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**Authors:** Praveen Goudar, Veerbhadrappa A, S. G. Goudar  

**Paper Title:** Evaluation of Axially Loaded Piles in Sand  

**Abstract:** The load carrying capacity and settlement behavior of the axially loaded pile embedded in layered soils were studied. The piles are made up of cement mortar and timber is placed in sand medium of different thicknesses. The piles are tested in a testing tank for different layer density combinations of homogeneous, loose over dense, dense over loose, loose layer sand witched between two dense layers and vice-versa etc. The experimental results shows that the ultimate load carrying capacity of the pile is found to be maximum and minimum in homogeneous layered soil of higher and lower density respectively. The load carrying capacity of a cemented pile is greater than timber pile for all types of densities. The rate of settlement is much greater in timber pile with low density sand.  

**Keywords:** wooden pile, cemented pile, sand.  

**References:**  

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**Authors:** Ahmed Nafi Aziz  

**Paper Title:** Temperature and Conduction Heat Transfer Equations Development Using Three Dimensional Techniques  

**Abstract:** In this paper, new equations of temperature and the quantity of conduction heat transfer without and with heat generation for plan wall is presented. Temperature and Conduction heat transfer Equations are essential in application in all material, bodies or structure that has the same shape like the plan wall. For the plan wall without heat generation use wood material like plane wall shape where assumed that it has width, temperature value on the first side and on the second side, value of cross sectional area, value of thermal Conductivity. Therefore, one can determine the temperature at any point with different distance to study and analysis any parameter along the width of the wood material and the quantity of heat transfer from the first side to the second side in the wood material. For the plan wall with heat generation, the limestone material in plane wall shape assuming the width is present with the temperature value on the first and second side. Additionally, the value of cross sectional area, thermal conductivity and value of heat generation is considering. Results shows that the heat transfer Equations in the wood and limestone give better performance and accurate calculations compared with conventional equations.  

**Keywords:** Conduction heat transfer, thermal Conductivity, heat generation, heat transfer Equations.  

**References:**  
**Authors:** Srikrishna M. R, V. Ramesh, Raghavendra Y. B  
**Paper Title:** A Study on Concrete by Adding Chemical Admixture and Using M-Sand and by Partial Replacement of Cement by Fly Ash

**Abstract:** The utilization of Fly ash in concrete as partial replacement of cement is gaining immense importance today, mainly on account of the improvements in the long term durability of concrete combined with ecological benefits. Scarcity of good quality Natural river sand due to depletion of resources and restriction due to environmental consideration has made concrete manufacturers to look for suitable alternative Fine aggregate. One such alternative is “Manufactured Sand”. In this paper, an attempt has been made to find out the strength of cement concrete containing Fly ash as a puzzolanic material, Manufactured sand and Chemical admixture. Through standard parameters about 24% of cement is replaced by class F Fly ash, 100% replacement of Natural sand is done by Manufactured sand, SNF based Chemical admixture is added by 0.6% of cementitious materials and PCE by 0.5% of cementitious materials is added to the concrete to reduce the water content during the mix and to increase the strength parameters. Mix designs were made for M35 and M25 standard concrete mixes and their Strength parameters such as Compressive strength test, Flexural test and Test on cylinders were studied at 7, 28 and 56 days and Durability tests such as Acid test and Base test were studied at 56 days. Studies revealed that the cost whole Concrete mix will become economical than normal concrete mix. Comparing SNF and PCE, PCE in Concrete mix gave better results than SNF in almost every parameters.

**Keywords:** Fly Ash, Compressive strength, Modulus of Rupture, Durability, SNF, PCE

**References:**

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**Authors:** L. Amudha, T.M. Nithya  
**Paper Title:** A New Paradigm for Automatic Unveiling of Human Thoughts by Reading Brain Signals

**Abstract:** we now live in the age of deception. Existing techniques to detect deception uses polygraph methods to assess whether a suspect is guilt or not. These methods rely on measurement of autonomic arousal like palm sweating, facial expressions, words uttered, and answer to queries, actions and heart rate to get knowledge about any crime scene. No criminal would ever accept his crime. And a practiced user can conceal the emotions than they do when being truthful. There are over a billion neurons in the brain that communicate with each other using electrochemical signal. Since no person can hide his brain signals, a novel and easy method of detecting concealed information, brain fingerprinting using EEG (Electroencephalogram) is gaining wide attention among investigating agencies. The issues and applicability of brain fingerprinting is discussed in the following sections and a wide range of research scope is also proposed.

