CRITERION-III: Metric 3.3.1	***Number of research papers published per teacher in the Journals notified on UGC CARE list during the last five years***
Response	0.52
Web link	https://sseptp.org/NAAC-SSR/Criterion-3

Summary:

Year	**17-18**	**18-19**	**19-20**	**20-21**	**21-22**
Number of research publications	**6**	**2**	**13**	**38**	**29**
Total teachers	**32**	**60**	**64**	**61**	**62**

Total Publications: 88

Ratio = Total number of research papers in the journals notified on UGC Care / Number of full time teacher during the last five years (without repeat count)

= 88/169

= 0.52

File contents:

Description
3.3.1_file no:1-Publication details (2017-18 to 2021-22)-screenshots

International Journal for Modern Trends in Science and Technology
Volume: 03, Issue No: 03, March 2017
ISSN: 2455-3778
http://www.ijmtst.com

PV Based Load Resonant for Boost Converter by Using Quasi Z-Source Network

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To Cite this Article
Nendragamti Pavan Kumar "PV Based Load Resonant for Boost Converter by Using Quasi Z-Source Network", *International Journal for Modern Trends in Science and Technology*, Vol. 03, Issue 03, 2017, pp. 01-06.

ABSTRACT

In this paper a novel resonant dc-dc converter utilizing fell semi Z-source system is displayed. Diverse routine converters like arrangement thunderous converter and LLC resonant converters experiences extensive variety of info voltage and load varieties since exchanging recurrence was shifted. The proposed Z-source dc-dc converter can limit changing recurrence range to lead high converter productivity. The fell QZS system is gotten from conventional semi Z source inverter by including one diode, one inductor, and two capacitor to it. The fell QZSI works as venture up converter in typical mode i.e. yield voltage is expanded three circumstances than information voltage and for lift mode yield voltage is expanded ten circumstances input voltage. At the point when contrasted and customary QZSI proposed arrangement lessens shoot through obligation cycle by more than 30% at same voltage support figure. Two phase QZSI in shoot through and non-shoot through modes are portrayed hypothetically. This proposed framework is dependability is incredibly made strides. Its exhibitions are confirmed utilizing MATLAB\SIMULINK instrument to check hypothetical presumptions and equipment is actualized by utilizing sunlight based vitality as info.

KEYWORDS: *PV Cell, DC-DC converter, Series Resonant Converter, LLC resonant converter, Z-source network.*

I. INTRODUCTION

Semi Z source detached Dc/Dc converters have been generally utilized as a part of medium power applications for conveyance framework. Converters have no exchanging misfortune and are more reasonable for high recurrence operations. Because of wellbeing and element execution necessities, the interface converter ought to be acknowledged inside the dc/dc/air conditioning

Disseminated control era, when completely actualized, can give dependable, high caliber, and minimal effort electric power is engaged. To expand the power thickness of the converter, a three-stage helper air conditioning joins (a three-stage inverter and a three-stage confinement transformer) and a three-stage VDR are proposed. The plan of the front-end disengaged dc/dc converter is most testing since this stage is the principle giver of interface converter proficiency,

International Journal for Modern Trends in Science and Technology
Volume: 03, Issue No: 04, April 2017
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PV Based ZVZCS Current Control DC/DC Bridge Converter for Battery Charging

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Nendragamti Pavan Kumar, "PV Based ZVZCS Current Control DC/DC Bridge Converter for Battery Charging", *International Journal for Modern Trends in Science and Technology*, Vol. 03, Issue 04, 2017, pp. 06-10.

ABSTRACT

An PV based DC/DC Boost converter is increases the DC voltage used to charge the traction battery in an electric conveyance. Photovoltaic cells provide an additional method of acquiring energy, converting sunlight directly into electricity through the use of dc / dc converter. The conventional topological failed to operate the converter with zero current and zero voltage switching during no load condition resulting high voltage spikes in the output voltage. In order to attest reliable operation of the bridge converter under wide load variations, the converter should not only operate with soft-switching from no-load to full-load condition, but additionally from full-load to no-load condition making gamut of operation for achieving such stringent requisites and high reliability, the converter employs a symmetric passive way near lossless auxiliary circuit to provide the reactive current for the full-bridge semiconductor switches, which guarantees zero voltage switching at turn on times for all load conditions. This is a current driven topology in accumulation with a voltage multiplier in order to clamp the output voltage and additionally slake ZVZCS operation of the converter resulting in high voltage gain.

KEYWORDS: *PV cell, DC/DC Boost converter, Snubber cells, Zero Current Switching (ZCS), Zero Voltage Switching (ZVS), Current Driven Zero Voltage Zero Current Switching (CD ZVZCS), Mc Murray inverter.*

I. INTRODUCTION

Power conversion systems in electric conveyances customarily utilize a high energy battery pack to store energy for the electric traction system. Energy conversion during the battery charging is performed by a DC/DC converter using PV cell. Such DC/DC boosts converters, which are habituated to charge the high-energy battery. The switch ratings are optimized for the full bridge a dc/dc converter. The ac/dc converter is a plug-in converter, which charges the high-voltage battery.

International Journal of New Technology and Research (IJNTR)
ISSN:2454-4116, Volume-3, Issue-12, December 2017 Pages 07-10

A Low Power Correlation for IEEE 802.16 OFDM Synchronization On FPGA Using FFT

S.Hari Krishnan, Hemavathi.H , Anjali S Nair

Abstract— **This paper represents to develop a new Radix Based FFT Algorithm for the analysis of Multiband OFDM and their FPGA parameters calculation, in order to reduce the complexity for the efficient operation of multiband -OFDM. This brief compares the use of multiplier less and DSP slice-based cross-correlation for IEEE 802.16d orthogonal frequency division multiplexing (OFDM) timing synchronization on Xilinx Virtex6 and Spartan-6 field programmable gate arrays (FPGAs). The natural approach, given the availability of embedded DSP blocks on these FPGAs, would be to implement standard multiplier-based cross-correlation. However, this can consume a significant number of DSP blocks, which may not fit on low-power devices. Hence, we compare a DSP48E1 slice based design to four different quantization of multiplier less correlation in terms of resource utilization and power consumption. OFDM timing synchronization accuracy is evaluated for each system at different signal to-noise ratios. Results show that even relatively coarse multiplier less co-efficient quantization can yield accurate timing synchronization, and does so at high clock speeds. Multiplier less designs enjoy reduced power consumption over the DSP48E1 Slice-based design.**

Index Terms— **OFDM, FPGA, power consumption, Multiplier, FFT, XILINX tool.**

I. Introduction

In general, the emphasis in VLSI design has shifted from high speed to low power due to the proliferation of portable electronic systems. Many of the techniques have already been used in low power design with additional techniques emerging continuously at all levels.

The implementations of many Digital signal processing, Digital image processing algorithms consumes more power. The FPGA contain more number of Dsp blocks, which are not fit on low power devices so the Multiplierless correlators are used for reducing power consumption.

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II. INTRODUCTION TO OFDM AND ITS PRINCIPLES

OFDM splits a data-bearing radio signal into multiple smaller signal sets and modulates each onto a different subcarrier, transmitting them simultaneously at different frequencies, by using a number of parallel subcarriers spaced orthogonally as closely as possible in frequency without overlapping or interfering. OFDM is an attractive modulation scheme used in broadband wireless systems that encounter large delay spreads. OFDM avoids temporal equalization altogether, using a cyclic prefix technique with a small penalty in channel capacity. Where LoS cannot be achieved, there is likely to be significant multipath dispersion, which could limit the maximum data rate. Technologies like OFDM are probably best placed to overcome these, allowing nearly arbitrary data rates on dispersive channels.

Fig.1 Bandwidth Divided in to N sub channels.

For each subcarrier a rectangular pulse shaping is applied. The guard interval or cyclic extension is added to the subcarrier signal in order to avoid Inter- Symbol Interference (ISI), which occurs in multipath channels. At each Receiver the cyclic prefix is removed and only the time interval $[0, Ts]$ is evaluated. The total OFDM block duration is $T = Ts + Tg$. Orthogonal Frequency Division Multiplexing (OFDM) is a multi-carrier transmission technique, which divides the available spectrum into many carriers, each one being modulated by a low rate data stream. OFDM is similar to FDMA in that the multiple user access is achieved by subdividing the available bandwidth into multiple channels that are then allocated to users. However, OFDM uses the spectrum much more efficiently by spacing the channels much closer together. This is achieved by making all the carriers Orthogonality to one another, preventing interference between the closely spaced carriers.

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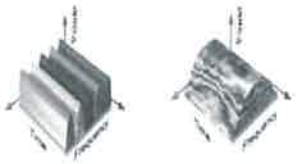

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WiTricity Generation by Using Renewable Sources

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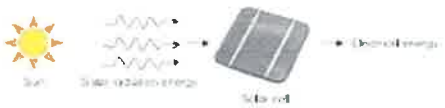
Abstract

Since the advent of modern civilization, humans have always being depended upon the fossil fuels as the source of energy for their circadian requisites. With the exponential magnification in the population, the dependence on these conventional sources for the circadian energy requisites has led to the depletion of the same and adverse ill-effects on the environment. To abate the encumbrance and if possible nuntmize to zero, energy harvesting has become the desideratum of the hour and the development of the different energy harvesting technologies has been the prime area of research. This paper proposes an incipient control technique, which only employs the primary-side controller and load identification approach to adjust charging voltage current for compensated wireless power transfer (WPT) systems. The advantages are that dual-side wireless communication for authentic-time charging current voltage adjustment is eschewed as well as it is opportune for different charging modes, e.g. constant voltage (CV) and constant current (CC) charging defined by the battery charging profile. The load identification approach, which utilizes reflected impedance theory and quadrature transformation algorithm for calculating the active potency, is proposed to estimate the equipollent load resistance of battery. Then, the CV/CC charging for both SS and SP emolument are achieved by the PI controlled phase shift H-bridge inverter. The advances make the WPT very alluring to the electric conveyance (EV) charging applications in both stationary and dynamic charging scenarios. This paper reviewed the technologies in the WPT area applicable to EV wireless charging.

Keywords: Renewable Sources, Solar, Wind, *Pizeo electric Effect*, Dynamic charging, Electric Vehicle (EV), Inductive Power Transfer (IPT), Safety Guidelines, Stationary Charging, Wireless Power Transfer (WPT)

I. Introduction

With the incrementation in the concern for the alarming depletion of fossil fuel reserves and its unpropitious effects on the circumventing environment, the alternative non-conventional sources of energy have gained popularity in the society. Starting from the well-kenned solar cells to the wind turbines, hydroelectric power generation, biodiesel and biogas plants have already being prosperously proven and implemented for equipollent. For power supply desiderata of the portable contrivances the human use, incipient ways have been ascertained to cater the desideratum. Piezoelectric materials and the effect itself have played a major role in solving such quandaries. Energy harvested from the vibrations is one of the most facile and Omni-utilizable techniques. These vibrations can be from human kinetic's, vehicular kinetics', machines and any other surface under vibrations. The conversion of mechanical energy into electrical energy can be done by the utilization of piezoelectric materials. Some of the natural piezoelectric materials already in utilization are quartz. Some artificial piezoelectric materials like $BaTiO_3$, Lead Zirconium Titanate etc. find their applications in modern electronic circuits. Conveyance tires are subjected to mundane and shear loads under static and dynamic conditions. The load can be utilized as a source of mechanical stress for the piezoelectric crystals. The piezoelectric crystals can thus be aligned along the inner lining of the tire where the air pressure does the work. In this paper, different applications of piezoelectric energy harvesting are being illustrated and an endeavor has been made to conceptualize an incipient way of application of the same and certain calculations has been made to visualize the probable energy output from the system.



II.Solar Electricity

When sunlight strikes on photo-voltaic solar cells, solar electricity is engendered. That is why this is withal referred to as Photo Voltaic Solar, or PV Solar. Solar energy is radiant light and heat from the Sun that is harnessed utilizing a range of ever-evolving technologies such as solar heating, photovoltaic's, solar thermal energy, solar architecture, molten salt power plants and

International Journal of Electronics and Communication Engineering and Technology (IJECET)
Volume 10, Issue 2, March-April 2019, pp. 01-07, Article ID: IJECET_10_02_001
Available online at
http://www.iaeme.com/IJECET/issues.asp?JType=IJECET&VType=10&IType=2
ISSN Print: 0976-6464 and ISSN Online: 0976-6472

AUTOMATIC LIFE SAVING SYSTEM USING GSM AND GPS TECHNOLOGY

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ABTRACT

Health related issues and parameters are of utmost important to man, and are essential to his existence. This paper presents a system that is capable of providing real time remote monitoring of the heartbeat with improvements of an SMS alert through Global System for Mobile communication (GSM) and a voice call to ambulance in case of emergency that the person is alone and effected by heart attack. This project aims at the design and implementation of a low cost but efficient and flexible heartbeat monitoring and alert system using Global Positioning System (GPS) and Global System for Mobile communication (GSM) technology. In this project heartbeat and temperature of body is measured by sensors which sends the signals to the Control unit and displays on Liquid Crystal Display (LCD), after proper processing and determination of heartbeat rate. If that rate is maximally exceeding the threshold range, immediately the car will stop and blow horn continuously and simultaneously proceeds to an SMS alert will be sent to the nearest medical care centers and to the family, and the same message is converted as voice call and sent to ambulance. Keywords-Control Unit, GPS, GSM, LCD, threshold, voice call.

Keywords: Arduino Mega 2560, GPS Module, GSM Modem, Pulse Sensor, Temperature Sensor.

Cite this Article: I. Rajani Kumari and Swapna. DV, Automatic Life Saving System using GSM and GPS Technology, International Journal of Electronics and Communication Engineering and Technology, 10(2), 2019, pp. 01-07.
http://www.iaeme.com/IJECET/issues.asp?JType=IJECET&VType=10&IType=2

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High Performance and Archetype Boost ANPC Inverters

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Abstract: In this paper deals with different types of energy conversion scheme for proposed in order to reduce the input current ripples, to reduce the output voltage ripples and to reduce the size of passive components with high efficiency for high power applications. The proposed converter is compared with other topologies, such as single-phase single-stage switched-boost inverter, Two-Stage boosting multilevel inverters (MLIs), Conventional 3L-ANPC topology, five-level ANPC topology with twofold voltage gain enhancement in order to examine its performance. To reduce the dc-link voltage, a recent topology that enhanced the voltage gain from half to unity has been presented. A less complicated logic-form-equations-based gating pulse generation scheme is designed for enabling the proposed MLI to maintain its capacitor voltage, an alternative ANPC topology is established by using two T-type inverters. Two floating capacitors with self-voltage balancing capability are integrated to achieve a voltage-boosting gain of 1.5. In addition, the proposed topology is capable of generating seven voltage levels. Further, a comparative study with state-of-the-art topologies is carried out to demonstrate the superior performance of the proposed topology. Finally, the feasibility of the proposed topology is validated through experimental tests and the corresponding results are elucidated.

