

Paper-1

Modelling the Melting of Glaciers Due to Global Warming: An Overview

Devendra Mohan¹, Abhishek Kumar² and Shiva Shankar Y³

¹ Indian Institute of Technology, Banaras Hindu University, Varanasi, U.P, India.

² Environment Division, CMPDIL Headquarters, Ranchi Jharkhand

³ Jaypee University of Engineering & Technology, Guna, Madhya Pradesh

E-mail: devendra.civ@itbhu.ac.in

Article History : Received 3rd August 2015 Revised 15th September 2015 Accepted 28th September 2015

Abstract: Global warming has affected adversely the climate of the planet Earth. One of the major impacts of global warming is high rate of glacier-melting. Melting of glaciers produce valuable freshwater resources, controlling components like agricultural output, water supply for drinking, hydropower generation; which directly or indirectly affects the well being of living organisms. Hence, adaptation of various modelling approaches serves as the base for monitoring the variations in the glaciers. The present work discusses about temperature-index and energy-balance modelling approaches, commonly used for estimation of the glacier-melting for prediction with their limitations. The paper through various approaches focuses majorly about the factors that affect glacier melt and uncertainties in model development that leads to variation in projected deglaciation rates.

Paper-2

Response Reduction Factor of Two Storey Masonry Building using Pushover Analysis

Amit Sharma¹, Amit Melani², Rakesh Khare³ and D. M. Patil⁴

^{1,2,3 & 4} SGSITS, Indore, India

E-mail : sgsitsamit25@gmail.com

Article History : Received: 5th August 2015 Revised: 17th September 2015 Accepted: 20th November 2015

Abstract: Response reduction factor of masonry building is calculated in present work using pushover analysis. FEMA 356-2000 procedure is applied in non-linear analysis using SAP-2000 software. The building considered for the analysis is designed for zone V (Bhuj) as per IS 1893-2002. Seismic hazard levels in zone V for site situated in Bhuj is estimated using USGS maps and compared with zone factors as suggested by IS 1893-2002. Response reduction factor is calculated on the basis of over strength and ductility of unreinforced masonry (URM) wall and also with bond beams at different levels. It is concluded that the wall designed using R-factor as 1.5 exhibits an enormous increase in response reduction with bond beams. At the end, paper emphasizes the urgent need of experimental investigation of response reduction (R) factor and reconsideration of zone (Z) factor as per seismicity of different zones.

Flyash –A Waste Material That May Turn to be an Asset

Anjani Kumar Mishra¹ and Brajesh Kumar Prasad²

¹ Govt. Polytechnic, Muzaffarpur

² M.I.T., Muzaffarpur

E-mail: bit.mishra@gmail.com

Article History: Received: 8th September 2015 Revised: 17th October 2015 Accepted: 12th November 2015

Abstract: Flyash holds Characteristics to be a resource material if understood and utilised with objectives of applying it's strengths. Commercial use of flyash employing optimum technologies proves Flyash an economical Material. Research work, published literatures and experiences of a number of Institutes have amply demonstrated it. This has been further strengthened by the findings of the on-going Technology Demonstration Projects commissioned under Flyash Mission of Government of India. Large amount of flyash produced as a by-product of thermal industries is thrown as a waste material facing environmental and disposal problem. In present days, investigations have revealed that at least 10% of flyash may be used as a replacement of cement. Flyash has many useful applications like production of flyash bricks which are good substitute for traditional bricks.

Concrete Mix Design as per IS 10262:2009 for Standard and High Strength Mixes using Artificial Neural Networks

Ashita Singh¹, S.S. Kushwah¹, K.K. Pathak² and Geeta Batham¹

¹UIT RGPV, Bhopal, (M.P.), India

²NITTTR, Bhopal, (M.P.), India

E-mail: ashitasingh2013@gmail.com

Article History : Received: 3rd October 2015 Revised: 27th November 2015 Accepted: 15th December 2015

Abstract: Mix design is one of the important processes of making concrete, to achieve concrete of desired workability, durability, strength, etc. Mostly mix design is carried out using IS 10262:2009 to calculate the material's quantity, which is very, time consuming process. In order to reduce time for mix design calculation and make variety of mixes, two mix design software packages have been developed first for standard and second for high strength concrete. In this study, exposure condition, water absorption and free (surface) moisture of coarse and fine aggregates have been accounted. Using these software package three types of mixes have been designed having 243 cases in each package, i.e., M25 (named MIX25) without admixture, M40 (named MIX40-WR) using water reducing admixture, M40 (named MIX40-SP) using super plasticizer to generate design data of total 729 cases. These design data have been used for training three neural networks using package named PANN to further predict the mix design for new conditions. The trained networks are validated for nine cases in each category, i.e., in total twenty seven cases have been predicted and validated. It can be observed that neural network offers a powerful tool for concrete mix design especially for those design engineers who are not expert in IS codes based mix design.

