

**JOURNAL OF ENGINEERING, SCIENCE AND MANAGEMENT
EDUCATION**

ISSN: 0976-0121

Abstract of Research Papers Volume-7 Issue: IV (October - December 2014)

Paper-1

Revolutionizing Classroom with 3D Printing

Anurag Seetha

Dr. C.V.Raman University, Kargi Road, Kota, Bilaspur (CG), India

E- mail: anuragseetha@gmail.com

***Abstract:** 3D printing is an exciting technology whose origins began with the invention of the inkjet printer. Advances in the inkjet model allowed printers to switch from ink to materials. This technology has become more main stream in the past few years as the cost of 3D printers has become more affordable and the rise of online printing services. Current printers can print 3D objects in plastics, steel, silver, gold, ceramics, as well as other materials. Objects that have been successfully printed include- jewelry, prosthetics, footwear, blood vessels, props, capacitors, registers, PCBs, medicinal tablets, food, robotic planes and automotive parts etc. With applications in art, design, engineering, manufacturing, and medicine, 3D printing will be a relevant subject for many years to come. This fascinating emerging technology is finding its way into colleges, universities, and high schools and bringing powerful possibilities to teaching various disciplines.*

Paper-2

Common Fixed Point Theorems in Fuzzy-2 And Fuzzy-3 Metric Spaces

Jitendera Airan^{*1} and GeetaModi²

¹Department of Humanities, Govt. Women's Polytechnic College, Bhopal, M.P.

²Department of Mathematics, Govt. Motilal Vigyan Mahavidyalaya, Bhopal, M.P.

*Corresponding Author: jitenderairan@gmail.com

***Abstract:** The evolution of Fuzzy Mathematics commenced with the introduction of notion of Fuzzy Sets in 1965 by Lotfi A. Zadeh, when he published his first paper on his new theory of "Fuzzy Sets and Systems". It proved a turning point in the development of Mathematics. After the existence of Fuzzy Set Theory mathematician applied it in different branches of Mathematics. Metric space is one of them. In 1975 Kramosil and Michalek, J. applied the concept of Fuzzy Set Theory introduced by Lotfi Zadeh to the classical notions of metric spaces and defined Fuzzy Metric Space, which opened an avenue for further development of analysis in such spaces. In 1994 George, A. and Veeramani modified the concept of Fuzzy Metric Space introduced by Kramosil and Michalek with the help of continuous t-norm and defined a Hausdorff topology on Fuzzy Metric Space and proved that every metric induces a fuzzy metric. The concept of 2-metric space was introduced by S. Gailer in 1963. Using this concept mathematician applied it in Fuzzy Metric Spaces and defined Fuzzy-2 Metric Space. They also extended the continuous t-norm and concept of Fuzzy-2 Metric Space and defined Fuzzy-3 Metric Space. We are proving common fixed point theorems for Fuzzy-2 and Fuzzy-3 Metric Spaces.*

Paper-3

Interface for Man Machine Communication

Anuradha Jaiprakash Bhatt^{1*} and M.V. Sarode²

¹G.I.P.T, Mumbai, India

²JCET, Yavatmal

*Corresponding author: anuradha2jb@gmail.com

Abstract: A gesture interpretation is a way for mainframe to be acquainted with human corpse communication, thus building a richer bridge between machines and human than primitive text user interfaces or even graphic user interface, which still limit the majority of input to keyboard and mouse. A real time vision-based vocalizations and hand gestures identification using dynamic time wrapping algorithm enhance perceptiveness of the different human communication modalities and their potential role in Human Machine Interpretation. A context based machine intelligence germane for an expert to have computer assisted surgery, handicapped persons to control their wheelchair, mining etc. It has also turned out to be increasingly evident, that the difficulties encountered in the analysis and interpretation of individual sensing modalities are overcome by integrating them into a multimodal human computer interface. An interface is requisite for interpreting vocalizations and gesture sensing modalities in the context with human computer communication.