Index Terms - **Boost ANPC, multilevel inverter, power quality, single stage, step-up, 3L, 5L, and 7L voltage-boosting.**

I. INTRODUCTION

Converter behind the increasing concern toward generating green power from renewable sources such as photovoltaic's and wind farms are the depleting fossil fuels and increased environmental concern. Furthermore, it is imperative to employ power electronic converters in order to efficiently harness such green power. Among the many varieties of converters, multilevel inverters (MLIs) are widespread due to their attractive features of reduced *dv/dt*, improved waveform quality, and reduced power losses A few of the classic topologies that are majorly used are cascaded H-bridge (CHB), neutral point clamped, and flying capacitor converters. However, as the number of voltage level increases, these topologies suffers from several drawbacks, such as dc-link capacitor voltage imbalance, complex control strategy, the requirement of more components. Three-level active-neutral-point-clamped (ANPC) (3LANPC) inverter depicted is widely used in the industry for dc–ac power conversion. Tremendous research efforts have been devoted to developing ANPC inverters with a higher number of levels. Improved ANPC topologies that are established by hybrid configuration with other topologies, such as H-bridge and flying capacitor inverters, have also been explored. An 11-level hybrid topology that consists of a 5L-ANPC and a low voltage Sub module that controls an additional isolated dc-source was presented.

The ANPC topologies are (a) Conventional 3L-ANPC topology (b) Recent five-level ANPC topology (c) Conventional 7L- ANPC topology with twofold voltage gain enhancement. Suffer from a common Drawback such that they are subjected to a high dc-link voltage requirement. The peak of ac output generated by an ANPC inverter with sinusoidal pulse width modulation (SPWM). The implications of the restricted gain become particularly apparent in grid-connected renewable energy applications. With the required minimum dc link voltage Vdc twice the ac grid peak voltage, a boost dc–dc converter is essential to generate the demanded dc-link voltage. However, this two-stage power conversion structure reduces the efficiency of the system. Recently, an innovative ANPC topology has made a single stage dc–ac power conversion system possible to eliminate the need of a front-end

International Journal of Innovative Technologies
WWW.IJITECH.ORG
ISSN 2321-8665
Volume.08, Issue.01,
January, 2020,
Pages:01-05

Implementation of a Multi-Level Inverter with Reduced Number of Switches Using Different PWM Techniques

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Abstract: As compared to conventional inverter topologies like diode clamped and capacitor clamped inverters, the cascaded multilevel inverter has lesser harmonics as well as lower switching stress. The cascaded topology has more number of power switches leading to greater heat losses, larger size, higher cost and more gate drive circuitry. The proposed configuration contains less number of switches and produces lesser harmonics in the output voltage than the cascaded topology. A comparison between four different types of pulse width modulation (PWM) techniques, namely, In-phase disposition (IPD), Anti-phase disposition (APD), Carrier Overlap (CO) and Variable Frequency (VF) PWM methods, has been done. The results have been verified through simulation study in MATLAB/Simulink in order to select the best PWM method that provides minimum THD in the output voltage. An LC filter has been designed to improve the harmonic profile.

Keywords: PWM, APD, Variable Frequency (VF), LC Filter.

I. INTRODUCTION

Power electronic devices play a major role in the conversion and control of electric power, especially to extract power from renewable energy sources like photovoltaic array and wind energy [1]. Conversion of DC to AC power can be done with the help of inverters (single phase or three phases). Conventional bipolar inverters produce alternating staircase waveforms with higher harmonics. Thus, the multilevel inverters (MLI) were developed [2]. This paper provides a new three phase configuration to produce the 11-level output with less total harmonic distortion (THD) in its output switches, 45 clamping capacitors and 10 main DC-bus capacitors per phase whereas the cascaded H-bridge inverter uses only 24 switches per phase to produce the same output. This paper describes a single phase inverter configuration with eight switches and three DC sources. A three phase multilevel inverter is obtained by inter connecting three single phase inverters to a star connected pure resistive load with a common earth point. Therefore, this circuit offers lesser gate control circuitry, lesser cost, lesser heating, more ease of installation and lesser electromagnetic interference. Table I shows the comparison of the number of components between different topologies. The performance of the inverter Using IPD, APD, CO and VF PWM methods is shown [8]. A passive series LC filter is designed to produce a sine wave from the staircase inverter output. The purpose of the output LC filter is attenuating voltage ripples due to the inverter switching.

Table I. Number of components per phase for different 11-level inverter topologies

Sl No.	Configuration	Number of switches per phase	Number of conducting switches per phase
1	Diode Clamped	20	4
2	Capacitor Clamped	20	4
3	Cascaded H-Bridge	24	14
4	Eight switch type	8	4

II. PROPOSED TOPOLOGY AND ITS OPERATION

The proposed inverter configuration has eight switches and three DC sources per phase as shown in Fig 1.

International Journal of Research in Engineering, Science and Management
Volume-3, Issue-4, April-2020
www.ijresm.com | ISSN (Online): 2581-5792

Fabrication and Performance Analysis of Shaft Drive Bicycle Without Chain

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Abstract: **A shaft-driven bicycle is a bicycle that uses a drive shaft instead of a chain to transmit power from the pedals to the wheel. Shaft drives were introduced over a century ago, but were mostly supplanted by chain-driven bicycles due to the gear ranges possible with sprockets and derailleur. Recently, due to advancements in internal gear technology, a small number of modern shaft driven bicycles have been introduced. At present, the chain driven bikes have been a great trouble in aspects of maintenance, cleanliness, power transmission etc. So to overcome these effects we have replaced the chain driven bikes by shaft mechanisms. The chain drive eliminated the need to have the cyclist directly above the wheel. Instead the cyclist could be positioned between the two wheels for better balance. More recently bicycles with a shaft drive have been developed and it is slowly changing the bike industry. Both have unique advantages and can produce nearly the same efficiency. This project illustrates the characteristics of the two alternate drive mechanisms, chain drive and shaft drive. After carefully examining the two alternatives, the conventional shaft drive was selected for the project since its cost and flexibility were determined to be better suited for the project. Shaft-driven bikes have a large bevel gear where a conventional bike would have its chain ring. This meshes with another bevel gear mounted on the drive shaft. The use of bevel gears allows the axis of the drive torque from the pedals to be turned through 900 degrees. The drive shaft then has another bevel gear near the rear wheel hub which meshes with a bevel gear on the hub where the rear sprockets would on a conventional**

turned through 90 degrees. The drive shaft then has another bevel gear near the rear wheel hub which meshes with a bevel gear on the hub where the rear sprocket would be on a conventional bike, and canceling out the first drive torque change of axis.

The 90-degree change of the drive plane that occurs at the bottom bracket and again at the rear hub uses bevel gears for the most efficient performance, though other mechanisms could be used, e.g. hob son's joints, worm gears or crossed helical gears.

A. Chain Drive Mechanism

Chain drive is a way of transmitting mechanical power from one place to another. It is often used to convey power to the wheels of a vehicle, particularly bicycles and motorcycles. It is also used in a wide variety of machines besides vehicles.

One of the most power transmitting component in transportation machines like motor- cycles, bicycles, automobiles, conveyors, agriculture machinery and machine tools. Chain drives are flexible and made of number of links and its an intermediate between belts and gears drives. Chains can only be used to transmit power between parallel shafts. Unlike belt drives, chain drives uses special toothed wheels called

International Journal of Research in Engineering, Science and Management
Volume-3, Issue-4, April-2020
www.ijresm.com | ISSN (Online): 2581-5792

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ISSN 2321 3361 © 2020 IJESC

IJESC

Research Article Volume 10 Issue No.5

Ecofriendly Vehicle by using Solar and Wind Energy

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Abstract:
Due to scarcity of fossil fuel in future and its harmful effect on the environment, an alternative energy has to be searched out. Wind power is clean and sustainable natural resources that has yet to be fully utilized in the automotive industry. Also the sun is probably the most important source of renewable energy available today. The hybrid system has been designed and installed to generate power which combines wind turbine and solar panel. The hybrid model system is inexhaustible system, which helps conserve energy by reducing the use of fuel in vehicle. Hence developing a new method for the economical evaluation of Hybrid Systems for electricity production.

Keywords: Scarcity, fossil fuel, environment, alternative energy, natural resources, renewable energy.

1. INTRODUCTION

Here the hybrid car is specially designed so that the energy limitation can be easily overcome y using the hybrid technology. As the battery running are beneficial for the society and more often this type of technology is fruitful for the environment, so to overcome the energy limitation we have installed wind with solar energy and that is called the regeneration of

A. Reducing Carbon Dioxide Emissions

The most effective way to reduce carbon dioxide (CO_2) emissions is to reduce fossil fuel consumption. Many strategies for reducing CO_2 emissions from energy are cross- cutting and apply to homes, businesses, industry, and transportation.

B. Solar Energy

Solar energy is radiant light and heat from the Sun harnessed using a range of ever-evolving technologies such as solar heating, photovoltaic's, solar thermal energy, solar architecture and silted photosynthesis. The large magnitude of solar energy available makes it a highly alluring source of electricity.

C. Wind Energy

Wind power is the use of air flow through wind turbines to mechanically power generators for electricity. Wind power, as an alternative to burning fossil fuels, is plentiful, renewable, widely distributed, clean, produces no greenhouse gas emissions during operation, and uses little land.

D. Importance of Renewable energy

Generating electricity from renewable energy rather than fossil fuels offers significant public health benefits. The air and water pollution emitted by coal and natural gas plants is linked to breathing problems, neurological damage, heart attacks, and cancer.

2. FIELD OF INVENTION

The fixed wind powered electricity generation systems in use, till now are dependent on wind direction and the force of the wind. But the wind is not available at all places and all time throughout the year. Therefore, there exists an immense need of a system for generating electricity from wind induced by moving vehicles which is available throughout the year at various places and with sufficient force of wind. Also solar powered electric vehicle is there but need to install it as an auxiliary fuel for fuel vehicle. Therefore need of inventing a hybrid renewable energy source as an auxiliary source for fuel vehicle. Therefore this invention provides a solution to the problem for generating electricity in this manner.

3. OBJECTIVES

The main object of the present invention is to provide a method and a system for generating electricity using easily available wind induced by moving vehicles and solar energy in transit or in operation. The other objective is to provide a solution for reducing pollution created by fuel vehicle by use of freely available renewable energy source i.e. solar and wind energy.

4. METHODOLOGY

This paper deals with how energy can be stored by moving or standstill vehicle which has a fuel kit using wind and solar energy.

A. Construction

The vehicle we are using is a robot vehicle. Which act as a chess is or a base for all other components, as other components are mounted on it. Battery is mounted on back side which acts as a energy storing device. The fan are mounted on the front side of the robot vehicle. Motor is attached at backside of fan. Trunceted cone is installed in front of fan to increase the efficiency of fan. Solar panel is mounted on the upper side of battery.

B. Technique Adopted

Routing the induced wind in the direction of the wind turbine:

If the wind is properly directed towards the wind turbine blades, optimum electricity may be generated. The desired direction of wind is obtained by a means for channelling wind, in the

ISSN: 2321-7529(Online) | ISSN: 2321-7510 (Print) International Journal of Research & Technology, Volume 8, Issue 3, May-2020

SMART ENERGY METER USING ARDUINO AND GSM

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Abstract:-

This paper presents a scheme to remotely monitor and control energy meter readings. It facilitates to read energy meters without having to visit each and every house/organizations. This system comprises a arduino atmega328 which takes the readings at regular intervals and records it in its memory. This feature (remote monitoring) is made available as it consists of a GSM module which communicates the information regarding the meter reading via an SMS. The present meter reading system does not involve the GSM module. The scheme proposed and tested in this paper avails the GSM infrastructure, its nationwide coverage and the Short Messaging System (SMS) cell broadcasting feature to wirelessly transmit the individual house/organization power consumption readings. This system is greatly helpful to the Electricity Department as it enables them to take the meter readings on a regular basis

Keywords :

Energy metre, Arduino board (At mega 328) GSM model(global system mobile communication, sim card, real clock time

INTRODUCTION

Energy distribution and consumption in a judicious manner are important requirements for a sustainable life. The present system of energy billing has many drawbacks such as excessive use of manpower, human errors, and inability of users to keep a track of their energy consumption and increase in the overall cost of this procedure. To overcome the existing drawbacks, a novel technique has been presented and tested to extract information about energy usage from a remote location. This paper suggests a GSM based system owing to their high reliability, accuracy and precision. Various features offered by AMRs are high speed, real time energy cost and improved load profile

Some objectives of energy meters are :

1. Programming of remote modem with AT commands (A set of predefined instructions used with GSM/GPRS module to perform various tasks).
2. Interfacing controller with energy metre
3. Sending message from MODEM to Mobile
4. It's a time consuming procedure.
5. The manual meter reading always includes a chance of human error.
6. It includes a lot of power theft and corruption.
7.Increased man power requirement.
8. Consumer is not continuously updated with his power usage.

IMPLEMENTATION:-

Components:-
1. Arduino UNO

2. Power Supply

3. Energy Meter
4.mobile

5.GSM modem

Methodology:-

Existing Methodology:-

1.Now a days energy meter reading premise and takes the reading Manually then issues the bill.

2.In manually human error possible and not provide reliable meter reading. An energy meter is a device which is used to measure the consumption of

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ISSN: 2321-7529(Online) | ISSN: 2321-7510 (Print) International Journal of Research & Technology, Volume 8, Issue 3, May, 2020

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Methodology:-

Vol. 7. No. 2. 2020.

Contents available at:
www.crdeepjournal.org

Global Journal of Current Research (ISSN: 2320-2920) SJIF: 3.269

Full Length Research Article

Decolorization of Dye Waste Water by Activated Carbon

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ARTICLE INFORMATION

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Article history:
Received: 23-04-2020
Revised: 27-04-2020
Accepted: 22-05-2020
Published: 25-05-2020

Key words:
waste water, dye industry, woodchips, activated carbon, pHmetre, nephlometric meter, total dissolved solvent tests.

ABSTRACT

Waste water is any water that has been affected by human. Waste water is released from any combination of domestic, Industrial, commercial, (or) agricultural activities these may come from surface runoff (or) storm water and sewer inflow or sewer infiltration .Therefore water is by-product of domestic, industrial, commercial, agricultural activities. In Dharmavaram there are 138 dye industries from which 5000 liters of waste water is released from each industry every day. The waste water will be very harmful to the human beings and environment. The main objectives of our project are to collect waste water releasing from the dye industries, analyzing physical and chemical parameters of water like PI-cobalt, total dissolved solids, turbidity, jar test, threshold, acidity, alkalinity and hardness of water and compare with standard values. The present experimental investigation focuses attention on the sampling analysis of waste water from dye industries with the standard values and appropriate chemicals. Removal of colored water was studied using absorbent prepared from activated carbon of natural wood. Batch adsorptions performed by varying absorbents dosage, pH effluent and contact time adsorption color is containing highly pH and the results obtained indicate that maximum removal 92.60% took place at 100mg/l pH range of 8 experiments reveal that transparency of color reached equilibrium with 120 min. activated carbon is a Good material for adsorption of color to treat waste water containing lower concentration of color.