Women's perception for Environment Friendly Products: An Empirical exploration with Special Reference to Ujjain and Indore

Payal Sharma

Mahakal Group of Institutes (MGI), Ujjain - M.P.

E-mail: payalsharma.ind@gmail.com

Article History: Received: 10th November 2015 Revised: 5th December 2015 Accepted: 20th December 2015

Abstract: *The tremendous change in the environmental condition, Global warming - the blame is on developed and developing countries that are in the competition of development and industrialization. The present world pleads for a green world for a sustained and healthy environment. The thrust to maintain a green world has now come upon the companies. The increasing number of consumers who prefer and are willing to buy green products are creating opportunity for businesses that are using "eco-friendly" or "environmentally friendly" as a element of their value proposition.*

As per Census 2011, the population of India is 1210.19 million comprising 586.47 million (48.5%) females and 623.72 million (51.5%) males. Females have a share of 48.1% in the urban population and of 48.6% in the rural population. It means nearly 50% consumers are Women's in India, so it is essential to understand their perception towards green products for sustainable future.

The present research paper assesses women's perception towards eco-friendly products. This paper also compares the awareness level of working versus house wife women's. The outcome of the study is showing the women consumer level of awareness and their perceptions for the green products on the occupation basis which is working and non working (house wife) as an independent variable. There is no significant difference in the perception of both the groups and both are unaware with the term green products. As a part of buying decision it is necessary to increase the awareness level of women's for sustainable future.

Reception Characteristics for Multicarrier Operations on C#6 Transponder of Insat 3A Satellite

Navneet Kaur¹ and Poonam Sinha²

¹India's Public Service Broadcaster, Bhopal, India

²Barkatullah University, Bhopal, India

E-mail: nkaur67@gmail.com

Article History: Received: 8th September 2015 Revised: 20th October 2015 Accepted: 20th November 2015

Abstract: *Ideally high power amplifiers used on-board the satellite and at the ground station are desired with highly linear transfer characteristics. The desired criterion is that the output from the amplifier would be a faithful reproduction of the input for the complete frequency range of operation and also for the designed power levels. Actual amplifiers show evidence of nonlinear operation which leads to intermodulation distortions and spectrum regret. The consequence of the nonlinear effect is more critical with multiple carriers being uplinked on the same transponder. It results in a poor link margin with more power to be assigned per bit to achieve the same link margin in comparison to single carrier being uplinked. This article explores the signal reception for the C-band transponder C#6 of the Indian satellite Insat-3A for multicarrier operations.*

Paper-7

RECENT MANDATORY INITIATIVES IN INDIAN CSR

Nishith Dubey¹ Sanjay Mishra¹ C.M.Sadiwala² and Santosh Kumar Chaturvedi³

¹NITTTR Bhopal

²RKDF University, Bhopal

³Protech Bio systems Pvt. Ltd. Gurgaon

E-mail: nishitdubey@nitttrbpl.ac.in

Article History: Received: 6th November 2015 Revised: 30th November 2015 Accepted: 22th December 2015

Abstract: Corporate social responsibility is a vastly misunderstood & misinterpreted term in India. Some Indian companies consider that just complying with law & regulations, fulfils their need for social responsibility. A liable corporate, recognizes that their performance have a wider impact on the society in which they operates. Business activities have a strong relation with economy, society and environment, and its impact has directly on business conduct. Today it is extremely challenging for any business to stay competitive in India for the long term, although India is a favourable business destination due to diversity in Indian religion & culture. As poor people have contribution in the growth of economy, India can achieve the title of super economy with the contribution of poor people. Here comes the significant role of corporate, because corporate social responsibility is a slot of corporate behaviour and governance that needs to get aggressively addressed & implemented sensitively in the organizations. Corporate Social Responsibility can be one of the effective tools to identify the effort of corporate and the social sector agencies towards sustainable development & growth of the societal objectives at large. As this paper is to look over mandatory initiative has taken recently, for governing corporate social responsibility in Indian, paper would be helpful for fellow wants to gain familiarity about recent alteration in Indian Corporate Social Responsibility.

