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Fuzzy Based Dynamic Voltage Restorer for Sag Mitigation to Improve Electric Power Quality

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***Abstract*—This paper presents a fuzzy logic based Dynamic Voltage Restorer (DVR) which operates in voltage sag and swell conditions of the electrical power system. As now-a-days the all consumers of electrical energy are facing efficiency problems in the power system with the magnitude fluctuations in the voltage. In this paper we use fuzzy logic to operate the DVR in voltage sag and swell periods of the system, in order to improve the quality of electric power by reducing the harmonics, distortions and voltage ripples in the time of DVR on and off states.**

***Keywords*— Fuzzy Logic, DVR, Electric Power Quality**

I. INTRODUCTION

Power quality in the present-day distributed systems are addressed in the literature [1]-[6] due to increased use of sensitive and critical equipment pieces such as communication network, process industries and precise manufacturing processes. Power quality problems such as transients, sags, swells and other distortions to the sinusoidal waveform of the supply voltage affect the performance of these equipment pieces. Voltage sags can occur at any instant of time, with amplitudes ranging from 10 - 90% and a duration lasting for half a cycle to one minute. Further, they could be either balanced or unbalanced, depending on the type of fault and they could have unpredictable magnitudes, depending on factors such as distance from the fault and the transformer connections. Voltage sag can cause sensitive equipment (such as found in semiconductor or chemical plants) to fail, or shutdown, as well as create a large current unbalance that could blow fuses or trip breakers. These effects can be very expensive for the customer, ranging from minor quality variations to production downtime and equipment damage [3]. There are many different methods to mitigate voltage sags, but the use of a DVR is considered to be the most cost efficient method [3].

The most common choice for the control of the DVR is the so called PI controller since it has a simple structure and it can offer relatively a satisfactory performance over a wide range of operation.

II. DYNAMIC VOLTAGE RESTORER(DVR)

Dynamic Voltage Restorer (DVR) is a series connected device capable of regulating the load side voltage in a distribution network. The DVR provides a three phase independently controlled voltage source utilizing power electronic components, whose voltage vector (magnitude and angle) is added to the source voltage to restore the load voltage to a prescribed level [7]. The main function of DVR is the protection of sensitive loads from voltage sags/swells arising from the distribution network. Thus it is generally installed in a distribution system between the supply and the sensitive load feeders [8]. In addition to voltage sags and swells compensation, DVR can also be used for line voltage harmonics compensation, voltage transients reductions and fault current limitations. Various circuit topologies and control schemes are available that can be used to implement a DVR.

III. CONFIGURATION OF DVR

The general configuration of the DVR consists of an Injection transformer, a Harmonic filter, a Voltage Source Converter (VSC), Energy Storage Unit and a Control and Protection unit. Energy Storage Unit in DVR can be external batteries or capacitors charged from the supply line feeder through a rectifier. Generally the energy storage unit of a DVR can be divided into two parts (i.e. Storage devices and DC Charging Circuit). The purpose of energy storage devices is to supply the necessary energy to the VSC via a dc link for the generation of injected voltages. Supply DC Link Load Energy Storage Unit Voltage Source Inverter Control Unit Fig 3: Schematic Diagram of DVR Configuration The different kinds of energy storage devices are superconductive magnetic energy storage (SMES) [9], batteries, and capacitors [10, 11]. In fact, the capacity of the stored energy directly determines the duration of the sag which can be mitigating by the DVR. Batteries are the common choice and can be highly effective if a high voltage battery configuration is used [12]. However, batteries in general have a short lifetime and often require some type of battery management system, which can be quite costly [13]. An interesting alternative to batteries is the use of super capacitors, which have a wider voltage range than batteries and can be directly paralleled across the input bus. Super capacitors have a specific energy density less than that of a battery, but a specific power greater than a battery, making them ideal for short (up to several seconds) pulses of power. Certain super capacitors can hold charge over extended periods of time, so as to act like a battery. However, unlike batteries, these super capacitors have a short charging time and much longer lifetime [10, 11]. The purpose of the DC Charging Circuit is to charge the energy storage devices after the compensation of a voltage sag/swell event as well as maintain a nominal dc link voltage. The charging circuit can be an external power supply or a rectifier fed from the supply mains of the distribution network. A Voltage Source Converter is a power electronic system capable of generating a sinusoidal voltage at any required frequency, magnitude, and phase angle. DVR configurations use the VSC to generate the

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Electric Vehicles Configurations: A Review

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Abstract: *In the present scenario Global warming, decrement in conventional fossil fuels directing the researchers to an alternate to the transportation using electrical energy. This paper presents different types of electric vehicles hybrid electric vehicles (HEV), plug-in hybrid electric vehicle (PHEV), fuel cell electric vehicles (FHEV) and battery electric vehicle (BEV) based on the configuration of connecting electric propulsion system with or without the conventional IC engine and also the motors which are suitable for various traction applications. In fact this paper also aims to provide information of electric mobility, motors, battery system, advantages and disadvantages of electric vehicles. The methodology used in this paper is descriptive.*

Keywords: *electric vehicle (EV), hybrid electric vehicle (HEV), plug-in hybrid electric vehicle (PHEV), fuel cell electric vehicle (FHEV) battery electric vehicle (BEV), configuration and traction.*

I. Introduction

In the year of 1832-1839 Scottish inventors Robert Anderson invents the first crude electric carriage powered by non-rechargeable primary cells. 1859 French physicist Gaston Planté invents the rechargeable lead-acid storage battery. In 1881, his countryman Camille Faure will improve the storage battery's ability to supply current and invent the basic lead-acid battery used in automobiles. 1899 Believing that electricity will run autos in the future, Thomas Alva Edison begins his mission to create a long-lasting, powerful battery for commercial automobiles. Though his research yields some improvements to the alkaline battery, he ultimately abandons his quest a decade later. 1920 During the 1920s the electric car ceases to be a viable commercial product. The electric car's downfall is attributable to a number of factors, including the desire for longer distance vehicles, their lack of horsepower, and the ready availability of gasoline. 1970s Concerns about the soaring price of oil -- peaking with the Arab Oil Embargo of 1973 -- and a growing environmental movement result in renewed interests in electric cars from both consumers and producers [1]. Although the EV was around before the turn of the 20th century, the modern EV is a completely new vehicle that is totally different from the classical EV. It is not only a transportation vehicle, but also a new type of electric equipment. Even all governments are encouraging citizens to use the electric transportation in private and public sectors.

The architecture or configuration of an EV defines the type of EV as below:

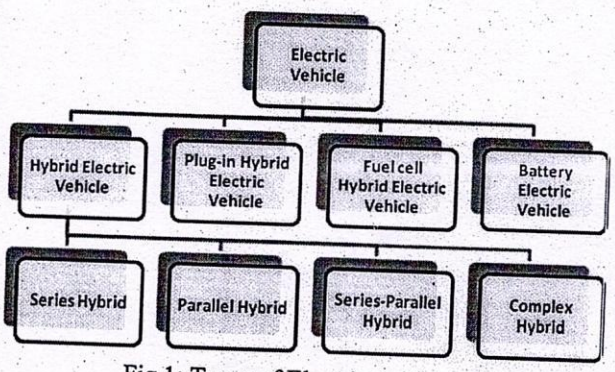

Fig.1: Types of Electric Vehicles

II. Hybrid Electric Vehicle

What exactly is an HEV? The definition available is so general that it anticipates future technologies of energy sources. The term hybrid vehicle refers to a vehicle with at least two sources of power. A hybrid-electric vehicle indicates that one source of power is provided by an electric motor. The other source of motive power can come from a number of different technologies, but is typically provided by an internal combustion engine designed to run on either gasoline or diesel fuel. As proposed by Technical Committee (Electric Road Vehicles) of the International Electro technical Commission, an HEV is a vehicle in which propulsion energy is available from two or more types of energy sources and at least one of them can deliver electrical energy.

A. Series Hybrid EV

In case of series hybrid system (Figure 2a) the mechanical output is first converted into electricity using a generator. The converted electricity either charges the battery or can bypass the battery to propel the wheels via the motor and mechanical transmission. Conceptually, it is an ICE assisted Electric Vehicle (EV) [2]. The advantages of series hybrid drivetrains are:

- Mechanical decoupling between the ICE and driven wheels allows the IC engine operating at its very narrow optimal region as shown in Figure 2b.

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Establishment of Distributed Generation System for Power Quality Improvement

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ABSTRACT:The establishment of Distributed Generation (DG) systems prompts consonant mutilations, unequal power sharing among the host feeders and framework voltage and recurrence lopsided characteristics. These power quality issues emerge generally when fundamental matrix cooperates with DG systems or when they work in islanded mode. From now on, with a two-stage approach as this paper presents, legitimate recurrence and voltage control of DG systems is gained to take care of these issues. In the initial step, a correlation as far as consonant substance is performed between PI controller and Fuzzy Logic Controller procedures for interface inverters in appropriated design. Also, a Multi-level inverter is executed keeping in mind the end goal to control voltage and recurrence as a capacity. Approval of outline strategy and parametric examination of results is given the assistance of recreations.

KEYWORDS: Power Quality, Distributed Generation Systems, Total Harmonic Distortion, Multi-Level Inverter, Hybrid Control Strategy.

I.INTRODUCTION

The fuse and incorporation of non-customary or renewable energy sources in the framework brings about another term called "Dispersed Generation (DG)" which remains for on location era in power markets [1]."The appropriated era framework is a web of power sources joined together to perform in a proficient, solid and adaptable way" [1].DG framework parts contain smaller scale sources (fuel cells, sun oriented, wind, and so on.), burdens, stockpiling systems, control and correspondence hardware and matrix intuitive inverters. Adjusting interest and supply is halfway done by utilizing nearby capacity i.e. batteries, straightforwardly fixing to the DC network" [2]. The advancement of dispersed era is a consequence of number of elements identified with normal remote utility era and transmission framework, for example, maturing, crumbling costs, and energy loses over long power transmission network. It is trusted that disseminated era is fit for dodging the requirement for the advancement of new transmission and appropriation lines. At the base, the network must be accessible as a reinforcement supply in order to build the framework unwavering quality in the meantime [3]. The connection between circulated era and power quality is uncertain however vital. On one hand, a few specialists stretch the negative impact on power quality by the establishment of DG systems, while others underscore its helpful impacts for power quality intricacies in power networks [4]. For instance, in ranges where the utility lattice is feeble and voltage support is troublesome, DG can add to an ascent of voltage in the network. By the by, dispersed generators bring sounds into the power framework. The sorts and seriousness of sounds rely on upon the power converter innovation and interconnection arrangement. This original copy shows a basic yet consistent and adaptable way to deal with tackle the issue of music in DGs, keeping into record legitimate power partaking if there should be an occurrence of different sources and loads. A parametric examination of sinusoidal heartbeat width adjustment (SPWM) PI Controller and Fuzzy Logic Controller for interface inverter in conveyed setup with the framework has been exhibited. This investigation gives the promise of ideal remuneration of music to improve power quality at framework level. The consolidated framework impact characterizes new ideal models of enhanced DG systems as far as execution, productivity and financial aspects. "From the consonant demonstrating and recreation point of view, a dispersed generator is normally a converter-inverter sort unit and can consequently be dealt with as a non-direct load infusing sounds into the dissemination feeder" [11].

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Brand Pruning-A Powerful Weapon for Corporate Success

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Research Scholar, Krishna University, Machilipatnam,

Abstract :

Brand Pruning can be defined as a process by which a company cuts off those brands, which have less contribution on its bottom-line or sometimes top line as well. This is almost a continuous process particularly for FMCG and white goods in India. The theoretical part of Brand Pruning is relatively new, although it has been practiced by many companies from ages and decades but non availability of a comprehensive literature is a major hindrance. The earliest records of advocating Brand Rationalization process can be traced in early 1930's; Neil McElroy was a manager who supervised the advertising for camay soap at Procter &Gamble. The consumer products giant ignored camay but spent money and paid attention on its flagship product, Ivory. Naturally, Ivory remained the leader while camay struggled for survival. Annoyed, McElroy drafted a three-page internal memo in May 1931.He argued that P7G should switch to a brand-based management system. Only then would each of its brands have a dedicated budget and managerial team and a fair shot at success in the marketplace. McElroy suggested that the company's brands would fight with each other for both resources and market share. Each "brand man's objective would be to ensure that his brand became a winner even if that happened at the expense of the business's other brands. However, McElroy did not carry the argument to its logical end." This paper shed a light on utility, process, rationalization and signs of brand pruning.

Keywords: **Rationalization, sings of Brand Pruning, Utility, Portfolio Analysis Sheet.**

INTRODUCTION

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Diageo, the world's largest spirits company, sold 35 brands of liquor in some 170 countries in 1999. Just eight of those brands-Baileys liqueur, Captain Morgan rum, Cuervo tequila, Smirnoff vodka, Tanqueray gin, Guinness stout, and J&B and Johnnie Walker whiskeys provided the company with more than 50 percent of its sales and 70 percent of its profits.

Nestle marketed more than 8000 brands in 190 countries in 1996.Around 55 of them were global brands, 140-odd were regional brands, and the remaining 7,800 or so were local brands. The bulk of the company's profits came from around 200 brands, or 2.5 percent of the portfolio.

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FINANCIAL INCLUSION: SERVICES AND STRATEGIES OF RETAIL BANKING

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ABSTRACT

The benefits of economic growth have not equitably reached different parts of our society. The rural and agricultural sector, in particular, has not gained the desired momentum of growth and development.

Access to finance by the poor and vulnerable groups is a prerequisite for poverty reduction and social cohesion. This has to become an integral part of our efforts to promote inclusive growth. In fact, providing access to finance is a form of empowerment of the vulnerable groups. The various financial services include credit, saving, insurance payments and remittance facilities. The objective of financial inclusion is to extend the scope of activities of the organized financial system to include within its ambit people with low incomes. Through graduated credit, the attempt must to be lifting the poor from one level to another so that they come out of poverty.

As the economy began to grow at higher rates, the regional and societal disparities called for new strategies to ensure that the banking system met the requirements of inclusive growth. Such strategies needed to be fashioned in a manner that they did not undermine the stability and efficiency of the financial system. Specific focus on financial inclusion commenced in November 2005, when Reserve bank advised banks to make available a basic banking 'no-frills' account with low or nil balance as well as charges, with a view to expanding the outreach of such accounts. In such accounts, banks are required to make available all printed material used by retail customers in the regional language concerned.

Financial inclusion rest on three pillars viz., access to financial services, affordability of such services and actual utilization of such services. Financial inclusion can be achieved only if all the three pillars show affirmative results.

Key Words: Financial Services, Inclusive Growth, Financial Inclusion, Organized Financial System.

INTRODUCTION

Financial Inclusion means extending the banking habit and ensuring access to financial services and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost. But the path of financial inclusion is daunting. The benefits of economic growth have not equitably reached different parts of our society. The rural and agriculture sector, in particular, has not gained the desired momentum of growth and development.

The Recent developments in banking technology have transformed banking from the traditional brick – and – mortar infrastructure like staffed branches to a system supplemented by other channels like automated teller machines (ATM), credit /debit cards, internet banking, online money transfers, etc. The moot point, however, is that access to such technology is restricted only to certain segments of the society. Indeed, Some trends, such as increasingly sophisticated customer segmentation technology – allowing, for example, more accurate targeting of sections of the market – have led to restricted access to financial services for some groups. There is a growing divide, with an increased range of personal finance options for a segment of high and upper middle income population and significantly large section of the population who lack access to even the most basic banking services. This is termed "financial exclusion". These people, particularly, those living on low incomes, cannot access mainstream financial products such as bank accounts, credit, remittances and payment services financial advisory services, insurance facilities, etc.

Deliberations on the subject of Financial Inclusion contributed to a consensus that merely having a bank account may not be a good indicator of financial inclusion. Further, indebtedness as quantified in the NSSO 59th round (2003) may not also be a reflective indicator. The ideal definition should look at people who want to access financial services but are denied the same. If genuine claimants for credit and financial services are denied the same, then that is case of exclusion. As this aspect would raise the issue of credit worthiness or bank ability, it is also necessary to dwell upon what could be done to make the claimants of institutional credit bankable or creditworthy. This would require re-engineering of existing financial products or delivery systems and making them more in tune with the expectations and absorptive capacity of the intended clientele.

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Research Article

Customers' Perception toward State Bank of India: A Case Study of Vijayawada

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[1]Acharya Nagarjuna University, Guntur, Andhra Pradesh, India, [2]Krishna University, Machilipatnam, Andhra Pradesh, India

ABSTRACT

After independence, the Indian banking sector reforms, and the government took a big step. The banking industry in India has undergone radical changes due to the liberalization and globalization measures undertaken since 1991. Today, Indian banking industry is one of the largest in the world. State Bank of India is the largest public sector bank in India. There has been a great surge in the efficient customer service. In 1991, a committee under the chairmanship of M. Narasimham worked for the liberalization of banking practices, which was established in his name. India is inundated with foreign banks and their automated teller machine centers. Efforts to give a acceptable service to customers being positioned. Phone banking and net banking are introduced.Customer relationship management (CRM) provides interactive, personalized, and relevant communication with customers to develop and maintain relationships. CRM is a tool to retain the 20% customers who give 80% of the revenue. This paper explores the perception of CRM with respect to the Customers of State Bank of India in Vijayawada City of Andhra Pradesh.