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ISSN: 2321-7529(Online) ; ISSN: 2321-7510 (Print) International Journal of Research & Technology, Volume 8, Issue 3, May 2020

DESIGN AND FABRICATION GEARED ELECTRIC BIKE (E-BIKE)

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Abstract:

In today's modernized world travelling is very essential for human beings in order to protract in this world. And to do so his travelling should be done in minimum possible way and in jiffy. This project details about the Electric Bike which runs on the battery thereby providing voltage to the motor. This project compromises with design and fabrication of Electric Bike which makes use of Electric energy as the primary source and solar energy if possible by attaching solar panels. It also highlights on the design aspects of the bike. There is a provision for a charging the battery by ejecting it from the main system. The electrical power generated which is used to run the bike can give better fuel economy compared to conventional vehicle, better performance and also causes less pollution. An electric bike uses an electric motor for the purpose of moving. On this bike, people do not have to use their muscular force to move. It uses electrical energy for motion. There are many varieties of electric bicycles. Some of these bikes have a rechargeable battery.This makes it easy to power the bike whenever you want. They make use of stored electrical energy in some or the other form. Due to this form of energy, the bikes have more power and speed. These bikes are more convenient than regular ones brushed and brushless are the two important types of motors used in these bikes. An electric power assist system is also added to these bikes to make them more functional. E-bikes use rechargeable batteries and the lighter varieties can travel up to 25 to 32 km/h (16 to 20 mph), depending on the laws of market. Weight of the bicycle also plays an important role in the speed of the bicycle. The weight of the bicycle depends on the purpose of the bicycle been used, it is either for competition so there is few of common weight that been used for the bicycle. On the older bicycle, the weight of the bicycle is about 35 or 40 pounds, this kind of weight was back older day before the technology of the bicycle still not growing. Now, the weight of the bicycle was improved, the weights of the bicycle have been reduced about to 15 and 25 pounds.This project is proposed in order to design the electric bicycle that use for the travelling and can be used in long distance. The designing of the electric bicycle isincluded of the frame design, motor control and gearing system design and the riding comfort for the rider. The design is done in group but with separate task and objective, which is each of people done different part for the electric bicycle. In this proposal, the motor control and gearing system design will be proposed. The motor that would be used for the gearing system need to be done research and analysis so that the suitable motor for the electric bicycle can be choose.

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ISSN: 2321-7529(Online) | ISSN: 2321-7510 (Print) International Journal of Research & Technology, Volume 8, Issue 3, May 2020

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ISSN: 2321-7529(Online) | ISSN: 2321-7510 (Print) International Journal of Research & Technology, Volume 8, Issue 3_May_2020

EXPERIMENTAL INVESTIGATION ON GLASS FIBER AND SUGAR CANE FIBER

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Abstract:

Natural fibers are getting attention from researchers to utilize polymer composites is due to their ecofriendly nature and sustainability. The aim of this project is to provide a comprehensive review of the natural fiber reinforced polymer composites and their applications. In addition, it presents summary of various surface treatments applied to natural fibers and their effect on NFPCs properties. The properties of NFPCs vary with fiber type and fiber source as well as fiber structure. The effects of various chemical treatments on the mechanical and thermal properties of natural fibers reinforcement's composites were studied.Synthetic fibers are easier to produce in large quantities. This may be good for the bottomline, but it is damaging the environment in a big way contributing an overwhelming amount of chemicals, waste and carbon emissions. Utilizing waste materials in making useful products is a globally increase trend. This can reduce the cost and environmental issues. The increase in environmental consciousness and community interest, the new environmental regulations and unsustainable consumption of petroleum, led to thinking of the use of environment friendly materials. Natural fiber is considered as one of the environment

INTRODUCTION

Composite material is the combination of two or more dissimilar materials to form a new material that may be suited for particular application.Composite materials are preferred due to their high tensile strength and light weight and other special properties like high strength to weight ratio. They offered potential advantage by providing high tensile strength, more creep resistance and good toughness behavior even at evaluated temperatures from the basic definition of composites the composition of two or more constituent events which are chemically distinct with a separate interface and shown a bulk behavior than that of any other constituents. Fibers are the key particles and they are considered as major ingredients and form a matrix mixture which are suitable for more engineering applications.

Physical properties of sugar cane fiber:

Property	Jute
Lumen size(micro mtr)	12

ISSN: 2321-7529(Online) | ISSN: 2321-7510 (Print) International Journal of Research & Technology, Volume 8, Issue 3, May 2020

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International Journal of Research in Engineering, Science and Management
Volume-3, Issue-5, May-2020
www.ijresm.com | ISSN (Online): 2581-5792

Experimental Investigation On Walnut Shell Powder, Glass Fiber and Jute Fiber

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more creep resistance and good toughness behavior even at evaluated temperatures from the basic definition of composites the composition of two or more constituent events which are chemically distinct with a separate interface and shown a bulk behavior than that of any other constituents. Fibers are the key particles and they are considered as major ingredients and form a matrix mixture which are suitable for more engineering applications.

Physical properties of jute fiber:

Property	Jute
Lumen size (micro mtr)	12
Cellulose content (%)	50-57
Diameter	160-185
Elongation at break (%)	1.8

Jute chemical properties:

Chemical properties of jute fiber:

Property	Jute
Hemicellulose (Wt %)	6-20.4
Pectin (wt %)	0.2
Moisture Content (Wt %)	12.5-13.7

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International Journal of Research in Engineering, Science and Management
Volume-3, Issue-5, May-2020
www.ijresm.com | ISSN (Online): 2581-5792

Experimental Investigation On Walnut Shell Powder, Glass Fiber and Jute Fiber

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***Abstract*: Natural fibers are getting attention from researchers to utilize polymer composites is due to their ecofriendly nature and sustainability. The aim of this project is to provide a comprehensive review of the natural fiber reinforced polymer composites and their applications. In addition, it presents summary of various surface treatments applied to natural fibers and their effect on NFPCs properties. The properties of NFPCs vary with fiber type and fiber source as well as fiber structure. The effects of various chemical treatments on the mechanical and thermal properties of natural fibers reinforcement's composites were studied. Synthetic fibers are easier to produce in large quantities. This may be good for the bottom line, but it is damaging the environment in a big way contributing an overwhelming amount of chemicals, waste and carbon emissions. Utilizing waste materials in making useful products is a globally increase trend. This can reduce the cost and environmental issues. The increase in environmental consciousness and community interest, the new environmental regulations and unsustainable consumption of petroleum, led to thinking of the use of environment friendly materials. Natural fiber is considered as one of the environment friendly materials which have good properties compared to synthetic fiber. Fiber reinforced polymer matrix got considerable attention in numerous applications because of the good properties** more creep resistance and good toughness behavior even at evaluated temperatures from the basic definition of composites the composition of two or more constituent events which are chemically distinct with a separate interface and shown a bulk behavior than that of any other constituents. Fibers are the key particles and they are considered as major ingredients and form a matrix mixture which are suitable for more engineering applications.

Physical properties of jute fiber:

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IJCRT.ORG ISSN : 2320-2882

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UNDERGROUND FAULT DETECTION SYSTEM USING GSM AND GPS

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ABSTRACT:-

As in Power system Generation it is to implement the more long cable which is we are used as underground cable. There is a chance to occur fault in the underground when we used it to distribute in the urban areas on that time it is difficult to find the fault in the underground cable. So that we are using the arduino microprocessor, GPS and GSM modem to find the fault easily and accurate. The aim of this paper is to detect the fault and to determine the exact distance of underground cable fault from a substation in kilometers.

Keywords: Underground Cable, Microcontroller AT mega, LCD Module, GPS Module, Relay Drive

INTRODUCTION:-

Fault identification and order on transmission lines are significant undertaking to defend electric power frameworks. In an electric power system, a fault is any abnormal flow of electric current. short circuit is a fault in which current flow by passes the normal load. An open circuit fault occurs if a circuit is interrupted by some failure. In three phase systems, a fault may involve one or more phases and ground, or may occur only between phases. In a "ground fault" or "earth fault", current flows into the earth. The prospective short circuit current of a fault can be calculated for power systems. In power systems, protective devices detect fault conditions and operate circuit breakers and other devices to limit the loss of service due to

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International Journal For Advanced Researc
In Science & Technology
A peer reviewed international journal
IJARST
ISSN: 2457-0362

DESIGN OF MULTI-LOAD WIRELESS POWER TRANSFER SYSTEM WITH SPS AND LCL COMPENSATION TOPOLOGIES

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ABSTRACT: As is common in multi-load wireless power transfer (WPT) systems based on series–series compensation topology, the power received by loads and the efficiency of the process are highly sensitive to changes in the number of loads. Therefore design of a Random Accessed Multi-Load WPT System with Series-Parallel-Series Compensation is proposed in this paper. This uses an LCC/S topology (based on inductor–capacitor–inductor or LCL topology) repeater coils for multiple loads to keep the power received by the loads stable. Each load is connected to a repeater unit and multiple loads can be powered with several repeater units. By comparing two scenarios (ideal and real models based on LCC/S topology), the two coils in the same repeater unit can be placed perpendicularly to eliminate cross-coupling between receiving coils by connecting compensating capacitors in series on the receiving side. The series-parallel-series compensation method is adopted for each repeater unit in order to obtain independent power control of all the loads. This system can guarantee the power supplied to a load remains stable when other loads access or leave the system. Finally, a system to verify our theoretical analysis is established and used to show the validity and effectiveness of the proposed system multi-load WPT system.

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A peer reviewed international journal www.ijarst.in

ISSN: 2457-0362

A CUSTOM POWER ACTIVE TRANSFORMER BASED UNIFIED POWER FLOW CONTROLLER WITH VOLTAGE STABILITY

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ABSTRACT: The reliability, power quality, line congestion, lines capacity and stability are major issues in transmission and distribution systems for efficient power transmission. The UPFC will provide solutions for these issues. In this paper, a Custom Power Active Transformer (CPAT) based unified power flow controller (UPFC) for enhanced voltage stability margin is proposed in power system network by analyzing dynamic voltage stability for power flow control and compensation. CPAT is a power electronics integrated transformer which provides services to the grid through its auxiliary windings. The CPAT structure wires three single-stage transformers into one shunt-strategy mixing transformer. Voltage stability indices and voltage collapse point indicators (VCPI) indices are used to determine the weakest line for UPFC by dynamic load variation. The controllers of the shunt and series converters of the UPFC are developed using fuzzy logic (FL) and proportional integral (PI) controllers respectively to enhance the dynamic voltage stability of the power system network. This proposed system can be design using MATLAB SIMULINK tool. The results obtained through simulations have ensured the effectiveness of the proposed placement method since fuzzy based UPFC's placement in the obtained locations resulted in significant improvement in voltage stability

KEY WORDS: Custom Power Active Transformer (CPAT), Unified Power Flow Controller (UPFC)

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ISSN: 2457-0362

OPTIMAL ENERGY MANAGEMENT OF PV-GRID CONNECTED HOUSEHOLD NANO GRID SYSTEM USING FUZZY LOGIC CONTROL

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ABSTRACT

Grid-connected household nano-grids are playing a key role in meeting the rapidly increasing energy demand. The adoption of residential photovoltaic (PV) power generators combined with energy storage system can reduce the energy dependency of individual households while alleviating the impact of intermittent solar energy on the electric power grid. A long-term optimal scheduling algorithm is proposed to better organize the battery charging/discharging action in PV grid connected household nano-grids. The algorithm is based on the rolling optimization method and the optimization problem is solved by the mixed integer linear programming. Moreover, a smoothing function is introduced to alleviate the power fluctuation of the exchanging power between the nano-grid and the main grid, caused by the intermittent PV generation and the stochastic residential loads. A battery and a super capacitor, composing a hybrid energy storage system (HESS), are controlled to absorb the low and the high frequency components of HESS power respectively. This paper builds on the optimal energy management of PV-grid connected household nano grid system using fuzzy logic control (FLC). The resulting system can be implemented to control power flows in other systems composed of photovoltaic generation and energy storage. The results confirm the operational and economic benefits of using the optimal operational strategy, through the fuzzy rule base.

KEY WORDS: nano-grid, hybrid energy storage system (HESS), photovoltaic (PV), smoothing function, fuzzy logic control (FLC)

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ELECTRIC VEHICLE CHARGING USING BUCK/BOOST CONVERTER DC MICRO GRID

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ABSTRACT

Today the demand of electric vehicles are increasing day by day. So, the usage of electricity is also increasing.Non-conventional energy sources are depleting. So the power generated using renewable energy sources are increasing day by day . The usage of micro grids and smart grids are increasing. There is a lot of advantages using microgrids. It reduces cost,size, losses etc.DC Microgrids are being deployed globally as distributed energy, solar PV, energy storage, consumer electronics, and LED lights are inherently DC resources. As these devices make up a large share of generation and demand, it is only natural to string them together on DC Microgrids. There are enormous opportunities for efficiency and system cost gains, as shown by research institutions, industrial facilities, and even DC homes. DCMicro grids DC Home Solar solutions are the primary means of rural electrification for the billion people who do not yet have grid electricity. Efficient DC appliances are enabling small home solar systems and DC micro grids to handle more tasks, effectively leapfrogging the utility grid.

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IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

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SMART GREENHOUSE AUTOMATION USING SOLAR POWER

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Abstract: The 21st century is striving hard for cultivation of plants in a controlled manner. But because of lacking of land availability and scarcity of water. In traditional farming, farmer has to visit the farming land regularly to measure the various environmental parameters such as temperature, humidity, light intensity and soil moisture to cultivate the right crops at right time in right soil. Even though this traditional farming system have been used for years, the system is hectic and fail to prove high productivity rate as farmer usually unable to measure all the parameter accurately. Therefore there is need to optimize the system in a way that is affordable and efficiently conserves water. Manually controlling the water is a tedious process and inefficient due to requirement of a person to control. Working in such a manner sometimes it leads to damage of plant in the absence of that person. The main problem is it depends on weather conditions, sometimes which leads to complete damage of plants. Therefore, there is a need to come up with a system which overcomes the problems of manual systems. A system which reduces manual control and would efficiently worked in a control manner.

This is done by using Automatic greenhouse monitoring and controlling. It replaces the direct supervision of the human. In this paper the different papers have been reviewed and developed the proposed system based on the limitation in the present monitoring system. Greenhouse is a building where plants are grown in a controlled manner. We created a total model of smart greenhouse for implementing our system. It consists of simple but efficient algorithm, which happens to manage all the aspects.

Keywords— Arduino ATmega328, Atmospheric sensors, DC motor controlled sprinkler system. Solar panel.