**Keywords:** Polygraph, Electroencephalography (EEG), Brain fingerprinting, P300-MERMER, ERP signals.

**References:**

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**Authors:** V. S. Nimbalkar  
**Paper Title:** Effects of Electromagnetic & Radio Frequency on Human Body
Abstract: This paper deliberates the effects of Electromagnetic in human beings and heat (energy) in a biological or non-biological system is frequency and also discussed on the exposure of microwaves from cellular networks. While it is not certain that RF radiation generally poses any risks to human health, some reasons exist for being concerned about human health effects from the cellular phones themselves. These concerns exist because the antennas of these phones deliver much of their RF energy to small portions of the user’s head. It describes the energy content, interaction of microwave with biological system, measurement techniques and safety standards. In the era of wireless communication, the exposure to electromagnetic radiations is increasing. Most of these radiations fall in the category of microwaves. In addition, domestic appliances and medical treatments also use microwaves for various purposes. Though the human body could compensate for and handle the extra energy load through the thermoregulatory mechanisms without obvious increase in temperature, stress could still.

Keywords: Radiofrequency, Electromagnetic, Frequency Spectrum, Bio Effects

References:


Authors: Sneha Khalate, Sumant Kulkarni

Paper Title: Finite Element Analysis of Cold Formed Steel Bolted Connection

Abstract: The aim of this paper is to present a simple and accurate three dimensional finite element Model (FE) capable of predicting the actual behavior of beam-to-column joints in steel frame subjected to static loads. The software package ANSYS is used to model the joint. The beam-column type connection is used for study. This is chosen for its complexity in the analysis and their inheritable non-linear behavior. Two experimental tests in the literature were chosen to verify the finite element model. The results of model in literature were compared with analytical model. Two modes of failure were identified from the tests; 1) Mode: Bearing failure in section web around the bolt hole. 2) Flexural failure of connected section. The structural behaviour of the connection including rotation relation, Load-deflection curve, the yield strength, and ultimate moment capacity of the connections were studied. The main parameters considered in this study were the thickness of flange & web, span and number of bolts.

Keywords: finite element Model, Cold formed, ANSYS, Connection, Bolted, Bearing failure, Flexural failure, moment – rotation relation, Load-deflection curve

References:

6. YanchengCai, Ben young “Structural behaviour of cold formed stainless steel bolted Connections”.
12. Lixin Li, K.S.(Siva) Sivakumar, “Beam – column behaviour of cold-formed steel lipped channel sections”.
15. K.M.Bajaria, R.S.Talikoti “Determination of flexibility of beam to column connectors used in thin walled cold formed steel pallet racking System”.
19. A.Pirmoz “Predicting of/moment rotation behaviour of Bolted Connection using neural Networks”.


27. ( doi: 10.7250/isconstrs.2014.18)

28. Jim Butterworth “Finite element Analysis of Structural Steel work beam to Column bolted Connections”.


32. IS: 801-1975 Indian standard code of practice for use of cold-formed light gauge steel structural members in general building construction.


34. IS 800: 2007 Indian Standard General Construction in Steel – Code of practice

Authors: D. J. Evanjeline, N. Kalpana, P. Raja Kumar

Paper Title: Security Enhancement of Wireless Protocol WPA (WI-FI Protected Access)

Abstract: A Wireless Local Area Network (WLAN) is a flexible data communication system implemented as an extension to or as an alternative for a wired Local Area Network (LAN). However, anyone can eavesdrop on information so that WLAN has the hidden security trouble such as leaking of electromagnetic wave or eavesdropping of data because WLAN adopts common electromagnetic wave as media to transmit data. Therefore, the security of WLAN is very important and outstanding. This paper discusses the security flaws in wireless security protocol WPA and to describe a solution to enhance the security WPA.

Keywords: WLAN, WEP, Initialization Vector, TKIP, AES, WPA, WPA2, MIC.

References:

Authors: Sahithi Govindaraju, Krishna Prasad Satamraju, Sathish Babu Kaapaarapu

Paper Title: MIRCHI – A Cogent Tool for Prosthesis and Human Robot Interaction

Abstract: To achieve highly dexterous manoeuvre with many degrees of freedom is of significant importance to perform normal hand-like movements. We present a powerful tool, Myoelectric Interface for Computer and Human Interaction (MIRCHI), which can be used in prosthesis, physiotherapy and Gaming technology. MIRCHI is useful for people undergoing upper limb prosthesis. Unlike most of the exiting prosthesis tools which are dynamic subject- or task-specific, the proposed system takes input from the muscle of the subject using surface electromyography sensors and generates corresponding movements with the aid of some predefined mapping functions. We have tested different movements from various subjects. Results show that the subject is able to make custom movements with lot of ease. The entire system is developed in Ubuntu 12.04 LTS and OpenGL is used for GUI.

