion made in the gyro parameters for three cases: (i) V2π (vary) & Vπ/2 (constant), (ii) Vπ/2 (vary) & V2π (constant) and (iii) both V2π and Vπ/2 are varying simultaneously. The effects on gyroscope are described with the derived values in terms of linearity. From the experimental results, it was observed that the gyro output is very sensitive with respect to V2π variations and obtained the percentage error of 10% in gyro output, but very less effect due to Vπ/2 variations. So, the proper resetting of ramp voltage (V2π) is required to avoid nonlinearities and instabilities in gyro output.

Corresponding Author:

T. Sireesha,
Assistant Professor, Department of ECE,
Potti Sriramulu Chalavadi Mallikharjuna Rao College of Engineering and Technology,
Vijayawada, Krishna (Dt), Andhra Pradesh, India.
Email: sirishatammana@ rediffmail.com

1. INTRODUCTION

A fiber optic gyroscope (FOG) senses changes in orientation, thus performing the function of a mechanical gyroscope. FOG is an important development in the field of fibre optic sensors, which have been studied and developed more than two decades. FOGs are used in Inertial Navigation System (INS), guidance, control systems in aircraft and spacecraft etc.

FOGs are designed to measure the rotation induces path difference as measure of phase or frequency difference between the counter propagating waves. Two different configurations exist: Interferometric Fiber Optic Gyroscope (IFOG) and Resonant Fiber Optic Gyroscopes (RFOG). The induced optical path difference can be measured in two ways (i) by measuring a frequency in a laser resonator or in a resonator fibre optic gyroscope (ii) by measuring a phase of two interfering beams in an Interferometric fiber optic gyroscope [1]. The RFOG is used in research stages and performance of the gyroscope is limited by backscattering noise of frequency [2]. A better alternative to traditional spinning mass gyroscopes proven by IFOGs, have high reliability, wide dynamic range, low power consumption, light weight, and low cost [3].

The signal processing scheme of a IFOG is broadly classified into two major categories namely an open loop approach and a closed loop approach, but restricts it presently in Avionics and Inertial Navigation

International Journal of Applied Engineering Research
ISSN 0973-4562 Volume 10, Number 10 (2015) pp. 25563-25570

http://www.ripublication.com

I^2C Master Bus Controller Implementation on FPGA with RAM as Slave

Ch Monica[1], Dr. K Hari Kishore[2], B.Praveen Kitti[3]

1. M.Tech VLSI Student, Department of ECE,
KL University, monicachatla@gmail.com
2. Professor, VLSI Research Group, Department of ECE, KL University.
3.Asst. Professor, Department of ECE, PSCMR College of Engineering.
praveenkitty17@gmail.com

Abstract

This paper implements serial data communicationusing I^2C (Inter-Integrated Circuit) master controller using a field programmable gate array (FPGA).Itprovides a designer a foundation from which the user can customize the I²C Master Controller to meet a particular design requirement.The aim of this project is to design the I²C Master Controller with slave as RAM and its individual blocks are designed using VHDL. The coding is done in VHDL which is compiled and verified by test bench in modelsim. They are simulated and synthesized by using theXilinx design suite 14.2 and optimised for area and power.I^2C master initiates data transmission and inorder slave responds to it. It can be used to interface low speed peripherals like motherboard, embedded and other electronic devices.

Index Terms: I^2C, master, slave, Modelsim, serial data communication, Spartan 3AN, Xilinx.

I. INTRODUCTION

In the world of multiple application based products it is very essential to have a multiple connections to a system, which includes peripherals following different communication protocols as well. Today's world of serial data communication, there are many protocols like RS-232, RS-422, RS-485, SPI (Serial Peripheral Interface), and Micro wire for interfacing high speed and low speed peripherals. These protocols require more pin connections in the IC(Integrated

Academic Year 2016-2017

INVESTIGATION ON EXPERIMENTAL BEHAVIOR ON FIBER REINFORCED CONCRETE AND CRACK STUDIES

J SETHUMALAVICA[#1]
K PRUDHVI, M.Tech [#2]
#1 M.Tech Student, Structural Engineering, MVR College of Engineering, India
#2 Assistant Professor, Department of Civil Engineering, MVR College of Engineering, India

Abstract:

This project reports on an experimental program to investigate the effect of using steel fiber as a replacement of fine aggregate on the strength properties. Fiber reinforcement is commonly used to provide toughness and ductility to brittle cementation matrices. The study of toughness of fiber reinforced concrete (FRC) is based on different fiber proportions. The experimental investigation is carried out on fiber reinforced concrete containing different hybrid combinations of crimpled steel and hooked end fibers are reported. The physical, workability tests and mechanical properties namely compressive strength, flexural strength test, split tensile strength, compaction factor test were studied for concrete prepared by using different fiber combinations–crimpled steel (Aspect ratio 50)-hooked steel (Aspect ratio 80), crimpled steel (Aspect ratio 65), crimpled steel fibers alone, hooked end fibers alone and a plain concrete specimen. Reinforcement of concrete with a single type of fiber may improve to desired properties to a limited level.

Keywords: Steel fiber (crimpled + hooked end), Fine aggregate, Partial Replacement, M30 Grade Concrete, Workability, Compressive Strength, Flexural Strength, Split tensile Strength.

INTRODUCTION

Concrete is a construction material composed of cement (commonly Portland cement) as well as other cementations materials such as fly ash and slag cement, aggregate (generally a coarse aggregate made of crushed rocks such as limestone, or granite, plus a fine aggregate such as sand), water, and chemical admixtures. The word concrete comes from the Latin word "concretus" (meaning compact or condensed), the past participle of "concresco", from "com-" (together) and

"cresco" (to grow). The paste fills the voids in the aggregate and after the concrete is placed and vibrated it hardens to form a solid structural member. Concrete has high compressive strength and low tensile strength. Concrete solidifies and hardens after mixing with water and placement due to a chemical process known as hydration. The water reacts with the cement, which bonds the other components together, eventually creating a stone-like material.

Recent earthquakes in different parts of the world have revealed again the importance of design of reinforced concrete structures with high ductility. Strength and ductility of structures depend mainly on proper detailing of the reinforcement in beam-column joints. The flow of forces within a beam-column joint may be interrupted if the shear strength of the joint is not adequately provided. Under seismic excitations, the beam-column joint region is subjected to horizontal and vertical shear forces whose magnitudes are many times higher than those within the adjacent beams and columns. Conventional concrete loses its tensile resistance after the formation of multiple cracks. However, fiber

concrete can sustain a portion of its resistance following cracking to resist more cycles of loading. Beam-column joints have a crucial role in the structural integrity of the buildings. For this reason, they must be provided with

Physicochemical Characterization of ground water of Autonagar, Vijayawada, Krishna district

Ch.Leelavathi*[1], U.Krishna Sainath[2], Abdul Khadar Rabbani[2]
[1]Assistant Professor, Department of Environmental Engineering, Dhanekula Institute of Engineering,Ganguru
[2]Student, Department of Civil Engineering, Dhanekula Institute of Engineering,Ganguru-521 139

Abstract - Quality of water is an important criterion for evaluating the suitability of water for Drinking and Domestic purpose. The ground water samples were collected and subjected for a comprehensive physico–chemical analysis. The following 21 parameters have been considered viz. pH, Electrical Conductivity, Alkalinity, Total hardness, Total Dissolved Solids, dissolved oxygen, Turbidity, Biological Oxygen Demand, Chemical Oxygen Demand, calcium, magnesium, fluorides, sulphate, chloride, nitrate, and iron, on comparing the results against drinking quality standards laid by World Health Organization. The data revealed considerable variations in the water sample. The study showed significantly increase in the TDS, Electrical conductivity & Total Hardness. Deterioting the water quality, consequently consumption of polluted water puts livehoods at risk. More over this study may help other regions in understanding the potential threats to their ground water resources.

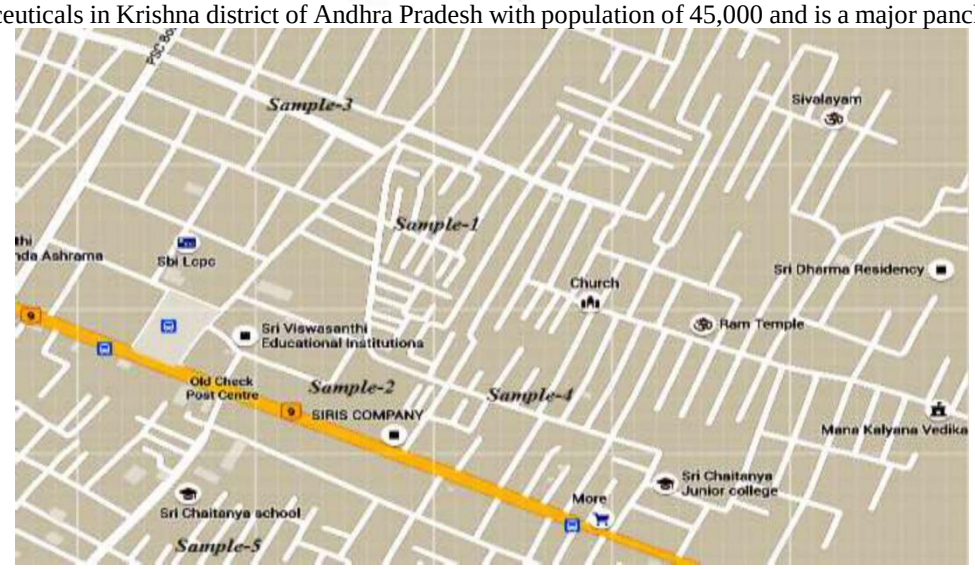
Keywords - Biological Oxygen Demand, Ground water samples, Total Dissolved Solids, Total hardness

1.1 Introduction

Ground water is considered as one of the purest forms of water available in nature and meets the overall demand of rural as well as urban population. With the growth of industry the ground water is made susceptible for contamination due to addition of waste materials. Waste materials from the factories percolate with rain water and reach aquifer resulting in erosion of ground water quality. Groundwater is used for domestic, industrial, water supply and irrigation all over the world. In the last few decades, there has been a tremendous increase in the demand for fresh water due to rapid growth of population, unplanned urbanization, industrialization and too much use of fertilizers and pesticides in agriculture (Joarder et al., 2008). Ground water meets domestic needs of more than 80 % rural and 50 % urban population besides irrigation. Around two fifth of India's agriculture output is contributed from areas irrigated by groundwater (Anita and Gita, 2008). Over exploitation of ground water through the bore well and their improper handling resulted in very low ground water levels besides contamination of even bore waters at some places. The addition of various kinds of pollutants and nutrients through the agency sewage, industrial effluents, agricultural runoff etc. in to the water bodies brings about a series of changes in the physicochemical characteristics of water, which have been the subject of several investigations (Mahananda et al., 2010). The availability of ground water depends upon the rate at which it is recycled by hydrological cycle than on the amount that is available for use at any moment in time. According to WHO organization, about 80% of all the diseases in human beings are caused by water.

The Study Area

The study area lies within longitudes **80'39" E** and latitudes **16'31''N** situated 31.5 km away from Guntur and 60 km from Machilipatnam, on National Highway (NH9). Autonagar is a popular for Industries such as paper products, leather, rubber & chemicals, pharmaceuticals in Krishna district of Andhra Pradesh with population of 45,000 and is a major panchayat.



The map showing the area of Ground water samples (fig.1)

Seismic Analysis of a Multi storey Reinforced Concrete Building in Different Types of Seismic Zones and Soils

Ch.Charukesh[1], B. Mano Yasaswi.v[2], K.Prudhvi[3]

[1]B.Tech,Civil Engineering, MVR college of Engineering and Technology , Paritala, India.
[2]B.Tech, Civil Engineering, MVR college of Engineering and Technology, Paritala, India.
[3] Assistant Professor, Department of Civil Engineering, MVR college of Engineering and Technology, Paritala, India.

Abstract- The main goal of this paper is to show the nature of the reinforced concrete building (G+13). when it is in the various seismic zones (zone II,III,IV,V) and different types of soils (type I,II,III).As we all know there are 2 types of methods of seismic analysis, we considered linear static analysis aka seismic coefficient method for analysis of a G+13 residential reinforced concrete structure, in this paper using ETABS v9.7.1 software as per IS:1893 (part 1)-2002.Here in this paper, apart from seismic weight we also determine storey drift, base shear, storey shear.

Index Terms- seismic coefficient analysis, base shear, seismic weight, storey drifts, storey shear.

I. INTRODUCTION

Extended 3D analysis of building system AKA ETABS is a paramount software produced by computer and structures, Inc. Used to analyze mainly high raised structure like BRUJKLIFA. This is widely used among all leading constructions and design companies. In this paper we discussed about the comparative results of seismic weight, base shear, storey drifts and storey shear with respect to their seismic zones and types of soils of a residential reinforced concrete structure. Here we considered a structure G+13 storey of 22.5m x 22.5m model in ETABS. Total building of height 44.8m making height of each floor 3.2m. Analysis of structure is done and output results are obtained and compared, with respect to seismic zones and types of soils as per IS1893-2002(part-1).

II. STRUCTURE INFORMATION

A. Case

A 22.5m x 22.5m, 14 storey residential regular building is considered for study. Storey height is 3.2m.Analysis and modeling of the structure is done in ETABS software.

B. Structure data

Length x width	22.5m x22.5m
No. of storey's	(G+13)
Beams	0.4m x 0.6m
Columns	0.4m x 1m
Slab thickness	150mm
Thickness of external wall	120mm
Supports	Fixed
Length of each bay	4.5m
Grade of steel and concrete	Fe500 and M30

C. Loading considerations

Loads acts on structure is Live load(L.L), Dead Load(D.L), Seismic Load.
Live load: 3KN/m^2.
seismic zone: II,III,IV,V.
Zone factors: 0.10,0.16,0.24,0.36.
Type of soil: I,II,III.
Response reduction factor: 5
Importance factor: 1
Damping ration: 5%.
Time period: 0.850sec(calculated as per IS:1893:2002).

Analysis of Dead Zone Compensation in Digital Closed-Loop IFOG Using MATLAB

T. Sireesha, Assistant Professor, Department of ECE, Potti Sriramulu Chalavadi Mallikharjuna Rao College of Engineering and Technology, Vijayawada, Krishna (Dt), Andhra Pradesh, India. E-mail:sirishatammana@pscmr.ac.in

K. Krishna Murthy, P.G. Director & Head of Department of Electronics, P.G. Center, P.B. Siddhartha Arts & Science College, Vijayawada, Krishna (Dt), Andhra Pradesh, India. E-mail:prof.kollakrishnamurthy@gmail.com

Abstract--- The dead zone is one of the specific phenomena in the Digital Closed-Loop Interferometric Fiber-Optic Gyroscope, due to this the system will produce non-linear output (error) results an inaccuracy which will affect the system performance. The compensation of dead zone at small angular rates is an important problem in designing a Digital Closed-Loop IFOG system. An investigation was performed in the system about the sources caused by dead zone and its mechanism was also analyzed theoretically. An adoptive technique is implemented to compensate the dead zone in the system by using MATLAB and the tested results shows that stable and linear output and also accurate within the range of ±0.005 deg/sec, and has no severe effect on other static IFOG performance.

Keywords--- Digital Closed-Loop IFOG System, Dead Zone, Small Angular Rates, Compensation, MATLAB.

I. Introduction

Dead zone is the region where the a Digital Closed-Loop IFOG system can't identify any rotation at small angular rates, and hence unable to sense in the system. In IFOG design there are so many parameters influence by this dead zone. Due to this reason, consider two fundamental sources: electrical cross-coupling and optical phase modulation drift of the IOC. Cross coupling is the one of major source of a dead zone and able to reduce its accomplishment in electronic design. The purpose of cross-coupling impact is because of interference with each other on the PCB-board or through the signal power, or ground, induces a bias-drift, results a dead zone [1].

An Integrated Optic Chip (IOC) exists with a phase modulator generates only forced erroneous response at small angular frequencies like pole-zero filters. The frequency characteristics are change then the modulated-phase-signal is also varied likewise the phase ramp signal frequency, which is equal to input angular rate. And also an artificial interferometer produces back-scattered reflections, as well as radiation errors in the integrated optic chip (IOC). Due to this reason at small angular rate induces an unstable bias-drift, results spikes in the output by virtue of noise, and it resembles to be a dead-zone.

Although by focusing the reasons of dead zone in a Digital Closed-Loop IFOG system, the goal is to discover the key factor.

By studying the number of surveys, the dead zone is mainly involved with the secondary source i.e., an artificial interferometer signal and other factors do not involved demonstrating such a high cause. Many researchers are discussed about the suppression of dead zone by employing an extra phase is to be added to the phase modulator without eliminating its causes and all of this methods are not able to allow the entire phase shift to endure with steady phase value reached at small angular rates, when the Sagnac phase fine-tuned by the feedback serve as an insignificant phase.

Eventually, the intention throughout the feedback voltage-dependent error signal rigorously eliminates the induced angular Sagnac phase drift appears a lockup and flourishes with a feedback stability loop. To avoid this lockup problem and to eliminate the dead zone, maintain the bias phase is to overcome the feedback voltage-dependent error signal and this biasing in the phase modulator reduces its dynamic range, needs to perform the separation of extended bias-rate.

However, the dead zone is compensated by randomized modulation depth, but the bias-drift and random noise increases due to an optical power sensitivity on the photo detector. A new modulation scheme is proposed in a Digital Closed-Loop IFOG system for dead zone compensation along with its causes and to operate around the zero point in order to estimate the angular rate is unsusceptible with the optical power, the electronic-gain, or any other circumstances against environment, especially against vibration [2]. And this proposed system generates an output to any applied input angular rate, by maintaining the linear characteristic, scale-factor (SF) stability and good accuracy.