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INTRODUCTION

Information technology (IT) is the technology sweeping the world and is said to be benefiting each and every sector of human activity including banking. The new technology has radically altered the traditional ways of doing banking business. The banking sector in India adopted the use of computers only in the early 1980's; however, it was only by the end of that decade that the adoption to computerization started growing and many branches have begun using computers in view of the ongoing development process in the economy. Use of modern and state-of-the-art technology in banking is increasingly seen as an essential ingredient not only of good customer service but also of good housekeeping. The good old manual system on which the Indian banking industry has depended on for centuries is perhaps unable to deliver the goods any more. Hence, this repeated outcry for the use of modern technology is seen as panacea for the ills that afflict the banking sector today. The banking industry is very much dependent on the customer goodwill, for which IT is believed to open a new window of great opportunity by way of good customer relationship management (CRM) (Anil, 2007).[1] CRM has emerged as a popular business strategy in today's competitive environment. It is a discipline which enables the companies to identify and target their most profitable customers.

CRM is raising as a new phenomenon, however, relationship leaning marketing practices origin of pre-industrial age. The present survey discovers the CRM best practices currently being pursued in Retail Banks in India.[2] It offers an integrated view to banks in India and to every employee in the organization that they should be concerned toward their customers and should treat them fairly. Customers have a lot of supplementary choices accessible today than ever earlier. The only path to attract and retain customers is create, manage, and develop relations with customers, thereby follow-on in maximizing total customer lifetime value.

CONCEPT OF CRM

CRM is defined as a company's capability to endlessly make the best use of the value of its customers' franchise by efficiently apportion insufficient resources to specific customers or customer segments in those areas viewed as having a noteworthy impact on the profit impact behavior of customers. The purpose of IT in banking is to provide full satisfaction to the customers, while increasing profitability, decreasing risk, and fraud to the bank. At the same time, it is to be noted that where culture is not conducive, even brilliant strategies will fail to get translated into action.[3]

Customer satisfaction is a growing concern for the banks who want to grow in this competitive world of today, and the concept of CRM is now growing wide acceptance and is recognized as a powerful tool for business development and to have an edge over the competitors on account of universal

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Overview of Intellectual Property Rights (IPR)

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Abstract— Intellectual property rights are a bundle of exclusive rights over creations of the mind, both artistic and commercial. The former is covered by copyright laws, which protect creative works such as books, movies, music, paintings, photographs, and software and gives the copyright holder exclusive right to control reproduction or adaptation of such works for a certain period of time. This paper focuses on the basic concepts of Intellectual Property, its types and issues involved in IPR.

Key words: Intellectual Property, Trademarks, Copyrights, Patents, Trade Secrets

I. INTRODUCTION

Intellectual property (IP) is a legal field that refers to creations of the mind such as musical, literary, and artistic works; inventions; and symbols, names, images, and designs used in commerce, including copyrights, trademarks, patents, and related rights. Under intellectual property law, the holder of one of these abstract "properties" has certain exclusive rights to the creative work, commercial symbol, or invention by which it is covered.

Intellectual property rights are a bundle of exclusive rights over creations of the mind, both artistic and commercial. The former is covered by copyright laws, which protect creative works such as books, movies, music, paintings, photographs, and software and gives the copyright holder exclusive right to control reproduction or adaptation of such works for a certain period of time.

The second category is collectively known as "industrial properties", as they are typically created and used for industrial or commercial purposes. A patent may be granted for a new, useful, and non-obvious invention, and gives the patent holder a right to prevent others from practicing the invention without a license from the inventor for a certain period of time. A trademark is a distinctive sign which is used to prevent confusion among products in the marketplace.

An industrial design right protects the form of appearance, style or design of an industrial object from infringement. A trade secret is an item of non-public information concerning the commercial practices or proprietary knowledge of a business. Public disclosure of trade secrets may sometimes be illegal.

The term "intellectual property" denotes the specific legal rights described above, and not the intellectual work itself.

The importance of intellectual property in India is well established at all levels- statutory, administrative and judicial. India ratified the agreement establishing the World Trade Organization (WTO). This Agreement, inter-alia, contains an Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) which came into force from 1st January 1995. It lays down minimum standards for protection and enforcement of intellectual property rights in member countries which are required to promote effective and adequate protection of intellectual property rights with a view to reducing distortions and impediments to international trade. The obligations under the TRIPS Agreement relate to provision of minimum standard of protection within the member countries legal systems and practices.

The Agreement provides for norms and standards in respect of following areas of intellectual property:

- Copyrights and related rights
- Trade Marks
- Geographical Indications
- Industrial Designs
- Lay out Designs of Integrated Circuits
- Protection of Undisclosed Information (Trade Secrets)
- Patents
- Plant varieties

Intellectual Property (IP) is the information and original expression that brings its original value from creative ideas with a commercial value. Intellectual property allows the people to have fully independent ownership for their innovations and creativity like that for their own physical property. By safeguarding such innovations, can lead to the owner of IP can be encouraged for further innovations to the benefit of the society in general. It may not be possible to protect IP and obtain intellectual property rights unless they have been applied for the sanction obtained.

Most of the countries having large number of local industries with innovative designs have specific laws to safeguard the innovations by some regulations with respect to copying of inventions, identifying symbols and creative slogans. As in other developing countries, India too showed for quick enforcement of intellectual property right protection laws. India has to comply being a member of WTO for such implementation of laws at least by 2005. India's IPR scene is no deterrent to foreign companies. These laws consist of distinct types of intangible properties.

II. ESSENTIAL ELEMENTS OF INTELLECTUAL PROPERTY RIGHTS

IPR is a broad term for covering –

1) Patents for inventions
2) Copyrights for material
3) Trademarks for broad identity and
4) Trade secrets.

In general these properties are termed as "Intellectual Property". Intellectual Property is an asset that can be bought or sold, licensed and exchanged. But of course unlike other properties, intellectual property is intangible; rather it cannot be identified by its specific parameters. These properties are protected on a national basis.

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An Innovative Approach to Fundamentals of Computers

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Abstract*: Computers play a key role in almost every industry now a day. So in this regard being technophile persons to have the ability to perform a particular task with the help of computers is been playing a key role in this society. This paper is being designed for a lay man to take up the basic terminology of technology with the help of computers. The marketing of technology is also playing a key role in the society now a day. In this regard, we take this bold presentation as a representation of computers to a lay man in the form of technology. Technology can be explained only with the help of technology.
Keywords*: Technophile, Technology, Trend, Computer, Marketing

I. INTRODUCTION

Computers play a key role in the market now a days for any sort of business transactions are done only with the help of computers .It has become a necessity that every individual may be rich or poor may be a business person or a lay man Computer has become part and parcel of our family . In this regard still a person from a poor background does not know anything about the computers but he/she might have an intention to learn about the computers .But he/she is not capable to buy a computer system. For such people to take part as an activity in rural areas we the Integrated MBA people of SRK Institute of Technology has taken this step. This step brings a revolution in the Industry as It looks like a small game it is going to deliver some knowledge that a lay man can understand and change his attitude towards his opinion towards the technology.
Technology can take place until we do not have technology in our hands. This has become our primary intension when we start learning about the computers. Computer Technology with it's extend is rapidly growing but a lay man was unable to know its intention and its usage .This has become an issue since years together. We feel that our intention is that lay man that area people must be aware of technology .We know the theory of a book can be known until and unless we read the whole book from first to last page. Like Wise we have to know the technology until he uses the technology from first to last.
There are many ways to market the technology .The following are the various ways that describe the technology.

A. Multimedia
B. Advertisements
C. Games
D. Apps
E. Short Films Virtual Reality
F. Pomplates
G. Augmented Reality

In this scenario we have selected the 3rd way to take this technology and build this in order to gain attention of the layman the best technique we used is it should include a game that is easily understandable to a lay man and it should be presented in a technical manner also. After playing this game a lay man must know and answer the following questions related to the computer at least. The following are the basic questions we ask those questions and this has become our learning objective.

1) What is a Computer?
2) What is a Mouse ? How does it look like?
3) What is a Keyboard?

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"PERCEPTION OF BANK OFFICIALS TOWARDS CAUSES OF NPA"

A CASE STUDY OF PUNJAB NATIONAL BANK, KRISHNA DISTRICT, ANDHRA PRADESH.

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Abstract:

The banking and financial services sector has weathered many storms since the global slowdown Business sentiments turned cautiously optimistic as the economy slowly steered towards the road to recovery .But recent news around the rising "NON- PERFORMING ASSETS" (NPA) and instances of bribery and corruption has brought to the fore .The risks faced by the sector in India. In certain cases, promoter integrity issues have come to the fore which has led to banks bearing the brunt of the resultant financial losses, but perhaps impacting the economy as well. An attempt is made in this paper to understand the concept of NPA's ,opinion of bank officials on reasons of NPA's, problem faced by bank officials while recovery of loan amount and suggestions of the respondents to reduction of NPA's in banking sector. To achieve this objective, the primary data was collected from the PUNJAB NATIONAL BANK (PNB) officials in Krishna district of Andhra Pradesh from 75 respondents by means of questionnaire. Statistical tool like percentage method is used for analysis.

Keywords: Non-performing assets (NPA's), financial losses, the global slowdown, Impact the Economy.

I. INTRODUCTION:

A non-performing assets (NPA) refers to a classification for loans on the books of financial institutions that are in default or in arrears on scheduled payments of principle or interest.

It has been defined as per the master circular of reserve bank of India (RBI) as the asset including leased assets, when leases to generate income for the banks became NPA's .These are loans and advances, where

- Interest and/or installment of principle remain over due for more than 90 days in respect of term loan.
- The account remains out order for more than 90 days in respect of an overdraft or cash credit.
- The installment of principle or interest remains over due for two-crop seasons for short duration crops and one crop season for long duration crops.

II. REVIEW OF LITERATURE:

1. Poongavanam, s. (2011) examined various literatures an issues, causes and remedial solution to manage NPA's in Indian banking sector. The article explained the significant changes in Indian banking during the liberation period and indicated the need to further enhance measure to manage the NPA.

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   i. Registration Charges : 1000.
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 12/3/2018.

B V S S Subbarao
Signature of the Staff Member

1. Recommendations of the HOD : Approved
2. Recommendations of the Principal : Approved *Sanctioned / Not Sanctioned

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Accountant:

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Special Issue

EMPOWERING EMPLOYEE THROUGH TRAINING A PREREQUISITE FOR ORGANIZATIONAL ACCOMPLISHMENT

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B.V.S.S.Subba Rao
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SRK Institute of Technology

April 26, 2018

Abstract

Training and development is an important field in HRM aimed to improve the performance of the employees in order to get more productivity and better profitability for the organization. It has been known by several names, including employee development, human resource development, and learning and development.

However the present study is an attempt, to present the significance of training and development empirically for the welfare of the organizations with special reference to Reliance Life Insurance, Krishna District.

17-18

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1. Name of the Staff Member : Dr./Mr./Ms. ---D.V.V. Brahmachari
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3. Department : ---MCA---
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ---
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5. Date & Duration of the Program : 12/10/17 – 13/10/17
6. Associating Professional Body / Agency : APSSDC & AWS
7. Financial support particulars :
   i. Registration Charges : 200/-
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   iii. Membership Fee :
   iv. Others (if any) :

Date: 10/10/17

Signature of the Staff Member

1. Recommendations of the HOD : ---Duarte---
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Subbarao Eshanka
Director – APSSDC

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Samuel Harris
AWS Educate

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   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 10/10/17

Signature of the Staff Member

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2. Recommendations of the Principal : ---- *Sanctioned / Not Sanctioned

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5. Date & Duration of the Program : 26/10/2017
6. Associating Professional Body / Agency : NRSC
7. Financial support particulars : 300/-
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   ii. Travelling Allowances :
   iii. Membership Fee :
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Co-ordinator

Shri. M. ARULRAJ
Scientist 'SE', NRSC

Dr. A.V. RATNA PRASAD
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Editor-in-Chief, IJRASET

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5. Date & Duration of the Program : Nov. 2017
6. Associating Professional Body / Agency : IJETMR
7. Financial support particulars :
   - i. Registration Charges : 400/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

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N.L.S.Sindhura
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2. Recommendations of the Principal : [signature] *Sanctioned / Not Sanctioned

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ISSN: 2454-1907
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International Journal of Engineering Technologies and Management Research
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A CONJOIN APPROACH TO IOT AND SOFTWARE ENGINEERING USING TIBCO B.W

Tummala Bindu Madhavi [*1], N.L.S.Sindhura [2], M.Rithvik [3]
[*1, 2, 3] Assistant Professor, S.R.K. Institute of Technology, Vijayawada, India

Abstract:
This Paper represents a motivational approach of integration of two domains of two different streams and this paper constitutes the two parallel roads in one platform. Perhaps it's a challenging task to make this sort of Integrations but with the development of new tools like TIBCO B.W this has come to reality. This Paper is a moxie to represent an application into its physical level of representation to its virtual level of journey. In order to conjoin two topologies into a single topology this paper constitutes an involuntary approaches to make a small application of software which is already existed into reality. The future scope of this paper might be a successful application that turns an IOT application into the software boom which comes into reality.

Keywords: *Conjoin; Moxie; Virtual; Physical; Elucidate; Eradicate; Evaluate.*

Cite This Article: Tummala Bindu Madhavi, N.L.S.Sindhura, and M.Rithvik. (2017). "A CONJOIN APPROACH TO IOT AND SOFTWARE ENGINEERING USING TIBCO B.W." *International Journal of Engineering Technologies and Management Research,* 4(11), 36-42. DOI: 10.5281/zenodo.1066790.

1. Introduction To Software Engineering

Software is more than just a program code. A program is an executable code, which serves some computational purpose. Software is considered to be collection of executable programming code, associated libraries and documentations. Software, when made for a specific requirement is called software product.

1.1. Waterfall Model

In this model software testing starts only after the development is complete. In **waterfall model phases** do not overlap.

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4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : A Mutational Approach to Internet of Things
5. Date & Duration of the Program : NOV 2017
6. Associating Professional Body / Agency : IJRASET
7. Financial support particulars :
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   ii. Travelling Allowances :
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A Mutational Approach to Internet of Things

by

D.V.V. Brahmachari

after review is found suitable and has been published in

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3. Department : ---- MCA ----
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   Learning Management and Ed-Tech Tools.

5. Date & Duration of the Program : 20/12/2017 – 23/12/2017
6. Associating Professional Body / Agency :
7. Financial support particulars : 3001/-

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   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

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2017 WLMSET

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OF PARTICIPATION

THIS IS TO CERTIFY THAT

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OF

SRK Institute of Technology, Vijayawada

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J.V.R. Murthy
CONVENER
Dr. J.V.R. Murthy

A.S.N. Chakravarthy
CO ORDINATOR
Dr. A.S.N. Chakravarthy

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1. Name of the Staff Member : Dr./Mr./Ms. ---- N.L.S. Sindhura
2. Designation : ---- Asst. prof
3. Department : ---- MCA
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----
   ---- Programming Data Structures & Algorithms Using C
5. Date & Duration of the Program : Feb-Mar 2018
6. Associating Professional Body / Agency : NPTEL
7. Financial support particulars :
   i. Registration Charges : 500/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 2/2/2018

N.L.S. Sindhura
Signature of the Staff Member

1. Recommendations of the HOD : ----
2. Recommendations of the Principal : ---- *Sanctioned / Not Sanctioned

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Accountant:

Date:

No.