Paper-4

A Research Study in Using “Portfolio Supported Learning & Self Assessment” As a Method in Students’ Project Work, for Preparing Them for Self Directed Learning: Findings, Discussions and Implications

S.K. Ghaiye¹ and S.K. Gupta^{*2}

¹Kalaniketani Polytechnic College, Jabalpur (M.P.), India

²National Institute for Technical Teachers Training and research, Bhopal (M.P.), India

*Corresponding author: skgupta@nitttrbpl.ac.in

Abstract: Need for lifelong learning is gaining importance among professionals. Lifelong learning is a constructivist learning phenomenon. Self directed learning and lifelong learning are similar concepts. Inculcating self directed learning abilities in professional students can prepare them for lifelong professional learning. Reflection and self assessment plays key role in self directed learning. Learning and practice of reflection and self assessment in a self directed learning endeavor can be a strategy to prepare the students for lifelong learning. Accordingly, preparation of learning portfolios during final semester students’ project work can be a method to prepare professional students for lifelong learning. Authors have conducted a qualitative research with final year students of Indian polytechnics using “Portfolio supported learning & self assessment” as a method in final semester students’ project work, for enhancing readiness for self directed learning. Present paper presents the findings, discussions and implications of this research. The paper also discusses the feasibility of the method in traditional professional education environment.

Paper-5

Tale of Fdi in Mutlibrand Retailing in Indian Context

Kratika Shrivastava*, P.N. Mishra and Kapil Sharma

Institute of Management Studies Devi Ahilya Vishwavidyalya, Indore (M.P.),

*Corresponding author: kratikashrivastava@yahoo.co.in

Abstract: Retailing in India is one of the important segments of its economy which accounts for 14 to 15 percent of its GDP. The Indian retail market is estimated to be US\$ 450 billion and one of the top five retail markets in the world by economic value. India is one of the fastest growing retail markets in the world, with 1.2 billion people. FDI is investment in a foreign country through the acquisition of a local company or the establishment there of an operation on a new (Greenfield) site. FDI in Multi Brand retail implies that a retail store with a foreign investment can sell multiple brands under one roof. On December 7, 2012 the Federal Government of India allowed 51% FDI in multi-brand retail in India. The Federal Government of India managed to get the approval of multi-brand retail in the parliament despite heavy uproar from the opposition. Some states will allow foreign supermarkets like Walmart, Tesco and Carrefour to open while other states will not.

FDI in India have always been a controversial issue in eyes of politics, industry and consumer. There have been many arguments, appreciations and oppositions after central government has given its approval to allow FDI in Multi-brand retailing. In all these controversies the many people have confusion regarding the real concept of FDI and its effects. This paper is an attempt to give valuable insights about the series of development to allow FDI in Multi-brand retailing in India emphasizing its effects over economy and people at large.

Paper-6

Irrigation & Water Use Efficiency by Interactive Irrigation Information System (IIS) using Visual Basic

Pratap Singh Solanki¹, R.N. Sankhua² and B.Vijaya Kumar³

^{1,3}CWPRS,Pun

²National Water Academy, Pune

*Corresponding Author: solanki_ps@cwprs.gov.in

Abstract: The growing water scarcity and the misuse of available water resources are major threats to sustainable development of agriculture in India. Increasing the limited available water supply by reducing water losses and by increasing the water use efficiency in the irrigation sector and avoiding water conflicts among the water user sectors, achieving water security and food security is a matter of efficient water use in irrigation sector. The prevailing geographic, economic and social conditions of India play an important role in examining the efficient use of water. Water use efficiency may be defined differently by a farmer, a manager of an irrigation project, or a river basin authority. Successful irrigation management requires accurate knowledge of the water availability, the uses it is put, the competing demands, measures to and processes to evaluate the significance and worth of competing demands and mechanisms to translate policy decisions into actions on the ground. In this paper, an attempt has been made for efficient irrigation management using newly developed software Irrigation Information System (IIS) with VB.net, which provides information for decision making process by evaluating the irrigation and water use efficiencies at the field level.