VOL. 11, NO. 19, OCTOBER 2016 ISSN 1819-6608
ARPN Journal of Engineering and Applied Sciences

www.arpnjournals.com

MICROSTRIP PARASITIC STRIP LOADED RECONFIGURABLE MONOPOLE ANTENNA

D. Sreenivasa Rao[1], J. Lakshmi Narayana[2], B. T. P. Madhav[1], K. Dinesh Kumar[1], B. Anil Kumar[1] and G. Karthik[1]

[1]Faculty, Department of Electronics and Communication Engineering, K L University, AP, India
[2]Department of Electronics and Communication Engineering, PSCMR College of Engineering and Technology, AP, India
E-Mail: btpmadhav@kluniversity.in

ABSTRACT

In this work a compact S-shaped monopole antenna is designed to operate in the wide band range from 7 to 16 GHz. The S-shaped radiating element is divided into different sub blocks and later microstrip parasitic strips are used to unite the independent blocks. Different orientations of strips and without strip loaded configurations are examined in this work for tunable applications. The shift in the center resonant frequency is absorbed from all these iterations with the conditions of switch positions in ON and OFF modes and the results are examined with respective to operating frequency band. The proposed antenna with all strips in ON condition is prototyped on FR4 substrate and tested on ZNB 20 VNA for validation.

Keywords: parasitic strip, monopole antenna, reconfigurablity, tunability, wideband, FR4.

1. INTRODUCTION

With the current research trends which require more than one wireless application in one device, has increase the demand on the design of multiband and reconfigurable antennas for wireless application [1-4]. Reconfigurable antennas usually have the capability in which more than one resonance frequency could be achieved. Using switches different shapes of the radiating element can be created to excite different frequencies [5-8].

A reconfigurable antenna is an antenna capable of modifying dynamically its frequency in a reversed manner and as well as controlled manner and the reconfigurable antenna contains inner mechanisms such as RF switches varactors or tunable materials when this tunable materials such as switches will be varied in ON and OFF condition so that the required modifications are done to the antenna these reconfigurable antennas are widely used to maximize the performance of the antenna to reach the changing requirements and they help to reduce the number of antennas to each application because reconfigurable antenna itself is used for multiple applications by using its tunable materials [9-12].

2. ANTENNA GEOMETRY

The geometry and different iterations of designed antenna models are shown in Figure-1. This figure will give the clear idea regarding ON and OFF condition of different strips, which are acting as switches in the designed configuration. Antenna model -1 consisting off switch off conditions with gaps in the radiating element Antenna model 2 shows switch ON condition at a particular position and switch off condition at Other locations Antenna model 3 consisting of 2 ON switches and 1 off switch. Antenna model 4 consisting of all switches in ON condition. The designed models are operated with parasitic strips as switches in ON and OFF conditions. The switch off condition is represented with gap between radiating elements and switch on condition is represented with gap loaded strips Figure-2 SHOWS the geometry of the proposed antenna model with parasitic strips in switch on condition all the dimensions of the designed model are tabulated in Table-1 the dimensions.

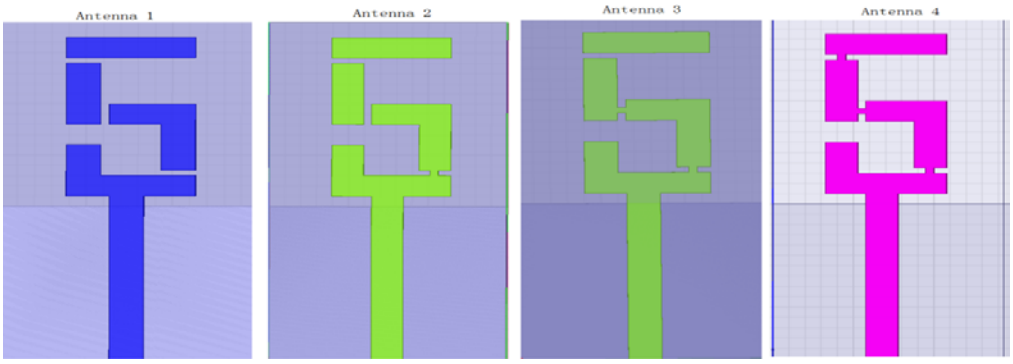


Figure-1. Reconfigurable antenna models 1 to 4.

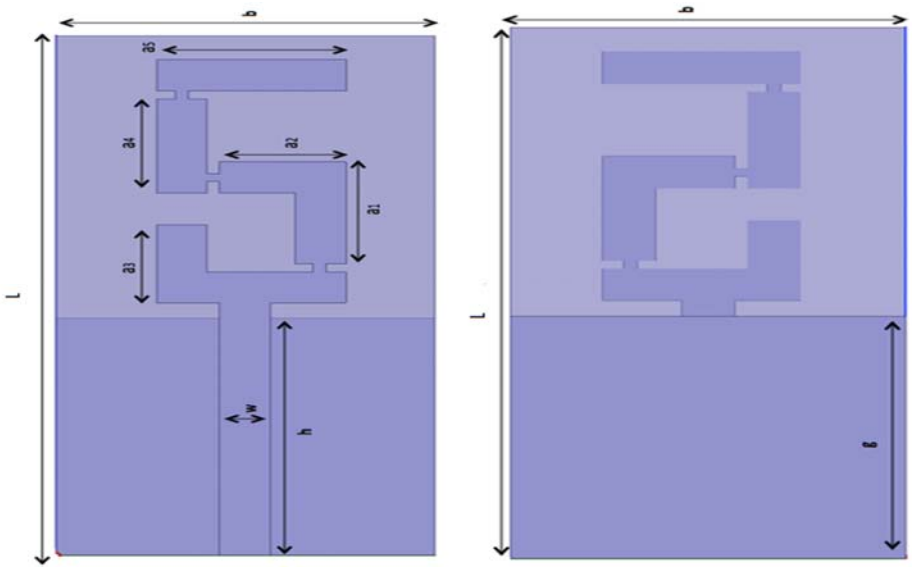


Figure-2. Proposed antenna geometry, (a) Front view, (b) Back view.

Table-1. Antenna dimensions.

Dimensions (in mm):

L	b	h	w	a1	a2	a3	a4	a5	g
33	15	16	2	6.5	5	5	6	7.5	15

3. RESULTS AND DISCUSSIONS

Antenna models are designed using finite element method based HFSS tool forall the designed models the antenna parameters like return loss, gain, radiation pattern and field distributions, Are analyzed and presented in this section Figure-3 shows the reflection coefficient characteristics of the designed four antenna models It is been absorbed that all the antenna iterations are working in the wide band more or less With the band width of 9.6GHz antenna model 1 is showing a minimum return loss at 8.8GHz and antenna model 2 is showing minimum value at 10.75 GHz .between antenna 1 and 2.

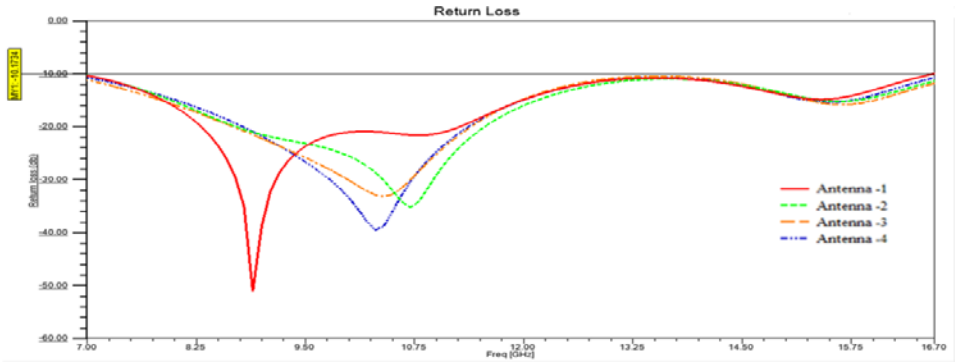


Figure-3. Return loss Vs Frequency.

The central resonant frequency shifting of 1.95GHz is observed from the figure of antenna model 3 is showing center resonant frequency minimum value at 10GHz whereas antenna model 4 is showing the minimum value at 10.5 GHz. by analyzing reflection coefficient characteristics of the designed models, a frequency shift of considerable variation can be absorbed in all these iterations we examined the positions of switches with ON and OFF conditions with respective resonant frequency. A frequency tunable operation is attained in the experimental design. Figure-4 shows the impedance characteristics of the antenna models with respective operating frequency operating frequency band .antenna model-4 is showing superior impendence characteristics compared to other models (Ideal Impendence is 50 ohms).

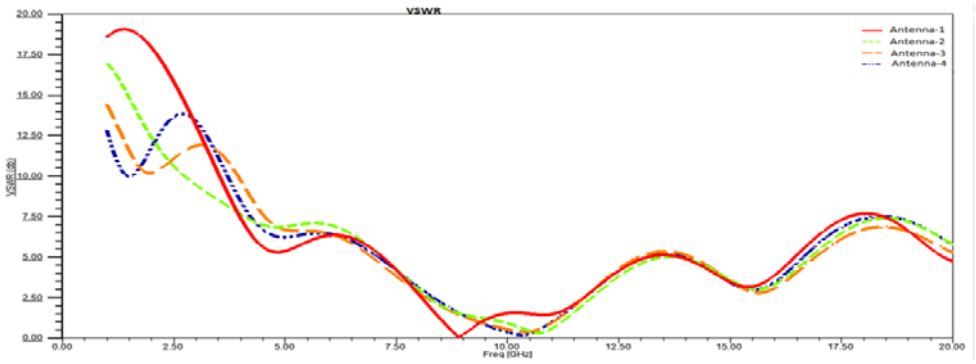


Figure-4. VSWR Vs Frequency.

Figure-5 shoes the VSWR characteristics of all the antenna iterations .all the models are showing 2:1 ratio of VSWR in the operating band. Figure-6 shows the radiation pattern of the antenna model -1. A quasi-Omni directional radiation pattern can be absorbed from H-Plane and dipole like radiation in E-plane for antenna model-1.

Figure-7 shows the radiation characteristics of antenna model-2 with Omni directional radiation pattern in H- plane and monopole like radiation in E-plane Figure-8 and Figure-9 shows the radiation characteristics of antenna model 3 and 4. Antenna model 4 showing Omni directional direction in H-plane in loss crosses polarization. A dumbbell like radiation pattern can be observed from the E-Plane characteristics of proposed model. The field distributions of the designed antenna models at a particular operating frequency are presented from figure 10 to 13.

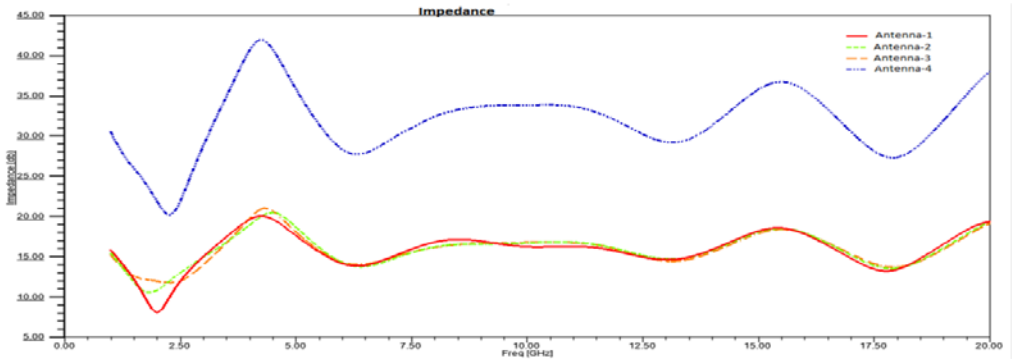


Figure-5. Impedance Vs Frequency.

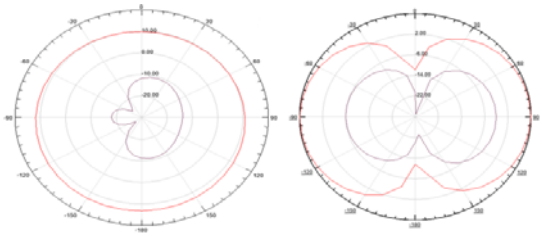


Figure-6. Radiation pattern of antenna 1.

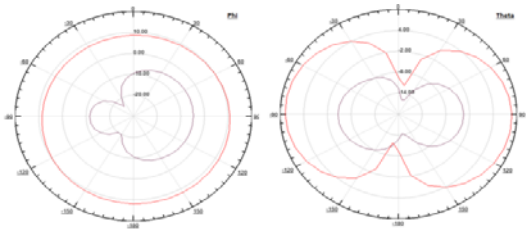


Figure-8. Radiation pattern of antenna 1.

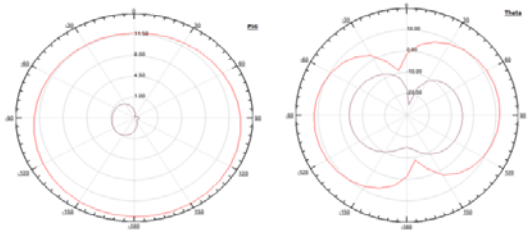


Figure-7. Radiation pattern of antenna 2.

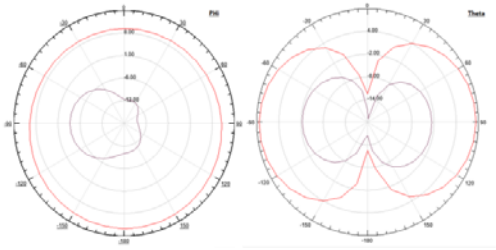


Figure-9. Radiation pattern of antenna 2.

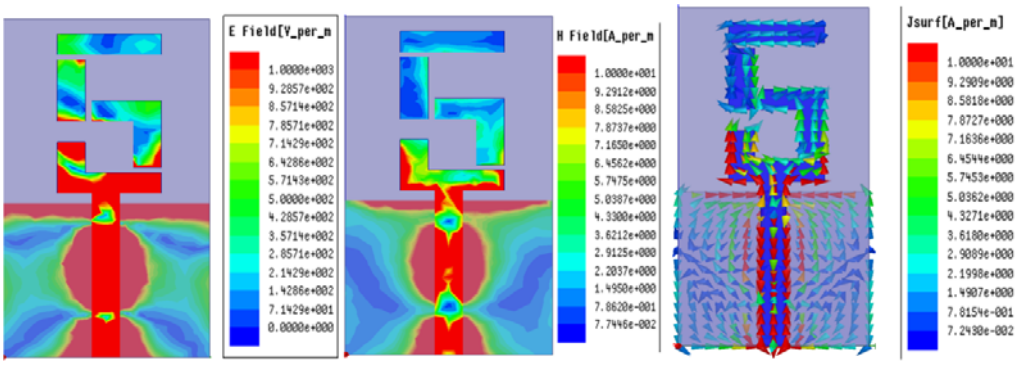


Figure-10. E-Field, H-Field and Current distribution plots of antenna model 1.

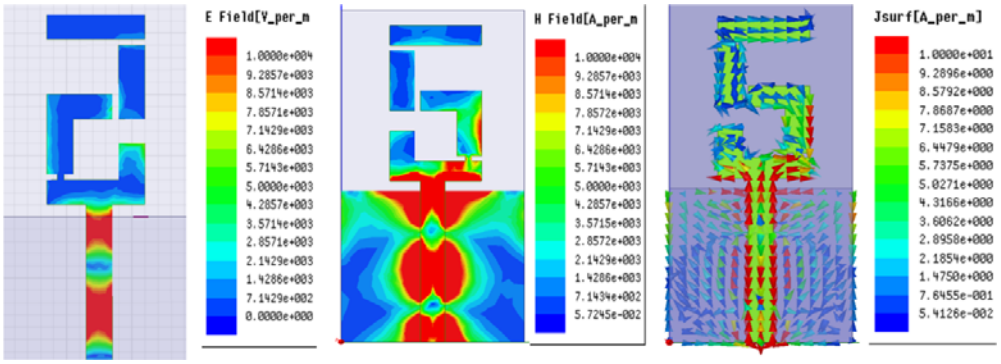


Figure-11. E-Field, H-Field and Current distribution plots of antenna model 2.

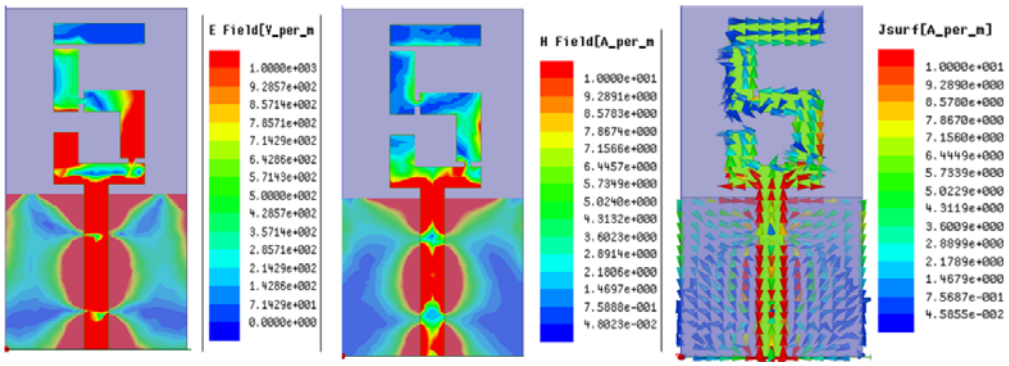


Figure-12. E-Field, H-Field and Current distribution plots of antenna model 3.

