

## **Maximum Power Point Tracking Based -Voltaic Powered 11-Level Cascade Multilevel Inverter**

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**Abstract:** This paper presents a 11 level cascade multilevel inverter which implements the popularly used MPPT algorithms Perturb and Observe and Incremental Conductance on the PV array which powers the multilevel inverter. The modeling of the PV array is performed in MATLAB/SIMULINK. The optimal level of cascade multilevel inverter is found using Newton Rapson method. ANFIS based controller switching scheme is used to improve the power quality thus to reduce the Total Harmonic Distortion (THD). The performances are evaluated by means of MATLAB/SIMULINK simulations by implementing Perturb and Observe and Incremental Conductance MPPT algorithm on the PV array and the results in terms of THD are compared.

Paper-2

## **Identification of Bearing Stiffness Coefficients using Model Updating**

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**Abstract:** This work shows an application of Inverse Eigen Sensitivity Method (IESM) for identification of stiffness coefficients of rolling element bearings supporting a rotor system. Rolling element bearings not only take the radial load of the rotor but also support the rotor for any turning moments coming on the bearings due to the loads. In this way, the bearings provide stiffness not only along radial direction (termed as redial stiffness) but also along angular direction (termed as angular or tilt stiffness). An attempt is made to update bearing radial stiffness coefficients as well as tilt stiffness coefficients simultaneously. The updating procedure of IESM is described and then a numerical study is undertaken to show the suitability of the method to update the stiffness coefficients of the bearings.

Paper-3

## **Planning & Scheduling of a Construction Project Using Primavera Software**

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**Abstract:** Project scheduling and controlling is the process of collecting, recording, and reporting information concerning project performance. Project data is used in planning and scheduling the project and regular monitoring helps to bring actual performance of activities to planned performance. Project planning and scheduling is essential for project management. For successful completion of any project, effective control of time, money and resources is necessary. The schedule programme has to be setup at the initial stage of the project that directs the way of successful completion of the project. Planning is also essential when it comes to dealing with construction risks and issues. Project management includes all the stages of the process, starting from inception to all the way to design, tendering, construction and commissioning stages of a project. The present study deals with the project monitoring process of "Construction of Boys Hostel at Rashtriya Sanskrit Sansthan, Bhopal", a four storied (G+3) building whose construction is in progress at Bhopal, Madhya Pradesh. A comparison between the planned progress of construction work and actual progress is performed using project management software Primavera P6. The result will provide effective way to complete the project in specified time, cost and achieve predetermined quality of the structure.

#### Paper-4

## The Effect of Perceived Usefulness, Security and Privacy on The Usage of Internet Banking

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**Abstract:** The advent of Internet has revolutionized the way banking is done. Today the Banking Business is one of the demanding Businesses, and the Information Technology plays a noteworthy role in the way the banking business is done. The progress in electronic banking technology has shaped new ways of managing daily banking affairs, especially via the online banking channel. There has been a quick acceptance of online banking in several parts of the world. Internet banking is defined as carrying out of banking transactions through the Internet. This paper discusses the factors that are contributing towards the effectiveness of the usage of Internet Banking.

#### Paper-5

## A Study on the Effectiveness of the Present Mechanical Engineering Curricula with Specific Reference to Design Competencies

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**Abstract:** In this paper the prime focus is on the level of effectiveness of the present mechanical engineering four year curricula with respect to the nine significant identified variables. The importance of the effectiveness measurement of the curricula is brought out through system model. Stratified random sampling technique is followed for this study. The samples of the faculty members from mechanical engineering departments and students those who are studying under graduate mechanical degree programme are taken from one National Institute, one State Technical University, five Private Technical Universities, also representatives of employers, senior executives and Alumni. Those who have completed under graduate mechanical degree programme and presently working with mechanical industries were taken from the various industries. Questionnaire was developed and administered on the sample and data were collected and analyzed statistically using percentage as the technique and major findings are presented. The most important finding is to strengthen the practical component as compared to theory and project work in the area mechanical design.