Paper-8

Reducing Setup Time Through Kobetsu Kaizen Methodology : A Case Study

Yash Dave¹ and Nagendra Sohani²

¹Dhar Polytechnic College Dhar M.P

²IET Devi Ahilya University Indore M.P

E-mail: yashmegha@yahoo.co.in

Article History: Received: 6th July 2015 Revised: 13th September 2015 Accepted: 15th November 2015

Abstract: Nowadays company facing stiff competition worldwide. To compensate this companies are trying to achieve the excellence in every area to have edge on the others. With the same objective in this paper we have performed a case study in a gear company to reduce the setup time on shaving machine through the Kobetsu Kaizen approach. Kobetsu kaizen methodology has been used to reduce the set up time. By doing the whole exercise we have found that by using KK methodology, not only we are able to reduce the set up time but also developed few important learning's for horizontal deployment in others cell also. In short we have successfully applied KK methodology for setup time reduction on shaving machine from 92.45 minutes to 43 minutes after first iteration itself. The paper deals with setup time reduction on a shaving machine in a gear industry with Kobetsu Kaizen approach.

Paper-9

Use of Cement Mortar Dust and Fly Ash in the Bituminous Concrete Mix

Shubham Chaudhary¹ and Subrat Roy²

National Institute of Technical Teachers' Training and Research, Bhopal M.P. India.

E-mail: choudhary046@gmail.com

Article History: Received: 5th October 2015 Revised: 16th November 2015 Accepted: 10th December 2015

Abstract: In the present dissertation work, a feasibility study has been carried out to utilize fly ash and cement mortar dust in the bituminous concrete road construction. In this project work, these waste materials are used as fillers in the bituminous concrete mix. Marshall test samples were prepared using these waste materials and stability and flow values were calculated using Marshall test method. Results were compared with the samples prepared with traditional stone dust as a filler material. Various mix parameters like VMA, VA and VFB were also evaluated for these tests samples and results are presented.

Paper-10

Synthesis and Biological Activity of Chloro and Bromo Phenyl Hydantoin Derivatives

Bhadreshkumar R. Sudani¹ and Vikas A. Desai²

¹Government Engineering College, Tithal Road, Valsad

²B. K. M. Science College, Tithal Road, Valsad

E-mail: brsudani@yahoo.com

Article History: Received: 7th August 2015 Revised: 19th September 2015 Accepted: 12th October 2015

Abstract: Two hydantoin derivatives were synthesized from aromatic halides by the available Bucherer-Berg method at lower temperature. Each of these compounds was coupled with five different piperazine compounds via chloroacetylation and condensation reaction. The purified ten compounds were then characterized by spectral methods and physical parameters. They also evaluated for their bioactivity. The results showed that the compounds were synthesized with good yield and in less time moreover it they also found with moderate bioactivity in some compounds.

Paper-11

Influence of Absolute-Magnitude on Galactic Dynamics

S. Tembhre¹, N. Thakre² and M. Thakre³

¹Govt. Education Collage, Jabalpur

²MIT, Ujjain M.P.

E-mail: drstembhre@gmail.com

Article History: Received: 6th January 2015 Revised: 27th February 2015 Accepted: 22th March 2015

Abstract: In present paper, influence of absolute-magnitude on rotation dynamics of galaxies is being investigated. Methodology of the work is entirely influenced by Roscoe (1999c). Work is motivated by the observational conclusions which were drawn during the 1970s and 80s. The equation of motion for a test particle in disc region of spiral galaxies is estimated. A statistical method "linear regression" and simplest possible structure of "power law" are applied with profundity. 349 (45 radio and 304 optical) rotation curves are taken from a database of northern sky spiral galaxies provided by Courteau (1997). Study begins by showing how the distribution of galaxies depends on absolute-magnitude. It provides good description of the generic behaviour of rotation curves in the disc-region.

Comparative Study of Workflow Authorization Models and their Security Concerns

Manish Agrawal¹ and Pratosh Bansal²

Institute of Engineering and Technology, Devi Ahilya University, Indore, India

E-mail: manish.agrawal1043@gmail.com

Article History: Received: 3rd October 2015 Revised: 27th November 2015 Accepted: 15th December 2015

Abstract: *An effort has been made to do a comparative study of five different workflow authorization models. A workflow is a series of systematic activities that are necessary to complete a specific task, it is the automation of a business process in which information or tasks are passed from one subject to another for various activities according to a set of rules. So generally organizations achieve this by executing the coordinated activities (tasks) that constitute the business process (workflow) through workflow management system, the system which is based on the workflow authorization model. Workflow authorization models today are used in various application domains like banking, healthcare, telecommunications, manufacturing and production etc. to run their everyday applications. The comparison of these models is based on different parameters like the core concept of these models, what are the entities involved, what is their system architecture, how they are implemented and how the authorization and security features are achieved. Limitations in these models have also been discussed.*