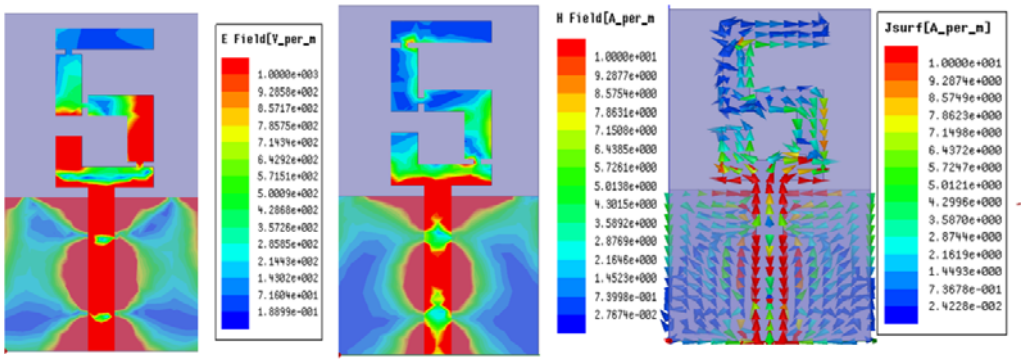


Figure-13. E-Field, H-Field and Current distribution plots of antenna model 4.

Antenna model 1 is showing cancelation of radiation on the feed line and linear polarization on the bottom side of the radiating element. Antenna model 2 most of the radiation from upper part of the feed line and lower part of the radiating element .the radiation on the bottom side of the feed line will be cancelled because of equal magnitude in opposite direction meeting at center point. Antenna model -4 is showing superior radiation characteristic's with high intensity and current distribution on the radiating element and the feed line. Figure-14 shows the gain characteristics of the deigned models with respective operating frequency.

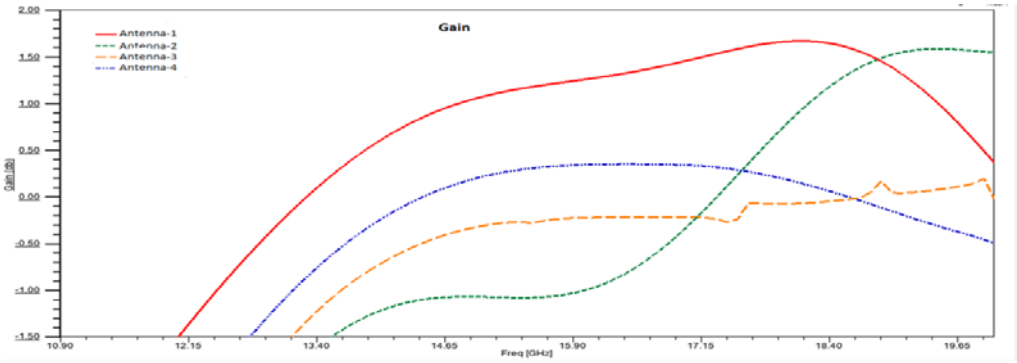


Figure-14. Gain Vs Frequency of antenna models.

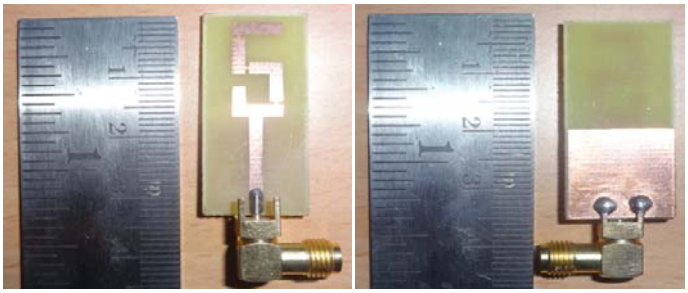


Figure-15. Fabricated antenna on FR4 substrate, (a) Front view, (b) Back view.

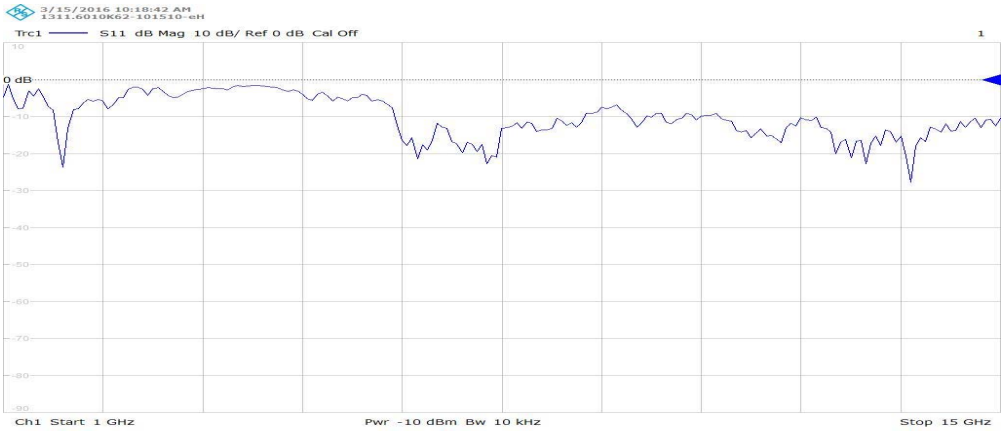


Figure-16. Measured S11 of the proposed antenna on ZNB 20 VNA.

The proposed antenna of model 4 is fabricated on FR4 substrate with dielectric constant 4.4 and presented the photograph front view and back view in Figure-15. The measured results of S11 are presented in Figure-16 and the results are almost similar to the simulation results obtained from HFSS.

4. CONCLUSIONS

A compact S-shaped monopole antenna is designed to operate in the wide band range from 7 to 16 GHz. The on and off conditions of the strips are examined as switching operations and at each stage the corresponding reflection coefficients are analyzed. The proposed antenna model 4 is giving excellent gain

characteristics and bandwidth in the desired band. All the antenna models are showing 2:1 VSWR in the operating band with good impedance bandwidth and radiation characteristics. Prototyped antenna model on FR4 is providing stable characteristics similar to HFSS model and test results are presented in this work for validation purpose.

ACKNOWLEDGEMENTS

Authors like to express their gratitude towards the department of ECE and management of K L University for their support and encouragement during this work. Further Madhav likes to express his gratitude to DST through FIST grant SR/FST/ETI-316/2012.

REFERENCES

[1] B T P Madhav, A Manikanta Prasanth, Sreeramineni Prasanth, Batchu Mohan Sai Krishna, Devani Manikantha, Usirika Sharmila NagaSai. 2015. Analysis of Defected Ground Structure Notched Monopole Antenna. ARPN Journal of Engineering and Applied Sciences, ISSN 1819-6608, 10(2): 747-752.

[2] M S Srinivas, T V Ramakrishna, B T P Madhav, N Bhagyalakshmi, S Madhavi, K Venkateswarulu. 2015. A Novel Compact CPW Fed Slot Antenna with EBG Structure. ARPN Journal of Engineering and Applied Sciences, ISSN 1819-6608, 10(2): 835-841.

[3] B T P Madhav, Harish Kaza, Vidyullatha Kaza, Ponnam Manikanta, Siddharth Dhulipala, Sravan Kumar K, Anvesh B, Fayaz Shaik. 2015. Liquid crystal polymer substrate based wideband tapered step antenna. Leonardo Electronic Journal of Practices and Technologies, ISSN 1583-1078, (26): 103-114.

[4] V Narasimha Nayak, B T P Madhav, R Sai Divya, A Nava Sai Krishna, K Rohith Ramana, D Mounika. 2015. Compact Microstrip Rectangular Edge Fed Antenna with DGS Structure. International Journal of Applied Engineering Research, ISSN 0973-4562 10(10): 24331-24348.

[5] P Syam Sundar, Sarat K Kotamraju, T V Ramakrishna, B T P Madhav, T Sravya Sruthi, P Vivek, J Jaswanth Kumar, M Dileep. 2015. Novel Miniatured Wide Band Annular Slot Monopole Antenna. Far East Journal of Electronics and Communications, ISSN: 0973-7006, 14(2): 149-159. http://dx.doi.org/10.17654/FJECJun2015_149_159.

[6] B. T. P. Madhav, Mounika Sanikommu, M. N. V. S. Pranoop, K. S. N. Manikanta Chandra Bose and B. Sriram Kumar. 2015. CPW Fed Antenna for Wideband Applications based on Tapered Step Ground and EBG Structure. Indian Journal of Science and Technology, ISSN: 0974-6846, 8(9): 119-127.

[7] B T P Madhav, Harish Kaza, Thanneru Kartheek, Vidyullatha Lakshmi Kaza, Sreeramineni Prasanth, K S Sanjay Chandra Sikakollu, Maneesh Thammishetti, Aluvala Srinivas, K V L Bhavani. 2015. Novel Printed Monopole Trapezoidal Notch Antenna with S-Band Rejection. Journal of Theoretical and Applied Information Technology, ISSN: 1992-8645, 76(1): 42-49.

[8] B.T.P. Madhav, Harish Kaza, Jagadish Kumar Vaka, K. Sravan Kumar, N. Sriharsha, J. Jaswanth Kumar, D.S. Siddharth and D. Sai Teja Reddy. 2015. Design and Analysis of Compact Coplanar Wave Guide Fed Asymmetric Monopole Antennas. Research Journal of Applied Sciences, Engineering and Technology. 10(3): 247-252.

[9] M Ajay babu, B T P Madhav, D Naga Vaishnavi, P Radhakrishna, N Bharath, K Madhuri, K Bhavani Prasad, K Harish. 2015. Flared V-Shape Slotted Monopole Multiband Antenna with Metamateril Loading. International Journal of communications Antenna propagation, ISSN: 2039-5086, 5(2): 93-97.

[10] T V Ramakrishna, B T P Madhav, G Manmohan, M Pavithra. 2015. Triple Band linearly polarized Square Slotted Micro strip Antenna for X - Band Applications. Far East Journal of Electronics and Communications, ISSN: 0973-7006, 15(2): 99-110.

[11] S S Mohan Reddy, P Mallikarjuna rao, B T P Madhav. 2015. Asymmetric Defected Ground Structured Monopole Antenna for Wideband Communication Systems. International Journal of Communications Antenna and Propagation, ISSN: 2039-5086, 5(5): 256-262.

[12] K V L Bhavani, Habibulla Khan, B T P Madhav. 2015. Multiband Slotted Aperture Antenna with Defected Ground Structure for C and X-Band Communication Applications. Journal of Theoretical and Applied Information Technology, ISSN: 1992-8645, 82(3): 454-461.

Journal of Theoretical and Applied Information Technology
15th December 2016. Vol.94. No.1

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

AN ADAPTIVE CLUSTER BASED IMAGE SEARCH AND RETRIEVE FOR INTERACTIVE ROI TO MRI IMAGE FILTERING, SEGMENTATION, AND REGISTRATION

[1]PADMAJA GRANDHE, [2]DR. E. SREENIVASA REDDY, [3]DR.D.VASUMATHI
[1]Research Scholar, Department of CSE, JNTUK, Kakinada, A.P, India.
[2]Dean & Professor, Department of CSE, Acharya Nagarjuna University, Guntur, A.P, India.
[3]Professor, Department of CSE,JNTUH, Hyderabad, Telangana, India.

ABSTRACT

Recently, there has been an enormous development in compilation of diverse image databases in the appearance of digital. The majority of the user establishes it hard to investigate and recover necessary images in huge collection. In organize to supply an effectual and well-organized explore engine tool, to smooth the progress of high point examination of checkup image information in investigate and clinical environment the scheme has been put into practice. In image retrieval system, there is no methodologies contain been careful in a straight line to get back the images from databases. That featured images only have be measured for the retrieval process in order to retrieve exact desired images from the databases. This paper also highlights an thought of newly developed image clustering technique and their real time application such as Clustering based image linearization in ROI, The purpose of this effort is a scalable, immediate, illustration search engine for medical images, Preprocessing, feature extraction, Classification and retrieval steps in arrange to build an well-organized recovery tool. The main characteristic of this tool is used of CBISR of the extract feel pattern of the image and clustering algorithm for image categorization in arrange to get better retrieval efficiency. The future image retrieval scheme consists of three stages i.e., segmentation, texture feature extraction and clustering procedure. In the segmentation development, preprocessing step to section the image into block is carried out. A decrease in an image area to be process is approved out in the surface feature removal procedure and lastly, the extract image is clustered using K-means algorithm

Keywords: *CBISR, MRI,K-Mean, Image Retrieval, Segmentation, Image Filter*

1. INTRODUCTION

Three Dimensional display of part of person remains obtain by current analytical imaging method is even more normal. CBISR scheme is a technique for probing and retrieving of images base on their low level features (example texture, color, shape). It is a organization which discriminate the dissimilar region of an image based on their similarity and decide the likeness flanked by two images by devious the distance of these dissimilar region. In CBISR scheme, any type of imagery can be known as input image which depends upon the application supplies.

Brain Tumour is a frequent brain chaos that, according to an approximation of the affects almost 60 million people about the world. Approximately one in every 100 persons wills knowledge a Tumour at a number of times in their life [1]. Tumour is characterized by the recurring and unexpected occurrence of epileptic Tumour which can lead to dangerous and perhaps serious situation [2]. The Brain tumour is the result of a fleeting and unforeseen electrical trouble of the brain and extreme neuronal free that is obvious in the MRI signal envoy of the electrical action of the brain. As a result, the MRI signal has been the bulk utilize signal in scientific appraisal of the state of the brain and discovery of epileptic Tumours, and is very important for a good psychoanalysis of epilepsy. Scalp MRI sign are more frequently than not calm with electrodes located on the scalp by a figure of sort of following treat the scalp area. Scan parameters are located in a straight line on Main current algorithms use (MRI) and (MRI) signals to become aware of the Tumour start and Tumour occasion. In these algorithms, a variety of brain signal are take out from the MRI sign alone or in presentation with the MRI signal pending the patients are clandestine into two classes, Tumour and non-

Academic Year 2017-2018

A Novel Fuzzy Controlled Grid-Tied PV Fed H-Bridge Multilevel Inverter for Compensation of Unbalanced Situation

Y. Rajendra Babu, Professor, Department of EEE, PSCMR College of Engineering & Technology, Vijayawada.
E-mail:rajendrababu77@gmail.com

B. Sai Kumar, Student, Department of EEE, PSCMR College of Engineering & Technology, Vijayawada.
E-mail:sai.bhimana95@gmail.com

P. Dinesh Kumar, Student, Department of EEE, PSCMR College of Engineering & Technology, Vijayawada.
E-mail:dineshdaney143@gmail.com

A. Sai Chandu, Student, Department of EEE, PSCMR College of Engineering & Technology, Vijayawada.
E-mail:chandusai0201@gmail.com

V. Naveen Kumar, Student, Department of EEE, PSCMR College of Engineering & Technology, Vijayawada.
E-mail:vakanaveen77@gmail.com

Abstract--- The inverters are categorized according to the configuration of the PV system, the configuration of the conversion stages within the inverter and whether they use transformers. After the introduction of the state of the art of inverters for PV systems with and without transformers, the paper focuses on some known problems and challenges for transformer less inverters. Topologies without transformers have big advantages like low weight, volume and cost. In addition they often reach higher efficiencies than topologies with transformers. Eliminating the leakage current is one of the most important issues for transformer less inverters in grid-connected photovoltaic system applications, where the technical challenge is how to keep the system common-mode voltage constant to reduce the leakage current. To realize better utilization of PV modules and maximize the solar energy extraction, a distributed maximum power point tracking control scheme is applied to both single- and three-phase multilevel inverters, which allows independent control of each dc-link voltage. For three-phase grid-connected applications, PV mismatches may introduce unbalanced supplied power, leading to unbalanced grid current. The intend of the fuzzy logic approach is to meet high quality output, minimum THD, fast response and high robustness. Finally Total Harmonics Distortion (THD) generated by the inverter is compared with conventional proportional Integral controls (PI) and fuzzy controller is evaluated. The results are verified with the help of MATLAB/Simulink.

Index Terms--- Fuzzy Logic Controller, Grid Connected System, Cascaded Multilevel Inverter, Distributed Maximum Power Point (MPP) Tracking (MPPT), Modulation Compensation, Photovoltaic (PV).

I. Introduction

Nowadays to meet the future energy demand of electricity DGs are the viable option as because it can provide a 1) secure and diversified energy options, 2) increase the generation and transmission efficiency, 3) reduce the emissions of greenhouse gases, and 4) improve the power quality and system stability. In spite of the several advantages, the main technical challenge is the synchronization of the DGs with the utility grid according to the grid code requirements. Cascaded inverters consist of several converters connected in series; thus, the high power and/or high voltage from the combination of the multiple modules would favor this topology in medium and large grid-connected PV systems [1]. Five inverter families can be characterized, which are identified with diverse designs of the PV system: 1) focal inverters; 2) string inverters; 3) multistring inverters; 4) air conditioning module inverters; what's more, 5) cascaded inverters. Cascaded inverters comprise of a few converters connected in arrangement; accordingly, the high power and/or high voltage from the mix of the different modules would support this topology in medium and substantial lattice connected PV systems. There are two sorts of cascaded inverters. Fig. 1(e) demonstrates a cascaded dc/dc converter association of PV modules. Each PV module has its own particular dc/dc converter, and the modules with their related converters are still connected in arrangement to make a high dc voltage, which is given to a rearranged dc/ac inverter. This methodology consolidates parts of string inverters and ac module inverters and offers the benefits of person module most maximum power point (MPP) following (MPPT), yet it is not so much excessive but rather more productive than air conditioning module inverters[2]. Notwithstanding, there are two power transformation phase s in this arrangement.

Enhancement of DVR Capability Using Wavelets

V. Praveen, Assistant Professor, Department of EEE, PSCMRCET, Vijayawada, Andhra Pradesh.

Dr.S.N.V. Ganesh, Professor, Department of EEE, VBIT, Hyderabad, Talangana.

Abstract--- This paper proposes wavelet concepts to enhance DVR capability. Wavelet detects the magnitude and phase of DVR injected voltage precisely and is made at 90 degrees to the load current. The real power injected becomes zero and only reactive power is injected to the line. Although it is very difficult to maintain zero active power injection for long time; this technique mitigates the voltage sags and swells with minimum energy utilization. Minimum utilization also reduces the dc energy storage rating and size. The proposed topology is simulated in matlab simulink environment. The results are validated with various case studies.