#### Paper-6

## Employment and Employability - A Case Study in Darjeeling District of West Bengal

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**Abstract-** The adverse macroeconomic processes included increasing inequalities of income; deceleration of employment generation; a relative decline of manufacturing, especially in the small scale sector, and the stagnation or decline of manufacturing employment; and deterioration in the quality of employment. Employment generation has got to be a critical focus of future policy. Improvements in this area will require diversification away from those sectors which are exhibiting low employment elasticity, or changing the pattern of growth. We therefore need to find opportunities in this period of transitions, transition from traditional skill to knowledge and training based occupations. Hence a study was planned to assess the need and requirement of trained workers in the Darjeeling district of West Bengal specially to address the problem of employment, once employability is taken care of through Vocational Education and Training.

## Paper-7

# Co-Axial Circular Sector Elements for Temperature Distribution in Limbs

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**Abstract:** Here an attempt has been made to employ variational finite element approach to study the temperature distribution in a normal cross-section of human limbs. This peripheral region assumed to be annular in geometry and further has been divided into sixteen elements with two of its sides curved. The biological parameters like thermal conductivity, blood mass flow and metabolic heat generation are taken constant but different in each sub region. The nodal temperature has been obtained for different values of atmospheric temperatures.

## Paper-8

# Demographic and Health Status of Scheduled Tribes in Visakhapatnam District of Andhra Pradesh

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**Abstract:** The tribal areas constitute a very significant portion of backward areas of the country presenting a complex situation for both planners and administrators. The tribal communities predominately live in hilly and forest regions, which are comparatively inaccessible and isolated. This paper analysed the demographic and health status of scheduled tribes in the study area. In the study area the sex ratio is 989 and more than 60 per cent of the women got married before they attained fifteen years of age. On an average, more than 70 per cent of women have their first conception in the age group of 15-20 years. More than 60 per cent of the sample households are aware of AIDS. In every 100 females in the study area 28 are affected with diseases. Most of the scheduled tribes do not agree for modern medicine, and they are reluctant to accept it. Most of the sample households are approaching the private unqualified doctors when they are sick. So, the government should educate the tribals about the importance of the modern medicine.

## Paper-9

# FDI in Indian Retail Sector

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**Abstract:** Indian retail industry is one of the sunrise sectors with huge growth potential. According to the Investment Commission of India, the retail sector is expected to grow almost three times its current levels to \$660 billion by 2015. However, in spite of the recent developments in retailing and its immense contribution to the economy, retailing continues to be the least evolved industries and the growth of organised retailing in India has been much slower as compared to rest of the world.

Undoubtedly, this dismal situation of the retail sector, despite the on-going wave of incessant liberalization and globalization stems from the absence of an FDI encouraging policy in the Indian retail sector. In this context, the present paper attempts to analyses the strategic issues concerning the influx of foreign direct investment in the Indian retail industry. Moreover, with the latest move of the government to allow FDI in the multiband retailing sector, the paper analyses the effects of these changes on farmers and agri-food sector. The findings of the study point out that FDI in retail would undoubtedly enable India Inc. to integrate its economy with that of the global economy. Thus, as a matter of fact FDI in the buzzing Indian retail sector should not just be freely allowed but should be significantly encouraged. The paper ends with a review of policy options that can be adopted by Competition Commission of India.

## Paper-10

# The Efficiency and Price Discovery of Indian Commodity Future Market (A Study on Turmeric Trade in Multi-Commodity Exchange of India Ltd.)