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Date 3/2/2018

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Name of A/c. Faculty Development Program

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the Sum of Rupees Five Hundred rupees only

Towards FDP

Prepared by

₹ 500/-

Approved by

Audited by

N.L.S Sindhura

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Roll No:NPTEL18CS25S4950717

To

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71/1271

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

No. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

N L S SINDHURA

for successfully completing the course

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with a consolidated score of **72** %

Online Assignments	22.42/25	Proctored Exam	50/75

Total number of candidates certified in this course: **2083**

A. Ramesh

Prof. A. Ramesh
Chairman
Center for Continuing Education, IITM

Feb-Mar 2018
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

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1. Name of the Staff Member : Dr./Mr./Ms. ---- D.V.V Brahmachari
2. Designation : ---------- Asst. Professor ----------
3. Department : ---------- MCA ----------
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----------
   ---- Introduction to Modern Application Development ----
5. Date & Duration of the Program : Feb-Mar 2018 (8 week)
6. Associating Professional Body / Agency : Nptel
7. Financial support particulars :
   i. Registration Charges : 500/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 2/8/2018 Signature of the Staff Member

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Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

No. of credits recommended by NPTEL:2

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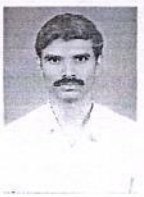

This certificate is awarded to

Dakoji Venkata Viswa Brahmachari

for successfully completing the course

Introduction to Modern Application Development

with a consolidated score of **64** %

Online Assignments	18/25	Proctored Exam	45.75/75

Total number of candidates certified in this course: **1725**

A. Ramesh

Prof. A. Ramesh
Chairman
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(8 week course)

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1. Name of the Staff Member : Dr./Mr./Ms. ---------Z. Jitendra
2. Designation : ---------Asst. Prof
3. Department : ---------MLE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----------
   ---------(ITCAR)---------
5. Date & Duration of the Program : Jan 11th, 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 1000/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 08/09/17 Signature of the Staff Member

1. Recommendations of the HOD : ----------
2. Recommendations of the Principal : ---------- *Sanctioned / Not Sanctioned

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Accountant:

Date: 11/09/17

57 17-18

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Towards Paper Publication

Prepared by

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Effect of Process Parameters on Weld bead geometry of Narrow V-groove Butt joint in Pulsed Gas Metal Arc Welding

A. Pavan Kumar[#1], Dr. Sanjay Kumar*[2], Z. Jitendra*[3]
[#1]PG Scholar, Mechanical Engineering, GVP College of Engineering, Visakhapatnam-530048, AP, India.
*[2]Associate Professor, Mechanical Engineering, GVP College of Engineering, Visakhapatnam-530048, AP, India.
*[3]Assistant Professor, Mechanical Engineering, SRK Institute of Technology, Vijayawada- 521108, AP, India.
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*[3]jitendra.zaddu@gmail.com

Abstract: **Weld bead geometry is influenced by a number of welding process parameters that affect the product quality of the joint. In this experimental study, an effort is made to find the effect of process parameters on bead geometry of narrow v-groove butt joint in pulsed gas metal arc welding. Three input process parameters such as wire feed rate, welding speed and groove angle, each of three levels each are considered. The experiments are conducted on narrow v-groove butt joint of 5083-h111 aluminium alloy with groove angles of 20°, 30° and 40° using full factorial design of experiments. The mathematical model for side penetration and dilution are developed using linear regression analysis. The mean analysis for side penetration and dilution is done for all three input levels. It is observed that wire feed rate has maximum effect on side penetration and dilution whereas welding speed has intermediate effect on the side penetration and dilution.**

Keywords: **Wire feed rate, Welding speed, Groove angle, Narrow V-groove and Aluminium alloy.**

I. Introduction

Quality of a weld joint is strongly influenced by process parameters during the welding process. This work focuses on the development of mathematical models for the selection of process parameters and the prediction of weld bed geometry. Weld bead geometry is influenced by a number of welding process parameters which affect the quality of the joint. The relation between GMAW process parameters and weld bead geometry are complex because of the number of parameters involved. In order to achieve high quality welds, mathematical models that can predict the bead geometry and shape to accomplish the desired mechanical properties of the weldment should be developed. A large number of experiments are to be conducted to predict the weld bead geometry and to develop the mathematical model. Karadeniz et al. [1] studied the effect of process parameters on penetration in gas metal arc welding which includes the study of penetration for process parameters like welding current, arc voltage and welding speed.

Lee and Um [2] studied geometry prediction of the back-bead in gas metal arc welding. Multiple regression analysis and artificial neural network were used to predict the weld geometry. These geometry predictions showed low error which can be applied for real welding process. Palani and Murugan [3] studied the selection of process parameters in pulsed gas metal arc welding, where the important parameters in pulsed gas metal arc welding are studied.

Abbasi et al. [4] studied the effect of MIG welding parameters on the weld bead and shape characteristics on mild steel specimen and concluded that shape factor increases with increase in welding speed. Ganjigatti et al. [5] made an attempt to obtain a relation between input and output parameters using regression analysis in MIG welding process. Mayur S et al. [6] conducted experiments on Al 5083 using TIG welding to find the tensile strength.

S C Juang et al. [7] used Taguchi method to reduce the number of experiments and welding is done to find the bead geometry. Biswajit Das et al. [8] investigated the effect of various process parameters on depth of penetration using MIG welding. I S Kim et al. [9] studied the relation between process parameters and bead geometry in robotic CO2 arc welding process. Sanjay Kumar et al. [10] studied the effect of eccentricity and arc rotation on weld bead geometry in pulsed GMAW process. From the literature, it is observed that mathematical models are not available for prediction of side penetration and dilution for narrow v-groove butt joint welding. So, in the present work, an attempt is made to develop the mathematical model for predicting the side penetration and dilution using single pulsed gas metal arc welding.

II. Experimental Procedure

For the experimental study, aluminium alloy 5083 H111, plate thickness 6 mm is used as base material. The aluminium alloy of 5000 (Al-Mg) series find their applications in production of vessel hulls, super structures, structural members, vessels, tanks and many other applications. The filler wire used for the welding is aluminium alloy 5183 of 1.2 mm dia. The chemical composition of the base material and filler wire is shown in Table 1.

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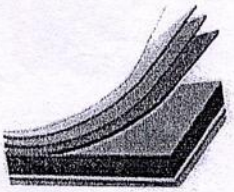

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Research Article

INFLUENCE OF PIEZOELECTRIC MATERIAL ON CANTILEVER PLATE NATURAL FREQUENCIES

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Cantilever plate, piezoelectric patch, Modal analysis, Natural frequencies.

ABSTRACT

This paper presents the modal analysis of cantilever plate with and without piezoelectric patch by using Finite Element Analysis (Ansys) software. A modal analysis was carried out on cantilever plate having piezoelectric patch at 6 different locations. By comparison we observed that natural frequency of plate was increased with first 2 locations of PZT patch and natural frequency was decreased with next 4 locations of PZT patch. PZT patch is used due to it Direct Piezoelectric Effect with which we can sense the physical deformation of the plate, in turn this plate can be used in sensing of deformations of different objects with which it is attached to.

INTRODUCTION

Piezoelectricity is the ability of a material to develop an electric charge when subjected to a mechanical strain, this effect is called Direct Piezoelectric Effect (DPE) and Conversely material develop mechanical strain in response to an applied electric field, this effect is called Converse Piezoelectric Effect (CPE). Due to this coupled mechanical and electrical properties, piezoelectric materials make them well suited for use as sensors and actuators. Sensors use Direct Piezoelectric Effect (DPE) and actuators use Converse Piezoelectric Effect (CPE). As a sensors, deformations cause by the dynamic host structure produce an electric change resulting in an electric current in the sensing circuit. While as an actuators, a high voltage signal is applied to piezoelectric device which deforms the actuator and transmit mechanical energy to the host structure. Piezoelectric materials basically divided into two group Piezo-ceramics and piezo-polymers. Lead (plumbum) Zirconate Titanate (PZT) became the dominant piezo-electric ceramic material for transducer due to its high coupling coefficient (0.65). When this PZT plate subjected to static or dynamic loads, it can generate voltages as high as 20,000 volts. A steel cantilever plate is considered for the modal analysis coupled with PZT (Lead (Plumbum) Zirconate Titanate) at different positions.

System Model

A cantilever plate is designed in Ansys with dimensions mentioned below in table.

Corresponding author:* **Sampath M.V.B
Department of Mechanical Engineering, SRKIT, Enikepadu, Vijayawada, A.P, India, 521108

Table 1 Properties of cantilever plate

Thickness b	0.03 m
Height h	0.002m
Length from fixed end L	0.11 m
Young's modulus E	207x109 N/m2
Density ρ	7800 kg/m3
Poisson ratio μ	0.3
Density ρ of piezoelectric material	7800kg/m3
Piezo patch dimensions(l*b*h)	0.02m*0.01m*0.002m

Table 2 Anisotropic Properties

Linear Elastic Anisotropic properties(N/m^2)	
D11	1.26*1011
D12	8.41*1010
D13	7.95*1010
D22	1.17*1011
D23	8.41*1010
D33	1.2*1011
D44	2.3*1010
D55	2.3*1010
D66	2.35*1010

Table 3 Electromagnetic Properties

Electromagnetic Relative Permittivity(F/m)	
ϵ_{11}	$1.151*10^{-3}$
ϵ_{22}	$1.043*10^{-3}$
ϵ_{33}	$1.151*10^{-3}$

Table 4 Piezoelectric Properties

Piezoelectric constant stress matrix(C/m^2)	
e_{12}	-5.4
e_{22}	15.8
e_{32}	-5.4
e_{41}	12.3
e_{53}	12.3

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Research Article

INFLUENCE OF PIEZOELECTRIC MATERIAL ON CANTILEVER PLATE NATURAL FREQUENCIES

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Piezoelectricity is the ability of a material to develop an electric charge when subjected to a mechanical strain, this effect is called Direct Piezoelectric Effect (DPE) and Conversely material develop mechanical strain in response to an applied electric field, this effect is called Converse Piezoelectric Effect (CPE). Due to this coupled mechanical and electrical properties, piezoelectric materials make them well suited for use as sensors and actuators. Sensors use Direct Piezoelectric Effect (DPE) and actuators use Converse Piezoelectric Effect (CPE). As a sensors, deformations cause by the dynamic host structure produce an electric change resulting in an electric current in the sensing circuit. While as an actuators, a high voltage signal is applied to piezoelectric device which deforms the actuator and transmit mechanical energy to the host structure. Piezoelectric materials basically divided into two group Piezo-ceramics and piezo-polymers. Lead (plumbum) Zirconate Titanate (PZT) became the dominant piezo-electric ceramic material for transducer due to its high coupling coefficient (0.65). When this PZT plate subjected to static or dynamic loads, it can generate voltages as high as 20,000 volts. A steel cantilever plate is considered for the modal analysis coupled with PZT (Lead (Plumbum) Zirconate Titanate) at different positions.

System Model

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Corresponding author:* **Sampath M.V.B
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e_{53}	12.3

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Speech Recognition System For Controlling The Robot

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[3]Dr.A.Bala Krishna.,

[1]Assoc.Professor,Sri Vani School of Engineering,Vijayawada.

[2]Professor,JNTU College of Engineering,Kakinada.

[3] Professor,SRKR Engineering College,Bhimavaram.

Abstract:- Automatic speech recognition by machine has been a goal of a research for a long time, which concurrent the inter desciplines like mechanical, electronics and coputer engineering. Speech recognition is the process of converting an acoustic signal, captured by a microphone or a telephone, to a set of words. The recognized words can be the final results, as for applications such as commands & control, data entry, and document preparation. They can also serve as the input to further linguistic processing in order to achieve speech understanding. The speech recognition system has also been implemented on some particular devices. Some of them are personal computer (PC), digital signal processor, and another kind of single chip integrated circuit. In this paper we propose voice recognition to control robot using finger print comparison by Euclidean square distance, band pass filters and java technology.

Key words: Concurrent Engineering, Euclidean square distance, LPC, Voice recognition, Finger print.

1. INTRODUCTION:

1.1 Voice Recognition

The term "voice recognition" is sometimes used to refer as speech recognition where the recognition system is trained to a particular speaker, hence there is an element of speaker recognition, which attempts to identify the person speaking, to better recognize what is being said. Speech recognition is a broad term which means it can recognize almost anybody's speech - such as a call-centre system designed to recognize many voices. Voice recognition is a system trained to a particular user, where it recognizes their speech based on their unique vocal sound.

1.2 Mechatronics:

Mechatronics basically refers to mechanical electrical systems and is centred on mechanics, electronics, computing and control which, combined, make possible the generation of simpler, more economical, reliable and versatile systems. The term "mechatronics" was first assigned by Mr. Tetsuro Mori, a senior engineer of the Japanese company Yaskawa, in 1969.

1.3 Embedded Systems :

A combination of hardware and software which together form a component of a Conccurent systems. An embedded system is designed to run on its own without human intervention, and may be required to respond to events in real time.

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Thermal Analysis of Pin-Fin Heat Exchangers

Y.Durga Bhavani[1], U.Jyothirmayi[2]
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[1,2] DJR college of engineering

Abstract- *Performance of various devices are based on heat transfer and widely used in the many industries, especially in power distribution sector (transformers), Automobile sector (engine cooling), Power Plant Sector, electric components, space industry etc. One of the useful methods to take away heat transfer from surface area of thermal device was extended surface or fins. Pin fin is suitable for numerous applications including heat transfer removal from air cooled I C engines, Electrical Small Transfers etc.*

This study presents the results of computational numerical analysis of air flow and heat transfer in a , considering two different morphology pin fins. A numerical study using Ansys fluent was conducted to find the optimum pin shape based on minimum pressure drop and maximizing the heat transfer across the Fin bodies. The results indicate that the drop shaped pin fins show improved results on the basis of heat transfer and pressure drop by comparing other fins. The reason behind the improvement in heat transfer by drop shape pin fin was increased wetted surface area and delay in thermal flow separation from drop shape pin fin. Therefore from the trapezoidal fin The maximum heat transfer is obtained.

I. HEAT TRANSFER

Heat transfer is the transition of thermal energy from a hotter mass to a cooler mass. When an object is at a different temperature than its surroundings or another object, transfer of thermal energy, also known as heat flow, or heat exchange, occurs in such a way that the body and the surroundings reach thermal equilibrium; this means that they are at the same temperature. Heat transfer always occurs from a higher-temperature object to a cooler-temperature one as described by the second law of thermodynamics or the Clausius statement. Where there is a temperature difference between objects in proximity, heat transfer between them can never be stopped; it can only be slowed.

MODES OF HEAT TRANSFER

There are three modes of Heat transfer, they are

- Conduction
- Convection
- Radiation

CONDUCTION

Conduction is the transfer of heat by direct contact of particles of matter. The transfer of energy could be primarily by elastic impact as in fluids or by free electron diffusion as predominant in metals or phonon vibration as predominant in insulators. In other words, heat is transferred by conduction when adjacent atoms vibrate against one another, or as electrons move from one atom to another. Conduction is greater in solids, where a network of relatively fixed spacial relationships between atoms helps to transfer energy between them by vibration.

Heat conduction is directly analogous to diffusion of particles into a fluid, in the situation where there are no fluid currents. This type of heat diffusion differs from mass diffusion in behavior, only in as much as it can occur in solids, whereas mass diffusion is mostly limited to fluids.

Metals (e.g. copper, platinum, gold, iron, etc.) are usually the best conductors of thermal energy. This is due to the way that metals are chemically bonded: metallic bonds (as opposed to covalent or ionic bonds) have free-moving electrons which are able to transfer thermal energy rapidly through the metal.

As density decreases so does conduction. Therefore, fluids (and especially gases) are less conductive. This is due to the large distance between atoms in a gas: fewer collisions between atoms means less conduction. Conductivity of gases increases with temperature. Conductivity increases with increasing pressure from vacuum up to a critical point that the density of the gas is such that molecules of the gas may be expected to collide with each other before they transfer heat from one surface to another. After this point in density, conductivity increases only slightly with increasing pressure and density.

To quantify the ease with which a particular medium conducts, engineers employ the thermal conductivity, also known as the conductivity constant or conduction coefficient,

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In vitro investigations on CoO doped CaF_2–CaO–B_2O_3–P_2O_5–MO bioactive glasses by means of spectroscopic studies

P. Sobhanachalam [a], V. Ravi Kumar [a, **], B.V. Raghavaiah [b], Valluri Ravi Kumar [c], G. Sahaya Baskaran [d], Y. Gandhi [e], P. Syam Prasad [f], N. Veeraiah [a, *]

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Spectroscopic studies

ABSTRACT

In this investigation we have synthesized CaF_2–CaO–B_2O_3–P_2O_5: CoO glasses mixed with different therapeutically active ions viz., Ba^{2+}, Sr^{2-}, Mg^{2+} and Zn^{2+} (that play a vital role in the normal functioning of human body) and performed *in vitro* bioactivity studies by immersing them in simulated body fluid (SBF) for a period of about a month and the obtained results were analyzed using spectroscopic studies. Due to immersion in SBF solution, a thin layer of hydroxy apatite (HAp) is developed on the surface of the samples. The results of XRD, SEM and also IR spectra have confirmed that the layer deposited on the surface of the samples is crystalline HAp mixed with cobalt ions. The quantitative analysis of the results *in vitro* bioactive studies with the help of optical absorption and IR spectral studies have indicated that BaO is an efficient modifier in accelerating the HAp growth. The cobalt ions are found to be in tetrahedral positions and participated in the glass network with BO_4 and PO_4 structural units in larger quantities in Co_{Zn} and Co_{Mg} glasses and such occupancy is found to be the reason for the relatively low bioactive efficiency of these glasses when compared with that of Co_{Ba} glass.

1. Introduction

Alkaline boro-phosphate glass systems are known due to their mixed-glass former effect. In boro phosphate glasses significant changes in the structural as well as spectroscopic properties are possible when compared with those of pure borate or phosphate glasses. The changes were predicted to be due to cross linking of borate and phosphate structural units. Several devoted studies on optical properties of boro phosphate glasses are available in literature [1–4].

Normal bioactive glasses are composed of boron, phosphorus silicon, sodium, potassium, magnesium, calcium, which normally exhibit no toxic effect on the bone cells. After the discovery of 45S5 glass, popularly known as Hench glass [5,6], several SiO_2 based bioglass systems with the incorporation of different modifier oxides and fluorides were developed and their ability to form hydroxyl apatite (HAp) layer (an essential component that binds tissues with the bones in the human body) on their surfaces were investigated by several techniques including spectroscopic methods [7–11]. In the process of improving the bioactivity of these glasses in some of the studies SiO_2 is partially or fully replaced with other glass forming oxides like B_2O_3, P_2O_5 [12–14]. The advantage of adding B_2O_3 to the bioglass is that, it promotes bone growth, increases immune function. However, B_2O_3 accelerates the degradation of the glass in the body fluid abnormally; by adding P_2O_5 along with B_2O_3 one can monitor the rate of degradation.