Keywords--- Wavelet, DVR Capability, Energy Optimized, Series Compensator, Voltage Stability.

I. Introduction

In recent scenario power systems contains DVR inside it have been considered advanced series compensator for activating or responding with a variety of voltage variations. Their fast response is the main advantage, which can accomplish most of the requirements for sensitive loads, for which good power quality can be guaranteed. [1]-[6]. Additionally the supervision technique needs to be considered, as dissimilar compensation concepts will finish in different performances. The DVR will respond when power is supplied through load side. By specifying the selection of DVR the load ratings are arranged. The grimness of voltage sag are also important factor Converter inside a DVR which is a controllable component makes the dc link capacitor to play a vital role. According to power system applications, capacitor with insufficient energy says that the DVR cannot fulfill demand during compensation. Voltage disturbances are most common in distribution system, which adversely affects the sensitive loads. Dynamic Voltage Restorer is most commonly used device to protect the sensitive loads. DVR comprises of injecting transformer, filter, Voltage Source Converter and Dc energy source. However, the DVR can inject maximum 50% of load voltage. DVR utilizes some energy for voltage injection; energy utilization depends on the type of compensation technique employed. The load voltage is compared with reference value and error so obtained is fed to PI controller to calculate the phase angle jump. The reference sinusoidal signal is obtained using phase angle jump is superimposed on carrier triangular signal to obtain PWM pulses for the Voltage Source Converter. However it is difficult to tune PI controller as the gains values needs to be changed frequently. Since, the integral component resolves the error signal into various low and high frequency components, wavelets are the better solution as alternative to PI controller. In past, various methods have been attempted to enhance the PI controller such as non-linear PI, neural PI, fuzzy PI etc. This paper proposes a PI controller based on multi-resolution decomposition of the error by using wavelets.

The error is decomposed as $e(n) = \sum e_i * k_i$, where K_i is the controller parameters to be determined.

Wavelet decomposition extracts high frequency information from the error signal along with process dynamics, noise etc... Then each error components is scaled by gains of and added to generate the control signal.

II. Zero Active Power Tracking Technique

In this zero active power tracking technique, the magnitude and phase of the DVR voltage plays a vital role in reaching better compensation for the voltage sag. The injected voltage V_{DVR} and load current are maintained at 90°.

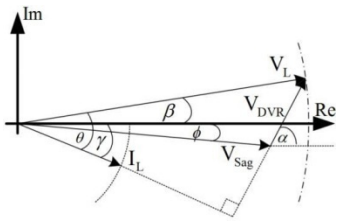


Fig. 1: Zero Active Power Tracking Technique

Received: 23 July 2018/Accepted: 21 Aug 2018

A Comparison between SFLA and Wavelet based Zero Active Power Tracking Technique for Improving DVR Capability and Voltage Sag

V. Praveen, Department of EEE, PSCMRCET, Andhra Pradesh. E-mail:praveenveceee@gmail.com

S.N.V. Ganesh, Department of EEE, VBIT, Talangana. E-mail:snvganesh@gmail.com

Abstract--- In this paper we enhance the power quality problems in terms of voltage sag. To protect the system this paper proposes a concept of DVR. Here wavelet based zero active power tracking technique for enhancement of DVR capability has been proposed. The main aim is to enhance the abilities of DVR to maintain acceptable voltages and last longer during compensation. The discrete wavelet transform uses filter banks for the analysis and synthesis of a signal. By this technique we can gain the less energy being taken out of the dc-link capacitor, resulting in smaller size requirements. The Shuffle Frog Leaping Algorithm (SFLA) combines the benefits of the genetic- based and the social behavior-based PSO algorithms. Here a comparison is made between SFLA and wavelet. These systems are verified using mat lab/simulink. Here THD values are compared.

Keywords--- DVR, WAVELET, SFLA, SAG.

I. Introduction

Due to sensitive loads power quality problems occurs in distribution systems. Sag, swell and some other problems are the power quality problems which affects the performance of the system [1]. In this paper we discuss the sag, swell occurs due to the faults and sensitive loads [2] [3]. To overcome these power quality problems we required a compensating device which is DVR [4]-[5].

SFLA combines the advantages of both genetic-based memetic algorithms and social behaviour than other algorithm. Also it is worthy or mentions that the time of performing this algorithm is faster. Among the various controllers available in this present scenario PI controller is probably most popular existing controller. There exist many variations in the PI controller like, e.g,: nonlinear PI with nonlinear gains. Initially, the error signal moves into the PI control loop where it is multiplied by the proportional and integral constant. PI controller is nothing but a feedback control loop that calculates an error signal by taking the difference between the output system. The output of the PI control is a power value and in order to change into a quantity that is comparable to that of control signal, it goes through a power to PWM signal converter. The error, the integral of the error could be related to the low and high Frequency contribution in the error signal. This motivates resolving the signal using wavelet analysis and using a linear combination of the time frequency signals at different bands to construct a controller. A comparison with standard PI controller shows that the dynamic response of the proposed wavelet is much faster. To improve the capability of DVR we are using wavelet for better results. In recent scenario power systems contains DVR inside it have been considered advanced series compensator for activating or responding with a variety of voltage variations. Their fast response is the main advantage, which can accomplish most of the requirements for sensitive loads, for which good power quality can be guaranteed. [6]-[11]. Additionally the supervision technique needs to be considered, as dissimilar compensation concepts will finish in different performances. The DVR will respond when power is supplied through load side. By specifying the selection of DVR the load ratings are arranged. The grimness of voltage sag is also important factor.

II. Dynamic Voltage Restorer

To protect the power system components from voltage sags and swells, the DVR plays a key role when compared with the other compensating devices. The efficiency of DVR is high and provides reliable operation as compared with the basic controllers such as injection Transformers, series and shunt reactors and fault limiters. The main function of DVR is to inject extra voltage to the Transmission system for regulating the voltage across load

Received: 15 Mar 2018/Accepted: 20 Apr 2018

Optimal Strategies in Allocation of Land in Krishna District Considering by Major Crops in Agriculture Planning

P.S. Srinivas, P.S.C.M.R. College of Engineering & Technology, Vijayawada. E-mail:vasupragada@gmail.com

Tata Hari Krishna, V.R. Siddhartha Engineering College, Vijayawada.

N. Vijaya Sai, V.R. Siddhartha Engineering College, Vijayawada.

Abstract--- In Agricultural planning, optimal land allocation plays a vital role for the development of agriculture sector Planning of crops is the most crucial factor of Agriculture Planning. In this paper, for optimal land allocation, weightec additive approach is adopted. This approach takes care of relative priority of the objectives. Genetic algorithm approacl is adopted to solve the multi objective problem. The model is explained with a case study of Krishna district, Andhra Pradesh, India.

Keywords--- Agricultural Planning, Genetic Algorithm, Production, Resources, Crops.

I. Introduction

Agricultural planning problems generally involve multiple objectives such as maximizing objectives and minimizing some goals. These goals are conflicting in nature and it is not possible to maximize or minimize all objectives simultaneously. Certain strategies may be achieved with the cost of others. As a result of losing land due to growing population and industrialization, the production of crop per unit area must be increased by proper utilization of resources. Planning of crops is the most crucial factor of Agriculture Planning. Crops' depends on several resources like available land, water, labour, machinery, and capital.

Several researchers developed agricultural planning models using linear programming, goal programming etc. Debasis Ghosh, Bijay Baran Pal et al presented a case study for determination of optimal solution for a MCDM model in Agricultural Planning through goal programming approach. N. Vivekanandan et al applied GP approach for optimization of cropping pattern for the command area of Barna irrigation project, Madhya Pradesh, India. They considered three different cropping plans of goal programming approach for maximization of net return, protein calorie values with minimum land and water for Barna command area. Anderson and Farle adopted GP approach to select diets to meet the specific nutritional requirements. They expressed that the nutritional balance is difficult to achieve in diets while applying LP due to the complex relationship of its constraints. They also expressed that the nutritional balance of the raw materials selected by GP showed better improvement over that selected by LP. Mohmoud Daneshvar Kakhki et al adopted a LP model to find the optimal cropping pattern, in Taybad of Khorasn Razavi state in Iran. This study maximizes the profit, minimizes the consumption of water and fertilizers and attends economical goals simultaneous with environmental goals. Singh et al used a LP model to reach optimized crop pattern at various available water levels. Haouari and Azaiez presented a mathematical programming for determining crop pattern in dry lands under scarce of water resources. M H E I sayed Abdel Asis applied parametric and multi objective optimization technique to study the cropping pattern in the Ameriya region in winter crops. In this study the solution of non-linear problems using penalization methods transformed into an un constrained non-linear optimization one.

K.B.Mathews et al applied Genetic Algorithms to land use planning, a spatial allocation problem. This study presents a comparison of two land use planning GAs on a real land use planning problem and the strengths and weaknesses of each approach are identified. K. Srinivasa Raju and D. Nagesh Kumar developed a LP irrigation planning model for the evaluation of irrigation development strategy and applied to a case study of Sri Rama Sagar project, Andhra Pradesh, India with the objective of maximization of net benefits. Pawar and Murthy proposed a crop planning model with the objective of maximizing irrigation benefits for atypical irrigation district.

Ishtiaq Hassan et al applied model to determine the optimum cropping pattern of Punjab in Pakistan. In this study optimal crop acreage, production and income of the irrigated Punjab were calculated.

Ahmad et al used LP model for developing optimal farm plans for small farmers in Leiah Tehsil and Faisalabad district of Punjab, Pakistan. Uday Bhaskar Nidumolu, Herman Van Keulen et al developed an Interactive Multiple

Modeling and Optimization of Overall Performance of Indian Public Sector Banks- A Case Study

Dr.N. Vijaya Sai, Professor, V. R. Siddhartha Engineering College, Vijayawada.

Dr.P.S. Srinivas, Professor, P. S. C. M. R. College of Engineering & Technology, Vijayawada.

Tata Hari Krishna, Assistant Professor, V. R. Siddhartha Engineering College, Vijayawada. E-mail:thkvrsec@gmail.com

Abstract--- In this paper, study has been made to evaluate the overall performance of banks based on financial soundness and financial efficiency of twenty banks in India. Financial soundness of banks is evaluated using financial ratios through TOPSIS. Also, financial efficiencies of banks based on financial parameters are evaluated using DEA-TOPSIS. But, the overall performance of the banking sector needs to be determined by both financial soundness and efficiency. There is a limited research in evaluating the overall performance of banks using financial soundness and efficiency. Hence, in this paper, overall performance of twenty public sector banks of India, based on both financial soundness and efficiency is investigated to find the optimal values.

I. Introduction

The financial sector has a crucial role in the economic growth of a country. Efficiency and profitability of banking sector have been linked with development of economies. Overall performance of financial sector depends on both efficiency and profitability. There are some researches referring to measurement and evaluation of the overall performance of banking sector in terms of both profitability and efficiency.

Gopal and Dev (2006), in their research paper, empirically analyzed the productivity and profitability of selected public and private sector banks in India. They evaluated the effect of globalization and liberalization on the productivity and profitability of Indian banks during the period 1996-97 to 2003-04. Brinda and Dubey (2007) made an econometric analysis on the performance of public sector banks in India vis-à-vis other bank groups, i.e., private sector banks and foreign banks present in India. Hung-Yi Wu et al. (2009) proposed three MCDM analytical tools of SAW, TOPSIS, and VIKOR were respectively adopted to rank the banking performance and improve the gaps with three banks as an empirical example. Jha and Sarangi (2011) analyzed the performance of seven public sector and private sector banks for the year 2009-10. They used three sets of ratios which are operating performance ratios, financial ratios, and efficiency ratios. Nuray Girginer and Nurullah Uçkun (2012) ranked the banks based on their performances by use of the GRA method observing 14 financial ratios with respect to profitability, liquidity, active quality and capital sufficiency. Majid Karimzadeh (2012) examined the efficiency of Indian commercial banks during 2000–2010 by utilizing Data Envelopment Analysis (DEA). Parvesh Kumar Aspal and Sanjeev Dhawan (2014) adopted CAMELS rating model to assess the status and performance of Old Private Sector Banks in India. For analysis of 13 Old Private Sector Banks operating in India. Chao Li and Caiqin Ye (2014) evaluated the performance of 16 listed commercial banks in China. The authors assessed the operating performance for these commercial banks, using the improved TOPSIS method to calculate the comprehensive scores for each bank. Öznur Sakinc.S (2014) measured the Performances of State-owned banks in Turkish Banking Sector with grey relational analysis method. In the analysis, four years of financial data is used related with banks between 2010-2013 years. Alper Veli ÇAM et al. (2015) analyzed financial performances of textile firms publicly traded in The Borsa İstanbul via TOPSIS method by using financial rates in 2010-2013 terms. Zervopoulos et al. (2016) developed a DEA–based performance measurement methodology that is consistent with performance assessment frameworks such as the Balanced Scorecard. Tarekegn Tamiru et al. (2016) compared the financial performance of commercial Banks by using their average ratio in terms of profitability; liquidity, efficiency, and solvency using excel analyzed information.

Influence of various financial ratios on composite ranking based on financial soundness is investigated. Also, the influence of input/output parameters on composite ranking based on efficiency is investigated. From the analysis of variance (ANOVA) results, the significance of various factors and their influence on the composite ranks based on financial soundness and efficiency are identified. Validation of the statistical model and regression equations was performed by running the optimization program with Design Expert 10 within the experiment range is investigated,

International Journal of Pure and Applied Mathematics
Volume 114 No. 11 2017, 11-18
ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version)
url: http://www.ijpam.eu
Special Issue

Image Based Currency Recognition System

[1]B. Vanajakshi, [2]D. Gowthami and [3]N. Mounika

[1]Dept. of ECE, PSCMRCET,

Vijayawada, A.P., India.

vanaja2birudu@gmail.com

[2]Dept. of ECE, PSCMRCET,

Vijayawada, A.P., India.

dukkagowthami@gmail.com

[3]Dept. of ECE, PSCMRCET,

Vijayawada, A.P., India.

mounikaneelam.15@gmail.com

Abstract

The people may not recognize the original currencies from different countries. So, to solve this difficulty to the people, the system called "Image based currency recognition system" is helpful. However, the currency recognition system based on image analysis is entirely not sufficient. But, the proposed concept which is based on image processing will makes the process automatic and also robust.

1. Introduction

Even though the size of the currency paper is different with each of them looking different for different currencies all over the world, the color and pattern are different that we can't recognize which currency belongs to which country and it is also difficult to recognize the fake currency note also. It is mandatory to differentiate different types of currencies for the personnel who are working for money exchanging which is not an easy job. By mistake, if the money exchanging workers con not recognize the currency correctly, so many problems will occur. So in order to help the work of those personnel, they necessitate an exact and efficient system.

There is a "Currency Sorting Machine" for the bankers so that they easily recognize the currencies of different kinds. The main purpose of this Currency Sorting Machine is image acquisition and recognitions and the technique is also named as optical, mechanical and electronic integration which process image with high speed which is accurate and highly efficient. The proposed system is based on image processing and it includes image filtering, edge detection and segmentation like that.

2. Block Diagram

Image analysis and image processing are the major techniques in this system. These are the part of computer science and cognitive. Image processing is a pre-processing followed by signal processing. The output of the system can be either a set of characteristics or an image or the parameters related to the image. The image is regarded as 2-D signal generally and it applies some standard signal processing techniques in which image-processing techniques are involved. Image analysis is nothing but the meaningful information from an image which is extracted mainly from digital images by means of digital image processing techniques.

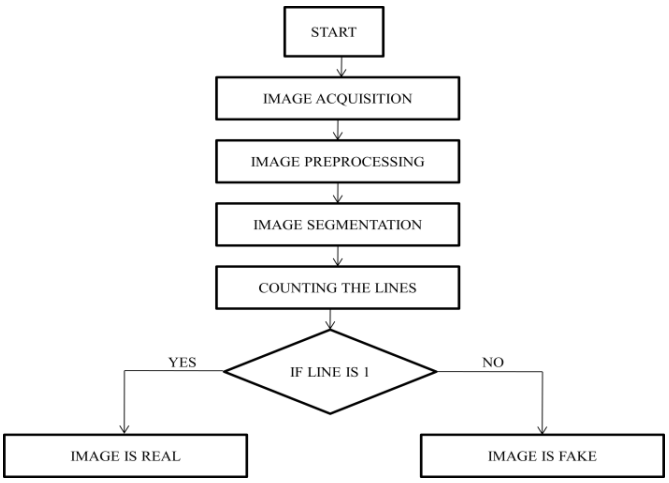


Fig. 1: Block diagram

Fig. 2: Real note image

Fig. 3: Fake note image

3. Image Segmentation

Image segmentation is defined as the process of partitioning of a digital image into multiple Segments (sets of pixels). The main aim in segmentation is to simplify and change the representation of an image into the more meaningful and very easy to analyze. Generally Image segmentation is used to locate objects and boundaries in images. Segmentation algorithm for images generally is based on one of the two basic properties which are given below.

1) Similarity: Based on partitioning an image into regions that are similar according to a set of predefined criteria
2) Discontinuity: Based on sudden changes in intensity such as edges in an image.

The aim of image processing is to suppress undesired distortions or enhance some image features that are important for further processing or analysis. Here image processing includes these parts.