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IJCRT.ORG ISSN : 2320-2882

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PV based FOPID Controlled Interleaved Boost Inverter

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ABSTRACT: PV based FOPID controlled Interleaved boost Inverter is a good choice between DC source and Both DC & AC load. This work deals with enhancement of response of three stage ILBC fed DC & AC drive system using FOPID controller. Closed loopILBCDCM systems controlled by PI & FOPID are model and simulated. The results are presented for PI & FOPID controlled ILBC systems.The comparison of response is done in terms of settling time and steady state error in speed of ILBC. The results indicate that FOPID controlled ILBC gives better response than PI controlled ILBC system. Interleaved boost converter is a converter where boost converters are connected in parallel. The topology is used to increase the efficiency and reliability.

Keywords—Solar panel, Interleaved Boost Converter, Fuzzy Controller, Inverter, Ripple Reduction

I. INTRODUCTION

The Renewable energy being the best solution and employed all over the world to satisfy the energy shortage existing without environmental contamination. Among the renewable energies available the most promising energy is Photovoltaic (PV) energy. Though PV system installation cost is high, it has lots of pros, as the system is long lasting and maintenance free.

Now-a-days, PV system has grasped the attention of the researchers, but high installation cost and low conversion efficiency are the major drawbacks. To extract maximum power from the PV system MPPT technique can be implemented to the boost converters. By adjusting the duty ratio of the converter, maximumpower delivered can be tracked by the PV panel. As the energy

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GENERATION OF ELECTRICITY USING SPEED BREAKER AND PROVIDING THE ENERGY FOR HOME AUTOMATION

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Abstract: In our daily life power becomes basic need for human life. Energy has been the necessary source for human survival. The energy can be neither created nor destroyed but it can be converted into different forms. The most of the electrical energy is being generated by using conventional energy sources but by the excessive use these conventional sources are depleting.so to satisfy the basic need for power we need to execute different methods and develop non-conventional sources which are eco-friendly. Vehicles have been a part of our life, The kinetic energy by the movement of vehicles over a speed breaker can be converted into mechanical energy using rack and pinion mechanism. Then this mechanical energy is converted into electrical energy by using generator. Therefore, large amount of energy can be conserved by this arrangement. Our project is to generate the energy and use it for Home Automation. We all prefer centralized control system over the conventional switch system.so home automation system using Arduino can be used. The loads can be turned on or off through sensors rather than by going to the switch and turning then on or off. this would be helpful for elderly people and also handicapped people. Generating electricity by speed breaker is very useful and ultimately can be used for different purpose here we are using this energy for home automation.

International Journal for Innovative Engineering and Management Research
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TRANSIENT STABILITY IMPROVEMENT OF POWER SYSTEM USING STATIC SYNCHRONOUS COMPENSATOR AND STATIC VAR COMPENSATOR

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ABSTRACT: Present time power systems are being operated nearer to their stability limits due to economic and environmental reasons. Maintaining a stable and secure operation of a power system is therefore a very important and challenging issue. Transient stability has been given much attention by power system researchers and planners in recent years, and is being regarded as one of the major sources of power system insecurity. Shunt devices play an important role in improving the transient stability, increasing transmission capacity and damping low frequency oscillations. Thus this paper proposed the Transient stability improvement of power system using static synchronous compensator (SSC) and static var compensator (SVC) under fault condition. SSC is a shunt device consisting of a voltage source inverter and a gate pulse generation circuit that connected to the transmission line through a coupling transformer. SVC is thyristor based controller that provides rapid voltage control to improve the transient stability of power system in various abnormal conditions. This paper shows the simulation results of model for different fault conditions with SSC and without SSC and shows how the SVC helps to improve the stability when Power system stabilizer is fail to maintain the stability. Transient stability of an IEEE 9 bus system is modeled in MATLAB SIMULINK Software is studied in this paper.

KEY WORDS: Power systems, static synchronous compensator (SSC), static var compensator (SVC), Transient stability.

I. INTRODUCTION

Stability of power system is the ability of the system to return under normal working conditions after being stressed by different transients [1]. Otherwise, "stability" can be described as the natural tendency of thesystem to develop equal or greater forces than the disturbing forces, in order to continue working in a steady state. The system remains in synchronism if forces attempting to keep machines in synchronism are sufficient to defeat disturbing forces. Conversely, instability means conditions that lead generators to lose synchronism and power system failure. The transient stability studies involve the determination of whether or not synchronism is maintained after the machine has been subjected to several disturbances [2]. These disturbances might be sudden application of a large load, loss of generation, loss of large load, short circuits or phase loses in transmission.Generally, generation, transmission, and distribution are the three steps in a power system. Supply continuous power is the main aim to design power system by maintaining voltage stability in presence of lightning, short circuit between transmission lines phase wires, and ground faults [3]. One or many generators may be severely disturbed due to these above-listed faults, by causing a gap

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TRANSIENT STABILITY IMPROVEMENT OF POWER SYSTEM USING STATIC SYNCHRONOUS COMPENSATOR AND STATIC VAR COMPENSATOR

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ABSTRACT: Present time power systems are being operated nearer to their stability limits due to economic and environmental reasons. Maintaining a stable and secure operation of a power system is therefore a very important and challenging issue. Transient stability has been given much attention by power system researchers and planners in recent years, and is being regarded as one of the major sources of power system insecurity. Shunt devices play an important role in improving the transient stability, increasing transmission capacity and damping low frequency oscillations. Thus this paper proposed the Transient stability improvement of power system using static synchronous compensator (SSC) and static var compensator (SVC) under fault condition. SSC is a shunt device consisting of a voltage source inverter and a gate pulse generation circuit that connected to the transmission line through a coupling transformer. SVC is thyristor based controller that provides rapid voltage control to improve the transient stability of power system in various abnormal conditions. This paper shows the simulation results of model for different fault conditions with SSC and without SSC and shows how the SVC helps to improve the stability when Power system stabilizer is fail to maintain the stability. Transient stability of an IEEE 9 bus system is modeled in MATLAB SIMULINK Software is studied in this paper.

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IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

DESIGN OF A HIGH PERFORMANCE DA BASED FIR FILTER FOR SDR APPLICATIONS

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Abstract: We have analyzed the register complexity of direct-form and transpose-form structures of FIR filter and explored the possibility of register reuse. We find that direct-form structure involves significantly less registers than the transpose-form structure, and it allows register reuse in parallel implementation. We analyze further the LUT consumption and other resources of DA-based parallel FIR filter structures, and find that the input delay unit, coefficient storage unit and partial product generation unit are also shared besides LUT words when multiple filter outputs are computed in parallel. Based on these finding, we propose a design approach, and used that to derive a DA-based architecture for reconfigurable block-based FIR filter, which is scalable for larger block-sizes and higher filter-lengths. Interestingly, the number of registers of the proposed structure does not increase proportionately with the block-size. This is a major advantage for area-delay and energy efficient high-throughput implementation of reconfigurable FIR filters of higher block-sizes. Theoretical comparison shows that the proposed structure for block-size 8 and filter-length 64 involves 60% more flip-flops, 6.2 times more adders, 3.5 times more AND-OR gates, and offers 8 times higher throughput. ASIC synthesis result shows that the proposed structure for block-size 8 and filter-length 64 involves 1.8 times less area-delay product (ADP) and energy per sample (EPS) than the existing design, and it can support 8 times higher throughput. At common throughput, the proposed structure for block sizes 4 and 8, respectively, consumes 38% and 50% less power than the exiting structure on average for different supply voltages.

Index Terms - Software : MATLAB, Modelsim , Xilinx ISE

Hardware : Xilinx or Altera(Intel) FPGA

I. INTRODUCTION

Software defined radio (SDR) technology enables for digital implementation of wide band trans-receivers of multi-standard wireless communications. In SDR, a channelizer is used to extract narrowband channels from the wide band signal. Channelization is usually performed by a bank of finite impulse response (FIR) filters. The channelizer is required to operate at highest sampling rate and requires FIR filters of large order to extract narrowband channels with stringent adjacent channel attenuation specification. The channelizer is the most computation intensive part of SDR. On the other hand, channelizer needs to be implemented in a reconfigurable hardware to support multi-standard wireless communication.

Reconfigurability, high-sampling rate and low-power are the three mutually conflicting design features of channelizer to make it suitable for next generation wireless application. Large order FIR filters where the coefficients having different sets of filter coefficients is highly resource consuming. Besides, there is no redundant computation in FIR filter algorithm. The derivation of hardware designs with less area-delay-product (ADP) for the implementing filter bank for SDR channelizer is a challenging task. Several designs have been

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

HOME AUTOMATION USING ARDUINO

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Abstract: *Every day we are aiming for a relaxed and more convenient method of living. Technology plays an anchor role in making our homes more automated and hence more convenient. This research objective is to design and implement a cost effective but yet flexible, adaptive and secured Home automation system. This paper is about home automation system which would use a Smartphone to enable the authorized user to operate all the appliances. The system has three components: an Arduino microcontroller for connecting the appliances, a Bluetooth module for signal transfer, and a Smartphone with running the Android application. Android Application decodes the user's voice command and extracts the exact meaning of his command. The design is based on an Arduino Uno board and the appliances are connected to this board using switches. The Smartphone interacts with the Arduino via Bluetooth. The main aim of the system development is to be low cost and scalable according to the requirements. Password protection can be used to be more secure. Voice controlled House Automation System makes the use of voice to control devices. The advantages of using voice as an interfacing medium are many. Firstly there is no need of training of operating technology. Secondly, the simplification of services would give us wider adoption of existing technology and would help people with varied disabilities access the same technology..*

Index Terms - Android, Arduino, Microcontroller, Bluetooth

I. INTRODUCTION

the main attraction of any automated system is reducing human labor, effort and time. home automation aims at automating the human lives. activating the home appliances without conventional switch but by using a smart phone is known as home automation. upcoming technology is natural language processing which enables us to command and control things with our voice. in modern era more importance is put on wireless technology. due to wired networks are messy and. complicated. These wireless technologies have great impact on human life in a positive manner and human development speed has increased.

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

Voice Controlled Robot Using Bluetooth Module

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Abstract - In this digital technology era for all the risky and dangerous tasks we prefer Robots rather than people. In the early stage of this Robotics the Robes are manually controlled but due advancement in wireless technology now Robes can be controlled via voice .This project was developed in a way that the robot is controlled by voice commands. An android application with a microcontroller is used for required tasks. The connection between the android app and vehicle is facilitated with Bluetooth technology. The robot is controlled by buttons on the application or by spoken commands of the user. The movement of the robot is facilitated by the two dc servo motors connected with microcontroller at the receiver side. The voice commands are converted in to digital signals by the Bluetooth RF transmitter for an appropriate range to the robot. At the receiver end the data gets decoded by the receiver and is fed to the microcontroller which drives the DC motors for the necessary work. This research objective is to design and implement a cost effective but yet flexible, adaptive and secured voice controlled robotic vehicle to perform the required task by listening to the commands of the user. The advantages of using voice as an interfacing medium are many. Firstly there is no need of training of operating technology. Secondly, the simplification of services would give us wider adoption of existing technology and would help people with varied disabilities access the same technology.

Key Words: Android, Arduino, Microcontroller, Bluetooth, Wireless Robot, Voice Recognition, DC motor.

module(HC-05) using Bluetooth link. The commands are given by the AMR voice by the user. Voice recognition technique used in a wide range of applications to control gadgets and help the society. The basic idea for this model will be an android smart phone in interaction with the robot using the Bluetooth network. This particular technique can be used for assistance for people with disabilities or in applications of industries like working robots controlled by voice. Each technology has its own merits and demerits. But Bluetooth based voice controlled robe systems have an upper hand. Devices can be connected from a range of 10m to 100m and this range can be increased. Also the frequency used for Bluetooth is 2.4GHz, which is available globally. The speed that can be fetched for Bluetooth services is up to 2.8 Mbps. So these advantages made the way for high development in Bluetooth based speech recognition systems.

2. LITERATURE SURVEY

Worldwide investment in industrial robots up 19% in 2003. In first half of 2004, orders robots were up another 18% to the highest level ever recorded. Worldwide growth in the period 2004-2007 forecast at an average annual rate of about 7%. Over 800,000 household robots in use – several millions in the next few years, its 2004 World Robotics survey. K.Kannan and Dr. J Selvakumar, are defining the modes of speaking Robot. There are generally three modes of speaking 1)Isolated word (or phrase) mode, 2) Connected word mode 3) Continuous speech mode.Prof. Bhuvaneshwarilolad and

International Journal of Trend in Scientific Research and Development (IJTSRD)
Volume 5 Issue 4, May-June 2021 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470

Design and Fabrication of Automated Solar Insect Trap

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ABSTRACT

Insect control is the biggest challenge in agriculture. It is a common practice to use a deadly chemical pesticide to protect the crop from pest damage. There are many side effects of using a chemical. Use of more pesticide results in financial burden to the farmers. Moreover, the food becomes contaminated. In organic and integrated farming by using environment friendly automated solar powered insect trap, pest can be brought under control effectively. Solar trap is very simple in construction and use. On the four-legged stand (about five-foot height), the solar lamp strips are mounted powered by battery. A basin is placed below the lamp to collect the insects. The basin can be tilted with the help of motor driven by battery. To refill the basin with the water the solar trap is fitted with a pump. During the evening when the harmful pests hovers the crop fields, the solar lamp will switch on automatically and attracts the insects that may destroy the crops. Attracted insects end up in a water-filled basin. Water can be mixed with soap oil or shampoo to prevent the insects escaping from the basin. Every day, basin full of insects can be trapped. Farmers' job is to switch on the motor that tilt the basin to empty the trapped insects and refill the water to basin with the help of pump every day. One Solar Trap is enough for one-acre farming field. Another specialty of the machine is that it can be shipped anywhere without much difficulty. The Solar Trap can be used in various crops fields such as vegetables, pomegranates, grapes, cucumber, nut, coconut, paddy, sugarcane etc.

KEYWORDS: *Solar Trap, Organic Farming, Insect Trap, Automated Solar Trap, Pest Control, Eco-friendly Insect Trap*

How to cite this paper: K Sathya Sai | N Venkat Naidu | P Sai Kiran | S Saleem Basha | Naveen Kumar Reddy | P Kalyan Kumar | Mr. Sharadh Kumar "Design and Fabrication of Automated Solar Insect Trap" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-5 | Issue-4, June 2021, pp.1255-1258, URL: www.ijtsrd.com/papers/ijtsrd42545.pdf

IJTSRD42545

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International Journal of Trend in Scientific Research and Development (IJTSRD)
Volume 5 Issue 4, May-June 2021 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470

Adulteration of Natural Fibers

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ABSTRACT

This experimental study mainly focuses on increasing Mechanical properties of the composite by Adulteration of natural fibres Coir and Hemp. Different combinations of the fibres within the optimum level are tested, evaluated and compared such that to obtain best combination that enhances the mechanical properties like flexural, tensile and impact properties. For Fabrication of composite, Hand layup method is used. The tests on the specimen are carried according to the ASTM Standards. SEM (Scanning Electron Microscope) is used to carry out the INTERFACIAL ANALYSIS such that to study micro structural behaviour and to find out the causes of failure

NOMENCLATURE

The detailed view about the ADULTERATION OF NATURAL FIBERS and it's working principles.