Additionally, by admixing small quantities of therapeutically active ions viz., Ba^{2+}, Sr^{2+}, Mg^{2+} etc., it is possible to tailor the degradation rate of the bioglasses to the optimum levels. Moreover, by adding such ions to the glass implants, there are several other advantages to the human body. For example, barium ions help in improving the dietary conditions of growing children [15].

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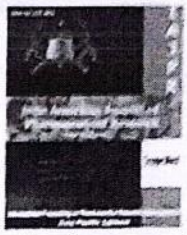

DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF LAMIVUDINE AND DOLUTEGRAVIR IN DRUG PRODUCT BY RP-HPLC

B.Sowjanya[1*], Dr.K.Rambabu[2]

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Lamivudine and Dolutegravir,
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Acetonitrile,
Methanol and Validation.

ABSTRACT

New Analytical method was developed for the estimation of Lamivudine and Dolutegravir in drug product by liquid chromatography. The chromatographic separation was achieved on C18 column (Eclipse XDB-Phenyl 250*4.6mm) at ambient temperature .The separation achieved employing a mobile phase consists of 0.1%v/v Trifluoro acetic acid in water: Methanol (300:700). The flow rate was 1.0ml/ minute and ultra violet detector at 260m. The average retention time for Lamivudine and Dolutegravir found to be 2.412 min and 3.263 min. the proposed method was validated for selectivity, precision, linearity and accuracy. All validation parameters were within the acceptable range. The assay methods were found to be linear from 300.0 – 900.0µg/ml for Lamivudine and 50.0 -150.0µg/ml of Dolutegravir.

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Study on the influence of TiO_2 on the characteristics of multi component modifier oxide based B_2O_3 glass system

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ABSTRACT

A series of borate glasses mixed with different modifiers (viz., PbO, BaO, CaO, MgO and ZnO of 10 mol% each) and doped with different concentrations of TiO_2 (1.0 to 3.0 mol% in the steps of 0.5) was prepared by melt quenching technique. The prepared samples were characterized by XRD, SEM and spectroscopic techniques. The XRD studies have confirmed the amorphous nature of the samples while the SEM pictures revealed the presence of minute fraction of crystallites (of the size < 0.1 μm) in the samples. IR spectral studies of the glasses exhibited vibrational bands due to BO_3, BO_4, B–O–B, PbO_4, ZnO_4, TiO_4 and TiO_6 structural units. The optical absorption and EPR spectral studies have revealed probable presence of Ti^{3+} ions that act as modifiers and induce structural defects such as dangling bonds, non-bridging oxygens (NBO's) in the glass network. The observed decrease in the optical band gap with increase in the concentration of TiO_2 is attributed to the gradual reduction of Ti^{4+} ions (which participate in the glass network forming) in to Ti^{3+} ions that act as modifiers.

1. Introduction

B_2O_3 is one of the strong glass forming oxides and addition of alkaline earth oxides to amorphous boron oxide influences its physical properties substantially [1,2]. Further, the insertion of heavy metal oxides like PbO, BaO, etc., the refractive index and the mechanical strength of the glasses are expected to improve remarkably and makes these glasses to be useful for wide range of applications such as optical fibers, optoelectronic devices; radiation shields and surgical lasers [3,4]. PbO in the amorphous materials, act as modifier as well as glass former with PbO_4 pyramidal structural units. Normally, the behavior of such oxides changes with the composition of the glass system. When present at higher contents, these oxides acts as modifiers and at low concentration they predominantly act as network formers [5–8]. BaO is a well-known modifier and may enter the glass network by BO_4 tetrahedra into BO_3 structural units and thus a BaO polyhedron is formed when it surrounded several BO_3 units. Such structural units behave as the defects in the borate glass network [9]. Further, the addition of barium oxide improve the applications of these glasses in the field of solid state electrolytes for the fabrication of solid state batteries and various technological applications [10].

Addition of CaO and MgO to these glasses improves the luminescence properties of the titled glass system. The presence of higher content these glasses strongly influences the increase in the degree of disorder in glass network. The degree of depolymerization of the glass network is strongly influenced by the ionic radius of the modifier ion and its compatibility with the network forming ions in the glass network [11,12]. Finally, the variation of modifier oxide changes the symmetry and covalency of the glass network. As a result there will be strong impact on spectroscopic properties of the host glass [13]. ZnO is an another interesting oxide (which participates in the glass network both with tetrahedral and octahedral structural units) when mixed with borate glasses, the electrical resistance of this is predicted to be abnormally enhanced and as a result such glasses find wide variety of applications that include as insulating layers in the arrays of electrodes in the display panels [14].

TiO_2 plays a vital role as eminent mineralizer in the chosen glass system [15,16] and found to influence the physical properties to a large extent. The addition of titanium oxide to a glass matrix strongly raises the chemical durability and the nonlinear refractive index and makes the glasses useful for nonlinear optical (NLO) devices [17]. In general titanium ions exists in the glass matrix in Ti^{4+} state and participates in the glass network with TiO_4, TiO_6 and sometimes with TiO_5 structural units [18]. From previous study it is also evidenced that these ions may also exist in Ti^{3+} valence state in various glass matrices [19]. The insertion of Ti^{4+} ions into the borate glass network is an additional

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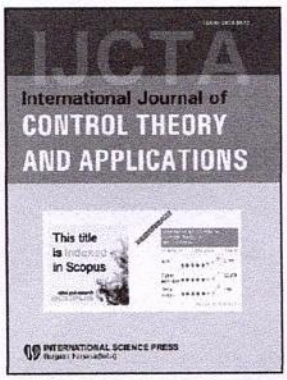

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A Methodology for Anticipating Risk Score for Congestive Heart Failure Patients

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Abstract: Now-a-days health care environment is becoming more prominent and the hospitalizations are increasing day by day. According to the surveys held by various organizations the unnecessary hospitalizations are raising and as a result the costs of care are increasing tremendously. So, this factor matters a lot to the government at the time of planning the budget [1]. So, in order to avoid the raising costs the monitoring of health care should be done. Analyzing the risk factor to particular patient will help the health status of the particular patient, continuous hospitalizations of the patient there by reducing the costs of care. This can be done by developing various predictive modeling approaches. Risk Identification and prediction is extremely challenging in healthcare informatics. Risk prediction contains the integration of various clinical parameters with socio-demographic factors, health care conditions, disease factors, hospital care and quality parameters, and a variety of factors that are constrained to each health care provider making the task increasingly difficult. Predictably, [2] many of such parameters need to be extracted individually from various sources, and integrated back to improve the quality of predictive modeling. In this paper, we propose various solutions to predict the risk rate for heart failure patients and matching suggestions to control the risk rate like the drug dosage and thereby improving the quality of life. We used a methodology to predict the risk rate and develop the scalable data mining models to predict risk of readmission. We reveal the effectiveness of the algorithm we used, describe the results of the algorithm we tested, and compare the performance against various records and differentiate the accuracy between the existing and proposed techniques.

Keywords: Healthcare; Knowledge-Discovery; Risk Prediction;

1. INTRODUCTION

Hospital readmissions are becoming more expensive and possibly preventable. Dropping the rates of readmission is measured as a key quality of care parameter that is deemed measurable. Yet, it is still thought-provoking to implement accurate predictive models to predict such risk and the importance of factors that contribute to readmission due to the diversity of data sources even within a single large hospital. Add to this the aspiration of obtaining a holistic view of cause for readmissions[3] by integrating socioeconomic parameters and external data with existing clinical data, and this problem becomes even more challenging and complex requiring significant advances in data integration, discretization[4], normalization and data organization. A diversity of factors could

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IoT Vulnerabilities and Security

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***Abstract*— Internet of things has be broadly applied for home, industry, health care, environment and many other applications. For these applications, secure information transmission becomes a critical issue to ensure the system safety. Present distributed denial-of-service attacks demonstrate the high vulnerability of Internet of Things (IoT) systems and devices. Addressing this challenge will require scalable security solutions optimized for the IoT ecosystem. In this paper we discussed vulnerabilities of IoT and ways to provide security to IoT.**

Keywords: *Internet of Things (IoT); Denial-of-service; Vulnerability; Security*

I INTRODUCTION

The IoT technology offers extraordinary opportunities to interconnect human beings as well as Machine-to-Machine(M2M) communication, whereby sensors and networks allow all things to communicate directly with each other to share information and allow us to have an instrumented universe where accurate data is readily available to inform optimal decision making[1]. This revolution is based on a constant evolution of the Internet, technologies and software, communication protocols, embedded sensors, smart physical objects able to collect data in real time. It's the future internet, it will dramatically change our way of living as the Internet impacts on education, health, homes, communications, transportation, cities, business, science, government and men in general. However, several issues are threatening the IoT development, like the privacy and security in this technology. The vision of an Internet of Things (IoT) is coming closer to realisation with each passing day, where physical objects will have virtual representations they will be controlled remotely and acts as physical access points to Internet services, increasing the need for confidentiality, which currently is accomplished by cryptographic schemes

II A STANDARD IoT PLATFORM

The IoT is consists of the three core components: A collection of smart, connected products, product systems, and other Things connected through an Internet-like communication infrastructure to a computing infrastructure that are creating new forms of value. Data from the product condition, operation, and environment are delivered in real-time enabling capabilities to control, service, and upgrade the product and system performance. [2]. Any security architecture must address the security requirements of the object itself with its OS and computational capabilities, the mobile and the cloud parts. The security and privacy of communications between object and cloud / mobile applications and objects through its access point will be implemented essentially in the middleware of the device.

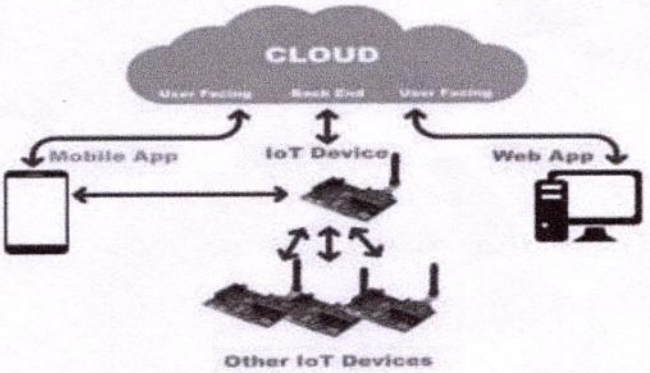

Figure 1 Typical structure of IoT platform

III LAYERS OF IoT

A well defined IoT architecture is still not established. However, a three-layer high level architecture is commonly accepted . This architecture consists of three layers: Perception Layer, Network Layer, and Application layer

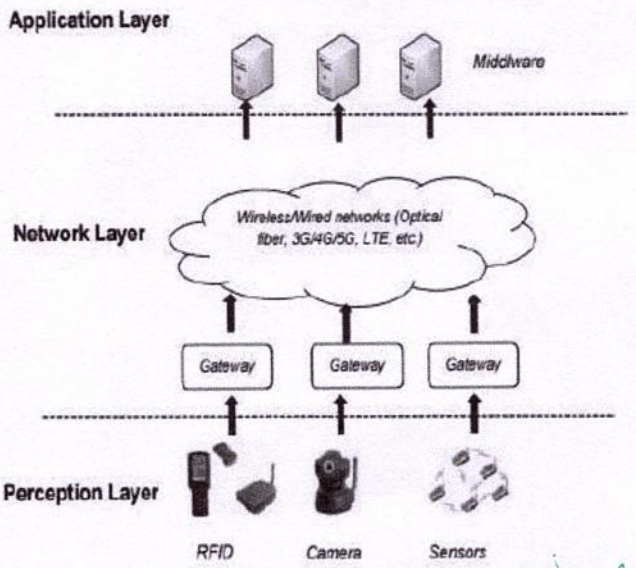

Figure 2 Layers of IoT

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17-18

IoT Vulnerabilities and Security

P. Rani[1], G. Sri Lakshmi[2]
Assistant Professor, Information Technology, SRKIT, Vijayawada, A.P., India.[1 2]
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***Abstract*— Internet of things has be broadly applied for home, industry, health care, environment and many other applications. For these applications, secure information transmission becomes a critical issue to ensure the system safety. Present distributed denial-of-service attacks demonstrate the high vulnerability of Internet of Things (IoT) systems and devices. Addressing this challenge will require scalable security solutions optimized for the IoT ecosystem. In this paper we discussed vulnerabilities of IoT and ways to provide security to IoT.**

Keywords: *Internet of Things (IoT); Denial-of-service; Vulnerability; Security*

I INTRODUCTION

The IoT technology offers extraordinary opportunities to interconnect human beings as well as Machine-to-Machine(M2M) communication, whereby sensors and networks allow all things to communicate directly with each other to share information and allow us to have an instrumented universe where accurate data is readily available to inform optimal decision making[1]. This revolution is based on a constant evolution of the Internet, technologies and software, communication protocols, embedded sensors, smart physical objects able to collect data in real time. It's the future internet, it will dramatically change our way of living as the Internet impacts on education, health, homes, communications, transportation, cities, business, science, government and men in general. However, several issues are threatening the IoT development, like the privacy and security in this technology. The vision of an Internet of Things (IoT) is coming closer to realisation with each passing day, where physical objects will have virtual representations they will be controlled remotely and acts as physical access points to Internet services, increasing the need for confidentiality, which currently is accomplished by cryptographic schemes

II A STANDARD IoT PLATFORM

The IoT is consists of the three core components: A collection of smart, connected products, product systems, and other Things connected through an Internet-like communication infrastructure to a computing infrastructure that are creating new forms of value. Data from the product condition, operation, and environment are delivered in real-time enabling capabilities to control, service, and upgrade the product and system performance. [2]. Any security architecture must address the security requirements of the object itself with its OS and computational capabilities, the mobile and the cloud parts. The security and privacy of communications between object and cloud / mobile applications and objects through its access point will be implemented essentially in the middleware of the device.

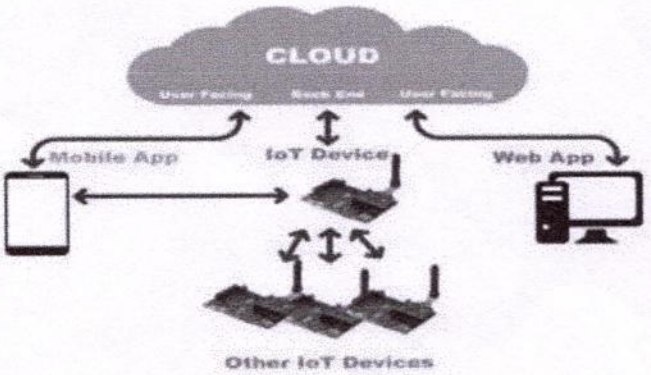

Figure 1 Typical structure of IoT platform

III LAYERS OF IoT

A well defined IoT architecture is still not established. However, a three-layer high level architecture is commonly accepted . This architecture consists of three layers: Perception Layer, Network Layer, and Application layer

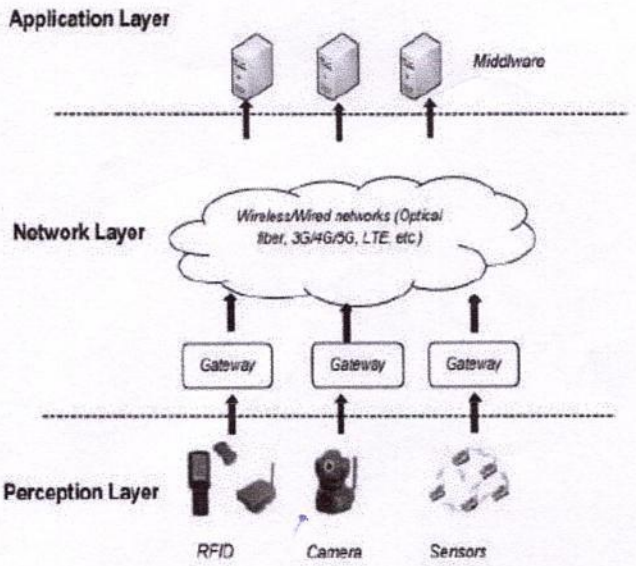

Figure 2 Layers of IoT

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Dr. Ch. Padmanabha Raju
ISSE Chapter Secretary-Amaravati
Co-Ordinator

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Dr. K. Sivaji Babu
Principal

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Prof. S.P. Singh
Co - ordinator, FDP

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International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
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Implementation of Low Power Wallace Tree Multiplier using Carry Select Adder with BEC

Ponnuru Koteswara Rao [#1], P Raveendra [#2], Ch. Siva Rajesh [#3], N. Mayuri [#4]
[#1,2,3,4]Assistant Professor,
SRK Institute of Technology,
Enikepadu, Vijayawada

Abstract: **Multipliers are major blocks in the most of the digital and high performance systems such as Microprocessors, Signal processing Circuits, FIR filters etc. In the present scenario, Fast multipliers with less power consumption are leading with their performance. Wallace tree multiplier with carry select adder (CSLA) is one of the fastest multiplier but utilizes more area. To improve the performance of the multiplier, CSLA is replaced by binary excess-1 counter (BEC) which not only reduces the area at gate level but also reduces power consumption. Wallace tree multiplier using CSLA with BEC is occupying less area, memory consuming less power when compared to Wallace tree multiplier using CSLA and Wallace tree multiplier. Area and power calculations for the Wallace tree multiplier using CSLA with BEC are giving good results compared to regular Wallace tree multiplier.**

Keywords: Wallace tree multiplier, carry select adder, BEC.