1. Image adjusting.
2. Image smoothening (removing noise).

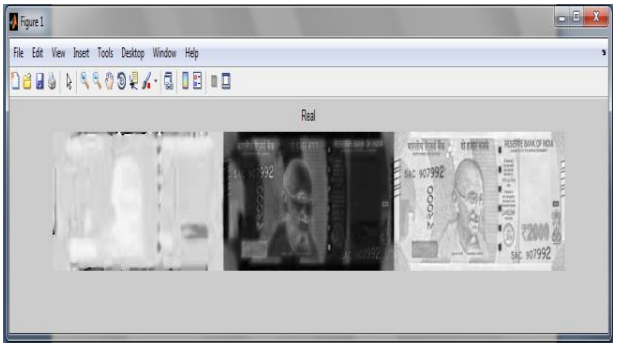


Fig. 4: Real image segmentation

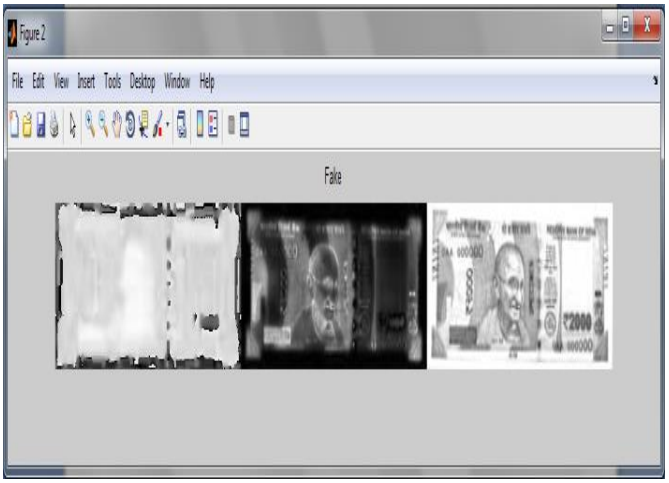


Fig. 5: Fake image segmentation

4. Feature Extraction

Feature extraction is simply transforming the input data into the set of features. It is expected that the features set will extract the relevant information from the input data if the features extracted are carefully chosen. It happens in order to perform the desirable task using the reduced representation instead of the full size input. By this technique the numbers of lines in the real and fake images are found to make the real note pixels values unique.

5. Results

Here the format of the input image used is JPEG (JPG). The system is realized by using MATLAB. That is because MATLAB is a high level technical computing language and it has varied API for image processing, the algorithms are succinctness and terseness. It also speeds up the image processing and making it more efficient. Users won't feel any time hysteretic, which can satisfy and achieve currency real-time detection.

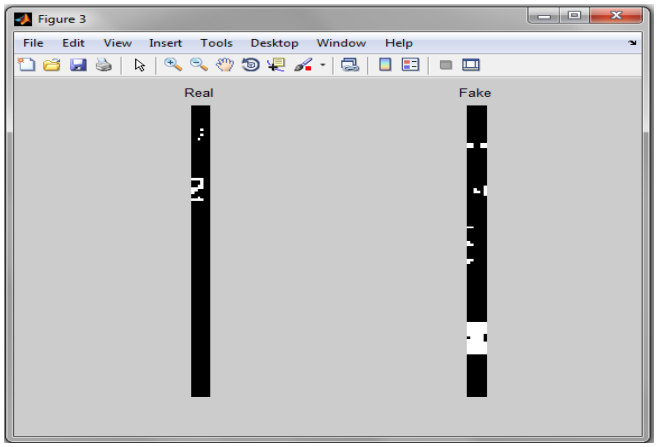


Fig. 6: Pre Processing results

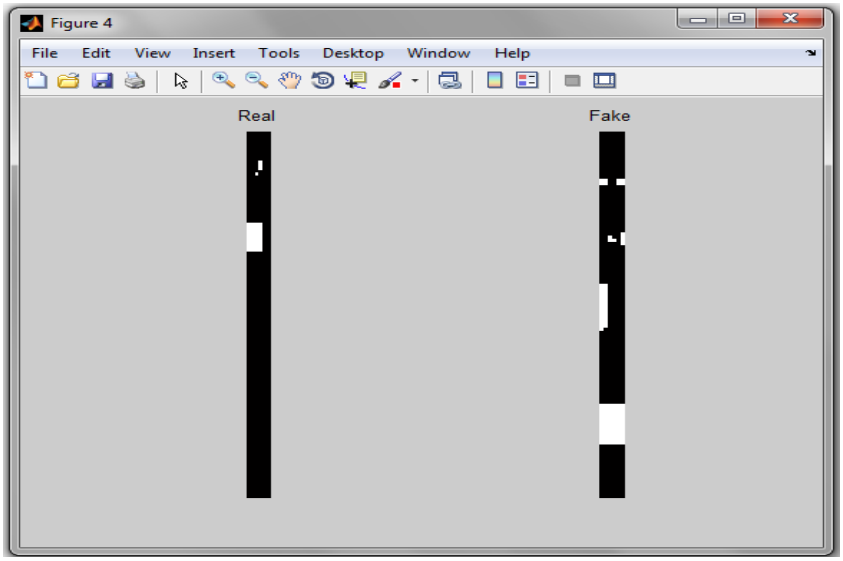


Fig. 7: Post processing results

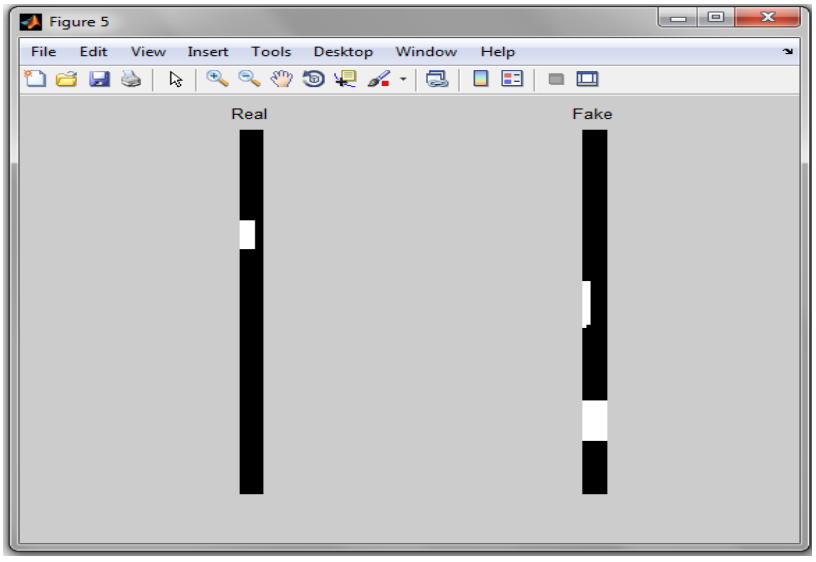


Fig. 8: Counting of lines in images

6. Conclusion and Future Work

This paper proposes an algorithm for recognizing the currency using image processing. The proposed algorithm uses the primary color and a part of currency in hsv components by fixing the saturation and value threshold levels for recognition. In future the on basis of image acquisition, multiple parameters including correlation matrix, edge detection operators, color check etc were also considered.

References

[1] Rubeena Mirza, Vinti Nanda, Design and Implementation of Indian Paper Currency Authentication System Based on Feature Extraction by Edge Based Segmentation Using Sobel Operator, International Journal of Engineering Research and Development in 3(2) (2012).

[2] Kuldeep Verma, Indian Currency Recognition Based on Texture Analysis, Institute of Technology, Nirma University, Ahmedabad (2011).

[3] Megha Gupta, Classification Techniques Analysis, Csio Chandigarh, India (2010).

[4] Ahmadi A., Omatu S., Yoshioka M., Implementing a Reliable Neuro-Classifier for Paper Currency Using PCA Algorithm, Proceedings of the 41st SICE Annual Conference (2002), 2466-2488.

[5] Rafael C., Gonzalez, Richard E. Woods, Steven L. Eddins, Digital Image Processing Using MATLAB, Pearson Education, (2004).

[6] Rafael C. Gonzalez., Richard E. Woods, Digital Image Processing 2ndedition. Pearson Education, New York (2001).

[7] Mark S. Nixon., Alberto S. Aguado, Feature Extraction and Image Processing. Academic Press (2008)

[8] Milan Sonka, Vaclav Hlavac, Roger Boyle, Image Processing, Analysis, and Machine Vision Third Edition, Thomson (2008)

[9] Andrew S. Glassner, Principles of Digital Image Synthesis. Morgan Kaufmann Publishers (1995).

[10] Burger W., Burge M.J., Digital Image Processing: An Algorithmic Introduction Using Java. Springer, New York (2007).

[11] Maini R., Aggarwal H., Study and comparison of various image edge detection techniques, International journal of image processing (IJIP) 3(1) (2009) 1-11.

[12] Dengsheng Zhang, A Comparative Study on Shape Retrieval Using Fourier Descriptors with Different Shape Signatures, Gippsland School of Computing and Information Technology, Monash University, Churchill, Victoria 3842, Australia.

[13] Felipe Grijalva, Smartphone Recognition of the U.S. Banknotes' Denomination, for Visually Impaired People, 978-1-4244-6742-6/10/©2010 IEEE

[14] Ruchika Chandel, Gaurav Gupta, Image Filtering Algorithms and Techniques: A Review, ISSN: 2277 128X, 3(10) (2013).

[15] Application used fron the Matlab website: http://www.mathworks.in/products/matlab/

[16] Basic Details for preparing the format of paper http://en.wikipedia.org/wiki/Currency/IEEE

[17] Format Website available on the website: http://www.ieee.org/sitemap.html/

Consistent Use of the Risk Assessment in the Project Life Cycle

A. Pathanjali Sastri, Professor & Head, Computer Science and Engineering, Potti Sriramulu Chalavadi Mallikharjuna Rao College of Engineering & Technology, Andhra Pradesh, India. E-mail:akellapatanjali@yahoo.com

K. Nageswara Rao, Principal, Potti Sriramulu Chalavadi Mallikharjuna Rao College of Engineering & Technology, Vijayawada, Andhra Pradesh, India. E-mail:principal@pscmr.ac.in

Abstract--- Identifying, assessing and managing the risk within their areas of control have to be done effectively by the project managers for ensuring that appropriate risk management activities are functioning effectively during the course of the project. A thorough risk analysis will help us to prioritise risks, develop contingency actions and implement an action plan to control or minimize the risks. The high priority should get most attention in terms of analysis, monitoring and risk reduction effort. The paper has collected various categories of risks from different projects and developed of a compliance risk inventory from which the ranking of risks has been developed. The probability and impact of those risks will vary from project to project or organisation to organisation or even customer to customer. Many projects fail if the project managers cannot anticipate the risks and develop a process or plan to manage and minimise the risks associated with the project. This research paper provides a description of risks, management activities that need to be treated and the most appropriate control.

Keywords--- Risk, Risk Analysis, Risk Management, Risk Assessment, Risk Management Framework.

I. Introduction

Risk should be considered throughout the development and implementation of a project[1-6]. Risk management is a structured and systematic process which is part of the project and should be carried out by the project managers. The project managers need to consider the risks associated with the project and manage those risks effectively through implementing strategies. The project management's failure to commit sufficient resources to address risks may adversely affect or prevent from achieving the project goals or an outcome resulting in failure of the project.

II. Identifying and Assessing the Risks

Risk management is an ongoing process over the life of a project and the risk mitigation strategies need to be developed and deployed to reduce the likelihood of seriousness of each risk[2-7]. The following flowchart is useful to determine how risks will be treated in terms of identification and/or deployment of mitigation strategies during project life-cycle.

Assessment of risks → Development of countermeasures → Describe the nature of the risk and the impact on the project if the risk is not mitigated or managed

The project managers are required to report key risks by determining the consequences of an event and the likelihood of the outcome occurring. The highest assessed risks are graded as 1 or 2 shown in Table 1.

Table 1: Risk Rating

Grade	Possible Action
1	Mitigation strategies are compulsorily prepared to reduce the likelihood of the risk identified/anticipated and implemented as soon as the project commences. These *risk mitigation actions that are preventative.*
2	Mitigation strategies are compulsorily prepared to reduce the likelihood of the risk identified/anticipated and implemented as soon as the project commences and appropriate actions are implemented during project execution. This deals with the proportion of *risk mitigation actions that are contingencies.*
3	Mitigation strategies are compulsorily prepared for risk identified/anticipated and act for possible action if budget permits. *Undertake specific risk mitigation actions and depend on cost implications for the project Budget.*
4	Mitigation strategies are prepared for risk identified/anticipated and act for possible action if budget permits and no action is needed unless grading increases over time.

If prevention strategies are effective [3][5][6], some of the Grade 1 and 2 risks should be able to be downgraded fairly soon into the project. The risks will have to be monitored to ensure that appropriate preventive action is taken

International Journal of Pure and Applied Mathematics
Volume 114 No. 11 2017, 19-26
ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version)
url: http://www.ijpam.eu
Special Issue

ijpam.eu

Big Data Cyber Security Threats for Mutual Detection

[1]Shaik Akbar, [2]K. Spandana and [3]K. NageswaraRao

[1]PSCMR College of Engg.& Tech, Vijayawada. dr.shaikakbar@gmail.com

[2]PSCMR College of Engg & Tech, Vijayawada. kspandana.cse@gmail.com

[3]Principal, PSCMR College of Engg.& Tech, Vijayawada.

principal@pscmr.ac.in

Abstract

In the time of big data, it is a difficulty to be solved for encouraging the strong growth of the Internet and the Internet+, caring the information protection of individuals, institutions and countries. Therefore, this manuscript creates a mutual finding system of cyber security threats in big data. Initially, it explains the record group model of Flume, the data store of Kafka, and the data procedure of Esper; then it plans one-to-many record compilation, reliable data store, CEP data procedure using incident query and event model corresponding. Future implementation of this structure results good consistency and high competence. Furthermore, this system implementation also results recompense of low cost and bendy operation.

Key Words: Big data, kafka, threat, cyber security, Internet.

International Journal of Pure and Applied Mathematics
Volume 118 No. 20 2018, 4701-4704
ISSN: 1314-3395 (on-line version)
url: http://www.ijpam.eu
Special Issue

ijpam.eu

An efficient system for secret information sharing through SPIHT coding and zigzag scanning

Yelisela Rajesh[1] , Dr.Guruprakash.CD [2],B.Sarath Chandra[3]
[1] Research scholar, Dept. of CSE, Visvesvaraya Technological University, Belagavi.
[2] Professor,Dept.of CSE, SSIT, Maralur, Kunigul road, Karnataka.
[3]Assistant Professor,Dept.of CSE,PSCMR College of Engineering & Tech,Vijayawada,AP

Emails:[1]rajeshrajiv1324@gmail.com; [2]cdguruprakash@gmail.com;[3]sarathit862@gmail.com

***Abstract*— Recently, the transmission of data through network is increasing rapidly, which provides instant access or distribution of digital data. Secret information sharing is the important subject in the field of communication technology, information security and production. However security can be introduced in many ways like transmitting password, image hiding, watermarking technique, authentication and identification. Many secure and confidential data items like military maps and commercial identifications are sent over the internet. While using secret documents (images, text etc.) for sending over the network, the security issue is to be taken into consideration, since there is a chance of stealing the secret information by the hackers due to weak link in the public network. In order to deal with the security issue of secret information, we are in need of an appropriate secure algorithm by which we can secure our data over the internet. With the help of Visual Cryptography, the system visual information can be securely sent over the internet.**

Keywords: Visual cryptography, Security, Watermarking

I. INTRODUCTION

It is the art of sending and receiving encrypted messages that can be decrypted only by the sender or the receiver. Encryption and decryption are accomplished by using mathematical algorithms in such a way that no one but the intended recipient can decrypt and read the message. VCS secret sharing scheme was introduced by Naor and shamir[8], the secret image is split up into number of shares and transmit to the number of participants. A visual secret sharing scheme is a technique used to encrypt the secret image by splitting the shares into several piece and distribute it into the corresponding participants. A set of qualified participants can be able to retrieve the secret image by overlapping the shares in correct. The major feature of their scheme is that the secret image can be decrypted simply by the human visual system without having to resort to any complex computation [9,10]. Main feature of visual

cryptography scheme (VCS) is that it does not need mathematical computation to get the original secret [11,12]. During the past decade, Visual Secret Sharing (VSS) has attracted the attention of many researchers. Some of the literature has been related to the construction of a visual secret scheme [13, 14]. Based on the concept of sharing binary secret images, researchers have ex-tended the visual secret sharing scheme to suit the sharing of gray secret images [15, 16, 17, 18] and color secret images [19, 20, 21, 22].

There have been numerous cases of including in secret information sharing and Detection. Secret sharing techniques belong to the larger area of information hiding that includes watermarking [23, 24]. Recursive hiding of secrets is proposed in [25, 26, 27-29]. The idea involved is recursive hiding of smaller secrets in shares of larger secrets with secret sizes increasing at every step. While the scheme presented in [25] is a non-threshold scheme, schemes in [26, 27-29] are threshold schemes. Similarly, in color visual cryptography the shares generated is colorful. The visual secrete sharing binary secretes is explained in [30]. In terms of the number of share secret images, the literature has been solely concerned with sharing only one secret image. However, it would be useful to be able to share more than one secret image simultaneously. Clearly, it would be worthwhile to develop a visual secret sharing scheme for multiple secrets.

II. LITERATURE SURVEY

Various secrete sharing techniques have been proposed in the literature using visual cryptography and their explanations are listed in this section. Peng Li et al. [1] have explained the Sharing more information in gray visual cryptography scheme.Visual cryptography scheme (VCS) shares a binary secret image into several binary shadows and the secret image can be visually revealed by stacking qualified shadows without computation. From the point of view of sharing secret information, VCS was not efficiency because of the large size expansion and low visual quality. Here, they explained a general gray visual cryptography scheme, which was share more information, called Sharing More Information Gray Visual Cryptography Scheme (SMIGVCS). All the shadow pixels of VCS embed additional information to generate gray shadows of SMIGVCS, and the embedded information comes from the shadows of a polynomial-based secret sharing scheme (PSSS). In the revealing process, a vague secret image is visually decoded by stacking qualified shadows, and more information was revealed by computation.