Keywords: Degree-of-Freedom (DoF), Human Computer Interaction, OpenGL, Prosthesis, Ubuntu 12.04 LTS.
Abstract:

In the present world, Global Warming has been one of the biggest problems regarding environmental aspect and CO2 is held responsible for that. It is an inevitable necessity to mitigate the concentration of CO2 in the atmosphere. CO2 sequestration is one of the best methods to reduce its concentration by trapping it beneath the earth in different geological conditions. The unmined coal seams and thin bands of coal provide a potential storage for CO2 with suitable geological environment. These days it has become necessary to study the relationship between coal structure and flow of fluids inside. In this paper, an effort has been made to study the behaviour of fluids i.e. CO2 and methane inside of coal and the analysis has been carried out to study their velocity between coal structure and flow of fluids inside. In this paper, an effort has been made to study the behaviour of fluids i.e. CO2 with suitable geological environment. These days it has become necessary to study the relationship between coal structure and flow of fluids inside. In this paper, an effort has been made to study the behaviour of fluids i.e. CO2 and methane inside of coal and the analysis has been carried out to study their velocity between coal structure and flow of fluids inside.

Keywords:

CO2 sequestration, cleat structure, Darcy’s law, two-phase flow

References:

The modified Booth Encoder circuit generates half the partial products in parallel. By extending sign bit of the operands and generating an additional partial product the SUMBE multiplier is performed multiplication operation on signed numbers only. Therefore, this paper presents the design and implementation of SUMBE multiplier. The modified Booth Encoder circuit generates half the partial products in parallel. By extending sign bit of the operands and generating an additional partial product the SUMBE multiplier is obtained. The Carry Save Adder (CSA) tree and the final Carry Look ahead (CLA) adder used to speed up the multiplier operation. Since signed and unsigned multiplication operation is performed by the same multiplier unit the required hardware and the chip area reduces and this in turn reduces power dissipation and cost of a system. The proposed radix-2 modified Booth algorithm MAC with SPST gives a factor of 5 less delay and 7% less power consumption as compared to array MAC. The simulation results are obtained from MODELSIM and Physical design is done from encounter tool from cadence also area, power and timing reports are obtained from RTL Compiler from cadence.

Keywords: CLA, CSA, SUMBE, Booth Encoder

References:

Authors: Akhilesh Kumar Gupta, Pra bhat Kumar

Paper Title: Design and Analysis of Grid Connected Photovoltaic Application

Abstract: This paper provides the design details of 600W grid connected PV cell. Six PV cells are connected in parallel is considered as the source. The source voltage is then stepped up using a DC-DC boost converter. The boost converter is then provides the voltage to a single phase inverter, which provides the AC signal which can be injected to the grid

Keywords: PV cell, DC-DC boost converter, inverter

References:

Authors: Samer Chantaf, Amine Naït-Alli, Mahmoud Abbas, Mohamad Khalil

Paper Title: Biometric Authentication of Individual Using M-Wave Signals

Abstract: This paper suggests a new biometric method of human verification based on muscle response following an electrical stimulation is presented in this study. The corresponding response is called M-wave. The goal is to study the possibility of using the M-wave signals to verify an individual. In this work, parameters are extracted by modeling the M-waves using wavelet networks. The radial basis neural network method is then used to classify these parameters. This method has been evaluated on a set of M-wave responses corresponding to normal individuals. Consequently, very encouraging results have been obtained.

Keywords: M-wave; biometrics; wavelet networks; neural network; classification

References:
Authors: Shraddha J. Patil, R. S. Talikoti
Paper Title: Effect of Wind Load on High Rise Structure

Abstract: The global urban population is expected to grow approximately 1.84% per year between 2015 and 2020. So to accommodate this large number of world’s population in the urban area there is not enough space available on the horizontal ground. So the Analysis and design of high-rise buildings for lateral load such as wind load and earthquake are the major issues which are playing significant role in recent decades in the designing of new high rise buildings. In this research we study about how wind load analysis plays an important role in designing and analysis of this high rise buildings. Analysis carried out on G+19 structure to study its behaviour in wind load. All dynamic parameter such as storey shear, storey drift, torsion in column, change in reinforcement of column, displacement of mass C.G., change in bending moment, shear force and axial force in column and change in stresses of beam are analyzed and summaries its governing condition

Keywords: Necessity of high rise structure, Wind effect on high rise, Governing parameter during wind load

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<td>Effect of wind on structure by By Sukanta Adhikari, Prentice-hall Of India, 2005</td>
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