I INTRODUCTION

Now-days the back end users are very interested in portability, durability, flexibility and remote control. To meet these requirements Integrated Chip (IC) technology has improved a lot. As there are many technologies, the present trend is Very Large Scale Integration (VLSI) technology, as in this technology many millions of transistors in the form of logic circuits can be integrated on a single chip. As the physical existing signals are analog signals, these are harder to process hence Digital Signal Processors (DSP) are introduced, in which the analog signal is converted into digital form processed according to the program inside it, again converted in to analog signal if required. As there are many modules in the DSP processor to implement the each function we have to program on this programming there are many operators used here. The mainly used and complicated block is multiply and Accumulate (MAC) unit, multiply and Add (MAD) units, these are large in area and more processing time required to execute this process.

Our main concept is to reduce these complications with this unit, so we use fusion techniques to have optimized design and many more optimized circuits with circuit minimization techniques are used have an optimized Sparse Parallel Prefix Adders operator design.

II DESIGN OF PROPOSED ARCHITECTURE

2.1 Wallace tree multiplier for 4-bit

Step by step procedure for multiplying two four bit integers according to Wallace multiplier. Wallace multiplier consists of three steps.

1. Multiply each bit of one arguments with each bit of another argument, which results in n^2 products.
2. Consider the first three rows of the multiplied products and reduce them into two rows by using full adders and half adders as per the requirements. Repeat this process until two rows of multiplied products are obtained.
3. Normally in the case of four bit additions of two integers a sum of four bits and carry one bit is formed. So, in the last step of layer we first have two rows of products half adder to add last two bits and the carry of the half adder is connected to the next layer. By following the same procedure add all the bits of two rows. At last the sum of four bits can be obtained Coming to the solution of 4*4 Wallace tree multiplier; In first stage we obtain four rows of the multiplied products as shown in the Fig. 2.1.

```
                        a3  a2  a1  a0
                        b3  b2  b1  b0
-------------------------------------------
                    a3b0 a2b0 a1b0 a0b0
               a3b1 a2b1 a1b1 a0b1
          a3b2 a2b2 a1b2 a0b2
     a3b3 a2b3 a1b3 a0b3
```

Fig: 2.1.Partial Products Generation

Now in the second stage choose the first three rows and reduce them into two rows by using half adders and full adders. As per the requirement it is needed two half adders and two full adders, sum and carry are generated as a0b0, s(0)c(0), s(1)c(1), s(2)c(2), s(3)c(3), a3b2 as in the Fig.2.2.

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Implementation of Low Power Wallace Tree Multiplier using Carry Select Adder with BEC

Ponnuru Koteswara Rao #1, P Raveendra #2, Ch. Siva Rajesh #3, N. Mayuri #4
#1,2,3,4 Assistant Professor,
SRK Institute of Technology,
Enikepadu, Vijayawada

Abstract: **Multipliers are major blocks in the most of the digital and high performance systems such as Microprocessors, Signal processing Circuits, FIR filters etc. In the present scenario, Fast multipliers with less power consumption are leading with their performance. Wallace tree multiplier with carry select adder (CSLA) is one of the fastest multiplier but utilizes more area. To improve the performance of the multiplier, CSLA is replaced by binary excess-1 counter (BEC) which not only reduces the area at gate level but also reduces power consumption. Wallace tree multiplier using CSLA with BEC is occupying less area, memory and consuming less power when compared to Wallace tree multiplier using CSLA and Wallace tree multiplier. Area and power calculations for the Wallace tree multiplier using CSLA with BEC are giving good results compared to regular Wallace tree multiplier.**

Keywords: *Wallace tree multiplier, carry select adder, BEC.*

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                  b3   b2   b1   b0
         ----------------------------
               a3b0 a2b0 a1b0 a0b0
          a3b1 a2b1 a1b1 a0b1
     a3b2 a2b2 a1b2 a0b2
a3b3 a2b3 a1b3 a0b3
```

Fig: 2.1.Partial Products Generation

Now in the second stage choose the first three rows and reduce them into two rows by using half adders and full adders. As per the requirement it is needed two half adders and two full adders, sum and carry are generated as a0b0, s(0)c(0), s(1)c(1), s(2)c(2), s(3)c(3), a3b2 as in the Fig.2.2.

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Implementation of Low Power Wallace Tree Multiplier using Carry Select Adder with BEC

Ponnuru Koteswara Rao #1, P Raveendra #2, Ch. Siva Rajesh #3, N. Mayuri #4
#1,2,3,4 Assistant Professor,
SRK Institute of Technology,
Enikepadu, Vijayawada

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Keywords: Wallace tree multiplier, carry select adder, BEC.

I. INTRODUCTION

Now-days the back end users are very interested in portability, durability, flexibility and remote control. To meet these requirements Integrated Chip (IC) technology has improved a lot. As there are many technologies, the present trend is Very Large Scale Integration (VLSI) technology, as in this technology many millions of transistors in the form of logic circuits can be integrated on a single chip. As the physical existing signals are analog signals, these are harder to process hence Digital Signal Processors (DSP) are introduced, in which the analog signal is converted into digital form processed according to the program inside it, again converted in to analog signal if required. As there are many modules in the DSP processor to implement the each function we have to program. In this programming there are many operators used here. The mainly used and complicated block is multiply and Accumulate (MAC) unit, multiply and Add (MAD) units, these are large in area and more processing time required to execute this process.

Our main concept is to reduce these complications with this unit, so we use fusion techniques to have optimized design and many more optimized circuits with circuit minimization techniques are used have an optimized Sparse Parallel Prefix Adders operator design.

II.DESIGN OF PROPOSED ARCHITECTURE

2.1 Wallace tree multiplier for 4-bit

Step by step procedure for multiplying two four bit integers according to Wallace multiplier. Wallace multiplier consists of three steps.

1. Multiply each bit of one arguments with each bit of another argument, which results in n^2 products.

2. Consider the first three rows of the multiplied products and reduce them into two rows by using full adders and half adders as per the requirements. Repeat this process until two rows of multiplied products are obtained.

3. Normally in the case of four bit additions of two integers a sum of four bits and carry one bit is formed. So, in the last step of layer we first have two rows of products half adder to add last two bits and the carry of the half adder is connected to the next layer. By following the same procedure add all the bits of two rows. At last the sum of four bits can be obtained Coming to the solution of 4*4 Wallace tree multiplier; In first stage we obtain four rows of the multiplied products as shown in the Fig. 2.1.

```
                        a3 a2 a1 a0
                        b3 b2 b1 b0
              ---------------------------
                   a3b0 a2b0 a1b0 a0b0
              a3b1 a2b1 a1b1 a0b1
         a3b2 a2b2 a1b2 a0b2
    a3b3 a2b3 a1b3 a0b3
```

Fig: 2.1 Partial Products Generation

Now in the second stage choose the first three rows and reduce them into two rows by using half adders and full adders. As per the requirement it is needed two half adders and two full adders, sum and carry are generated as a0b0, s(0)c(0), s(1)c(1), s(2)c(2), s(3)c(3), a3b2 as in the Fig.2.2.

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Implementation of Low Power Wallace Tree Multiplier using Carry Select Adder with BEC

Ponnuru Koteswara Rao [#1], P Raveendra [#2], Ch. Siva Rajesh [#3], N. Mayuri [#4]
[#1,2,3,4]Assistant Professor,
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Abstract: **Multipliers are major blocks in the most of the digital and high performance systems such as Microprocessors, Signal processing Circuits, FIR filters etc. In the present scenario, Fast multipliers with less power consumption are leading with their performance. Wallace tree multiplier with carry select adder (CSLA) is one of the fastest multiplier but utilizes more area. To improve the performance of the multiplier, CSLA is replaced by binary excess-1 counter (BEC) which not only reduces the area at gate level but also reduces power consumption. Wallace tree multiplier using CSLA with BEC is occupying less area, memory and consuming less power when compared to Wallace tree multiplier using CSLA and Wallace tree multiplier. Area and power calculations for the Wallace tree multiplier using CSLA with BEC are giving good results compared to regular Wallace tree multiplier.**

Keywords*: *Wallace tree multiplier, carry select adder, BEC.

I. INTRODUCTION

Now-days the back end users are very interested in portability, durability, flexibility and remote control. To meet these requirements Integrated Chip (IC) technology has improved a lot. As there are many technologies, the present trend is Very Large Scale Integration (VLSI) technology, as in this technology many millions of transistors in the form of logic circuits can be integrated on a single chip. As the physical existing signals are analog signals, these are harder to process hence Digital Signal Processors (DSP) are introduced, in which the analog signal is converted into digital form processed according to the program inside it, again converted in to analog signal if required. As there are many modules in the DSP processor to implement the each function we have to program it. In this programming there are many operators used here. The mainly used and complicated block is multiply and Accumulate (MAC) unit, multiply and Add (MAD) units, these are large in area and more processing time required to execute this process.

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1. Multiply each bit of one arguments with each bit of another argument, which results in n^2 products.
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3. Normally in the case of four bit additions of two integers a sum of four bits and carry one bit is formed. So, in the last step of layer we first have two rows of products half adder to add last two bits and the carry of the half adder is connected to the next layer. By following the same procedure add all the bits of two rows. At last the sum of four bits can be obtained Coming to the solution of 4*4 Wallace tree multiplier; In first stage we obtain four rows of the multiplied products as shown in the Fig. 2.1.