Moreover, Yu-Chi Chen *et al.* [2] have analyzed the definition of cheating prevention and presented a

A Novel feature selection based classification model for disease severity prediction on Alzheimer's database

I.Murali Krishna, Research Scholar, JNTU, Kakinada, Andhra Pradesh, India
imuralijntuk@gmail.com
Dr. Challa Narsimham, Principal, Vignan's Institute of Information Technology, Vishakhapatnam, Andhra Pradesh, India.
Narasimham_c@yahoo.com
Dr. A. S. N. Chakravarthy, Profeesor, Department of Computer Science and Engineering, University College of Engineering, JNTU, Kakinada, Andhra Pradesh, India
drasnchakravarthy@yahoo.com

Abstract— In the current era, research on automatic image classification on high dimensional medical disease databases is growing rapidly. Since most of the Alzheimer's disease databases have heterogeneous features with different levels of severity patterns. Detection and classification of high risk patterns has many potential benefits for decision making. Traditional image classification models such as Naïve Bayesian, Neural Networks, SVM, Regression models,. etc are used to classify the image using the annotated ROI and image texture features. As the size of the Alzheimer's disease patterns and its categories are increasing, traditional data classification models are failed to process the disease patterns due to class imbalance, inconsistent, and sparsity issues, which may affect the disease prediction rate and error rate. Unlike the existing solutions, which require a prior knowledge of classification parameters for various types of image features, which is not possible to obtain in practice. Also, as the size of the training images increases, it becomes difficult to find the relevant features using the image features and ROI values. In this proposed model, a novel filtered based automatic Alzheimer's disease classification model is proposed to improve the disease prediction rate and to minimize the error rate of the classification model. Experimental results show that the proposed model has high disease estimation rate compared to the existing approaches in terms of true positive rate and error rate are concerned.

Keywords: Alzheimer disease detection, ensemble learning, ADNI.

1.INTRODUCTION

Abnormal behavior and loss of memory could indicate a brain disorder that is neurodegenerative, known as Alzheimer's disease. In other words, Older people suffer from some form of dementia which could lead to neuronal loss known as Alzheimer's disease (AD). Neuropsychological examination and psychometric assessment mainly determine the clinical evaluation. The confusing factor of cognitive research may, however, hide the early signs of Alzheimer's disease. Successful diagnosis of the disease can be achieved through using structural MRI to detect the brain's anatomical changes that are brought about by the disease. The advantage of using automation for AD detection lies in the improved accuracy and the increased speed of the process of treatment. Structural neuroimaging can provide good markers for the detection of diseases such as AD because of their sensitivity to degeneration. AD detectors fall into three typical types. The types which base on cortical thickness are the most used ones. Querbes and colleagues produced an 85% accuracy of distinction of normal

Biomedical Research 2018; 29 (4): 644-653 *ISSN 0970-938X*
www.biomedres.info

Adaptive analysis & reconstruction of 3D DICOM images using enhancement based SBIR algorithm over MRI.

Padmaja Grandhe[1*], Sreenivas Reddy Edara[2], Vasumathi Devara[3]

[1]Research Scholar, CSE Department, JNTUK, Kakinada, A.P, India

[2]Principal, ANU College of Engineering, Guntur, India

[3]Professor, CSE Department, JNTUH, Hyderabad, India

Abstract

The images can be visualized in three dimensional (3D) by means of different technique, these 3D techniques are used to improve the view of images. Converting two dimensional (2D) images into 3D images is a significant part of image application. A resourceful approach of 3D image reconstruction is implementing to execute a certain procedure that applied to X-ray medical image. The paper deals with the DICOM images reconstruction which is originally very helpful for manufacture of modified anatomical implant by using rapid prototyping technology. The researchers are gradually focusing on biomedical 3Dimaging improvement. The MAT LAB image processing has been powerfully developed and almost implements in every modern topographical modalities. The CT slices of involved region of modified implant in DICOM arrangement are initially pre-processed using developed MATLAB code. These files can be additional used for Rapid Prototyping. This project in biomechanical area has been urbanized to give the ability in very cheap cost with highest technological support moderately with expensive import facilities and software. This approach is implemented *via* four steps preprocessing, image enhancement, image contour then image reconstruction and visualization. Suggest a proposed researcher is based on novel analytical model which can put to gather in sequence from any source (i.e.) Slicer Based Image Retrieval (SBIR) mechanism to get back applicable medical imagery bottom on their features.

Keywords: Slicer based image retrieval (SBIR), MRI, Bio medical image, Textural data, 3D imaging.

Accepted on October 09, 2017

Introduction

Digital Image processing [1] is an emerging field in which doctors and surgeons are receiving dissimilar easy pathway for the analysis of composite disease such as cancer, brain tumor, breast cancer, kidney stones, etc. The detection of brain disease [2,3] is a very demanding task, in which particular care is taken for image segmentation. An exacting part of body is scanned in the discus applications of the image analysis and techniques such as MRI [2,4], CT scan, and X rays. The images are judge by physician or surgeons to solve the problems. Brain analysis is a big cause of disability and death worldwide and connected abnormalities comprise for major changes in life. A tremendous enlargement has been done in the last decade for intelligence tumor in the area of intellectual cancer diagnosis. Cerebral cancer [5] has been notice that is dispersal over the world and many colleges and academy medical research centers are focusing on the issue [6].

The biomedical imaging at the present time is more focuses on the capture the images procedure for the therapeutic and diagnostic. The biomedical imaging technology is rarely used to use the enduring limb such as ultrasound, MRI, CT scan, and light endoscopy. Biomedical imaging used to right of admission the organ state in the body or the issues in the body. Today the software that used to do biomedical imaging re-inverted since the X-ray was inverted on year 1895. The modem x-ray nowadays just need milliseconds of contact time and used the solids state electronics to produce a high quality images and resolution [7].

In image enhancement, the objective is to emphasize certain image features for following analysis or for image display. Examples comprise difference and edge enhancement, pseudo coloring, noise filtering, sharpening and magnifying. Image enhancement is helpful in feature removal, image psycho analysis and visual in order display. The enhancement procedure itself does not increase the inherent in order display in the data. It simply emphasizes sure particular image individuality. Enhancement algorithms are usually interactive and request dependent. Medical image analytic equipments such as CT scanners, MRI, ultrasound etc. have been used worldwide. The output of these equipments is useful for manufacture of modified anatomical implants. But this is likely

International Journal of Pure and Applied Mathematics
Volume 114 No. 11 2017, 27-37
ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version)
url: http://www.ijpam.eu
Special Issue

ijpam.eu

A Novel Discrete Wavelet Transform Relaying Scheme for Busbar Protection

[1]Shaik Musthak Ahmed, [2]G. Hussain Peera, [3]Ch.Srikanth, [4]L. Santosh Kumar and [5]B. Naga Sai Dilip

[1]Department of EEE, PSCMR College of Engineering & Technology, Vijayawada. sikmahmed@gmail.com

[2]Department of EEE, PSCMR College of Engineering & Technology, Vijayawada. hussain.16953@gmail.com

[3]Department of EEE, PSCMR College of Engineering & Technology, Vijayawada. chimatasrikanth098@gmail.com

[4]Department of EEE, PSCMR College of Engineering & Technology, Vijayawada. santoshkumar101515@gmail.com

[5]Department of EEE, PSCMR College of Engineering & Technology, Vijayawada. nagasaidilip0143@gmail.com

Abstract

This paper deals with application of Wavelet Transform analysis for fast detection of busbar faults and to clearly discriminate them from external faults like feeder and zone 2 faults. The detail coefficients for first level of decomposition of differential and restraining currents are obtained over a narrow moving window which enhances the speed of relaying scheme. The Fault indexes obtained from these coefficients are compared to detect the internal faults and to discriminate the external faults from internal faults. The scheme is tested for different types of external and internal faults with variations in inception angles. The proposed scheme is proved to be fast in detecting the internal faults within critical clearing time and discriminating them from external faults for the system stability and reliability.

Key Words: Fault index, bus-bar faults, transients, biorthogonal wavelet, CT saturation, protective relaying.

ANDROID APPLICATION FOR PSCMRCET

K.Sudhakr, J. Prathap Reddy, T.Sai Manohar, P.Gayatri Anjani, A.Sneha
Associate Professor of CSE, Project Students of CSE

ABSTRACT: This project brings the android application for PSCMRCET WEBSITE. The current information regarding to the department including in website pscmr.ac.in. As the latest trends and technology is changing, it is better to have the information on hand as everyone is carrying mobiles with open source android operating system. In this view this application is going to be shaped to be an Android app to be available in Google play as well as local domain in the college. By providing this application the college information may be available up to date via "Students, Faculty, Achievements, Reports, Placements, etc.," along with picture galleries. Not only up to date but also in time information available and possible live updates. Advantages of having an Android app are included for students, faculty & parents. Parents may know the status of the department and advancements including reports up to date. So that it will be easy for any parent to know the advancements in college.

I. INTRODUCTION

The current project is aimed to provide android application to the clients (students, faculty) through this application. The user should start the application using the internet connection. The objectives of the study are

- User friendly environment to view the information.
- Browsing is allowed for further details regarding the information.
- User can load at least information to get updated about any event like departments, events, placements.
- Admin is also allowed to update/delete the information in case of making any changes that are to be made.
- This application displays the entire information regarding the college.

The main theme of this project is to convey the information related to the college like departments, events, placements through android application. The project is mainly intended to provide the information to the students, parents& faculty overall information regarding the college. Upon the use of this application the college can be aware of the information regarding departments, events, placements, contacts.

Existing System: Nowadays when we want to know the information about college, we must go to the college website www.pscmr.ac.in. Online College information is a simple tool for providing the information to client. Students can get information regarding the college with the help of this tool. This tool can also be treated as a College application. This type of application is not available for any college. The advantages are

- It's a User friendly application.
- We are making it available to our college.
- As, it is implemented in android all the android users can be able to use this application.

MODULE DESCRIPTION: This document play a vital role in the **Software Development of Life Cycle (SDLC)** as it describes the complete requirement of the system. It means for use by developers and will be the basic during testing phase. Any changes made to the requirements in the future will have to go through formal change approval process.

The basic idea behind this method is to develop a system through repeated cycles (iterative) and in smaller portions at a time (incremental), allowing software developers to take advantage of what was learned during development of earlier parts or versions of the system. Learning comes from both the development and use of the system, where possible key steps in the process start with a simple implementation of a subset of the software requirements and iteratively enhance the evolving versions until the full system is implemented. At each iteration, design modifications are made and new functional capabilities are added.

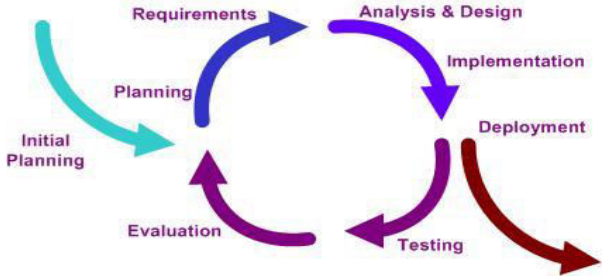


Fig 1.1 : Iterative Model

EXTRACTION OF SKIN PIXELS BY USING DIFFERENT KINDS OF SHADING MODELS

[1] B.HANUMANTHA RAO, [2]Dr.R.SIVARAM PRASAD,
[1] FResearch Scholoar Rayalaseema University ,[2] Professor Acharya Nagarjuna University
[1]hanumantha_rao59@yahoo.com ,[2] raminenisivaram@yahoo.com

Abstract— **Skin shading recognition is noteworthy in assortment of picture handling applications extending from signal examination; face following, face discovery, content-based picture recovery frameworks and to different human PC communication areas. Skin identification is additionally of most extreme significance in an ongoing gesture based communication acknowledgment frameworks. When the skin shading for the present conditions is separated successfully, taking a shot at the portioned locales would be less demanding and quicker and as needs be framework would have higher right discovery rate. Skin shading based division for PC vision applications including human clients has gotten significant consideration throughout the years. The work proposes a system dependent on skin tests for distinguishing the skin locus for test skin areas, which does not require information of camera parameters and corresponded shading temperature of the illuminate. The present work assesses the potential for utilizing skin locus based division for an indoor Sign Language acknowledgment framework**.

Index Terms— Skin Detection, Colour Models, Image Processing, Classifier, Shading Models..

I. INTRODUCTION

Skin location is the way toward discovering skin-hued pixels and locales in a picture or a video. This procedure is ordinarily utilized as a pre-processing venture to discover locales that conceivably have human appearances and appendages in pictures. Skin picture acknowledgment is utilized in a wide scope of picture handling applications like face acknowledgment, skin disease identification, motion following and human-PC association. The essential key for skin acknowledgment from a picture is the skin shading. In any case, shading can't be the main integral factor because of the variety in skin tone according to various races. Different factors, for example, the light conditions likewise influence the outcomes. Along these lines, the skin tone is frequently joined with different prompts like surface and edge highlights. This is accomplished by separating the picture into individual pixels and arranging them into skin shaded and non-skin hued. One straightforward strategy is to check if each skin pixel falls into a characterized shading reach or qualities in a few directions of a shading space. There are many skin shading spaces like RGB, HSV, YCbCr, YIQ, YUV, and so forth that are utilized for skin shading division [1]. We have proposed another edge dependent on the mix of RGB, HSV and YCbCr values. The accompanying elements ought to be considered for deciding the limit extends:

1) Effect of enlightenment depending on the surroundings.
2) Individual characteristics such as age, sex and body parts.
3) Varying skin texture with respect to different races.
4) Other factors such as background colors, shadows and motion blur.

The skin identification is impacted by the parameters like Brightness, Contrast, Transparency, Illumination, and Saturation. The identification is ordinarily upgraded by mulling over blends of the referenced parameters in their optimal reaches.

II. LITERATURE REVIEW

In the present quick paced life, where individual social insurance has taken a rearward sitting arrangement and most reduced need due to consistently developing hustle for acquiring more and remaining in front of rivalry, the importance of wellbeing can scarcely be over-expressed. At such pivotal crossroads, if innovation can hold hands with wellbeing area, mankind will be honored. In

Document Clustering for similarity Measures by Standard K-Means Approach

[1]B. Srikanth Reddy

[1] Assistant Professor, Dept of CSE, PSCMRCET, Vijayawada, Affiliated to JNTUK

[1] srikanth.bhimireddy89@gmail.com

Abstract— Clustering algorithms are typically used for exploratory data analysis, where there is little or no prior knowledge about the data. This is precisely the case in several applications of Computer Forensics, including the one addressed in our work. From a more technical viewpoint, our datasets consist of unlabeled objects the classes or categories of documents that can be found are a priori unknown. A wide variety of distance functions and similarity measures have been used for clustering, such as squared Euclidean distance, cosine similarity, and relative entropy. In this paper, we compare and analyze the effectiveness of these measures in partitioned clustering for text document datasets. Our experiments utilize the standard K-means algorithm and we report results on seven text document datasets and five distance/similarity measures that have been most commonly used in text clustering.

Index Terms—*clustering, K-Means, document similarity, cosine similarity*

I. INTRODUCTION

It is estimated that the volume of data in the digital world increased from 161 hexabytes in 2006 to 2000 hexabytes in 2015—about 36 times the amount of information present in all the books ever written—and it continues to grow exponentially. This large amount of data has a direct impact in Computer.

Text document clustering groups similar documents that to form a coherent cluster, while documents that are different have separated apart into different clusters. However, the definition of a pair of documents being similar or different is not always clear and normally varies with the actual problem setting. For example, when clustering research papers, two documents are regarded as similar if they share similar thematic topics. When clustering is employed on web sites, we are usually more interested in clustering the component pages according to the type of information that is presented in the page. Forensics, which can be broadly defined as the discipline that combines elements of law and computer science to collect and analyze data from computer systems.

Partitional clustering algorithms have been recognized to be more suitable as opposed to the hierarchical clustering schemes for processing large datasets. A wide variety of distance functions and similarity measures have been used for clustering, such as squared Euclidean distance, cosine similarity, and relative entropy. In this paper, we compare and analyze the effectiveness of these measures in partitional clustering for text document datasets. Our experiments utilize the standard Kmeans algorithm and we report results on seven text document datasets and five distance/similarity measures that have been most commonly used in text clustering.

II. LITERATURE SURVEY

[1] J. Lin. Divergence measures based on the shannon entropy. IEEE Transaction on Information Theory, 37(1):145–151, 1991.

A novel class of information-theoretic divergence measures based on the Shannon entropy is introduced. Unlike the well-known Kullback divergences, the new measures do not require the condition of absolute continuity to be satisfied by the probability distributions involved. More importantly, their close relationship with the variational distance and the probability of misclassification error are established in terms of bounds. These bounds are crucial in many applications of divergence measures. The measures are also well characterized by the properties of non negativity, finiteness, semiboundedness, and boundedness

[2] D. Milne, O. Medelyan, and I. H. Witten. Mining domain-specific thesauri from wikipedia: A case study. In Proc. of the International Conference on Web Intelligence (IEEE/WIC/ACM WI'2006), 2006.

Domain-specific thesauri are high-cost, high-maintenance, high-value knowledge structures. We show how the classic thesaurus structure of terms and links can be mined automatically from Wikipedia. In a comparison with a professional thesaurus for agriculture we find that Wikipedia contains a substantial proportion of its concepts and semantic relations; furthermore it has impressive coverage of contemporary documents in the domain. Thesauri derived using our techniques capitalize on existing public efforts and tend to reflect contemporary language usage better than their costly, painstakingly-constructed manual counterparts

[3] J. M. Neuhaus and J. D. Kalbfleisch. Between- and within-cluster covariate effects in the analysis of clustered data. Biometrics, 54(2):638–645, Jun. 1998.