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**Abstract:** This article examines the price discovery process and casual relationship between Indian spot-future Turmeric market through Johnson's co-integration test and vector error correction model (VECM). The daily closing prices of commodity spot and future data is obtained from MCX and the sample period for the study is taken from 23<sup>rd</sup> December 2004 to 31<sup>st</sup> March 2010. The results from unit root test indicate that Turmeric spot- future prices are not stationary at their levels. But they are stationary at their first difference. The co-integration test results reveal that there is a long run relationship between spot and future prices. Hence, a vector error correction model (VECM) can be employed to investigate the short-run dynamics and price movements in the two markets. The Johansen's vector error correction model (VECM) results found that the future market leads the spot market and future prices tend to discover new information more rapidly than spot prices. Also, the information and co-integrating relationship between spot and future prices can be used to generate more accurate forecast of the prices. In conclusion, future market is informationally more efficient than the underlying spot market.

## Paper-11

# Global Positioning System and its application

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**Abstract:** Around the world millions of people use the global positioning system or GPS. It is one of the most fast growing technology used in our daily life as well as in the field of , research, education, industry and communication .GPS system provides three dimensional Position and timing information accurately anywhere on or near the earth free of cost in any weather condition. Initially this technique was developed for military applications but during 1980, it is available for the civilian use as well. GPS is used everywhere except in locations where it is difficult to detect the signal for example, underwater, subterranean location, inside the building and caves. Google Earth is a one of the most using GPS system for mapping.

## Paper-12

# Marketing Mix for Services and Service Marketing Triangle in Hospitality Industry

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**Abstract:** Nowadays, the service dynamic environment is considered as a main point in effective marketing. Although, conducting efficient operation is not sufficient for success. It's essential to design service products based on customers' needs, pricing programmatically, distributing in the suitable ways and introducing to customers actively. But the rate of customer participation and also the time are important in service delivery. So, for considering these two factors, other factors in marketing decision of management in the service organization are important that are called "service marketing mix" or 7p. In fact correlation and adhesion of these seven factors are mentioned as a significant and effective element to succeed in each competitive service occupation. Apart from it Service Marketing triangle shows three interlinked groups (customer, provider and the company) that work together to develop, promote and deliver service to the satisfaction of the customer. If we talk about importance of service marketing in the hospitality industry so we come to know that break at any point whether it is in service marketing mix or triangle can vanish relationship of service organization with the existing and potential customers.

Paper-13

## **Environmental Awareness towards Environment Related Issues amongst Teacher- A Study**

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**Abstract:** Public education and awareness are the key factors in any attempt to maintain a proper balance and ensure sustainable development and teachers' role is supposed to be of the leading one in this context. Environment is assuming great importance in our daily life. After the scientific and industrial revolution in the recent past, there had been immense impact of man on his environment. Man has failed to realize that any new factors upset the balance of ecosystem as a whole. Huge industrial installation every year, increasing Industrialization, cutting of plants, ignorance of people are the responsible for polluting of environment. The environment damage already inflicted cannot be reversed unless there is collective thinking, will and effort. Effective implementation of environmental management and conservation programmes depends on education, awareness raising and training in the relevant areas. Teachers are the source of enlightening students' future, they are the one who make students aware of their surroundings and therefore teacher's environmental awareness is one of the most important indicators for displaying national civilization.

The present paper reflects the "environmental awareness towards environment related issues amongst teacher" a study. The main objective was to evaluate the Environmental awareness towards environment related issues amongst teacher followed in M.P board and C.B.S.E board schools. Random sampling technique was used for collecting the data including 60 Teachers (50 from M.P Board and 50 from C.B.S.E Board Schools) t- test and 'F' test, had been used for analysis of data.

Paper-14

## **Study of Municipal Solid Waste for Durg City to Develop Modified Strategy**

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**Abstract:** Solid waste is a consequence of our daily life. If it is not managed properly, it gets dumped. In our country management of municipal solid waste is not taken seriously, it is included as the last & least priority in municipal environment system.

Though Durg had an effective literacy rate (87.94 %) there is still lack of awareness of solid waste management activities. At present moderate system have been adopted for collection, transportation & disposal of waste. No any facilities of environmental measures have been observed at land fill still date. It is today's need to assess, develop & adopt efficient SWM to overcome solid waste crises. An attempt has been made to assess, and analyse the present system to improve the present practice and develop optimal MSW strategy.