```
                        a3 a2 a1 a0
                        b3 b2 b1 b0
-------------------------------------
                  a3b0 a2b0 a1b0 a0b0
             a3b1 a2b1 a1b1 a0b1
        a3b2 a2b2 a1b2 a0b2
   a3b3 a2b3 a1b3 a0b3
```

Fig: 2.1.Partial Products Generation

Now in the second stage choose the first three rows and reduce them into two rows by using half adders and full adders. As per the requirement it is needed two half adders and two full adders, sum and carry are generated as a0b0, s(0)c(0), s(1)c(1), s(2)c(2), s(3)c(3), a3b2 as in the Fig.2.2.

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COMPRESSED SENSING MRI RECONSTRUCTION USING MASKED 2D DWT

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sunibollepogu6@gamil.com[1] a.v.p.sarvari@gmail.com[2]

Abstract **-** A newly developed mathematical framework of signal sampling and recovery, compressed sensing (CS) allows signal acquisition using fewer samples than what is specified by Nyquist-Shannon sampling theorem whenever the signal is sparse. As a result, CS has great potential in reducing data acquisition time in MRI. In traditional compressed sensing MRI methods, an image is reconstructed by enforcing its sparse representation with respect to a basis, usually wavelet transform or total variation. In this paper, we propose an improved compressed sensing-based reconstruction method using the 2D discrete wavelet transform. TwIST is commonly used algorithm for 2D signals reconstruction using Compressive Sensing principle. It is based on the Total Variation minimization. Standard version of the TwIST uses masked 2D Discrete Wavelet Transform coefficients as Compressive Sensing measurements. Our experiments demonstrate that this method can reduce aliasing artifacts and achieve higher peak signal-to-noise ratio (PSNR) using wavelet compression.

Keywords: Compressed Sensing (CS), Magnetic Resonance Imaging (MRI), 2D DWT.

1. INTRODUCTION

Compressed sensing (also known as compressive sensing, compressive sampling, or sparse sampling) is a signal processing technique for efficiently acquiring and reconstructing a signal, by finding solutions to underdetermined linear systems. This is based on the principle that, through optimization, the sparsity of a signal can be exploited to recover it from far fewer samples than required by the Shannon-Nyquist sampling theorem. There are two conditions under which recovery is possible. The first one is sparsity which requires the signal to be sparse in some domain. The second one is incoherence which is applied through the isometric property which is sufficient for sparse signals.

Recently, compressed sensing based MRI (CS-MRI) allows high quality reconstruction from under sampled data by enforcing the pseudo-sparsity of images in a predefined basis or dictionary, such as the traditional two-dimensional (2D) separable wavelet transform or total variation. However, these basis sets may not provide sufficient sparse representation. The Discrete Cosine Transform (DCT) is used for transformation in JPEG standard. DCT performs efficiently at medium bit rates. Disadvantage with DCT is that only spatial correlation of the pixels inside the single 2-D block is considered and the correlation from the pixels of the neighboring blocks is neglected. Blocks cannot be decorrelated at their boundaries using DCT. One disadvantage of the DFT

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International Journal of Engineering and Techniques - Volume 4 Issue 1, Jan – Feb 20 3

RESEARCH ARTICLE OPEN ACCESS

A secure Bluetooth-ZigBee gateway for IoT

A.S.Prakash[1], B.S.S.Tejesh[2], S.Neeraja[3], N.Sri Babu[4]

1,4(Dept of Electronics and Communication Engineering, SRK Institute of Technology, Enikepadu, Vijayawada.)

2,3 (Assistant Professor, Dept of ECE, SRK Institute of Technology, Enikepadu, Vijayawada)

Abstract:

The inescapability of savvy remote gadgets is quickly developing independent to the innovation and applications. All these shrewd gadgets are associated with web for checking, breaking down and controlling. There are such a large number of remote conventions, for example, Zigbee, Bluetooth, Wi-Fi, Wi-max and ultra wide band. Each convention has its preferences and inconveniences in light of information rate, control, cost, measure. In the current time there is quick advancement of Zigbee in keen applications. In this paper we are building up a model plan of an ease remote checking and controlling framework utilizing Bluetooth, Zigbee by taking a shrewd home application. All the sensor hubs are arranged with Zigbee (TICC1101) convention and the passage comprises of Zigbee module and Bluetooth module. The passage is fit for changing over Bluetooth and Zigbee conventions the other way around. The got information at the passage is pushed into web through advanced cell. The paper depicts the plan and usage procedure of passage equipment what's more, programming. This paper comprehends the container neck caused by two convention transmission rates and presents a bi-bearing information change strategy.

Keywords — **Bluetooth , Gateway, IoT, Protocol converter, Zigbee.**

I. INTRODUCTION

The gathering of remote sensor systems can convey extensive variety of uses. It assumes fundamental part with regards to checking and investigating. Utilizing remote sensor systems is a major factor in applications, i.e for example, home services robotization, medicinal based services, condition checking, understanding observing and mechanical computerization. Bluetooth and Zigbee are two noteworthy remote system conventions that are utilized as a part of the majority of the applications. As they have numerous key factors that can bolster the vast majority of the applications. These two are short scope of utilizations where Bluetooth is balanced correspondence and Zigbee is one too much. Both are low power gadgets. Utilizing remote sensor organizes the gadgets can interface or contact over the web. Utilizing the web server the gadgets can publicize and work whenever and from anyplace. Web of things (IoT) is a framework that can possibly exchange the information over the system without human exertion. It gathers the information from sensor hubs and sends to web utilizing remote sensor systems. It assumes premier part in robotizations. By utilizing IoT one can control the gadgets from anyplace independent to the separation and time. The IoT framework is perfect with various sorts of correspondence conventions, for example, Zigbee, Bluetooth, WI-Fi, WI-Max and so on. It obeys multi-convention handset idea. A significant number of the IoT frameworks convey through Bluetooth. There are numerous unreservedly accessible IoT web servers which can be associated through PDA by a basic Bluetooth gadget. Web of things (IOT) gives free servers through one can screen and control the applications. Thingspeak is the of the uninhibitedly accessible server. The utilizations of the IoT framework are appeared in Figure 1. The encoding ability is one of the primary points of interest of IoT framework. Both Zigbee and Bluetooth perform at low recurrence i.e. 2.4GHz. Furthermore, they work for short separation applications. Both Zigbee portal and Bluetooth passage are composed and executed progressively. Together consolidating these two doors one can accomplish more noteworthy outcomes with low power and low information

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International Journal of Engineering and Techniques - Volume 4 Issue 1, Jan – Feb 20 3

RESEARCH ARTICLE OPEN ACCESS

A secure Bluetooth-ZigBee gateway for IoT

A.S.Prakash[1], B.S.S.Tejesh[2], S.Neeraja[3], N.Sri Babu[4]

1,4(Dept of Electronics and Communication Engineering, SRK Institute of Technology, Enikepadu, Vijayawada.)

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. G. Appa Rao
2. Designation : Asst professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ✓
   Block Chain Hactathon series 2017.
5. Date & Duration of the Program : 06/10/2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 300/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 06.10.17

G. Appa Rao
Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal : ✓
   *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 7.10.17

No.

VOUCHER

Date 07/10/12

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. Faculty development prog.name.

Paid to G. Appa Rao (CSE) Cash/Cheque 300/-

the Sum of Rupees Three hundred rupees only

Towards Work shop.

Prepared by

₹ 300/-

Approved by

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Receiver Signature

FINTECH VALLEY VIZAG

GOVERNMENT OF ANDHRA PRADESH

PARTICIPATION CERTIFICATE

This is to Certify that

G. Appa Rao

has participated in

"Blockchain Hackathon Series 2017"

and

"International Block Chain Business Conference"

on 8th October 2017 at GITAM University, Visakhapatnam

APITA

Sri J.A Chowdary

Special Chief Secretary & IT Advisor to the Chief Minister

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EITA

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(ISO 9001:2008 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. ---- B. Asha Latha.
2. Designation : ---- Asst professor
3. Department : ---- CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----
   Big Image Data Processing Hadoop Frame Work
5. Date & Duration of the Program : 26/10/2017 - 28/10/2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 300/-.
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 24.10.17.

Signature of the Staff Member

1. Recommendations of the HOD : ---- Duarte
2. Recommendations of the Principal : ---- *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 25.10.17

No.

VOUCHER

Date... 25/10/17

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ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c..... Faculty Development program .....

Paid to... B. Ashalatha (CSE) ... Cash/Cheque... 300/- .....

the Sum of Rupees... Three hundred rupees only. .....

Towards... Workshop .....

.....

Prepared by

₹ 300/-

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(Autonomous)

(Affiliated to JNTUK Kakinada, NAAC, NBA (CSE, CIVIL, ECE, EEE, IT, ME) Accredited and ISO 9001 : 2008 Certified)

Kanuru, Vijayawada - 520007, A.P., India.

Sponsored by : Siddhartha Academy of General & Technical Education

Department of Information Technology

A Three Day National Level Workshop on

Big Image Data Processing on Hadoop Framework

(26-10-2017 to 28-10-2017)

CERTIFICATE of PARTICIPATION

WS

Ms.Bandi Ashalatha , Assistant Professor, Department of CSE,

SRK Institute of Technology ..... *attended a Three Day National Level Workshop*

on "Big Image Data Processing on Hadoop Framework" organized by the Department of Information Techoology from 26th October, 2017 to 28th October, 2017 at P.V.P Siddhartha Institute of Technology, Kanuru, Vijayawada - 520010.

HOD

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Enikepadu, Vijayawada 521108
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(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. A. Radhika
2. Designation : Asst. Professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP ✓ / Seminar / Training / Industrial Visit / Tours With details : FDP on Advanced Android Development Bootcamp
5. Date & Duration of the Program : 5/12/17
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 300/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 4.12.17. Radhika
Signature of the Staff Member

1. Recommendations of the HOD : Duartia
2. Recommendations of the Principal : ✓ *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 7.12.17.

No.

VOUCHER

Date 27/12/17

SRK INSTITUTE OF TECHNOLOGY

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Name of A/c Faculty Development program

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the Sum of Rupees Three hundred rupees only

Towards FDP

Prepared by

₹ 300/-

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Andhra Pradesh State Skill Development Corporation (APSSDC)

(Department of Skill Development, Entrepreneurship & Innovation, Govt. of Andhra Pradesh)

Faculty Training Bootcamp

on

Advanced Android Development

Certificate of Participation

This is to certify that

A. Radhika

from SRK Institute Of Technology

participated in the Advanced Android Development Bootcamp

from 7th to 8th December 2017

Jocelyn Becker
Google

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. A. Radhika
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Cluster Based Secure Routing Using Improved Ant Colony Optimization
5. Date & Duration of the Program : 15.2.18 – 16.2.18.
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 1200
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 13.2.18.

Radhika
Signature of the Staff Member

---

1. Recommendations of the HOD : Duartie
2. Recommendations of the Principal : *Sanctioned / Not Sanctioned

---

Account Department

Accountant:

Date: 14.2.18.

No. **VOUCHER** Date 14.2.18

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. Faculty Development Program

Paid to A. Radhika Cash/Cheque

the Sum of Rupees Twelve Hundred Rupees only

Towards Conference

Prepared by

₹ 1200/-

Approved by

Audited by

Radhika
Receiver Signature

SURYA
ENGINEERING COLLEGE

ICCMC 2018

IEEE

CERTIFICATE OF PARTICIPATION

Presented to

A.Radhika

for having presented a paper entitled

Cluster Based Secure Routing Using Improved Ant Colony Optimization

in the 2nd International Conference on Computing Methodologies and Communication (ICCMC 2018), organized by Surya Engineering College during 15-16, February 2018, at Erode, Tamil Nadu, India.

Session Chair

Conference Chair

Principal

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Enikepadu, Vijayawada 521108
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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. ---- D. Haritha
2. Designation : ---- Professor
3. Department : ---- CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ---- Detection of Malicious Nodes and Packet Drop in WSN using MPAS Routing.
5. Date & Duration of the Program : 3.10.17
6. Associating Professional Body / Agency : IJETSR
7. Financial support particulars :
   - i. Registration Charges :
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) : 1500/-

Date: 3.10.17. Signature of the Staff Member

1. Recommendations of the HOD : ----
2. Recommendations of the Principal : ---- *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 3.10.17

No. **VOUCHER** Date 3/10/17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c Faculty development programe

Paid to Dr. D. Haritha (CSE) Cash/Cheque 1500/-

the Sum of Rupees One thousand five hundred rupees only

Towards Paper publication

Prepared by

₹ 1500/-

Approved by

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International Journal of Engineering Technology Science and Research
IJETSR
www.ijetsr.com
ISSN 2394 – 3386
Volume 4, Issue 10
October 2017

Detection of Malicious Nodes and Packet Drop in WSN using Mpas Routing

[1]A.Radhika
Research scholar, Dept of Computer Science & Engineering, Rayalaseema university, Kurnool,India,
[2]Dr.D.Haritha,
Professor & Head ,Professor & Head, CSE Dept, S.R.K Institute of Technology,Vijayawada, AP, India

ABSTRACT

Wireless sensor Networks is adhoc wireless network with a group of sensor nodes randomly distributed in monitoring area.Thesenetworks face certain network problems such as limited node resources, short network life cycles.To solve these problemsit is important to design a trust based Secure Ant Routing algorithm based on Pheromone where Pheromone is formulated based on node-reputation, residual node-energy and transmission delay. Simulation results show that the algorithm can increase the security of data transmission, balance of energy consumption among nodes and quality of routing service.

Keywords: Wireless sensor networks, trust based secure Ant, ant colony optimization, MPAS

1 .Introduction

A wireless sensor network (WSN) is a network formed by a large number of sensor nodes where each node is equipped with a sensor to detect physical phenomena such as light, heat, pressure, etc. WSNs are regarded as a revolutionary information gathering method to build the information and communication system which will greatly improve the reliability and efficiency of infrastructure systems.Wireless sensor networks have recently been widelyused in environmental monitoring, medical treatment, and military applications, among others [1,2].However, because of the unique working environment of wireless sensor networks, they are vulnerableto many security threats, such as Sybil, wormhole and selective forwarding attacks [3]; therefore, thesecurity and credibility of any routing algorithm for wireless sensor networks need to be studiedthoroughly. Many researchers have proposed a number of typical routing algorithms for wirelesssensor networks, but most of these routing algorithms only consider the limited resources of thewireless sensor network as the primary problem, their design goals are the best route discovery,This paper proposes an improved ant-colony optimization algorithm for wireless sensor networks. An ant-colony optimization algorithm is a meta-heuristic algorithm which is suitable for the selection of node paths and has good potential for application in wireless sensor networks. In the improved ant-colony optimization algorithm, the node reputation value, the residual node energy, and the transmission delay are combined to formulate a multi attribute pheromone, and full consideration is given to the security of data transmission while balancing this concern with the energy consumption of the network nodes to avoid the premature death of some nodes.

2 Related Concepts:

Continuous development of science and technology during recent years human beings are paying a great attention to security issues. Security can be classified into two main aspects:trust and Privacy protection . Although scholars have studied security in various fields, a truly high degree of security has not yet been achieved [4,5,6,7]. Currently, many scholars are attempting to solve the problem of limited node energy in wireless sensor network routing algorithms, they rarely consider the security issues posed by malicious nodes, and much less consider safety and energy issues simultaneously. Therefore, in this paper, to improve the energy efficiency of wireless sensor networks, a suitable trust mechanism is introduced into the routing

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Financial Support Request Letter

1. Name of the Staff Member : ~~Dr./Mr.~~/Ms. A. Radhika
2. Designation : Asst. professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : International Journal of Engineering Technology Scientific and Research (IJETSR)
5. Date & Duration of the Program : 03-10-2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 1500/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 3.10.17.

Radhika
Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal : [signature] *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 3.10.17

No. **VOUCHER** Date. 2/10/17.

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Name of A/c. Faculty development programme.

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Towards Paper Publication.

Prepared by

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International Journal of Engineering Technology Science and Research
IJETSR
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ISSN 2394 – 3386
Volume 4, Issue 10
October 2017

Detection of Malicious Nodes and Packet Drop in WSN using Mpas Routing

[1]A.Radhika
Research scholar,Dept of Computer Science & Engineering, Rayalaseema university,Kurnool,India
[2]Dr. D.Haritha,
Professor & Head ,Professor & Head, CSE Dept, S.R.K Institute of Technology,Vijayawada, AP, India

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. T. Bindhu Madhavi
2. Designation : Asst Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : A Doctrinal Approach to Information Security
5. Date & Duration of the Program : 14 NOV 2017
6. Associating Professional Body / Agency : IJRASET
7. Financial support particulars :
   - i. Registration Charges : ~~1500~~/- 1000/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 14 NOV 2017 Signature of the Staff Member

1. Recommendations of the HOD : Forwarded
2. Recommendations of the Principal : Sanctioned *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 14.11.17

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Date 14/11/17

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Name of A/c. Faculty development program

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Towards paper publications

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ISSN No. : 2321-9653

iJRASET

International Journal for Research in Applied Science & Engineering Technology

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : www.ijraset.com, E-mail : ijraset@gmail.com

ISRA Journal Impact Factor: **7.429**

45.98 INDEX COPERNICUS

THOMSON REUTERS Researcher ID: N-9681-2016

doi 10.22214/IJRASET crossref

TOGETHER WE REACH THE GO.

SJIF 7.429

Certificate

It is here by certified that the paper ID : IJRASET10971, entitled

A Doctrinal Approach to Information Security

by

Tummala Bindu Madhavi

after review is found suitable and has been published in

Volume 5, Issue XI, November 2017

in

International Journal for Research in Applied Science & Engineering Technology

Good luck for your future endeavors

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ENIKEPADU, VIJAYAWADA-521 108

By

Editor-in-Chief, IJRASET

12-18 34

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Financial Support Request Letter

1. Name of the Staff Member : ~~Dr./~~Mr./~~Ms.~~ M. V. Sumanth
2. Designation : Asst Prof
3. Department : CSE
4. Conference / Publication ✓ / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : International Journal for Research in applied science & Engineering Technology
5. Date & Duration of the Program : 30-10-2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 1500/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.10.17 Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal : [signature] *Sanctioned / Not Sanctioned

Account Department

Accountant: [signature]

Date: 1.11.17

No. **VOUCHER** Date 1/12/17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. Faculty development program

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the Sum of Rupees One thousand five hundred rupees only-

Towards Paper Publication.

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Receiver Signature

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:6.887
Volume 5 Issue XI November 2017- Available at www.ijraset.com

A Mutational Approach to Internet of Things

P.BhagyaRaju[1], D.V.V.Brahmachari[2], M.V.Sumanth[3], Merugu Naresh Babu[4]