Standard methods for the regression analysis of clustered data postulate models relating covariates to the response without regard to between- and within-cluster covariate effects. Implicit in these analyses is the assumption that these effects are identical. Example data show that this is frequently not the case and that analyses that ignore differential between- and within-cluster covariate effects can be misleading. Consideration of between- and within-cluster effects also helps to explain observed and theoretical differences between

A Novel Technique for Women Security

V.NAVYA SREE
Associate Professor, Department of CSE,
PSCMRCET, Vijayawada, AP, India

ABSTRACT:-

Crimes against women have been doubled from a decade. More than two million crimes were reported in the last decade. Nearly 23 crimes are reported against female for every 60 minutes or a single complaint for every three minutes. Ladies' security is a basic issue in this day and age and it's particularly required for each person to act over such an issue. This document describes “women safety” that provides alerts and messages with an emergency button trigger. When-ever some body is in trouble .They might not have so much time, all that they have to do is pressing the power button. Now a days due to recently happened cases such as rape by drivers or colleagues, burglary etc., especially women security has become the foremost priority of the world. So to overcome all these issues we use the Global Positioning System (GPS) technology to find out the location of women. The information of women position can be viewed on Google maps using Internet or specialized software. By just clicking the power button we can send alerts to your family members and friends with your location in a situation of distress and also it creates siren like police siren to alert surrounded people .This app sends panic alerts to emergency contacts in problematic situations automatically it can take video and record voices and also send location name, which are directly uploaded to the server.

KEYWORDS :-

women safety , emergency button , GPS

1. INTRODUCTION:-

The status of women in India has gone through many great changes over the past few years.The history of women in India has been eventful. In present day India, ladies have embellished high workplaces in India including that of the President, Head administrator, Pioneer of the Resistance and Speaker of the Lok Sabha. Be that as it may, ladies in India keep on facing social difficulties and are regularly casualties of manhandle and brutal violations and, as indicated by a worldwide survey "driven by Thomson Reuters, India and, as indicated by a worldwide survey led by Thomson Reuters, India is the "fourth most hazardous nation" inthe world for ladies among the G20 countries. The Delhi Nirbhaya case that triggered the whole nation was the greatest motivation for this

system. It was hightime we women needed a change. This paper focuses on a security system that is designedmerely to serve the purpose of providing security to women.

Data Security in Cloud Storage using Encryption Algorithm

Singothu Babu Rajendra Prasad,

Assistant professor of CSE, rajendra11g@gmail.com

Department Of Computer Science and Engineering,

PSCMR College of Engineering and Technology

Abstract

In today's world of (network-, host-, and application-level) infrastructure security, data security becomes more important when using cloud computing at all "levels": infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and software-as-a-service (SaaS).It is also important to ensure that a protocol provides confidentiality as well as integrity (e.g., FTP over SSL [FTPS], Hypertext Transfer Protocol Secure [HTTPS], and Secure Copy Program [SCP])—particularly if the protocol is used for transferring data across the Internet. Merely encrypting data and using a non-secured protocol. This paper proposes a simple, secure, and privacy-preserving architecture for inter-Cloud data sharing based on an encryption/decryption algorithm which aims to protect the data stored in the cloud from the unauthorized access. Keywords Cloud storage · Data security · Cryptography · RSA · AES 1 Introduction Cloud computing is the concept implemented to remedy the Daily Computing Problems. Cloud computing is basically virtual pool of resources and it provides these resources to users via internet Storage as a service (STaaS) is a Cloud business model in which a service provider rents space in its storage infrastructure to individuals or companies.

Introduction

The data stored in the cloud can be sensitive to the business. The problematic is that these data are likely to be exploited by the provider or other unauthorized persons. This weakness has motivated us to think about solutions that enable users to secure their data to prevent malicious use. In recent years, STaaS in Cloud gained popularity among both companies and private users. It allows the end-user to take advantage of the maximum computing capability with minimum hardware requirement. However, data privacy, security, reliability and interoperability issues still have to be adequately solved. But the most important problem is security and how cloud provider assures it. Data security in cloud storage is a major obstacle limiting its spread. There are various opinions on the security of cloud computing with pros and cons.

Our contribution aims to provide a solution that ensures the storage of data securely in the cloud. The data must be encrypted before sending them to the cloud. We used the symmetric

A Framework for the Logical Modeling of Data Warehouse Systems Using UML Extension Mechanism

G Rambabu, Dr.Shaik Akbar, Dr A Patanjali Sastri Dr.K.Nageswara Rao
Assistant Professor, Professor, HOD, Professor, Principal, PSCMRCET, Vijayawada
rambabu.gollaupdi@gmail.com, dr.shaikakbar@gmail.com, hod.cse@pscmr.ac.in, principal@pscmr.ac.in

Abstract— Data Warehouse (DW) applications provide past details for judgment process for the companies. It is acknowledged that these systems depend on multidimensional (MD) modelling different from traditional database modelling. MD modelling keeps data in the form of facts and dimensions. Some proposals have been presented to achieve the modelling of these systems, but neither has been accepted as a standard. There is no any approach which considers all the major components of MD systems. Some proposals provide their proprietary visual notations, which force the architects to gain knowledge of new precise model. This paper describes a framework which is in the form of an extension to Unified Modelling Language (UML). Any method using the UML reduces the endeavour of designers in understanding the novel notations. Another exceptional characteristic of the UML is that it can be extended to bring in novel elements for different domains. In addition, the proposed UML profile focuses on the accurate representations of the properties of the MD systems based on domain specific information. Moreover, an evaluation and analysis of the proposed framework is provided to show the efficiency of the proposed work.

Keywords—UML Profile, Data Warehouse, UML, MD Modeling.

I. INTRODUCTION

The Modern civilization is characterized by a regular need to follow, gather and store data about a variety of events. Information systems have very simply become in all the areas of the human lives, while databases that support them have enlarged to the scale of even peta bytes which is wide scale of info to that can be stored. They can be modeled and shaped in the way to represent meaningful pieces that can be used, based on many recorded data, to infer some new knowledge, to follow the pattern of some changes also to help people in business to make decisions.

There was a time where the business people are worried to store a large amount of data but because of some business intelligence it was overcame. Today and even more in the future, the companies would not be able to compete in the world market if they do not give an intelligent way of analyzing their data and extracting information that is critical for income growth. Decision-making support systems represent the subclass of BI information systems. These systems are known as Data Warehousing (DW) systems, and the beginning of such systems is the appropriate design.

The first introduction to Data Warehouse concept dates back to 1992 and its first definition is given by B. Inmon "Data Warehouse is system that is based on the following: specific subject, integration from different sources, time-variant and non-volatility to help management's decision making process". This actually means that the Data Warehouse represents a single storage for all domain-relevant data, from various available sources (integrated), collected during the particular period of time (time-variant). Additionally, this also states that this storage is stable in terms that data can only be inserted but never updated or deleted from data warehouse (non-volatile). Even though the area of decision making systems evolved a lot, this definition is still mostly accurate.

Data warehouse (DW) applications provide past data and information for the process of decision making of a particular organization. It is acknowledged worldwide that multidimensionality provide basis for such systems. MD modeling is based on a number of characteristics unlike those in conventional database modeling. The MD stores data in the shape of facts and dimensions. A DW is generally a huge memory space of data which is used to make a judgment. The expansion of a DW system is dependent on multidimensional modeling. It is used to structure the data into the form of fact and dimensions. A fact includes motivating factor or metric of business logic and dimension characterize the viewpoint for investigating a fact. Different authors have highlighted the issue of unsuitability of ER model for DW systems .ER models cannot be used as the foundation for DW. However, afterward data models adapted for DW, such as the famous star schema of Ralph Kimball, neither they are able to consider the main peculiarities of MD model.

The UML offers a standard way to spot the project drawing that comprises notional elements such as the business processes and system tasks. Moreover, it also concentrates on the design and modeling of tangible things of a system such as the declarations of programming language, the schemas of database, and the software components that can be recycle. Though, it is short of modeling the essentials of a system which is not Object-Oriented. The light weight extension of UML is called UML profile. UML profiles are formulated by means of UML extension method for systems other than object-oriented. UML Profile is actually the integration and composition of an expansion which tailors UML for a specific. These are formulated using extension mechanism for systems other than object-oriented. The profiles are described using stereotypes, constraints, and tag values that are implemented to particular UML component, such as Classes etc.

The extension of the UML has the following advantages: 1) to utilize the current CASE tools by profitable and open

A novel approach to detection of Static Objects using Background Subtraction Method

Pathanjali Sastri. A, Professor & Head
cse.hod@pscmr.ac.in
Ponnuru Sravani, IVth year Student
sravaniponnuru3@gmail.com
Oleti Sravani, IVth year Student
sravani14896@gmail.com

Department of Computer Science and Engineering, Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering and Technology, Vijayawada, Andhra Pradesh, India,

***Abstract*—This paper provides an attempt to develop an intelligent system to detect the unattended object using image processing technique. As there is a potential security threat nowadays due to the leaving unattended objects in public spaces like cinema halls, shopping malls, airports, railway stations, etc. and it is challenging task for the security personnel to check and react to the threat, there is a great need for automatic detection of unattended object in these areas. So, our project considers identifying the unattended object from a live stream of video, as the present automatic surveillance system cameras have higher processing capabilities and has made it possible to develop intelligent systems which can possibly detect the suspicious objects in the public places which can save lives of many and prevent damages of the public property. The technique we used in this proposed system is dual background segmentation approach.**

Keywords: suspected object, unattended object, surveillance system, background subtraction, object tracking method

I. INTRODUCTION

Now-a-days it is practically impossible for the security personnel to notice all the events in real time. So, in order to identify any removal of any suspicious unattended physical object, the proposed system enhances the security by sending the location of the suspected object to the mobile at control room after determining the exact location of the unattended object. The computer vision and artificial intelligence techniques are used to overcome the limitations of traditional surveillance methods, and develop automated systems for detecting unattended object.

II. METHODOLOGY

In this paper we used background subtraction [1][2][3]and frame differencing to detect objects with re- cursively updating the background model based on each input frame. This method checks the effect on the current background model being analyzed. Blob detection is used to obtain clarity of the objects which are static or in motion within the prescribed range of the area where the surveillance cameras are installed. With motion detection technique, we understand the change in the position of an object relative to its surroundings. This method is useful for detecting the moving object from the background in order to mark it as “theft object”. An alarm will be raised to the control room after detecting the abandoned object as well as the theft object along with the captured image to the mobile phone in the control room to take necessary action.

III. DISCUSSIONS

Even today the visual surveillance at public places provides the recorded video for analysing the event happened after the related situation has occurred[2]. This situation demands for automatic methods for video analysis, so that the event occurring could be prevented and also automatically detect potentially hazardous situations. The logic behind this intelligent system is to detect an unattended object which is left at a particular place under surveillance for some time and unattended for a period of time (s) and also it should remain static in recent frames[4]. Therefore, the extraction of image region showing stationary unattended objects is the main concept in the process of unattended object detection.

A Tri Class Thresholding Procedure in Picture Division for Shading Pictures

Y. Kumari
Professor, Department of E.C.E
PSCMRCET
kumarinvsr@gmail.com

J.Anusha
Department of E.C.E
PSCMRCET
chinnu.anu19@gmail.com

Abstract: ***We display another technique in picture division that depends on Otsu's strategy yet iteratively scans for sub regions of the picture for division, rather than regarding the full picture in general district for handling. The iterative strategy begins with Otsu's limit and registers the mean estimations of the two classes as isolated by the edge. In light of the Otsu's edge and the two mean values, the strategy isolates the picture into three classes rather than two as the standard Otsu's technique does. The initial two classes are resolved as the closer view and foundation and they won't be handled further. The second rate class is signified as a to-be-resolved (TBD) district that is prepared at next cycle. At the succeeding emphasis, Otsu's strategy is connected on the TBD area to ascertain another edge and two classes implies and the TBD locale is again isolated into three classes, to be specific, closer view, foundation, and another TBD district, which by definition is littler than the past TBD areas. At that point, the new TBD district is prepared in the comparative way. The procedure stops when the Otsu's edges ascertained between two emphasis is not as much as a preset edge. At that point, all the middle of the road closer view and foundation areas are, individually, joined to make the last division result.***

Keywords: Thresholding, division, Otsu technique

INTRODUCTION

Picture division is the procedure by which a picture is isolated into locales, or portions, in view of different criteria. Grey scale Picture Division is a type of picture division whereby a two-dimensional picture is isolated into two portions frontal area and foundation as per some relationship of the pixels' power or dim levels. The subsequent division can be translated as a monochrome (high contrast) picture, where either dark or white pixels are assigned as closer view, and the rest of foundation. Closer view pixels can be said to enthusiasm', in that they speak to some protest or highlight which is important to study; foundation pixels are "uninteresting" as they give no prompt an incentive to investigation.

Picture division is helpful in any setting where a picture, (for example, a photo) is to be in any capacity broke down consequently by a PC. Specifically compelling are applications in bioinformatics, for example, helped conclusion of diabetic retinopathy by breaking down retinal output pictures [1, 2, 3] ; investigations of medicines on cell populaces, by dissecting changes in size, shape, or quantities of cells; and helped examination of Attractive Reverberation Picture sweeps to analyse any number of pathologies [17, 12, 13]. Via computerizing even some portion of the procedure, a triage framework is executed whereby the PC can decide at fast which cases are sound, and which require more consideration from a specialist. By playing out the underlying conclusion at rapid, killing superfluous cases, and highlighting specific regions of concern, the workload of the diagnosing specialist is essentially decreased, permitting a much bigger assortment of information to be contemplated with a similar level of detail in less time.

Right now different ways to deal with picture division are utilized, of which I will depict probably the most settled and perceived beneath. When classifying picture division methods it is helpful to elude to the fundamental procedure every system employments.

The most straightforward greyscale division way to deal with appreciate is that of thresholding, which includes characterizing a specific power an incentive as an edge to such an extent that any pixel with a force more noteworthy than the limit is named 'white', and any not exactly or equivalent to the edge is marked 'dark'. At that point, contingent upon the specific picture and setting, either "dark" or "white" pixels are said to be frontal area, and the others foundation. One generally utilized and all around perceived thresholding strategy, proposed by Noboyuki Otsu in 1978[4], clarified in detail in segment 1.2.1, utilizes factual investigation of the picture's dim level histogram to decide the ideal edge. Other thresholding procedures have been recommended which utilize diverse target capacities to assess the optimality of a limit. For instance, by utilizing strategies made

Implementation and Synthesis of 32 bit Reversible ALU by using Xilinx 14.7

K.Sundar Srinivas
Assistant proffessor, Department of E.C.E,PSCMR College of engineering & technology

ABSTRACT : In the current world, Arithmetic Logic Unit (ALU) is a standout amongst the most critical parts of any framework and is utilized as a part of numerous machines like number crunchers, phones, and PCs etc. An ALU is a multi-useful circuit that restrictively performs one of a few conceivable capacities on two operands A and B relying upon control inputs.This paper proposes the outline of programmable reversible logic gate structures, directed for the ALU usage and their utilization in the acknowledgment of an effective reversible ALU. Reversible or data lossless circuits have applications in computerized flag handling, correspondence, PC representation and cryptography. This ALU comprises of thirteen operations, 5 math, 4 intelligent operations and 4 moving operations. Every one of the modules are being composed utilizing the fundamental reversible entryways. Utilizing reversible logic entryways rather than customary logic AND/OR gates, a reversible ALU whose capacity is the same as conventional ALU is built. Contrasting and the quantity of information bits and the disposed of bits of the conventional ALU, the reversible ALU fundamentally lessen the utilization and loss of data bits. The proposed reversible 32-bit ALU lessens the data bits utilize and misfortune by reusing the logic data bits coherently and understands the objective of bringing down influence utilization of logic circuits. Programmable reversible logic gates are acknowledged in VHDL by utilizing XILINX 14.7

Keywords – ALU, Digital Signal processing, power Consumption, Reversible logic gates.

1.INTRODUCTION

Vitality dispersal is one of the significant issues in present day innovation. Vitality dispersal due to data misfortune in high innovation circuits and frameworks developed utilizing irreversible equipment was exhibited by R. Landauer in the year 1960. As indicated by Landauer's[1] rule, the loss of one piece of data lost, will disperse kT*ln (2) joules of vitality where, k is the Boltzmann's consistent, T is the outright temperature . In 1973, Bennett [2], demonstrated that keeping in mind the end goal to maintain a strategic distance from kTln2 joules of vitality scattering in a circuit it must be worked from reversible circuits. As indicated by Moore's law the quantities of transistors will twofold every 18 months. In this way vitality traditionalist gadgets are the need of the day. The measure of vitality scattered in a framework bears an immediate relationship to the quantity of bits deleted amid calculation. Reversible circuits are those circuits that don't lose data. The current irreversible innovations will disperse a ton of warmth and can decrease the life of the circuit. The reversible logic operations don't eradicate (lose) data and scatter less warmth. Amalgamation of reversible logic circuit varies from the combinational one from multiple points of view.

Firstly, in reversible circuit there ought to be no fan-out, that is, each yield will be utilized just once. Also for each information design there ought to be one of a kind yield design. At last, the subsequent circuit must be non-cyclic. Any reversible circuit configuration incorporates just the entryways that are the quantity of gates, quantum cost and the number of refuse yields.

2. Design of ALU

The outline of low power and rapid microchips requires that its segments ought to devour less power. Math and Logic Unit (ALU) is a standout amongst the most power expending parts in a microchip. Thus, to diminish the power utilization of the whole ALU each of its segments ought to expend less power. Here we focus on a 32 bit ALU execution to perform 13 unique operations which incorporates a adder/subtractor module utilizing convey look ahead snake, a multiplier module utilizing exhibit multiplier, a shifter with 4 diverse move operations and a logic unit by utilizing reversible logic entryways, warm dispersal because of data misfortune can be maintained a strategic distance from if the circuit is planned utilizing reversible logic gate.