KEYWORDS: *Hemp, Polyester Resin, Accelerator, Catalyst, Mould Releasing Agent, Glass Mould, Hand Roller*

How to cite this paper: B. Dhananjaneya | H. Sravan Kumar Reddy | M. Praveen Kumar | V. Raghunath | U. Upendra Reddy | Dr. C. V. Raja Reddy "Adulteration of Natural Fibers" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-5 | Issue-4, June 2021, pp.1259-1265, URL: www.ijtsrd.com/papers/ijtsrd42542.pdf

IJTSRD42542

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International Journal of Trend in Scientific Research and Development (IJTSRD)
Volume 5 Issue 4, May-June 2021 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470

Vortex Tube Refrigeration

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ABSTRACT

Vortex Tubes are devices that work on a standard compressed air supply. Air enters the vortex tube and is literally split into two parts - cold air at one end, and hot air at the other - all without any moving parts. Vortex Tubes have an adjustable valve at the "hot" end which controls the volume of the air flow, and the temperature exiting at the cold end. By adjusting the valve, you control the "cold fraction" which is the percentage of total input compressed air that exits the cold end of the Vortex Tube. Our Vortex Tubes may also be supplied with a fixed preset "cold fraction" instead of an adjustable valve. Inside is the interchangeable brass "generator" which can alter the air used in the Vortex Tube, and control the temperature ranges you wish to have at the cold and hot ends. There are several ranges of generators for compressed air capacity. There are also two basic types of generators - one to produce the extreme cold temperatures (maximum cold temperature out called the C generator) and one type to produce the maximum amount of cooling (maximum refrigeration called the H generator).

KEYWORDS: *Advantages, types, methodology, references*

How to cite this paper: N. Harshavardhan Guptha | Rajiv Gandhi "Vortex Tube Refrigeration" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-5 | Issue-4, June 2021, pp.1017-1019, URL: www.ijtsrd.com/papers/ijtsrd42468.pdf

IJTSRD42468

1. INTRODUCTION:

Vortex Tube is constructed of stainless steel and uses a generator and valve made of brass and sealed with viton o-rings to allow their use in the widest range of environments. This also allows for greater life and better consistency between Vortex Tubes made. In addition, it is usable in high temperature environments AS IT COMES with NO extra charge unlike many of our competitors.

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International Journal of Scientific Research and Engineering Development-– Volume 4 Issue 3, May-June 2021
Available at www.ijsred.com

RESEARCH ARTICLE OPEN ACCESS

Automatic Two Wheeler Self- Side Stand System

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UNDER THE GUIDENCE OF,
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***Abstract*— In modern developing world, automobile plays important role especially two-wheeler i.e. (motorcycles & bikes) plays a major role. Even though they are helpful there are some sad events like accidents due to careless of rider. Some accidents occur due to forgetting of lifting side stand. To avoid such accidents, cause due to uplift the side stand, we may be produce the new advance in bike that as we press the gear lever to lift the side stand. So, we have made the project of "Automatic Side-Stand Lifter for Two-Wheeler" is to be designed based on the working principle of bikes. This mechanism is operated manually means on the feet power of rider. After starting the bike immediately when the rider puts the first gear, the side stand lifts automatically.**

Key Terms*— *Automatic, AvoidAccident's

NOMENCLATURE

The detailed view about the automatic side stand lifter for two-wheeler and its workingprinciples.

INTRODUCTION

The side stand plays major role while the vehicle is in rest position. The side stand is used for supporting a parked motorcycle. some disadvantages takes place as

Motorcycle is generally provided with a side stand to support when they are not in used. The side stand usuallycomprises of a bar or rod which is attached to the lower portion of a motorcycle frame and movable to a laterally down widely extending portion so that the motorcycle can be titled against and rest upon the bar. When the motorcycle is in use, the bar is swing upwardly and along the frame so that it will not interfere with the running of themotorcycle.

AUTOMATIC MOTOR CYCLE SIDE STAND SLIDER

WATER AND ENVIRONMENT JOURNAL
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FULL LENGTH ORIGINAL RESEARCH PAPER

Feasibility of applying nonthermal plasma for dairy effluent treatment and optimization of process parameters

Ramya Suresh ✉ Baskar Rajoo, Maheswari Chenniappan, Manikandan Palanisamy

First published: 17 February 2021 | https://doi.org/10.1111/wej.12696 | Citations: 3

Abstract

Dairy industry effluent will pollute the environment if not properly treated. In the present work, the feasibility of nonthermal plasma (NTP) for the treatment of dairy industry effluent is assessed. The effect of energy yield and plasma intensity on reduction of Chemical Oxygen Demand (COD) removal is investigated. Box–Behnken design (BBD) is employed to optimize the operating parameters such as initial pH (5–9), reaction time (4–8 h), effluent flow rate (10–90 ml/min) and applied voltage (20–30 kV) where COD and energy yield are taken as responses. The optimum condition for COD removal and energy yield is same with a pH of 9, effluent flow rate of 10 ml/min and applied voltage of 30 kVp-p, whereas reaction time differs as 8 and 4 h, respectively. COD reduction of 52% indicates that NTP process is a promising technology for dairy effluent treatment.

Analysis and optimization on the biodegradable plate making process parameters using RSM-based Box–Behnken Design method

C. Maheswari, A. S. Ramya, B. Meenakshi Priya, S. Sudhahar, B. Prabhu Raj, B. Lokesh & G. Ramani

Journal of Material Cycles and Waste Management **23**, 2255–2265 (2021) | Cite this article

Abstract

The present research work focused on fabricating Biodegradable Plate (BD plate) composed of rice husk ash, bagasse and corn starch which is harmless to the environment. Mechanical properties such as compressive strength, moisture absorption, solubility and infiltration time were examined in fabricated BD plate. Box–Behnken Design (BBD) and ANOVA analysis are employed to optimize the operating parameters includes raw material mix ratio, temperature on the die, pressure during the mixing process and time. Input factors such as temperature varies (80–100 °C), pressure (1–3 bar), time (4–6 min) and Mix ratio (M1, M2 and M3) are coded into the BBD design. Lack of fit test, p and F value of the independent variables are calculated to confirm the significance of the regression model. Maximum compressive strength of 31 kgf is obtained at the optimal process parameters like temperature of 90 °C, pressure of 2 bar, holding time of 6 min and Mix ratio of 2. The developed biodegradable plate serves as the alternative solution for plastic plates such that the developed plate withstands for 30 days free from fungus.

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

"MANUFACTURING OF ECOBLOCK USING SOLIDWASTE"

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ABSTRACT: Eco-block is a structure block made altogether from unrecyclable material. The removal of strong waste is a significant issue looked by numerous nations of the globe and this issue keeps on developing with the development of populace and advancement of ventures. Removal of waste in landfills, cremation and open unloading are the normal techniques in larger part of spots which causes natural effects. Block produced using blended inorganic waste, have become a minimal expense development material and a substantial reusing technique to lessen garbage removal in locales where modern reusing isn't yet accessible. Strong waste is the undesirable or pointless strong materials produced from human exercises in private, mechanical, or business regions. Eco-blocks are loaded up with blended recuperated materials, expected reusing of its constituents is troublesome toward the finish of its life. In the current investigation an endeavor is made to utilize the latent strong waste divisions i.e., inorganic strong waste portions like waste plastic sacks, tetra packs, diminish the ecological effects caused because of the removal of inorganic strong waste.

Key Words: Solid waste, Plastic, Tetra pack, block

INTRODUCTION

The conventional materials which are predominantly used in construction process, such as concrete type bricks, hollow type blocks, solid blocks, pavement type blocks and floor tiles are generated from the already existing naturally available resources. This results in defragmentation of the environment due to vast exploration and which lead to depletion of naturally existing resources. Moreover, different kinds of toxious substances such as high-level concentration of carbon monoxide, oxides of sulphur and nitrogen, and suspended particulates are released surplus into the open atmosphere during the operation phase and manufacturing of materials. These emissions create toxic impact on environment and disturb the functioning phrases of environmental air, natural water resource, extensive soil, large

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

ECO FRIENDLY GEOPOLYMER CONCRETE

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INTRODUCTION

1.Geopolymer Concrete doesn't frame calcium-silicate-hydrates (CSHs) for framework arrangement and strength like OPCC however uses the polycondensation of silica and alumina forerunners to accomplish underlying strength.

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8. This technique is utilized in the substantial floor framework.

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Advantages of Geopolymer Concrete

Geopolymer concrete has significant advantages over standard concretes. It is much more long lasting than standard concrete and requires little repair, thus saving huge amounts of money that would otherwise have to be spent on repairing and maintaining concrete based infrastructure. You might be interested to learn that geopolymer concrete is the modern equivalent of the ancient concretes such as those used by the Romans that have survived for thousands of years. Geopolymer concretes will safely last for hundreds of years while standard concretes will last for tens of years.

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

Assessment of the Strength of Concrete by Employing Eggshell Powder and Rice Husk Ash for Partial Replacement of Cement

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Abstract - *Nowadays the conventionally established concrete construction industry is not capable of being sustained due to huge intake of natural materials and environmental defilement created during its yield. The usage of waste matter as a cementitious material in concrete will cut down the use of cement and finally the cost of construction. In the present probe, Rice Hush Ash and Egg Shell Powder are applied as a replacement of cement. In this research work, the properties of the compressive strength, spit tensile strength and flexural strength of these mixings are being examinedand equated with the normal concrete by using the mix 1:1.5:3 at the end of 7 and 28 day times. From the results it is witnessed that, substitution of cement with Rice Hush Ash and Egg Shell Powder in concrete up to an optimal quantity gives more beneficial strength than formally established concrete.*

Key Words: Cementitious material, Concrete, Egg Shell Powder, Rice Hush Ash, spit tensile strength.

1. INTRODUCTION

It is well known that, Concrete has become essential material which is being extensively practiced for the construction of structures due to the existence of features like structural stability and its property of strength. It is the anchor of infrastructural evolution of a nation. Now recently, for various kinds of reasons, concrete industriousness is not looking to be sustainable. Foremost, it uses up vast amount of natural material in concrete. Rice husk ash consists of non- crystalline silicon dioxide with high specific surface area and high pozzolanic responsiveness. Besides, calcium rich egg shell is a poultry waste with chemical mixture nearly similar as that of lime stone. Hence, the use of these materials in concrete can have gains like derogating the use of cement, conserving natural lime and utilization of waste materials. Rice husk ash is one of the most widely usable agricultural wastes in many rice producing countries around the world. Rice husk ash is unusually high-pitched in ash. The ash is 87- 97% silica, highly porous and light weight, with a very high extraneous surface area.

This research was accomplished in order to ascertain the optimum percentage of eggshell ash and rice husk ash (RHA) as partial cement replacement. The samples were tested for its mechanical samplings by using concrete grade G30 with cube. The samples were commixed with eggshell ash and RHA admixture with dissimilar proportions (2%:8%:4%:6%, 6%:4%).

Several eccentries of test were acquitted towards the samples, which are the slump test, compressive and flexural test. Based upon the former explores, the strength of concrete reduced as replaced with eggshells. Most of the researches demonstrate the similar kind of trend when partial cement is

International Journal of Advances in Engineering and Management (IJAEM)
Volume 3, Issue 7 July 2021, pp: 1230-1233 www.ijaem.net ISSN: 2395-5252

Usage of Paper pulp residue for fabrication of bricks

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Submitted: 25-06-2021 Revised: 04-07-2021 Accepted: 07-07-2021

ABSTRACT: Bricks are reckoned to be the most important building materials which are employed for constructional use. Utilization of concrete in the construction industry is altering day-after-day. The increasing demand for concrete in the future is of major emerge, for which an alternate option is to discover at a reduced or no additional price and to cut down the environmental impingement due to increase of cement industries that are significant constituent to economic ontogeny. Papercrete bricks were groomed out of waste paper, and quarry dust with partial replenishment of cement by another industrially acquired by-product Fly Ash in variable proportions of approximately 25%, 40% and 55% respectively. Paper pulp residue along with fly ash, lime, quarry dust & gypsum is used to manufacture the bricks. The variety of properties like mechanical strength, standard quality equivalences with the conventional bricks through standard trials like hardness, soundness, fire resistance and Cost-Benefit Analysis were performed and contemplated.

KEYWORDS: Bricks, Fly ash, Hardness, Papercrete, Quarry dust, Residue, Soundness.

materials. One exclusive recycle chance is by using waste paper as a construction substantial. Since the construction industry consumes a great amount of non-renewable resourcefulness's, thus the potential purpose of waste paper for producing a low cost and light weight composite brick for construction not only delivers the potentiality usage of waste paper recycling but it will also let down the demand insistency on planetary natural resources.

[1]. Papercrete is a complex material composed of Portland cement, waste paper, water and/or with sand. Papercrete have been described to be as a relatively low alternative building material and it basically have a good sound absorption and thermal insulation property which is considered as a light weighted and fire-resistant material respectively.

[2]. The authors in these research findings have developed a path way to create paper bricks from recycling waste product. It is mainly made up of with 90% recycled paper mill waste and 10% of cement compositions. Also, the authors have studied about the physical and mechanical properties of brick samples with paper pulp and binder.

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A STUDY ON VERMICOMPOSTING OF ORGANIC WASTE AT SANSKRITHI SCHOOL OF ENGINEERING PUTTAPARTHI

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Abstract : An Managing of solid waste has become one of the major difficulties that we are facing today. Vermicomposting is the improved selection to tackle with this problem. Vermicomposting is the process of conversion of organic wastes by earthworms to valued humus like material which is used as a natural soil. Vermicomposting is environment friendly and cost-effective method for solid waste management. Vermicompost is much healthier than chemical fertilizer because it is not related with any kind of risk. Earthworms are possibly important creatures that can transform garbage into gold. Eisenia foetida is the maximum frequently used species of earthworms for vermicomposting. Vermicomposting is a mesophilic process and should be preserved up to 32°C with the moisture content of 60-80%. Vegetable wastes from market and homes are basis of environmental pollution, global climatic changes and human health hazards. Disposal methods and management are not suitable. Earlier, the study was taken up. In laboratory scale 6 plastic bin were taken for vermicomposting Vegetable waste was mixed with shredded paper, soil sand mixture and after pre-decomposition for 20 days, 40 earthworms were released. This culture were maintained and preserved for next 70 days and then observations made on, pH and NPK value of the medium were recorded and recorded and tested heavy metals in composted material. Six different ratios were maintained to achieve exact result. Different results were found in different ratios of mixture. Normally cow dung slurry (50%) is sprinkled for balancing proper moisture condition in the vermicomposting mixture medium. The best results were found in 5:1:2 ratio mixture of vegetable waste, shredded paper and soil san. Analysis of vermicomposting discovered maximum nitrogen is 1.1% potassium is 0.91 % and phosphorus is about 1.19% content in this composted mixture. Thus, vermicomposting is determined that vegetable waste can be converted into high quality vermicompost in an environment friendly manner.