Narala Sudhakar Reddy[5],D.Madhusudana Rao[6] , S.Suresh Babu[7],M.Rithvik[8]
[1, 2, 3, 4] *Assistant Professor, S.R.K.Institute of Technology, Enikapadu, Vijayawada.*

Abstract: ***Technology plays a key role in every part of a human life. We cannot estimate a day without technology that much we are accustomed towards the technology. In this regard we can never estimate a day without using mobile phone we can never estimate a day without wifi.Technology has become a part and parcel of our lives. We need to build more and develop more services in a less amount of time that ensembles all the components from the scratch to the batch. IOT is a form of an Integrated Technology that resembles all the hardware and software components together. Here we have presented a paper on IOT with some mutational approach***

Keywords: Ensemble, Integrate, Mutation, Resemble

I. INTRODUCTION

IoT (Internet of Things) is an advanced automation and analytics system which exploits networking, sensing, big data, and artificial intelligence technology to deliver complete systems for a product or service. These systems allow greater transparency, control, and performance when applied to any industry or system.

IoT systems have applications across industries through their unique flexibility and ability to be suitable in any environment. They enhance data collection, automation, operations, and much more through smart devices and powerful enabling technology.

IoT systems allow users to achieve deeper automation, analysis, and integration within a system. They improve the reach of these areas and their accuracy. IoT utilizes existing and emerging technology for sensing, networking, and robotics.

IoT exploits recent advances in software, falling hardware prices, and modern attitudes towards technology. Its new and advanced elements bring major changes in the delivery of products, goods, and services; and the social, economic, and political impact of those changes.

A. IOT Software

IoT software addresses its key areas of networking and action through platforms, embedded systems, partner systems, and middleware. These individual and master applications are responsible for data collection, device integration, real-time analytics, and application and process extension within the IoT network. They exploit integration with critical business systems (e.g., ordering systems, robotics, scheduling, and more) in the execution of related tasks

B. Data Collection

This software manages sensing, measurements, light data filtering, light data security, and aggregation of data. It uses certain protocols to aid sensors in connecting with real-time, machine-to-machine networks. Then it collects data from multiple devices and distributes it in accordance with settings. It also works in reverse by distributing data over devices. The system eventually transmits all collected data to a central server.

C. Data Integration

Software supporting integration binds (dependent relationships) all system devices to create the body of the IoT system. It ensures the necessary cooperation and stable networking between devices. These applications are the defining software technology of the IoT network because without them, it is not an IoT system. They manage the various applications, protocols, and limitations of each device to allow communication.

D. Real Time Analysis

These applications take data or input from various devices and convert it into viable actions or clear patterns for human analysis. They analyze information based on various settings and designs in order to perform automation-related tasks or provide the data required by industry.

E. Application and process Execution

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Financial Support Request Letter

1. Name of the Staff Member : ~~Dr./Mr./Ms.~~ P. Bhagya Raju
2. Designation : Assistant Professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : International Journal for Research in Science & Engineering Technology (IJRASET)
5. Date & Duration of the Program : 30/10/17
6. Associating Professional Body / Agency :
7. Financial support particulars : 1000/-

   i. Registration Charges :
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 30.10.17 P. B. Raju
Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal : [signature] *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 1.11.17

No.

VOUCHER

Date 09/11/17

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ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c Faculty Development programs

Paid to P. Bhagya Raju (CSE) Cash/Cheque 1000

the Sum of Rupees One thousand rupees only

Towards paper publications

Prepared by

₹ 1000/-

Approved by

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P. B. Raju
Receiver Signature

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
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Volume 5 Issue XI November 2017- Available at www.ijraset.com

A Mutational Approach to Internet of Things

P.BhagyaRaju[1], D.V.V.Brahmachari[2], M.V.Sumanth[3], Merugu Naresh Babu[4]
Narala Sudhakar Reddy[5],D.Madhusudana Rao[6] , S.Suresh Babu[7],M.Rithvik[8]
[1, 2, 3, 4] *Assistant Professor, S.R.K.Institute of Technology, Enikapadu, Vijayawada.*

Abstract*: Technology plays a key role in every part of a human life. We cannot estimate a day without technology that much we are accustomed towards the technology. In this regard we can never estimate a day without using mobile phone we can never estimate a day without wifi.Technology has become a part and parcel of our lives. We need to build more and develop more services in a less amount of time that ensembles all the components from the scratch to the batch. IOT is a form of an Integrated Technology that resembles all the hardware and software components together. Here we have presented a paper on IOT with some mutational approach

Keywords: Ensemble, Integrate, Mutation, Resemble

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A Mutational Approach to Internet of Things

P.BhagyaRaju[1], D.V.V.Brahmachari[2], M.V.Sumanth[3], Merugu Naresh Babu[4]
Narala Sudhakar Reddy[5],D.Madhusudana Rao[6] , S.Suresh Babu[7],M.Rithvik[8]
[1, 2, 3, 4] *Assistant Professor, S.R.K.Institute of Technology, Enikapadu, Vijayawada.*

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De-Blurring of pyramid fused image on Visible and Infrared Images at Pixel and Feature Levels Using Blind De-Convolution and Wiener Filter

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ABSTRACT

In the current technological advanced world multi-scale Image Fusion place a vital role in the digital image processing. In multi scale resolution techniques Laplacian Pyramid is a well known technique in which all low level resolution images are fused to produce a high resolution image. But the resultant image is having one disadvantage that it is somewhat blurred image when compared to the original image. This paper focuses on removing the unwanted blurrness from the resultant image by using Blind De-convolution and Wiener Filters. Both methods are applied separately on pyramid fused image for visible images, infrared images and combination of visible and infrared images at Pixel and Feature levels using principle component analysis and simple average methods. Both De-convolution and Wiener Filter Technique results are compared. The comparison results showed better PSNR (Peak Signal to Noise Ratio) values for Wiener Filtered blurred image than the Blind De-convolution method.

Keywords: Feature Level, Multi -Scale Resolution, Pyramid, Pixel Level, PCA, Wiener filter.

I. INTRODUCTION

The idea behind the image fusion is merging complementary and redundant information from multiple images in such a way, so as to retain the most desirable characteristics of every image. The single fused image is relatively high informative when compared to the original images [1]. Analysing the image data for getting information from the real time images is a crucial task in present days. To analyze the image data one can interact with the images having various resolutions. Generally images exhibit features in different scales. High resolution images have larger gray values. Larger gray value images represent bright images; because of this multi scale image fusion finds applications in different fields such as military, area surveillance and forensic science.

Military: Giving directions and guidance to missiles by using Multi scale image fusion improves accuracy of locations which leads success in the mission taken up by the military of any nation [2].

Area surveillance: For protecting borders of nations, border areas are under continuous surveillance at different weather conditions. Not only at the borders but also at ship yards and even at security of buildings multi scale image fusion has capability of providing quality scenes [3].

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National intelligence grid — An information sharing grid

Publisher: IEEE

D. Haritha ; Ch. Praneeth All Authors

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. S.Harika
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : A Doctrical Approach to Information Security
5. Date & Duration of the Program : NOV 2017
6. Associating Professional Body / Agency : IJRASET
7. Financial support particulars :
   - i. Registration Charges : 1250/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 14. NOV 2017 Signature of the Staff Member

1. Recommendations of the HOD : Duplicate
2. Recommendations of the Principal : *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 14.11.17.

No.

VOUCHER

Date 14 Nov 2017

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. FDP.

Paid to S. Harika Cash/Cheque 1250

the Sum of Rupees One Thousand Two Hundred Fifty.

Towards Paper Publication

Prepared by

₹ 1250/-

Approved by

Audited by

Receiver Signature

ISSN No. : 2321-9653

IJRASET

International Journal for Research in Applied Science & Engineering Technology

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ISRA Journal Impact Factor: **7.429**

45.98 INDEX COPERNICUS

THOMSON REUTERS
Researcher ID: N-9681-2016

10.22214/IJRASET

TOGETHER WE REACH THE GO.
SJIF 7.429

Certificate

It is here by certified that the paper ID : IJRASET10971, entitled

A Doctrinal Approach to Information Security

by

S. Harika

after review is found suitable and has been published in
Volume 5, Issue XI, November 2017

in

International Journal for Research in Applied Science & Engineering Technology

Good luck for your future endeavors

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

By

Editor-in-Chief, IJRASET

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Enikepadu, Vijayawada 521108
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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. ---- Dr. B. Asha Latha
2. Designation : ---- Professor ----
3. Department : ---- CSE ----
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ---- Conference on Emerging Communication, Data Analytics and Soft Computing (ICCCDS)
5. Date & Duration of the Program : 31-7-17
6. Associating Professional Body / Agency : IEEE
7. Financial support particulars :
   - i. Registration Charges : 2000/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 31.7.17

B. Asha
Signature of the Staff Member

---

1. Recommendations of the HOD : ---- Recommended ----
2. Recommendations of the Principal : ---- Sanctioned ---- *Sanctioned / Not Sanctioned

---

Account Department

Accountant:

Date: 31.7.17

No. **VOUCHER** Date 8-7-17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. FDP

Paid to Dr B. Ashalatha Cash/Cheque 2000

the Sum of Rupees Two Thousand Rupees

Towards Paper Publication

Prepared by

₹ 2000/-

Approved by

Audited by

Receiver Signature

Enhanced pyramid image fusion on visible and infrared images at pixel and feature levels

shalatha ; Babu Reddy All Authors

Abstract: In today's Technology Advancements, Multi Scale Image Fusion plays a crucial role in the Digital Image Processing field. Various features of Multi-Scale Image Fusion are ... **View more**

Metadata

Abstract:
In today's Technology Advancements, Multi Scale Image Fusion plays a crucial role in the Digital Image Processing field. Various features of Multi-Scale Image Fusion are applied in areas such as Image Classification, Remote Vision, Medical Imaging, Satellite Imaging and Forensic Sciences. Multi-Scale Image Fusion can be described as combining the best features of two or more images which are at different resolution levels and getting a single coherent Fused Image. Laplacian Pyramid is a Multi-Scale Resolution technique, in which low resolution images are fused to produce a high resolution images. But the resultant high resolution image is a blurred image when compared to original images. This Paper provides a new method to remove the blurriness from the high resolution image using Wiener Filter. This method worked on Pyramid Image Fusion on Visible Images, Infrared Images and combination of Visible and Infrared Images at Pixel and Feature levels using Simple Average and PCA (Principle Component Analysis) methods. The Experimental results showed better PSNR (Peak Signal to Noise Ratio) Values than the Multi Scale Fusion process using Laplacian Pyramid.

Published in: 2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)
Date of Conference: 1-2 Aug. 2017 **INSPEC Accession Number:** 17859299

12-12

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Enikepadu, Vijayawada 521108
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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. Dr. A. Radhika
2. Designation : Professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Conference on Innovations in Computer Science & Engineering
5. Date & Duration of the Program : 29-9-17
6. Associating Professional Body / Agency : Gurunanak Publications, Volume, issue
7. Financial support particulars :
   i. Registration Charges : 1500/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 29.9.17

Radhika
Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal : [signature] *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 29.9.17

No.

VOUCHER

Date 29.9.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. FDP

Paid to A. Radhika Cash/Cheque 1200

the Sum of Rupees One Thousand five Hundred

Towards Paper Publication

Prepared by

₹ 1200/-

Approved by

Audited by

Radhika
Receiver Signature

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&
GURU NANAK INSTITUTE OF TECHNOLOGY

5th- INTERNATIONAL CONFERENCE ON INNOVATIONS IN COMPUTER SCIENCE & ENGINEERING (ICICSE - 2017)

18th - 19th August, 2017

Certificate

This is to certify that Prof./ Dr./ Mr./ Ms. Ankala Radhika

has presented / submitted a Paper titled Optimizing QOS in MANET Using Swam HASO-AFSA Routing in the Technical session Track 3 - Computer Networks & Security of the "5th INTERNATIONAL CONFERENCE on Innovations in Computer Science & Engineering (ICICSE - 2017)", held during 18th - 19th August 2017

Convener	Dr. Rishi Sayal Conference Co-Chair	Dr. S. Sreenatha Reddy Conference Co-Chair	Dr. H. S. Saini Conference Chair

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. N. Neelima Priyanka.
2. Designation : Sr. Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : IARDCS
5. Date & Duration of the Program Nov 2017 Aug 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 2000/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 14/8/2017 7.8.17. Signature of the Staff Member

---

1. Recommendations of the HOD : Forwarding
2. Recommendations of the Principal : Allowed *Sanctioned / Not Sanctioned

---

Account Department

Accountant:

Date: 7.8.17

No. **VOUCHER** Date 7/8/19

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c Faculty development programme

Paid to Dr. N. Neelima Priyanka (CSE) Cash/Cheque 2000/-

the Sum of Rupees Two thousand rupees only-

Towards Paper Publication.

Prepared by

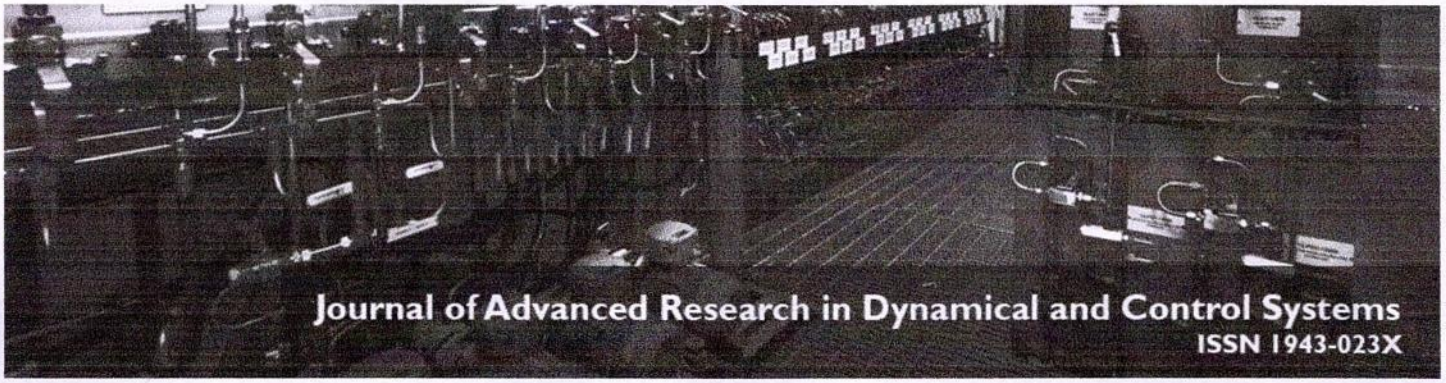
₹ 2000/-

Approved by

Audited by

Receiver Signature

JARDCS



Earliest Deadline First Scheduling in Cloud Computing

N. Neelima Priyanka,P. Suresh Varma,R. Krishnam Raju Indukuri and B. Sukumar Babu

Abstract:

Cloud Computing is a new phenomenon in Information Technology in which computing is delivered in the form of service rather than as a product, through some of the shared resources like s/w and information to end users as an utility over networks. Scheduling plays an important role in cloud computing, as it deals with various kinds of resources in the form of virtual machines. In cloud, user may enable hundreds of thousands of jobs and each jobs requests number of virtualized resources for completion of each task. Hence manual processing of scheduling is not appropriate feasible solution. Therefore in this paper we mainly concentrated the comprehensive way of scheduling algorithms in cloud computing using the new algorithm Earliest Deadline First (EDF) scheduling. In this paper we presented an Earliest Deadline First Scheduling while allocating resources to the required jobs. Some of the performance metrics that shown in this algorithms are Average Turnaround Time, Average Waiting Time and Average Deadline Violation. These metrics are reduced reasonably when compare to traditional scheduling models like FCFS and SJF Scheduling Models

Issue: 11-Special Issue

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. T. Bindu Madhavi
2. Designation : Asst. Professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : NPTEL Introduction to Operating Systems
5. Date & Duration of the Program : Jul -- Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :

   i. Registration Charges : 800/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 30. Sep. 2017

Signature of the Staff Member

1. Recommendations of the HOD :
2. Recommendations of the Principal :

*Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17.

No.

VOUCHER

Date 30.6.17.

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c Faculty Development Program

Paid to T. Bindu Madhavi *Cash/Cheque* 800/-

the Sum of Rupees Eight Hundred Rupees

Towards NPTEL Course

Prepared by

Approved by

Audited by

₹ 800.

Receiver Signature

Roll No:NPTEL17CS29S1810480

To
TUMMALA BINDU MADHAVI
6-51 UMA SANKAR NAGAR 3RD LINE KANURU
VIJAYAWADA
KRISHNA
ANDHRA PRADESH
520007
PH. NO :8297886677

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

o. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

TUMMALA BINDU MADHAVI

for successfully completing the course

Introduction To Operating Systems

with a consolidated score of 70 %

Online Assignments	17/25	Proctored Exam	53.25/75

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

Total number of candidates certified in this course: 1095

Prof. A. Ramesh
Chairman
Centre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

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NASSCOM

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(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. N. Sudhakar Reddy
2. Designation : Asst. Professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : NPTEL Technical English for Engineers
5. Date & Duration of the Program : Jul-Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 750/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30 Jun 2017 Signature of the Staff Member

1. Recommendations of the HOD : Donate
2. Recommendations of the Principal : *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17.

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c Faculty Development Program

Paid to N. Sudhakar Reddy *Cash/Cheque* 750

the Sum of Rupees Seven Fifty Rupees

Towards NPTEL Course

Prepared by

₹ 750/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17HS19S2760306

To
NARALA SUDHAKAR REDDY
61-22/2-19,GULABI THOTA, RAMALINGESWARA NAGAR
VIJAWYAWADA
KRISHNA
ANDHRA PRADESH
520013
PH. NO :9866385245

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

o. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

NARALA SUDHAKAR REDDY

for successfully completing the course

Technical English For Engineers

with a consolidated score of **71** %

Online Assignments	21/25	Proctored Exam	50.25/75

Total number of candidates certified in this course: **1981**

PRINCIPAL
SRK Institute of Technolo
ENIKEPADU, VIJAYAWADA-521

A. Ramesh

Prof. A. Ramesh
Chairman
entre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

Roll No: NPTEL17HS19S2760306

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. G. Appa Rao
2. Designation : Asst. Professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : NPTEL on Technical English for Engineers
5. Date & Duration of the Program : Jul - Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 750/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.JUN 2017 Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal : Sanctioned *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. Faculty Development Program.

Paid to G. Appa Rao Cash/Cheque 750

the Sum of Rupees Seven fifty Rupees

Towards NPTEL Course

Prepared by

₹ 750/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17HS19S2760402

To

APPARAO GEDDAPU
ASSISTANT PROFESSOR,
DEPT. OF CSE,
SRK INSTITUTE OF TECHNOLOGY,
VIJAYAWADA
KRISHNA
ANDHRA PRADESH
521108
PH. NO :8099388998

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

o. of credits recommended by NPTEL:2

Elite

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(Funded by the Ministry of HRD, Govt. of India)

TOP TOPPER 5%

This certificate is awarded to

APPARAO GEDDAPU

for successfully completing the course

Technical English For Engineers

with a consolidated score of 79 %

Online Assignments	20.75/25	Proctored Exam	57.75/75

Total number of candidates certified in this course: 1981

PRINCIPAL
SRK Institute of Technolo
ENIKEPADU, VIJAYAWADA-521 1

A. Ramesh

Prof. A. Ramesh
Chairman
Centre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

Roll No: NPTEL17HS19S2760402

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Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. M. Naresh Babu
2. Designation : Asst. Professor
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details :
   NPTEL on course
5. Date & Duration of the Program : Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 750/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 30.06.2017

M. Naresh Babu
Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal : *Sanctioned / Not Sanctioned

PRINCIPAL
SRK Institute of Technology
ENIKEPADU VIJAYAWADA-521 108

Account Department

Accountant:

Date: 30.6.17

No. **VOUCHER** Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to M. Naresh Babu Cash/Cheque 750

the Sum of Rupees Seven Fifty Rupees

Towards FDP

Prepared by

₹ 750/-

Approved by

Audited by

M. naresh Babu

Receiver Signature

Roll No:NPTEL17HS19S2760354

To
NARESH BABU MERUGU
H.NO 4-86
BANDARUGUDEM
KRISHNA
ANDHRA PRADESH
521109
PH. NO :9848738591

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

No. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

NARESH BABU MERUGU

for successfully completing the course

Technical English For Engineers

with a consolidated score of 62 %

Online Assignments	21.25/25	Proctored Exam	40.5/75

Total number of candidates certified in this course: **1981**

A. Ramesh
Prof. A. Ramesh
Chairman
Centre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

Roll No: NPTEL17HS19S2760354

To validate and check scores: http://nptel.ac.in/noc

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Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. P. Bhagya Raju.
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Technical English for Engineers
5. Date & Duration of the Program : JUl - Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 750/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.6.17 Signature of the Staff Member P. B. Raju

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal :
3. Recommendations of the IQAC :

*Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. FDP

Paid to P. Bhagya Raju Cash/Cheque 750

the Sum of Rupees Seven fifty Rupees

Towards FDP

Prepared by

₹ 750/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17HS19S2760431

To
PIDATHALA BHAGYA RAJU
D.NO: 10-65,
MANGOLU ROAD
GANDRAI P.O
KRISHNA
ANDHRA PRADESH
521175
PH. NO :9533272303

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

No. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

PIDATHALA BHAGYA RAJU

for successfully completing the course

Technical English For Engineers

with a consolidated score of **76 %**

Online Assignments	21.25/25	Proctored Exam	54.75/75

Total number of candidates certified in this course: **1981**

Prof. A. Ramesh
Chairman
Centre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

Roll No: NPTEL17HS19S2760431

To validate and check scores: http://nptel.ac.in/noc

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Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. S. Suresh Babu.
2. Designation : Asst Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Fundamentals of Database Systems
5. Date & Duration of the Program : Jul - Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 750/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.6.17. Signature of the Staff Member

1. Recommendations of the HOD : Duarte
2. Recommendations of the Principal :
3. Recommendations of the IQAC : *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17.

No. **VOUCHER** Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to S. Suresh Babu Cash/Cheque 750

the Sum of Rupees Seven fifty Rupees

Towards FDP

Prepared by

₹ 750/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17CS33S1810910

To
SUNKARA SURESH BABU
D.NO:10-49, YANAMALAKUDURU P.O

KRISHNA
ANDHRA PRADESH
520007
PH. NO :9966883969

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

o. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

SUNKARA SURESH BABU

for successfully completing the course

Fundamentals Of Database Systems

with a consolidated score of **61** **%**

PRINCIPAL
SRK Institute of Technology
VIJAYAWADA-521 108

Online Assignments	20.75/25	Proctored Exam	39.75/75

Total number of candidates certified in this course: **1353**

T V Prabhakar

Prof. T. V. Prabhakar
Chairman
Centre for Continuing Education,IITK

Jul-Sep 2017
(8 week course)

Satyaki Roy

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

In partnership with
NASSCOM

Roll No: NPTEL17CS33S1810910

To validate and check scores: http://nptel.ac.in/noc

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(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. P. Nageswara Rao
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training Industrial Visit / Tours With details : OOAD
5. Date & Duration of the Program : Jul - Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 750/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.6.17

Signature of the Staff Member

1. Recommendations of the HOD :
2. Recommendations of the Principal :
3. Recommendations of the IQAC :

*Sanctioned / Not Sanctioned

Account Department

Accountant:

Date:

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to P. Nageswara.o Cash/Cheque 750

the Sum of Rupees Seven fifty Rupees Only

Towards FDP

Prepared by

₹ 750/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17CS25S1810304

To
NAGESWARA RAO PULI
1-258
VENKATAPALEM POST
GUNTUR
ANDHRA PRADESH
522237
PH. NO :7036997699

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

o. of credits recommended by NPTEL:2

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

NAGESWARA RAO PULI

for successfully completing the course

Object Oriented Analysis And Design

with a consolidated score of 58 %

Online Assignments	17.75/25	Proctored Exam	40.5/75

Total number of candidates certified in this course: 368

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

Prof. Anupam Basu
Chairman and Head
Centre for Educational Technology, IIT Kharagpur

Jul-Sep 2017
(8 week course)

A. Goswami
Prof. Adrijit Goswami
Dean
Continuing Education, IIT Kharagpur

Indian Institute of Technology Kharagpur

In partnership with
NASSCOM

SRK INSTITUTE OF TECHNOLOGY

Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. T. Vijaya Sri
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Introduction to OS
5. Date & Duration of the Program : Jul - Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 750
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.6.17

Vijaya Sri
Signature of the Staff Member

1. Recommendations of the HOD : Duantha
2. Recommendations of the Principal : *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17.

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to T. Vijaya Sri *Cash/Cheque* 750

the Sum of Rupees seven fifty Rupees

Towards FDP

Prepared by

Approved by

Audited by

₹ 750/-

Receiver Signature

Roll No:NPTEL17CS29S1810506

To
T VIJAYA SREE
D.NO. 74-14-39
VIJAYAWADA
KRISHNA
ANDHRA PRADESH
520007
PH. NO :9494384577

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

No. of credits recommended by NPTEL:2

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

T VIJAYA SREE

for successfully completing the course

Introduction To Operating Systems

with a consolidated score of **51** %

Online Assignments	17/25	Proctored Exam	33.75/75

Total number of candidates certified in this course: **1095**

A. Ramesh

Prof. A. Ramesh
Chairman
Centre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

Indian Institute of Technology Madras

In partnership with
NASSCOM®

Roll No: NPTEL17CS29S1810506

Validate and check scores: http://nptel.ac.in/noc

SRK INSTITUTE OF TECHNOLOGY
Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. D. Madhusudhan Rao
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Introduction to OS
5. Date & Duration of the Program : Jul - Sep 2017.
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 1100
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.6.17

Signature of the Staff Member

1. Recommendations of the HOD : Duathe
2. Recommendations of the Principal : *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17.

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to D. Madhusudhana Rao Cash/Cheque 1100

the Sum of Rupees Eleven Hundred Rupees

Towards FDP

1.

Prepared by

₹ 1100/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17CS29S1810454

To
DONTHA MADHUSUDHANA RAO
5-489
NUTHAKKI
GUNTUR
ANDHRA PRADESH
522303
PH. NO :8121719885

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

o. of credits recommended by NPTEL:2

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

DONTHA MADHUSUDHANA RAO

for successfully completing the course

Introduction To Operating Systems

with a consolidated score of **56** %

Online Assignments	16/25	Proctored Exam	39.75/75

Total number of candidates certified in this course: **1095**

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

A. Ramesh

Prof. A. Ramesh
Chairman
Centre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

In partnership with
NASSCOM

Roll No: NPTEL17CS29S1810454

To validate and check scores: http://nptel.ac.in/noc

SRK INSTITUTE OF TECHNOLOGY

Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. M.V Sumanth
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Introduction to C programming
5. Date & Duration of the Program : 1st - Sep 2017.
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 1000/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 30.6.17

Signature of the Staff Member

1. Recommendations of the HOD : Duartie
2. Recommendations of the Principal : *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to M.V. Sumanth Cash/Cheque 10001-

the Sum of Rupees One Thousand Rupees

Towards FDP

Prepared by

₹ 1000/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17CS43S1810890

To
M.V.SUMANTH
71-2-23
PATAMATA,VIJAYAWADA
KRISHNA
ANDHRA PRADESH
520010
PH. NO :9985246246

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

No. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

TOP TOPPER 5%

This certificate is awarded to

M.V.SUMANTH

for successfully completing the course

Introduction To Programming In C

with a consolidated score of 86 %

Online Assignments	25/25	Proctored Exam	61/75

Total number of candidates certified in this course: 2992

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

T V Prabhakar

Prof. T. V. Prabhakar
Chairman
entre for Continuing Education,IITK

Jul-Sep 2017
(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

In partnership with
NASSCOM

Roll No: NPTEL17CS43S1810890

To validate and check scores: http://nptel.ac.in/noc

SRK INSTITUTE OF TECHNOLOGY

Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. ---- Ch. Ambedkar.
2. Designation : ---- Asst. Prof ----
3. Department : ---- CSE ----
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----
   ---- Technical English for Engineers ----
5. Date & Duration of the Program : TW - Sep 2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 1000
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Ch. Ambedkar

Date: 30.6.17 Signature of the Staff Member

1. Recommendations of the HOD : ---- Duartie
2. Recommendations of the Principal : ---- *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30617

No.

VOUCHER

Date 30.6.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to CH Ambedkar Cash/Cheque 1000

the Sum of Rupees One Thousand Rupees

Towards FDP

Prepared by

₹ 1000/-

Approved by

Audited by

Receiver Signature

Roll No:NPTEL17HS19S2760016

To
CHINTAGUNTA AMBEDKAR
FLAT NO -T1 ,S R RESIDENCY,ZION HIGH
SCHOOL ROAD,E S I,GUNADALA
VIJAYAWADA
KRISHNA
ANDHRA PRADESH
520004
PH. NO :9247259985

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

o. of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

CHINTAGUNTA AMBEDKAR

for successfully completing the course

Technical English For Engineers

with a consolidated score of **67 %**

Online Assignments	20.75/25	Proctored Exam	46.5/75

PRINCIPAL
RK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

Total number of candidates certified in this course: **1981**

Prof. A. Ramesh
Chairman
Centre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

Roll No: NPTEL17HS19S2760016 To validate and check scores: http://nptel.ac.in/noc

SRK INSTITUTE OF TECHNOLOGY
Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. ---- M. Rithvik ----
2. Designation : ---- Asst. Prof ----
3. Department : ---- CSE ----
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----
   ---- Technical English for Engineers ----
5. Date & Duration of the Program : JUl - Sep2017
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 1000/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 30.6.17 Signature of the Staff Member

1. Recommendations of the HOD : ----
2. Recommendations of the Principal : ---- *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 30.6.17

No.

VOUCHER

Date 30.6.17.

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c FDP

Paid to M. Rithwik Cash/Cheque 1000

the Sum of Rupees One Thousand Rupees

Towards FDP

Prepared by

₹ 1000/-

Approved by

Audited by

M. Rithwik

Receiver Signature

Roll No:NPTEL17HS19S1810514

To
M.RITHVIK
PLOT NO 3 VISAKHA A COLONY
SRIKAKULAM

ANDHRA PRADESH
532001
PH. NO :9502170822

Score	Type of Certificate
>=90	Elite + Gold Medal
60-89	Elite
40-59	Successfully Completed the course
<40	No Certificate

). of credits recommended by NPTEL:2

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

M.RITHVIK

for successfully completing the course

Technical English For Engineers

with a consolidated score of **66** %

Online Assignments	18.25/25	Proctored Exam	47.25/75

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

Total number of candidates certified in this course: **1981**

Prof. A. Ramesh
Chairman
entre for Continuing Education,IITM

Jul-Sep 2017
(8 week course)

Prof, Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

Roll No: NPTEL17HS19S1810514

To validate and check scores: http://nptel.ac.in/noc

103 167

SRK INSTITUTE OF TECHNOLOGY

Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. ---- M. Rithvik
2. Designation : ---- Assistant Professor
3. Department : ---- CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----
   International Journal of Research in Applied Science & Engineering Technology.
5. Date & Duration of the Program : 01 Aug 2017
6. Associating Professional Body / Agency : IJRASET
7. Financial support particulars : ts
   i. Registration Charges : 1500/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 01 Aug 2017.

M. Rithvik
Signature of the Staff Member

1. Recommendations of the HOD : ---- Duarthe
2. Recommendations of the Principal : ---- [signature] ✓ *Sanctioned / Not Sanctioned

Account Department

Accountant: [signature]

Date: 1.8.17.

No.

VOUCHER

Date 01/08/17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. Faculty development program

Paid to M. Rithvik (CSE) Cash/Cheque 1500

the Sum of Rupees Fifteen hundred rupees only

Towards Paper publications

Prepared by

₹ 1500/-

Approved by

Audited by

M. Rithvik

Receiver Signature

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:6.887
Volume 5 Issue VIII, August 2017- Available at www.ijraset.com

An Innovative Approach to Fundamentals of Computers

S. Praneetha[1], D. Sai Keerthi[2], S. Alim[3], M. Rithvik[4], Dr. N. Subramanyam[5]
[1,2,3]*I Mba I year, SRK Institute of Technology,*
, [4]*Assistant Professor, SRK institute of technology*
[5]*Head of The Department, Department of MBA, SRK Institute of Technology*

Abstract*: Computers play a key role in almost every industry now a day. So in this regard being technophile persons to have the ability to perform a particular task with the help of computers is been playing a key role in this society. This paper is being designed for a lay man to take up the basic terminology of technology with the help of computers. The marketing of technology is also playing a key role in the society now a day. In this regard, we take this bold presentation as a representation of computers to a lay man in the form of technology. Technology can be explained only with the help of technology.
Keywords*: Technophile, Technology, Trend, Computer, Marketing

I. INTRODUCTION

Computers play a key role in the market now a days for any sort of business transactions are done only with the help of computers .It has become a necessity that every individual may be rich or poor may be a business person or a lay man Computer has become part and parcel of our family . In this regard still a person from a poor background does not know anything about the computers but he/she might have an intention to learn about the computers .But he/she is not capable to buy a computer system. For such people to take part as an activity in rural areas we the Integrated MBA people of SRK Institute of Technology has taken this step. This step brings a revolution in the Industry as It looks like a small game it is going to deliver some knowledge that a lay man can understand and change his attitude towards his opinion towards the technology.

Technology can take place until we do not have technology in our hands. This has become our primary intension when we start learning about the computers. Computer Technology with it's extend is rapidly growing but a lay man was unable to know its intention and its usage .This has become an issue since years together. We feel that our intention is that lay man that area people must be aware of technology .We know the theory of a book can be known until and unless we read the whole book from first to last page. Like Wise we have to know the technology until he uses the technology from first to last.

There are many ways to market the technology .The following are the various ways that describe the technology.

A. Multimedia
B. Advertisements
C. Games
D. Apps
E. Short Films Virtual Reality
F. Pomplates
G. Augmented Reality

In this scenario we have selected the 3rd way to take this technology and build this in order to gain attention of the layman the best technique we used is it should include a game that is easily understandable to a lay man and it should be presented in a technical manner also. After playing this game a lay man must know and answer the following questions related to the computer at least. The following are the basic questions we ask those questions and this has become our learning objective.

1) What is a Computer?
2) What is a Mouse ? How does it look like?
3) What is a Keyboard?

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Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. N. Sudhakar Reddy
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Indian Society for Technical Educaton (ISTE)
5. Date & Duration of the Program : 2017, LifeTime.
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 1500/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 10.7.17 Signature of the Staff Member

1. Recommendations of the HOD : Due to.
2. Recommendations of the Principal : Forwarded *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 11.7.17

No. **VOUCHER** Date 11.7.17

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. Membership

Paid to N. Sudhakar Reddy Cash/Cheque 1500

the Sum of Rupees One Thousand Five Hundred Rupees Only

Towards Membership

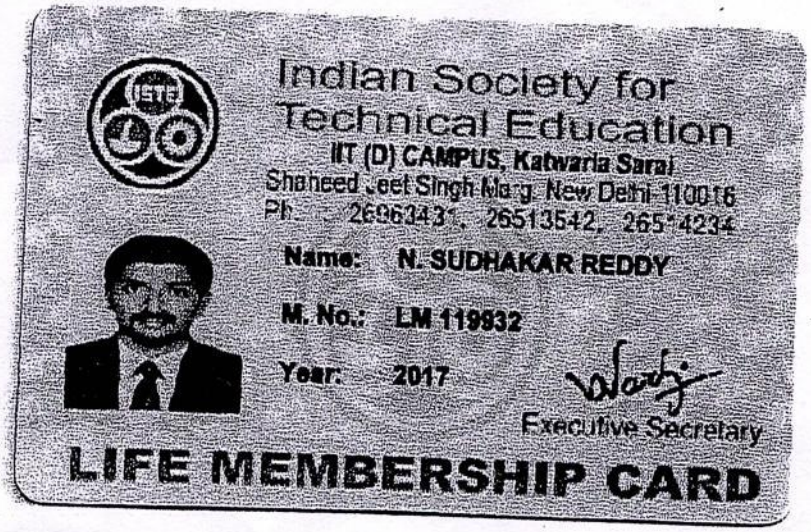
Prepared by

₹ 1500/-

Approved by

Audited by

Receiver Signature



PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

SRK INSTITUTE OF TECHNOLOGY

Enikepadu, Vijayawada 521108
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(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. --CH. Ambedkar
2. Designation : ---------Asst. Prof----------
3. Department : ---------CSE----------
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----------
   Computer Society of India (CSI)
5. Date & Duration of the Program : 28.2.18, 3 Years
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 1500/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 19.2.18 Signature of the Staff Member

1. Recommendations of the HOD : ----------Director
2. Recommendations of the Principal : ----------Principal *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 23.2.18

No. **VOUCHER** Date 23.2.18.

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c. Membership

Paid to CH. Ambedkar Cash/Cheque 1500/-

the Sum of Rupees One Thousand five Hundred Rupees Only

Towards Membership

Prepared by

₹ 1500/-

Approved by

Audited by

Receiver Signature

CSE-6

Computer Society of India™

Samruddhi Venture Park, Unit No.3, 4th floor, MIDC,
Andheri (E). Mumbai-400093 Tel: 91-22-29261700,
Fax: 91-22-28302133 Email:hq@csi-india.org

Associate **Membership No. :**2010000478

Valid from: 28/2/2018 Valid thru: 28/2/2021

Mr. Chintagunta Ambedkar S R Residency

Flat No -T1 S R Residency Zion High School
Road E S I Gunadala Vijayawada 520004
Andhra Pradesh

Hon. Secretary

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

SRK INSTITUTE OF TECHNOLOGY
Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. ---- B. Ashalatha
2. Designation : ---- Asst. Prof ----
3. Department : ---- CSE ----
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : ----
   Computer Society of India (CSI)
5. Date & Duration of the Program : 28.2.18, 3 Years
6. Associating Professional Body / Agency :
7. Financial support particulars :
   i. Registration Charges : 1500/-
   ii. Travelling Allowances :
   iii. Membership Fee :
   iv. Others (if any) :

Date: 19.2.18

Signature of the Staff Member

1. Recommendations of the HOD : ----
2. Recommendations of the Principal : ---- *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 23.2.18

No. **VOUCHER** Date 2.3.2018

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c Membership

Paid to B. Ashalatha Cash/Cheque 1500/-

the Sum of Rupees One Thousand Five Hundred Rupees

Towards Membership

Prepared by

₹ 1500/-

Approved by

Audited by

Receiver Signature

Computer Society of India™

Samruddhi Venture Park, Unit No.3, 4th floor, MIDC,
Andheri (E). Mumbai-400093 Tel: 91-22-29261700,
Fax: 91-22-28302133 Email:hq@csi-india.org

Associate **Membership No. :**2910000464

Valid from: 28/2/2013 Valid thru: 28/2/2021

Mrs. Asha Latha Bandi

14-54 Sanjeevaiah Nagar Yenamalakuduru
Vijayawada 520007 Andhra Pradesh

Hon. Secretary

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

SRK INSTITUTE OF TECHNOLOGY

Enikepadu, Vijayawada 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)

Financial Support Request Letter

1. Name of the Staff Member : Dr./Mr./Ms. A. Radhika
2. Designation : Asst. Prof
3. Department : CSE
4. Conference / Publication / Membership Fee / Workshop / FDP / Seminar / Training / Industrial Visit / Tours With details : Computer Society of India (CSI)
5. Date & Duration of the Program : 28.2.18, 3 Years
6. Associating Professional Body / Agency :
7. Financial support particulars :
   - i. Registration Charges : 1500/-
   - ii. Travelling Allowances :
   - iii. Membership Fee :
   - iv. Others (if any) :

Date: 19.2.18

Radhika
Signature of the Staff Member

1. Recommendations of the HOD : Forwarded
2. Recommendations of the Principal : [signature] *Sanctioned / Not Sanctioned

Account Department

Accountant:

Date: 23.2.18

No. **VOUCHER** Date 23.2.18

SRK INSTITUTE OF TECHNOLOGY

ENIKEPADU, VIJAYAWADA - 521 108. Ph. : 2843839

Name of A/c Membership

Paid to A. Radhika *Cash/Cheque* 1500/-

the Sum of Rupees One Thousand five Hundred Rupees

Towards Membership

Prepared by

₹ 1500/-

Approved by

Audited by

Radhika

Receiver Signature

Computer Society of India™

Samruddhi Venture Park, Unit No.3, 4th floor, MIDC,
Andheri (E). Mumbai-400093 Tel: 91-22-29261700,
Fax: 91-22-28302133 Email:hq@csi-india.org

Associate **Membership No. :**2010000480

Valid from: 28/2/2018 Valid thru: 28/2/2021

Mrs. Ankala Radhika

2D2 Krishnagodavari Apartment Near
Papullamill Center Kanuru Vijayawada 520007
Andhra Pradesh

Hon. Secretary

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108