3.Reversible Gates

A few reversible gates have turned out in the current years. The most fundamental reversible entryway is the Feynman gate and is appeared in Fig 3.1. It is the main 2x2 reversible gate accessible and is generally utilized for fan out purposes. Consider the information B as steady. At the point when B is zero, the entryway goes about as a duplicating gate or a cradle where both the yield lines contain the information A. At the point when B is

Implementation of Pollution Free Bin for Smart Cities

T. Durga Prasad, Assistant professor,
Department of Electronics and
Communication Engineering, PSCMRCET,
Vijayawada, Andhra Pradesh, India.

R. Vijay Shashank, Assistant professor,
Department of Electronics and
Communication Engineering, PSCMRCET,
Vijayawada, Andhra Pradesh, India.

Abstract— As the population is increasing day by day there will be a lot of scope for increase in the waste. But the idea of the government is to make each city as a smart city. The present idea is to use the dustbin in a smart way for the smart cities. It is not possible for municipalities to continuously monitor the bins to be cleaned. To overcome the problem this paper propose a Smart Bin which will be placed in regular bin places with a automatic open and close door that keeps environment free of pollution. And if the bin gets filled a message will be sent to the corresponding municipality that the bin in this area is filled. With that message the municipal people can come and clean the bin regularly.

Keywords- Smart Bin, Arduino Uno, Servo motor.

I. INTRODUCTION

Section I gives the brief introduction to the smart Bin. Section two deals with the components used for the Bin. Section III explains the Arduino software and simulation. Section IV gives the results and Section V, VI gives the future scope and References.

II. COMPONENTS

Arduino Uno

The Arduino UNO is an ASCII text file microcontroller board that supports the silicon chip ATmega328P microcontroller which is developed by Arduino.cc. The board was provided with sets of digital and analog input/output (I/O) pins that will be interfaced to numerous growth boards (shields) and different circuits. The board has fourteen Digital pins, six Analog pins, and programmable with the Arduino IDE (Integrated Development Environment) via a kind B USB cable. Although it accepts voltages between seven and twenty volts, it is battery-powered by a USB cable or by an external nine potential unit battery, it is also similar to the Arduino Nano and Leonardo. The hardware reference design is distributed under a Creative Commons Attribution Share-Alike 2.5 license and is available on the Arduino website. Layout and production files for a few versions of the hardware are accessible. "Uno" means the one in Italian and was chosen to mark the discharge of Arduino software system (IDE) one.0. The Uno board and version one.0 of Arduino software system (IDE) were the reference versions of Arduino, currently evolved to newer releases. The Uno board is the first in an exceedingly series of USB Arduino boards, and therefore the reference model for the Arduino platform. The ATmega328 on the Arduino Uno comes pre-programmed with a boot loader that allows uploading new code to it without the use of an external

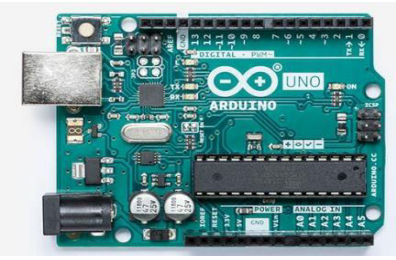


Fig 1: Arduino Uno REV3

hardware programmer. It communicates using the original STK500 protocol. The Uno also differs from all preceding boards in that it does not use the FTDI USB-to-serial driver chip. Instead, it uses the Atmega16U2 (Atmega8U2 up to version R2) programmed as a USB-to-serial device.

Pin functions of Arduino Uno

LED: The built-in LED is driven by digital pin 13. The LED is on, when the pin is HIGH value. And the LED is OFF when the pin is LOW value.

A SYSTEM FOR SMART BUILDINGS - CONNECTED THROUGH IOT

A.RAMESH, J.ANUSHA[2], CH.AMALA[3], N.MOUNIKA[4]
Department of Electronics and Communication Engineering
PSCMR College of Engineering and Technology, Vijayawada, Andhra Pradesh, India.

***Abstract*—** Technology has been running with time by completely occupying the life style of human beings. And also different technologies are important in Real time environments. Even though there is such an importance for technology in our routine life there are even people whose life styles are very far to this well known term technology. So it is a human responsibility to develop some efficient reliable systems for mankind purpose. Automatic Lights On-Off, Room Temperature Controller and Fire Extinguisher using Internet of Things (IoT) are few of them. The developed system provides an environment in which no user needed to control manually. The proposed system does not require a dedicated server PC. The circuit was designed using electronic components available in local market to keep the cost at low level and Automatic System was processed using ESP8266. Their indications are displayed on All things talk maker and different values of temperature and light intensity are shown on LCD in Celsius.

Keywords—Internet of things; Arduino Uno; All things talk app; ESP8266; LCD

I. INTRODUCTION

Wireless Communication achieved rapid growth in most vibrant technological areas. It is a method of transmitting information from one point to other, without using any connection like wires, cables or any physical medium. As the proposed project is based on the IOT, in the beginning phase of Internet of Things, it is all about wireless sensor networks. WSN is the most important area in Internet of Things. The main purpose for Internet of Things is to build a worldwide network among all the possible objects. Moreover, WSN [2] is a truly helping technology that let user to achieve the real meaning of IoT. The main idea of WSN is to connect the sensing layer and network layer in the IoT.

Temperature controlling of a particular area is a process to measure or detect the temperature and the passage of heat energy into or out of the space is adjusted to achieve desired average temperature. Temperature Controlling plays a vital role in houses and a lot of industries like food industry and laboratories or even environmental monitoring. In case of Home Automation system, Temperature controlling, Automatic Sprinkler system and Lights on-off system are very important. Usually, sensors are widely used in these systems. In order to control the circuit manually, here an IoT approach has been taken into account.

When Fire Sensor detects fire or fire related smoke in its surroundings, it automatically activates the buzzer and turns on the Sprinkler system. And LDR is a resistor whose resistance increases or decreases depending upon amount of light intensity. The main components of the kit include Arduino Uno, Node MCU. These components are integrated with LCD display board and thus incorporate the wireless features.

II. INTERFACING ARDUINO UNO TO WIFI VIA ESP-8266

ESP-8266[9] is one of the low cost alternatives to the expensive Arduino Wi-Fi shields. Remaining shields or other shields may cost more. There are several ESP modules around the World. The ESP8266 Wi-Fi Module is self contained Silicon on Chip (SoC) with integrated TCP/IP protocol stack that can give any microcontroller access to Wi-Fi network. The ESP-8266 is efficient in either providing an application or unloading all Wi-Fi networking functions from another processor and also it is the most common model which will be available in the local market. All ESP8266 modules are programmable. One can use the default factory firmware or they can use their own and can upload it to the module. Here, in this system we used default firmware which provides a serial communication that can send AT commands to the module just like in the old telephone/modem days. Those commands provide everything that we need to connect with a Wi-Fi router and can send/receive the data.

The connection between ESP-8266 and Arduino uno is easy: ESP-Rx connects to Arduino-Tx, ESP-Tx connects to Arduino-Rx. However all ESP's run on 3.3V and Arduino run on 5V. Before connecting them, one should provide a way to adopt these voltages

I

Fabrication of Compressed Air Vehicle

Smt. N. V. Malavika M.Tech, Devadi. Suresh(B.Tech) ,Danda.Manasa (B.Tech)
Assistant Professor, Student, Student
Department of Mechanical Engineering, Potti Sriramulu College Of Engineering &Technology, India.
Email Id:malavika103@gmail.com,devadisuresh12@gmail.com,dandamanasa1997@gmail.com.

Abstract :- Global climate change is the major problem to be faced today. One of the main factor contributing is the emissions from vehicles i.e. our personal vehicles are the major cause of global warming. When emissions go down the pace of global warming slows. So there is a need to shift from the use of conventional fuels to non-conventional fuels. One such alternative fuel is compressed air. Compressed air is clean fuel. It's behavior is simple and safe which does not cause any adverse effect on environment. This paper deals with the study of compressed air as a fuel for running a 3- wheeler vehicle wherein the compressed air is stored in tank & supplied to the air motor from where rotational motion is obtained. In this project a preliminary investigation is carried out to run a vehicle on compressed air.

I.INTRODUCTION:

The first compressed air vehicle was established in France by a Polish engineer Louis Mekarski in 1870. It was patented in 1872 and 1873 and was tested in Paris in 1876. The working principle of Mekarski's engine was the use of energy stored in compressed air to increase gas enthalpy of hot water when it is passed through hot water. Another application of the compressed air to drive vehicles comes from Uruguay in 1984, where Armando Regusci has been involved in constructing these machines. He constructed a four-wheeler with pneumatic engine which travelled 100 km on a single tank in 1992. The Air Car was developed by Luxembourg-based MDI Group founder and former Formula One engineer Guy Negre is which works on compressed air engine (CAE). He developed compressed air- 4- cylinders engine run on air and gasoline in 1998 which he claims to be zero pollution cars. It uses compressed air to push its pistons when running at speeds under 35 mph and at higher speeds of 96 mph, the compressed air was heated by a fuel (bio fuel, gasoline, or diesel),due to which the air expanded before entering the engine. A fuel efficiency of about 100 mpg was observed. Light weight vehicles are the next advancement in the development of automobiles. Reducing the weight of the vehicle has many advantages as it increases the overall efficiency of the vehicle, helps in improving maneuverability, requires less energy to stop and run the vehicle. The latest researches are going on around the world in order to come up with innovative ideas. But global warming is also one of the problems which is affecting the man. The temperature of the earth is increasing drastically and this in turn is causing climatic changes. The fossil fuels are widely used as a source of energy in various different fields like power plants, internal & external combustion engines, as heat source in manufacturing industries. In the past few decades, energy conservation and carbon reduction have become very crucial issues worldwide. Scientists have been searching for solutions to reduce the extensive use of conventional internal combustion (IC) engines and/or reduce their carbon dioxide emissions. To find a replacement for conventional IC engines, researchers have studied several types of engines that use green energy to determine the feasibilities of installing these engines in motor vehicles. Examples include electric engines,

"FUEL EFFICIENCY IMPROVEMENT IN PETROL ENGINE BY USING WATER INJECTION"

[1]VIJAY SRIHARSHA TANGELLA, [2] SURENDRA BABU KOGANTI, [3] E RAMAKRISHNA REDDY

[1] ASST. PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEEING – PSCMR COLLEGE OF ENGINEERING AND TECHNOLOGY, [2] ASST. PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEEING – PSCMR COLLEGE OF ENGINEERING AND TECHNOLOGY, [3] ASST. PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEEING – PSCMR COLLEGE OF ENGINEERING AND TECHNOLOGY

[1]sriharsha@pscmr.ac.in,[2] sbkoganti51@gmail.com, [3]eppala.ramakrishnareddy@gmail

Abstract—

In internal combustion engines, water injection is also known as anti- detonates injection, is spraying water into the cylinder or incoming fuel-air mixture to cool the combustion chambers of the engine, allowing for greater compression ratios and largely eliminating the problem of engine knocking (detonation). This effectively reduces the air intake temperature in the combustion chamber, meaning that performance gains can be obtained when used in conjunction with a supercharger, turbocharger, altered spark ignition timing, and other modifications.

The reduction of the air intake temperature allows for a more aggressive ignition timing to be employed, which increases the power output of the engine. Depending on the engine, improvements in power and fuel efficiency can also be obtained solely by injecting water. Water injection may also be used to reduce NOx or carbon monoxide emissions. Finally the load test is carried out in order to find the efficiency of the engine and they are compared with that of the conventional engines.

Index Terms—*Fuel Efficiency, Petrol Engine, Water Injection*.

AN EMPIRICAL STUDY IN VIJAYAWADA CONSUMER PERCEPTIONS' TOWARDS MOVIE WATCHING

Naveen Gupta Jalluri
Associate Professor
Department of Management Studies
Potti Sriramulu Chalavadi Mallikharjuna Rao College of Engineering and Technology
Kothapet, Vijayawada – 520 001, Andhra Pradesh.
E-mail: jngupta08@gmail.com

Abstract

The movie projected on projection screen in small auditorium while the dialogues are played through a speaker in olden days. Now the customers are preferred multiplexes which are more in country has changed the entire complexion of Indian films. Hence fourth the way they make the moves and budgets spent on it is also changes. In this backdrop multiplexes have played a pivotal role in these developments, catering to a global taste. In India, the mushrooming of multiplexes since the mid-90s has changed the dynamics of the Indian film industry. The Indian films are watched by more people than any other country

Introduction

CONCEPT DEFINITIONS

Multiplexes: Multiplexes are purpose built cinemas offering a wide choice of viewing across atleast five screens (P Hubbard, 2003).

Single screen cinemas: Since there is no conclusive definition of single screen cinemas the researcher would like to present the definition of cinema which is quite relevant to the text. Cinema: Light projected through moving celluloid replaced by technological means on a screen (Ellis, 1978)

India being the largest producer of films has maintained the high levels of art, innovation and seriousness with a new genre of movies. The Indian film industry is the oldest and the largest in the world with over 1200 movies released annually. The modern shopping malls offer variety of entertainment services, life style products,gaming hubs, food courts and cinemas(Ibrahim and Ng, 2002; Friedbergy, 1993). Shopping trips can have many purposes(O'Kelly,1981). If we consider the view point of Davies(1995) people enter in a theatre or cinema for leisure.People are turning towards multiplexes due to various reasons, some of them are safety, better ambience,eateries, security etc.(ooi and sim,2007). One will be surprised to see the number of women walking out of multiplexes after nightfall, but saying that with the boom of multiplexes it is not a happy time for single screen theatres. When it comes to enjoying a movie with a woman companion most of the people prefer multiplexes (Eliashberg et al.,2005).

Emerging Dynamics of Accounting Education and Research – A Detailed Study

MANIKANTA SAMA
Associate Professor, Department of Management Studies
PSCMR COLLEGE OF ENGINEERING AND TECHNOLOGY, VIJAYAWADA- 520 001
Email: manikantasama@gmail.com

Abstract

The emerging issues of accounting education and research in India have been discussed keeping in view the changing economic environment of the Indian business and industry. The environment for accounting education has totally changed and certain new challenges have emerged in this regard. The WTO reforms call for restructuring of the service sector including the accounting services. Therefore accounting education needs to be given due attention in this emerging scenario. The Information technology and the Globalization of Markets are the two other major governing factors impacting various changes in the accountingeducation. It is also important to mention here that world regions and countries vary in terms of the stage of the development of the accounting education in tune with their economic systems. Hence a great deal of attention needs to be given to customizing the broad educational needs of the accountancy profession keeping in view this factor.The accountancy research at the doctoral level in India is quite scanty. There is also a lack of interface between the accounting researchers and the business and industry. The industry is not forthcoming in providingsupport for various research projects and making available the necessary data base for promoting the researchactivity. Hence in this context the accounting educators and accounting professionals should find out the ways and means of restructuring the accounting education so as to meet the challenges of change in the business and industry.

Introduction

The Accounting education in India is provided as part of commerce stream in secondary, graduation and post graduation level of different educational institutions. But, in the changing scenario particularly in globalization and liberalization era the business and industry have to face many challenges like stiff competitions, technological up gradation, cost reduction, improvement in quality, customer satisfaction and outsourcing technique. So, till today the accounting education in India has not been upgraded to that level in order to face those challenges. Rather, it is confined with only a feedback system to the professional institutions like ICAI, ICWA and ICSI. Hence, the purpose of accounting education has not been fulfilled to meet the requirements of present business and industry.

The entrepreneurs and the business man of our country follow an accounting procedures in order to meet different government and legal formalities. So, they have lot of expectations from the accounting professionals which should enable them in order to arrive at managerial decision making process. In this context, the educational institutions of country like India have realized that there is an urgent need to update the accounting curriculum in order to the more appropriate for the requirement of the modern business enterprise. So, the accounting education

A STUDY OF MICROFINANCE INSTITUTIONS AND ITS IMPACT OVER RURAL DEVELOPMENT

MANIKANTA SAMA
Associate Professor
Department of Management Studies
PSCMR COLLEGE OF ENGINEERING AND TECHNOLOGY
VIJAYAWADA- 520 001
Email: manikantasama@gmail.com

Abstract :

More than subsidies poor need access to credit. Absence of formal employment make them non 'bankable'. This forces them to borrow from local money lenders at exorbitant interest rates. Many innovative mechanisms have been developed across the world to enhance credit to poor even in the absence of formal mortgage. The present paper discusses conceptual framework of a microfinance institution in India. The successes and failures of various microfinance institutions around the world have been evaluated and lessons learnt have been incorporated in a model microfinance institutional mechanism for India.

Keywords: Micro Finance, Rural Development, Poverty Alleviation, NGO's, CBFS.

Leadership: Impact of Indian Culture and Its Implications

Dr. V Vijay Durga Prasad MBA Ph D
Professor of Management Studies
Head of the Department
PSCMR College of Engineering and Technology
Kothapet
Vijayawada -520 001

Abstract

As a consequence of the economic liberalization in India, there has been tremendous pressure on the government as well as business enterprises to improve their competitive capabilities. Gearing up to the emerging opportunities and staying in a competitive environment requires greater responsibility and innovative approaches than have been evident so far. There is also a need for strong elements of professionalism in managing and developing human resources. The socio-cultural environment in India is unique. Its peculiarities mould the personality of leadership styles in Indian management practices. Most of the Leadership and HRM practices in India have been borrowed from the West. These often clashed with the Indian value system and environment. This led to some workable solutions being found but they conflicted with western management theories. The Indian leaders today, educated either in the West or tutored in western management literature attempt to manage and administer the Indian industrial structure on western principles. This approach sometimes does not work and compromises result often accompanied by frustration. Management concepts in the West evolved in a particular socio-cultural milieu and adapted themselves to political and economic changes. This process of evolution did not happen in India. In India there are different kinds of organization cultures: traditional family-run firms; public sector enterprises, public limited companies and MNCs. They adopt different kinds of leadership and management practices, but find these difficult to apply. This article highlights the different leadership concepts of the western world and presents the issues and challenges of leadership practices in light of Indian culture.