Keywords **– 1.Vermicomposting, 2.Vegetable waste, 3.Shredded paper, 4.Eisenia foetida.**

I. INTRODUCTION

Municipal solid waste (MSW) refers to the materials rejected in the urban areas for which municipalities are usually accountable for collection, transport and final disposal. MSW includes domestic refuse, institutional wastes, street sweepings, marketable wastes, as well as construction and demolition debris. Solid wastes (domestic refuse and garbage, street sweepings, construction debris, sanitation residues etc.) in an environmentally companionable manner adopting principles of economy, aesthetics, energy and preservation. The density of SW in India is very high (3500- 660 kg/ cubic m.). The metal content is less than 2%. The average calorific value of urban solid waste is low (1900 kcal/ kg). The per capita generation of solid waste in Indian cities ranges from 0.25 to 0.45 kg/day. Vermicomposting technology is one of the best options available for the treatment of

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DESIGN OF RAIN WATER HARVESTING AT SANTHIL AND SATHYA HOSTEL IN SANSKRITHI SCHOOL OF ENGINEERING

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Abstract:- This article evaluates the potential for water saving by using rainwater in Santhil and Sathya Hostel a residential building at Sanskrithi School of Engineering in Puttaparthi. Town located in southern state of Andhra Pradesh in India. The building houses on an average 500 students every year. The roof top of the hostel is the catchment area. Using average rainfall data, calculations for rainwater endowment and water harvesting potential were made. Volume of water that can be collected in one year was calculated. Suitable hydrocyclone for removing suspended particles and reducing turbidity has been proposed. The project cost was calculated making use of prices prevailing currently in India. Annual monetary savings were calculated based on the volume of water collected by rain water harvesting and payback period was arrived at.

Keywords:- water conservation; rainwater harvesting potential; rainwater endowment, run-off coefficient; hydrocyclone.

I. INTRODUCTION

Many cities in India and all over the world are dealing with depleting water supply, marked by falling groundwater levels, vanishing water bodies, severe pollution and urban floods. With their own supplies drying up, cities are forced to source water from further and further away. T+his is expensive. City planners usually ignore a powerful source of water that they can access to - rain. Rainwater and run-off can be harvested . It can be collected and stored, or conveyed to the aquifer to recharge groundwater [1].

A. Rainwater harvesting system and its features

Rainwater harvesting is a simple technique of catching and holding rainwater where it falls. Either, one can store it in tanks or can use it to recharge ground water depending upon the situation. The system is economically cheaper in construction compared to other sources like dams, diversions etc. It is ideal for areas where there is inadequate ground water supply or surface resources. The system helps in utilizing the primary source of water and prevents the runoff from going into sewer or storm drains, thereby reducing the load on treatment plants.

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

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1.Geopolymer Concrete doesn't frame calcium-silicate-hydrates (CSHs) for framework arrangement and strength like OPCC however uses the polycondensation of silica and alumina forerunners to accomplish underlying strength.

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International Journal of Advances in Engineering and Management (IJAEM)
Volume 3, Issue 7 July 2021, pp: 251-255 www.ijaem.net ISSN: 2395-5252

"Design And Analysis Of Sewage Treatment Plant For Sanskrithi School Of Engineering, Puttaparthi"

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Submitted: 10-06-2021 Revised: 23-06-2021 Accepted: 26-06-2021

ABSTRACT: Our instructive organization don't have appropriate treatment unit for treating the sewage made by it. So it is needed to develop a Sewage Treatment Plant with adequate ability to treat the sewage. This paper manages the legitimate plan of a total treatment of sewage and its significant segments, for example, Screen chamber, Skimming Tank, Primary Sedimentation Tank, ASP (Activated Sludge Process) Tank, Secondary Sedimentation Tank and Disinfection of sewage. By the execution of this plan the whole sewage treatment of our instructive establishment should be possible viably and effectively.

KEYWORDS: Sewage treatment plant, Primary Sedimentation Tank, ASP(Activated Sludge Process) Tank, Secondary Sedimentation Tank, Disinfection

I. INTRODUCTION

Sewage treatment is the process of removing contaminants from wastewater and household sewage, both runoff (effluents) and domestic. It includes physical, chemical, and biological processes to remove physical, chemical and biological contaminants. Its objective is to produce a treated effluent and a solid waste or sludge suitable for discharge or reuse back into the environment. This material is often inadvertently contaminated with many toxic organic and inorganic compounds.

II. OBJECTIVES OF THE STUDY

There are three major objectives of our study-

- Physical, chemical and biological characterization of wastewater.
- Comparison with the prescribed standards.
- Design of a sewage treatment plant by designing all its units.

III. STUDY AREA

SSE college is located near Beedupalli village, Puttaparthi , Andhra Pradesh 515134. The coordinates of SSE college are 14.1337°N 77.7787° E.

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Google map of Sanskrithi school of Engineering

International Journal of Scientific Research in Science and Technology
Print ISSN: 2395-6011 | Online ISSN: 2395-602X (www.ijsrst.com)
doi : https://doi.org/10.32628/IJSRST2183170

Online Hostel Management System for Sanskrithi School of Engineering

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Article Info
Volume 8, Issue 3
Page Number : 771-777

Publication Issue
May-June-2021

Article History
Accepted : 12 June 2021
Published : 20 June 2021

ABSTRACT

"HOSTEL MANAGEMENT SYSTEM" is software developed for managing various activities in the hostel. For the past few years the number of educational institutions are increasing rapidly. Thereby the number of hostels are increasing for the accommodation of the students studying in this institution. And hence there is a lot of strain on the person who are running the hostel and the software's are not usually used in this context. This particular project deals with the problems on managing a hostel and avoids the problem which occur when carried manually. Identification of the drawbacks of the existing system leads to the designing of computerized system that will be compatible to the existing system with the system which is more users friendly and more GUI oriented.

Keywords : Hostel Management, Delphi, SQL server, Prospect, Booking, Receipt, Ledger.

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International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

Generation of Auto PayRoll Management System for Employees (E-PMS)

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Abstract - *Now a days so many people are working in organization and also in companies. HR of the particular company or organizations provide salary to the Employee by Generating manual payslips. It would be very difficult to generate manual payslips. It would be more time consuming and they might get some errors while generating manual payslips and if the employees are increasing in company, so it should be complex to maintain their financial organization. To overcome this, we have enrolled a web application namely Employee Payroll Management System.*

Key Words: **Payslip, Employee, Payroll system, Organization, time-consuming.**

1.INTRODUCTION

Employee Payroll Management System would be very helpful for any company organization. This web application will generate automatic pay slip, and also to allowed to maintain the details of the employee, department, position, allowances, deductions and payroll. Payroll will calculate the total amount based on their working days.

member which is a time-consuming process and there is a chance of losing data or making the errors in the records or making a wrong calculation. The salary slip also takes an extended time to make and as this is often a tiresome and cumbersome process it takes tons of your time.

1.1 Limitations

- It also delays the salary distribution system. Sometimes the salary isn't generated within the stipulated period of time thus creating tons of hassle.
- Error is that the other major problem of the manual system and even with repeated cross check a number of the opposite errors surely persist which may cause tons of problems.
- Security issue.
- Data losing Chance is there in existing system.
- To unravel this problem the organization, need a perfect software which will lookout of these.

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e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:05/May-2022 Impact Factor- 6.752 www.irjmets.com

HYBRID E-BICYCLE

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ABSTRACT

The fuel prices not only in INDIA througout the world is increasing day by day and pollution is increasing continuously. So we need to search for an alternative source of energy. The hybrid powered electric bicycle is a system that involves three different ways of charging a battery: solar power, Dynamo and 220v AC wall charger. The power from these three modes is used to charge an electric motar running a bicycle. The hybrid powered bicycle is designed in such away that the rider can have to modes of operating bicycle that rider can choose the bicycle to be driven completely with the electric motar or it can be driven manually. Among the economic advantages we can find the total cost per kilometer travalled by an electric bicycle. The batteries of the electric can be recharged by connecting them to plug or when pedaling in some gears.

Keywords: Dynamo, External charger, Hybrid vehicle.

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International Journal of Research in Engineering and Science (IJRES)
ISSN (Online): 2320-9364, ISSN (Print): 2320-9356
www.ijres.org Volume 10 Issue 5 | 2022 | PP. 57-64

Prediction of Brain Stroke Using Machine Learning

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Abstract – A stroke is a medical condition in which poor blood flow to the brain results in cell death. It is now a day a leading cause of death all over the world. Several risk factors believe to be related to the cause of stroke has been found by inspecting the affected individuals.Using these risk factors, a number of works have been carried out for predicting the stroke diseases. Most of the models are based on data mining and machine learning algorithms. In this work, we have used five machine learning algorithms to detect the stroke that can possibly occur or occurred form a person's physical state and medical report data. We have collected a good number of entries from the hospitals and use them to solve our problem. The classification result shows that the result is satisfactory and can be used in real time medical report. We believe that machine learning algorithms can help better understanding of diseases and can be a good healthcare companion.
Keywords: *Brain Stroke, Machine learning, Algorithms*

Date of Submission: 08-05-2022 Date of acceptance: 23-05-2022

I. INTRODUCTION

1.1 Domain Description

Health is considered as an essential aspect of everyone's life, and there is a need for a recording system which tracks data on diseases and the relationship between them. Most of the information pertaining to diseases could be found in the case summaries of patients, medical records found in clinics and other records that are maintained manually. The sentences in them could be deciphered through various methodologies of text mining and machine learning (ML). Machine learning is a tool which can disseminate the content as a part of information retrieval in which semantic and syntactic parts of the content are given prevalence.Various ML and text mining methodologies are proposed and implemented for feature extraction and classification. Stroke is a term used by most of the healthcare practitioners to describe injuries in the brain and spinal cord resulting from abnormalities in the supply of blood. Stroke projects its meaning based on different perspectives; however, globally, stroke evokes an explicit visceral response. Machine learning can be portrayed as a significant tracker in areas like surveillance, medicine, data management with the aid of suitably trained machine learning algorithms. Data mining techniques applied in this work give an overall review about the tracking of information with respect to semantic as well as syntactic perspectives. The proposed idea is to mine patient's symptoms from the case sheets and train the system with the acquired data. Next, the case sheets were mined using tagging and maximum entropy methodologies, and the proposed stemmer extracts the common and unique set of attributes to detects the stroke disease. Then, the processed data were fed into various machine learning algorithms such as, Decision tree, Logistic Regression, K-Nearest Neighbors, Random Forest, Support vector machine. Among these algorithms, Support vector
Machine achieves high accuracy.

e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:05/May-2022 Impact Factor- 6.752 www.irjmets.com

AUTOMATIC VEHICLE ACCIDENT DETECTION AND RESCUE SYSTEM USING SOLAR ENERGY

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ABSTRACT

The advent of technology has increased the traffic hazards. Road accident are increasing due to various factors. The death rates are also increasing because of delay in medical help, lack of ambulance services and negligence. The proposed study developed a system to detect vehicle accident and send the accident location information to the nearest hospital or to the rescue team through message service. The message contains information about the longitude and latitude value of accident location with GPS and GSM. Another case, if the network is not available the location will sends with the help of VANET which consists of one crash sensor and airbag system. This helps the rescue team to trace the location of the vehicle where accident has occurred to help injured victim. Most of earlier developed systems are costlier, because of multiple sensors are incorporated to detect the accident. The proposed model is incorporated with only MEMS sensor which minimized the cost and interfacing complexity. However the supply is giving to the system using renewable energy source I.e., Solar energy. Which is cost less and inexhaustible.

Keywords: GPS, GSM, Detection System, Human Rescue.

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 06 Issue: 06 June - 2022 Impact Factor: 7.185 ISSN: 2582-3930

ELECTRONIC VOTING MECHANISM USING MICROCONTROLLER

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ABSTRACT:

Election is the main concern of any Country when to elect someone.Some of them misused it so that we can make the voting machine with Face recognition. In this proposed system we have used Face recognition that can identify each voter and can prevent fake votes.

An idea of this project by using Matlab, it is a three level processing i.e, Train the Recognition system, Face detector and data Gather, Face Recognizer. The system is more digital, technology-based and secured system. In this system we are implementing the keypad and buzzer.

The final vote is then displayed onto an LCD for the satisfaction of voters. The project displays transparency and also carries the feature of being autonomous during the course of operation.

KEYWORDS: MICROCONTOLLER-ATMEGA328P,KEYPAD. DISPLAY, BUZZER ,LED

system here relatesto n number of the switches where n represents the number of political parties.

The user or voter will choose the intended desired contesters from the list of options. The result is then played on an LCD display and the result is automatically calculated by pressing the result button. The live votes are displayed using Thing Speak server to prevent any data manipulation which mightoccur when storing on an external drive.

LITERATURE REVIEW:

Agarwal, et al. [2] have designed a password-based system to increase the efficiency of system by proclaiming results in very short span. Anandaraj, et al. have improvised the security in the existing system. They presented scaling up the number of voters as they increase. Here matching is

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SMART DOOR AUTHENTICATION

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ABSTRACT:

In day-to-day life, technologically transition towards a wireless world. Security is important role to provide the safety. Previously, in locker rooms for banks and high security areas, passwords traditional lock systems, etc., were employed. However, these systems were found to be not perfectly secure. Over the years various methods have been proposed by researchers across the globe which have proven to be successful but have lacked in areas such as security and authentication time. This paper presents an electronic door lock mechanism that able to generate dynamic temporary access key for the guest. It is an innovative design for a Smart door with the aid of a biometric NFC band and OTP authentication methods which would provide secure and easy access to our homes.

Keywords: Arduino, RFID, GSM Module, Biometric, OTP, NFC

INTRODUCTION

Traveling has become a lifestyle in the last decade. During the covid-19 pandemic, travel became limited until the pandemic ended. Travel habits do not disappear, just be stopped temporarily. When the pandemic ends, the human lifestyle will back again with the trend of going around the world. One of the things that is a concern for travellers is about efforts to reduce travel cost which can be saved from the cost of residence. The host will meet with the guest to provide the access key (physical key) during the guest arrival day. When the time to check out comes, the guest

also needs to return the physical key to the host. There're some issues that can happens here, such as the possibility

METHODOLOGY

The fingerprint and RFID technology is used widely for security purpose. Here also we used these two algorithms. The system of automatic fingerprint identification having collection of images, pretreatment, extraction of feature as well as matching feature and on many parts. To verify a person, the fingerprints are one of the best identities.

The primary advantage of the RFID, GSM and RFID is efficient security. The RFID can detect any type of object by using radio transmission frequency. RFID can be an electronic system which can transmit and receive data over radio waves. It can be useful for tracking, detecting and sorting the different objects. The implemented system

International Journal of Scientific Research in Engineering and Management (IJSREM)
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COVID 19 SMART FENCING SYSTEM AND CONTACT TRACEABILITY DEVICE

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I. ABSTRACT

Corona virus disease 2019, i.e. COVID-19 has imposed the public health measure of keeping social distancing for preventing mass transmission of COVID-19. For monitoring the various types of digital surveillance systems, which include contact tracing systems and drone-based monitoring systems. Due to the inconvenience of manual labor, traditional contact tracing systems are gradually replaced by the efficient automated contact tracing applications that are developed for social distancing and keeping the trace of transmission, we are obligated to develop smart phones However, the commencement of automated contact tracing applications introduces the inevitable privacy and security challenges. Nevertheless, unawareness and/or lack of smartphone usage among mass people lead to drone-based monitoring systems. These systems also invite unwelcomed privacy and security challenges. This paper discusses the recently designed and developed digital surveillance system applications with their protocols deployed in several countries around the world. Their privacy and security challenges are discussed as well as analyzed from the viewpoint of privacy acts. Several recommendations are suggested separately for automated contact tracing systems and drone-based monitoring systems, which could further be explored and implemented afterwards to prevent any possible privacy violation and protect an unsuspecting person from any potential cyber attack.

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 06 Issue: 06 | June - 2022 Impact Factor: 7.185 ISSN: 2582-3930

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International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

An Experimental Investigation on Utilization of Sugarcane Bagasse Ash and Quarry Dust in Concrete

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ABSTRACT -

In the present era, a number of researchers are using either industrial or agriculture priceless products as a basic source of raw materials for the construction industry. These waste products are economical and helpful in producing a sustainable environment and reducing environmental pollution. Compressive strength tests for seven days and twenty-eight days are done for the concrete before using the quarry dust and sugarcane bagasse ash of various percentages such as five percentages to twenty percentages as partial replacement. It is proposed to study that Cement is partially replaced the material of as five percentages to twenty percentages of Sugarcane Bagasse Ash and Fine Aggregate is partially replaced the material of as five percentages to twenty percentages of Quarry Dust. In this research, total {67} concrete samples (three conventional cubes, forty-eight replacement cubes and sixteen cylinders) were made with water cement ratio of 0.5 by using of M25 grade of concrete. The cube specimens are taken of size 150 mm x 150 mm x 150 mm and cylinder specimen of size 150 mm x 300 mm. Concrete cubes and cylinders are kept moist for seven days and twenty-eightdays. The main purpose of this research study was to observe the compressive strength and split tensile strength of concrete blended with various proportions of sugarcane bagasse ash and quarry dust.

Key words: Sugarcane bagasse ash, Quarry dust, Coarse aggregate, Fine aggregate, Cement, Compressive strength, Split tensile strength.

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International Journal of Research Publication and Reviews

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International Journal of Research Publication and Reviews, Vol 3, no 6, pp 2375-2377, June 2022

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Student Web Portal

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ABSTRACT

Education is setting new standards in the country and many universities are struggling to manage and operate with traditional methods. With the rise in the number of courses and inflow of large number of students, it is a challenge for the staff to develop a streamlined process. Hence the web application "Student Web Portal" provides a simple interface of maintaining the student information and assures the security to the data by providing a individual login credentials. Its aim is to layout a net portal for the institutes the vicinity all of the online offerings could be provided for quite a number subjects like Alerts notifications, class& exam Time tables, Exam Marks, important announcements like placement drives and cultural events Etc. This portal affords beneficial factors for university college university college students and faculties who choose out to access the pc portal with one click on from anywhere.

Keywords: Timetablesupdating,Placements,Logincredentials,AlertNotifications.

INTRODUCTION

Increasing numbers of institutes have installation services on their Web portal as a manner of presenting customers with facts approximately their services and features. In general, in universities, topics are achieved manually, including submissions, brochures, reviews, results, registrations, exams, etc. To keep far far from this, we're designing a net portal for our institute, in case you need to be of splendid assist withinside the subsequent features, consisting of time saving, on hand get access to and consumer friendliness,etc.

As day-by-day data is growing rapidly, maintaining the Student data in colleges and providing security for that data has become difficult task. This application "Student Web Portal" is to provide a unmarried place to university college students from the region they are able to do all of the discover approximately related matters to do by logging into this web portal. This portal can be accessed by student and admin with internet connected computers with the aid of their mails and passwords. Every user will have a customized home page with their profiles. In other words to provide a single platform for students to access all kind of information like important announcements, Class Room Details, Subjects and corresponding faculties profiles, Exam and class Timetables, Exams marks, information about technical, cultural events and placement drives happening in college etc

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International Journal of Research Publication and Reviews
Journal homepage: www.ijrpr.com ISSN 2582-7421

Web Based Library Management System

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ABSTRACT

web based library management system has aim to enlarge a digital system. library is simple to access for librarians and users though this method affords electronic documents like newspapers, magazines, books and different helpful files for user that can give accessing rights by registering for the users without any permits and it supports librarians to manage and keep books so as and library data. Magazines, newspapers, books and alternative files that may get access by the user and helps librarians tons to stay track and managing the books of library information. planning a web-based library management system (LMS) this method can get ride of this drawback from the work of physical library. The physical library has ton of boundaries to satisfy user's wants, and most paper copy documents space unit spoiled when a restricted time of utilize, lose work within the library, to disrate the cost of books, and to keep away from problems for missing files, we tend to introduce an internet primarily based library management system. the main objective of our project is to develop a system that can simple to manage the activities in the library which can be a helpful for the users to get approach at their available time, to overthrow the issues of the actual library, we are suggested the web-based library management system for users. The Web-based Library Management System will support to library manager to produce digital information and it is easy to access from anywhere and any place such as home, classroom, labs and any time by connecting the internet data. This is design specifications are JavaScript Programming language, HTML, CSS and Database MYSQL.

INTRODUCTION

A library is a place where a massive collection of books and resources are available. The web-based library management system is moveable and user friendly designed, which may be accessed by users at anyplace. The user will hunt for books from school rooms, labs, home and a few different places wherever the net is on the market. It will give an idea to the librarian on the how many books are available in the library and issued in the library. In the previous periods librarians working on physical form by the paper work to manage books by this method there is a lot loss of data which is mentioned in papers. To overcome those losses this application web-based library management system is designed. These web-based library management can be accessed from anywhere where the internet is available and also this system provides documents in the format of pdf and docs such as magazines, newspaper, story books and study book also. These web-based library management system fully avoids the paper add the library management, within the ancient library management system, the librarian has a lot of paper work to arranging, sorting books in the book shelfs.

By using these web-based library management system the librarian can verify and monitor the borrow book details and is it out of date librarian can fine that book. In these system librarians can monitor all the activitiesin the library such as adding books, removing books, issuing books to people and returning books back to librarian.

International Journal of Research Publication and Reviews

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Web Based Smart Hostel Management System

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ABSTRACT

Hostel may be a place that is simply like second home for the people that lives outside from the house they feel safe whereas living in hostel. Hostel is additionally the way to earn cash for several people that square measure operating there as worker. For the last few years, the quantity of educational establishments rectangular degree measure growing chop-chop. Thereby the quantity of hostels al is also growing for the accommodation of the students locating out through this establishment. There square measure millions of activities must be exhausted the hostel. So, to manage the info and data of the one that live there's an awfully advanced task. It wants a great deal of your time of the many people that square measure managing it. This express project offers with the troubles on direct a hostel and avoids the troubles that happen once carried manually. Identification of the defect of the immediate results with in the planning of automated system that may be compatible to the present system that is a lot of user friendly. The common transactions of the hostel embrace the upkeep of mess bills, info concerning students within the hostel, enrolling of latest students and their payments and dues etc square measure keep into the databases and reports square measure generated in step with the user needs.

INTRODUCTION

Educational institutions has been up quickly for the past few years. There has been a cosmic increment in the quantity of educational sector notably over the foremost recent four decades everyplace throughout the planet.A large portion of the recently established academic establishments, utilizing the recent normal procedures for addressing all the record keeping and particularly for managing hostel facilities. This recent methodology of managing records thus have Associate in Nursing adverse impact on the potency of the establishment. The projected framework overcomes the disadvantages of ancient techniques for hostel administration; it's easier to use, graphical-UI homeward.

OBJECTIVE

Hostel Management System may be a system for managing the varied activities within the hostel, it's used for managing the hostel data. It manages the scholar data, space data, space allocation details, fee details, mess bill details and worker details of the hostel. it's conjointly wont to generate reports of student details, fee details and mess bill details of the scholar. It keeps track of the quantity of scholars within the space and accessibility of the space. It assign organization from the labouring work from that it is terribly durable to drop in the record of the intellect and also the mess bills of the intellect.

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International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

PROVIDING EFFICIENT CLOUD RESOURCES USING DUAL ACCESS CONTROLMECHANISM

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ABSTRACT

AWS Cloud-based data storage service has drawn increasing interests from both academic and industry within the recent years thanks to its efficient and low-cost management. It provides services in an open network it's urgent for service providers to form use of secure data storage and sharing mechanism to confirm data confidentiality and repair user privacy. To guard sensitive data from being compromised, the foremost widely used method is encryption. Two dual access control systems are designed during this project, where each of them is for a definite designed setting. The safety and experimental analysis for the systems are presented. A replacement mechanism, dubbed dual access control, to tackle the above aforementioned two problems. To secure data in cloud- based storage service, attribute-based encryption (ABE) is one in every of the promising candidates that allows the confidentiality of outsourced data further as fine-grained control over the outsourced data

Keywords: *Attribute based encryption, Amazon web Services, Encryption, and Cloud based data sharing*

1. I.INTRODUCTION

In the recent decades, cloud-based storage service has attracted considerable attention from both academia and industries. It'sgoing to be widely employed in many Internet-based commercial applications (e.g., Apple could) thanks to its long-list benefits including access flexibility and free from of local data management. Increasing number of people and corporations nowadays opt to outsource their data to remote cloud in such how that they will reduce the value of upgrading their local data management facilities/devices. However, the concern of security breach over outsourced data is also one amongst the most obstacles hindering Internet users from widely using cloud-basedstorage services.

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International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Campus Connect

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ABSTRACT

The main idea of this project is used to connect the different events of different colleges. Through this, project one can post their events online and make the students register for these events. It reduces the lack of communication between colleges and students. It has a list of upcoming events and ongoing events of the respective college. It helps the students to register for events in an easy way. We are proposing a system which has events of different colleges in one place. It helps the admin to manage the college's data and events data effectively. It reduces the time and cost to the colleges.

INTRODUCTION

It mainly focuses on the event-based service to the colleges. Using this web application reduces direct communication. The admin can add the new event conducted in their college and can provide the respective brochure and registration link on the website. This helps the students to register for the event in an easy way.

It has a floating window that contains the upcoming events and ongoing events of different colleges, such that the student can view the events.
It reduces the time to go and advertise the events and send the post to the colleges.

LITERATURE REVIEW

Every organization, whether big or small, has challenges to overcome and manage every event. It has different event needs. It is designed to assist in strategic planning and it will help to ensure that your organization is equipped with the right levels of information and details of your future goals.
It ultimately allows you to better manage resources. It has different channels to communicate between events. It allows the user to select the events. It has been broken down into three elements. They are application models where the data resides.

Disadvantages:

- It doesn't have admin interfaces
- It doesn't have the data of different college events
- With this app, one can only select the events and they are not provided with any registration link and brochure of the respective events

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

"E-LEARNING AND CAMPUS INFORMATION SYSTEM"

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ABSTRACT:

New services have arisen in the last decade as the use of the internet has grown. Several studies have revealed that university college pupils are relying on these newly developed sciences to amass fantastic responsibilities. The purpose of this internet site is to provide a single platform for university college students and team members to engage with one another, including discussing their questions, uploading study materials, handling a leaflet, and praying for him so that he may be saved. Their messages, photos, and videos appear on their timelines as a result of seeing notifications distributed by coworkers. The web page administrator is in charge of operations such as adding and removing courses, materials, university students and employees, and posting articles.

Keywords: *uploading materials, conducting quizzes, tracking activities.*

1. INTRODUCTION

E-learning is an organized course or learning experience delivered electronically with performance support content. A learning management system is commonly used to manage and administer online courses. This site's administrator is in charge of tasks including adding and removing courses, subjects, students, and staff members, as well as issuing notices. The contact information for the college management system is provided by this application.

You can include some additional features such as direct interaction with faculty to clear their doubts through a chat system, and students can download documents. Online study materials can be uploaded by faculties. Faculty members can upload study materials for students to see. The administrator has complete control over the website, which must be kept up to date in the database for various options. Students can speak with their professors individually or in groups using the project's individual and group chat features.

The staff can conduct quizzes in this application. Students can attend the quizzes and get the result of the quizzes.

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International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Attendance Automation System

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ABSTRACT

Checking the presence of students and maintaining the attendance is a tedious process for the institute. Each institute has endorsed its method of taking attendance i.e., calling the names or passing the sheets. Several popular automatic attendance systems currently in use are RFID, IRIS, FINGERPRINT, etc. Since face is people's preliminary scheme of personal identification, the suitable solution to have both time and cost efficiency with no human involvement is facial recognition. With the rapid development in the fields of image processing, the efficiency of this system is keep on increasing.

I. INTRODUCTION

One can distinguish a particular face based on different factors. Computer Vision deals with how computers can gain high-level understanding from digital images or videos. Face recognition system is one of the primary objective of the computer vision. In recent years many researches in techniques of face

recognition have gained momentum significantly. It is because of the fact that it is not easily seen or noticed when compared to other techniques like biometric methods etc., Coming to implementation it is very challenging as it needs to check for all possible variations in appearance which are caused by change in facial features, changes in pose, image resolution, classification etc., There are many face recognition algorithms which have been developed and each algorithm has its own advantages. If we are already familiar with the face we can recognize the face instantaneously. Face detection methods which are presently available mostly depend on two approaches i.e., local face recognition system and global face recognition system. The local face recognitionuses the features of face like nose, eyes, mouth etc.,

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Journal homepage: www.ijrpr.com ISSN 2582-7421

INTRODUCTION OF VIRTUAL REALITY

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ABSTRACT

Virtual Reality (VR) is a simulated visual world where people can feel immersed in a computer graphics. Practically, human who are using this technology they can feel, touching the objects, listening the sounds and walking into imaginary world, virtual reality artificially creates sensory experiences. This technology makes interaction between users and simulated environment in the real world. Users can enter the imagination world and can play the video games, experiencing the travel to anywhere by staying at one place, user can imagine their dream home and even can experiencing a walk on moon or travelling in space.

Keywords *- Head mounted display (HMD), Tracker, Joy sticks, Suits.*

1. INTRODUCTION

These days' people want to step into the virtual world of three-dimensional computer graphics. It becomes even possible for normal people, to move into the digital world. Virtual reality changes the way of people experience a lot of big things such as, gaming, 3D movies, learning and training etc. Virtual reality is a scientific technology of human machine interaction with simulated surrounding. Here everything is artificial but the person from real world.

This technology is becoming very popular because users can experience or controlled by movement of body. It is the creation of using interactive software and hardware.

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Journal homepage: www.ijrpr.com ISSN 2582-7421

Identification of Plant Diseases Based on Lesion Spots

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ABSTRACT:

When plants and crops are distressed by viruses, it influences the land result of the country. Usually farmers or masters obey the plants accompanying evident eye for discovery and labeling of ailment. But this means can priced and erroneous. Automatic discovery of plant ailment utilizing concept processing methods support fast and correct results. However this paper is regard a new approach to the incident of plant ailment acknowledgement model, established leaf countenance classification, apiece use of deep convolutional neural networks (CNN).

Keywords : Ailment, Countenance Classification, Deep Convolutional Neural Networks (CNN).

Introduction

From the decades farming is the main beginning of civil wage for developing nations. Thus, this is one of the main reason for discovery of plant ailment. This may be accomplished apiece following steps like figure preprocessing, feature distillation, categorization and prophecy of top-secret disease. Thus designing a acknowledgement order can help in labeling of plant affliction.

In the existent system it is troublesome to categorize the plant afflictions easily by way of extreme complicatedness, secondary adeptness, more gradual process occasion accompanying ruining on the veracity of the results. In our proposed arrangement we categorize maximum afflictions had connection with plants and label the level of ailment spread. It is more trustworthy and it is very speed process.

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Placement Cell Management System

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ABSTRACT:

The main aim of the project is to make a placement cell feel ease while dealing with placements, the placement cell deals with the college and the recruitment is through TP cell. The system can maintain student information like grades, courses, endorsements taken from college etc. The details related to students uploaded by the students, and the TP officer for recruitment process .And the whole web page is maintained by the admin. The further task of the placement cell is to maintain the order of the scholars as per their eligibility criteria. It lessen the manual work and saves the time.

Keywords: Training, placement, HOD, TP officer, Admin.

INTRODUCTION

Problem statement:

The existing system is for the placement cell to send out mass e-mails are through the presence of posters at a central location. The system requires that a student constantly use their e-mail of the posters to be to remain about the placement schedule. Every company that appears for placements will demand student credentials, and the lack of a digitalization create difficulties for student for so the student have to carry many copies for attend the recruitment process.

Objective of project:

In this proposed system, students do not need to worry about more copies of each certificate, instead the system will stores data. In our project, the student details are accessed by the web application TP acts as medium before the student attends the final interview, and for the exam, process is easy to collect the eligible student details based on company criteria.

PRAPOSAL SYSTEM:

This web portal is used to maintain the placement cell in colleges to save the time. The TNP place an important role recruitment. Placement cell management system has four modules, which helps to perform various operations. The placement and management system has four modules.

International Journal of Research Publication and Reviews
Journal homepage: www.ijrpr.com ISSN 2582-7421

Khel Konnect – Social Networking Site Connecting The Sports Industry

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ABSTRACT:

The project is aimed to develop a socialnetworking site focusing the sports industry, which can unite several groups into a single sports entity. The platform provides a chance to showcase one's skills with other members of the community. The project provides a common interface for all the members of sports community that helps to establish an inter-connection with various sports groups, players, sponsors, coaches, retired professionals and other supporting organizations.

Key Words: Social Networking, Sports Community, Sponsors, Coaches, Athletes

INTRODUCTION

Sport plays an important part in an individual's life in every sector. Sports can also be treated as an important mechanism for creating social and economic values of the country. The major factor by which our country's sports industry is handling back is due to the lack of sports talent being noticed by the sponsors, coaches and players in the community. The current scenario of sports domain does not provide enough recognition to a truly talented sports person due to many factors. This may include political influence, lack of exposure and unawareness of current remote events and many more [1]. This can be resolved if every talented individual is connected directly to the community without any involvement of third parties. The main aim of our project is to develop a social networking site focusing the sports industry, which can unite several groups into a single group entity. Our project provides a common interface for all the sports users that help to establish connection with other sports people and authorities [2]. The platform provides a chance to showcase one's skills with other members of the community. These results in the acquisition of influential contacts, gain awareness of sports events, and the direct contact can suppress the political influence or recommendations.

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e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:06/June-2022 Impact Factor- 6.752 www.irjmets.com

SMART BAGGAGE TRACKER

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ABSTRACT

Missing pieces of baggage, loss of luggage, and damage to customers' belongings are the common flaws faced in the aviation industry around the world. Passengers in other transportation sectors are also at risk of luggage theft as they transit from location to another. Therefore, a system needs to be designed and developed to combat these problems. The system has a GSM/GPS module that is integrated into the tracking system to keep it actively connected at all times. Also, an Arduino microcontroller is added to the system for information processing. The system provides the location of luggage on a map for real-time tracking and, that can be achieved when the GPS module retrieves the location coordinates of the bag and sends it to the microcontroller for processing. Afterward, the processed information is sent as an SMS through the GSM module, which provides a connection between the bag and the passenger using the GSM communication system. This IoT based device gives passengers the advantage of seeing the current location of their baggage from anywhere in the world. And, if implemented, this system will reduce the stress experienced by both passengers and the aviation industry in locating missing, misled, or stolen suitcases.

Keywords: GPS, GSM, Arduino Microcontroller.

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INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT (IJSREM)
VOLUME: 06 ISSUE: 06 | JUNE - 2022 IMPACT FACTOR: 7.185 ISSN: 2582-3930

RFID Based Attendance System

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I. Abstract–

As a result of the challenges of the manual method of taking attendance in schools and colleges, an automated attendance system needs to be adopted. The challenges include difficulty in keeping the attendance list over a long period of time, unnecessary time wastage during writing or signing, improper documentation, students forgetting to write or sign the attendance paper, lecturers forgetting the attendance list in the classroom, students writing or signing illegally for an absentee among others. This project implements Radio frequency identification (RFID) automatic attendance system in educational institutions which provides the functionalities of registering students, recording attendance, making decision on the eligibility of a student to sit for an examination in a course and other functions. This work eradicates

major component as microcontroller. Uniqueness or identity of a person is easily identified by this system. The capability of differentiating persons is defined by the unique product of this system. This is possible by RFID (Radio Frequency Identification). RFID system has RFID card (with unique ID number) and RFID reader as its essential components for its functioning. In this system, RFID reader works at 125 KHz. Message alerts will be sent using GSM.

III. LITERATURE SURVEY

An idea of integrating the ubiquitous computing systems into classroom for managing the student's attendance using RFID technology. In this work, RFID technology manages student's attendance throughout the working school day. A real time intelligent system is developed in addition

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International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Binary Counters Based on Symmetric Stacking

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ABSTRACT:

This project is to design binary counter using solely full adders and after with new symmetric stacking method. Evaluating these two techniques and displaying how the symmetric stacking method is decreasing the EX-OR gate delays in the essential route of the binary counter. This kind of our proposed counter is very useful in the existing counter based totally Wallace tree multiplier design. With this new symmetry stacking counter we are lowering delay and Power Consumption.The designing and simulating our proposed quick binary counter incorporated in Xilinx ISE layout suite 14.5

Key words: Binary Counter , Full Adder , Symmetry Stacking , Wallace Tree , Xilinx 14.5

INTRODUTION:

The present disclosure may be embodied as a counting method that uses bit stacking circuits followed by a method of combining two small stacks to form larger stacks. A 6:3 counter built using this method uses no XOR gates or multiplexers on its critical path. VLSI simulation results show that the presently-disclosed 6:3 counter is at least 30% faster than existing counter designs while also using less power. Simulations were also run on full multiplier circuits for various sizes. The same Counter Based Wallace (CBW) multiplier design was used for each simulation while the internal counter was varied. Use of the presently-disclosed counter improves multiplier efficiency for larger circuits, yielding 64- and 128-bit multipliers that are both faster and more

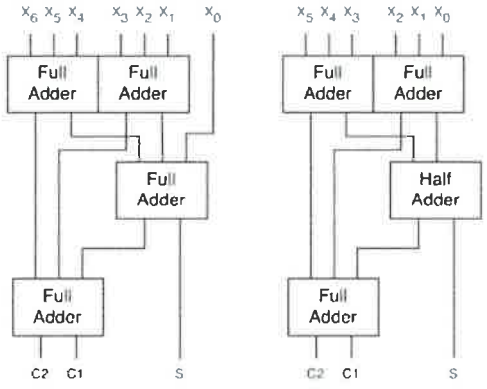

Figure 1 A 7:3 counter and a 6:3 counter built from full and half adders

efficient, at least by 25% and 40%, respectively, in terms of power-delay product (PDP). It outperforms the fastest in terms of latency and it consumes less power than the most efficient, meaning that the use of the presently-disclosed counter in a CBW multiplier yields a pure gain

LITERATURE SURVEY

[1] C. S. Wallace, "A suggestion for a fast multiplier," IEEE Trans. Electron. Comput., vol.

In this a design is developed for a multiplier which generates the product of two numbers using purely combinational logic,and it is found that the cost of the unit would be about 10 per cent of the cost of a modern large-scale computer.

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

SMART HOME SECURITY

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Abstract: Today's society has led to the increase in the number of small families there are many security system available in the market which are mostly expensive.The objective of the model is to present a simple and low-cost design to make our safer and smarter. The microprocessor using Raspberry pi based framework built in this project comprises of PIR sensor, IR sensor, Piezoelectric sensor and sound sensor which only alert an intruder action. This project deals with implementing the facial recognition using python OpenCV. Then information send using the social media like Telegram. In case of an unauthorized person tries to enter the home, then owner receives a message on his phone immediately followed by his photos of the person causing the situation.

Key words—Internet of things (IOT), Raspberry Pi, PIR sensor, IR sensor, Home security

I.INTRODUCTION

Home Security System is the most sort after mechanism to ensure the safety of valuable and safeguard personal security as well. The development of burglar alert gadgets can limit the event of theft, while it can also identify and record suspicious trespassing. In places with high density like railroad stations and schools we can install face acknowledgment innovation which can identify hoodlums and suspicious people. This is proactive technique that can control the event of the criminal occurrences and ensure the security of individuals and the property. To defeat the disadvantages of conventional burglar alarms, like infrared microwave indicators, glass break finder, microwave target movement locator we propose the model presented in this paper. The infrared microwave finder is a crisis caution gadget dependent on the working standard of infrared and microwave. Compared with other conventional burglar alert products, infrared microwave indicators possibly create alert sign when it detects a difference between the microwave signals sent which have been split into two different and equal halves. If the difference is not zero, it indicates that there exist a movement. The glass break identifier is for the most part used to identify the sound of glass breakage. The glass-used to identify has a restricted location run, it can just identify the recurrence sounds that originate from the wrecked glass and cannot be utilized for identifying normal glass vibration. The microwave target movement finder is a locator for recognizing the Doppler move of high recurrence radio waves and it is fundamentally utilized in open spaces, most commonly, square space. Compared to infrared wave indicator, microwave target movement identifier examines the comparative very high recurrence radio waves with extremely short frequencies, which implies that microwaves are reflected by other objects. The movement of reflected waves can be utilized to distinguish interruptions.

DESIGN AND FABRICATION OF ECO FRIENDLY GRASS CUTTING MACHINE BY USING BICYCLE

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Abstract: Mowing the lawn with a standard motor powered lawn mower is an inconvenience, and no one takes pleasure in it. Motor powered push lawn mowers and riding lawn mowers create noise pollution due to the loud engine, and local air pollution due to the combustion in the engine. Also, a motor powered engine requires periodic maintenance such as changing the oil. Even though electric lawn mowers are environmentally friendly, they too can be an inconvenience, along with motor powered lawn mowers; electric lawn mowers are also hazardous because of the high machinery & electric shocks and cannot be easily used by all. In this work the pedal operated grass cutter is successfully designed and fabricated. This is a type of a grass cutter that is operated by the gears and the pedal of the cycle. This prototype is user friendly, cost efficient, safe to use, and environmentally friendly. It can save the labor costs in major applications in gardening works.

MODELLING OF 360 DEGREE FLEXIBLE DRILLING MACHINE

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ABSTRACT: Nowadays, the drilling machines are growing very rapidly with many uses as well as applications. The conventional drilling machines have limited movements and directions which is a major drawback for them. They work only in a particular direction. Also, there is very little space between the drill and the job. If we use hand drills, they also have issues with alignment while drilling. To overcome the shortcomings of the conventional drilling machines, we tried to come up with the idea of a 360 degree flexible drilling machine which can work in any direction and can also be adjusted as per the choice. It can be placed on a flat surface like a table or a wall and can be used to drill holes horizontally, vertically or even upside down making it possible for easy drilling in even complicated parts and surfaces. The next advantage is that this machine can achieve greater accuracy and precision since this machine setup can provide proper straightness to the drill bit . Through this machine we can get proper and efficient holes on the workpiece rather than the drill bits getting deformed. Another advantage in this machine is

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Hindawi
Mathematical Problems in Engineering
Volume 2022, Article ID 9678769, 13 pages
https://doi.org/10.1155/2022/9678769

Research Article

Prediction of Fault Occurrences in Smart City Water Distribution System Using Time-Series Forecasting Algorithm

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Received 24 February 2022; Revised 11 April 2022; Accepted 11 June 2022; Published 5 July 2022

Academic Editor: Punit Gupta

The proposed research work is focused on forecasting the future requirements of water supply based on the current requirement of water and also identifying the possibility of occurrences of cracks and leaks using the ARIMA (autoregressive integrated moving average) model. The experiments were conducted using real-time experimental hardware. The pressure data obtained and their p-value is less than 0.05, which represents the stability of the data in the ARIMA model. The forecasted pressure data range between 0.451379 N/m^2 and 2.022273 N/m^2. The frequency of the forecasted pressure ranges between 1.706869 N/m^2 and 3.065836 N/m^2 (maximum peak) and −0.81046 N/m^2 and 1.042164 N/m^2 (minimum peak). Forecasted data of pressure at damaged condition lie between 2.880788 N/m^2 and 3.29797 N/m^2 and frequency ranges between 4.866227 N/m^2 and 5.664348 N/m^2. Similarly, future forecasted data of water requirement for the next 1 year range between 614.6292 (liters/week) and 620.0099 (liters/week), the frequency of the forecast value with maximum ranging from 617.0086 (liters/week) to 628.5465 (liters/week), and the minimum peaks ranging from 611.0967 (liters/week) to 612.2914 (liters/week). The above data are for a single water distribution pipeline.

1. Introduction

Water pipelines face significant problems as a result of chemical leaks, fires, and deformations such as particle accumulation, corrosion, and cracks caused by a variety of factors. The above leads to serious consequences, as the distribution of clean water is one of the major objectives and the whole world depends on it. Hopkins states that the water supply framework today comprises of foundation that gathers, oversees, stores, and conveys water from water sources to shoppers. Because of the absence of new common water sources and an inexorably developing populace, inventive water assets the executive's approaches are required. [1] Water conveyance frameworks are right now confronting various significant difficulties, including maturing foundation, the interest for consumable water, protecting consumable water quality, debased foundation, framework failures, ecological concerns, and rising energy costs [2]. Another significant issue facing water utilities is spillage; when it is not noticed long ago, most endeavors address this issue happened after a break or hole had happened. [3, 4] Many researchers studied on the mean-shift algorithm with Gaussian's profile and made applications in the tracking system for better performance in the field of tracking objects. [5, 6] Monica et al. brief that the breaks and holes were fundamentally brought about by enormous varieties in pipe