Paper-7

Comparative Analysis of High Rise Buildings under Static & Seismic Loading using STAAD-Pro V8i and ETABS'13

Rahul Dhoke and K. K Pathak*

National Institute of Technical Teacher's Training and Research, Bhopal (MP) India

*Correspondence Author: kkpathak@nittrbpl.ac.in

Abstract: In this study, comparative analysis of high-rise building under static and seismic parameters has been carried out for 2 building plans with three different diaphragm condition and 2 seismic zones. In this work total 36 cases were analyzed for 5 load combinations. STAAD-PRO and ETABS software are used for the analysis of the structural frames. Structural results are collected in terms of base shear, support reaction, joint displacements and elapsed time which are critically analyzed to evaluate the effects of different parameters.

Paper-8

Calibration of Portable 3D scanner for Industrial Inspection

Applications

Rahul Chandrashekar*, Nithin. P.Kashyap, Manjunath. R, Satish. G, , B.R.Ramji and K.N.P. Prasad

Industrial Engineering & Management, B.M.S College of Engineering, Bangalore, India

*Correspondence Author: rahul.chandrashekar23@gmail.com

Abstract: With the rapid growth in capabilities of precision fabrication, the demand for highly accurate measurement systems has increased multi-fold. In the past few decades, a number of non-contact type three-dimensional (3D) scanners have become available in the market. These scanners can acquire 3D coordinates of millions of points on the surface of objects very rapidly. However, claims about the accuracy of the point data acquired, can vary quite widely both in terms of metric as well as values. Hence, a thorough evaluation is a must before adopting these scanners for industrial metrology applications. Choosing the right kind of artifact and measurement strategy, dictates the success of evaluation studies. Analysis of results becomes even more difficult when the evaluation is carried out on an artifact with freeform surfaces. At present, there is no standard procedure available which when followed ensures reproducibility of the accuracy claims mentioned by the vendors. Hence, it becomes a tedious and time consuming process for both user and as well as the vendor to undergo an evaluation process which has to be set by user. In this paper, a simplified approach for evaluating scanner for scanning artifacts with freeform surfaces is presented.

Paper-9

Morphometric Analysis and Prioritization of Mini-watersheds of a part of Betwa Basin in the Raisen District of Madhya Pradesh, using Remotely Sensed Data and GIS Techniques.

Shubha Bhargava¹, H. U. Usmani² and V.L. Punvatkar²

¹ Sagar Institute of Research & Technology- Excellence, Bhopal, India

² Deptt. of Geology, Motilal Vigyan Mahavidhya, Bhopal, India

*Corresponding author: bhargava.shubha@gmail.com

Abstract : In the present study the prioritization of ten mini-watersheds of the Betwa sub-watershed was carried out using morphometric parameters evaluated with the help of remotely sensed data and GIS techniques. The morphometric parameters considered for the present study includes stream length, bifurcation ratio, drainage density, stream frequency, circulatory ratio, form factor, elongation ratio and infiltration ratio. The drainage map of the area prepared with help of remotely sensed IRS-1C LISS III Geo-coded data which reveals that the Betwa sub-watershed has dendritic drainage pattern. The highest value of bifurcation ratio is 10.0 shown by the mini-watershed 2D4A6-e, which is suggestive of structural control over the drainage. The maximum value of circulatory ratio measured for 2D4A6-d is 0.020. The mini-watershed 2D4A6-f shows the highest value of elongation ratio 0.75. The form factor varies between 0.15 to 0.43 which indicates moderately high peak flow for short duration. The compound parameter values have been calculated for the prioritization of 10 mini-watersheds and the mini-watershed showing minimum value of compound parameter is given highest priority. The mini-watershed 2D4A6-d shows the highest priority value; hence it could be given priority for soil conservation measures.

Paper-10

Consumer's Behavior towards Online Shopping Stores in J&K

Sheeraz Ahmad Tantray

Central university of Jammu, J&K, India

E-mail: satantray@gmail.com

Abstract: The use of internet has proved a versatile tool in reshaping the domain of marketing communication in the global arena. The effect of globalization and emergence of knowledge economy has made the internet a perfect vehicle for online shopping. Reduction in energy spent, consumption of less time, no longer queue standing and reduction of shipping costs than the physical markets increases the convenience of online shopping many folds. Despite having considerable edge over the traditional substitute, it is the uphill task for web retailers to convince customers to go for online shopping in J&K. The use of web based mode of shopping has got enormous potential in J&K by considerably reducing the overall product costs and enhancing efficiency in service delivery, extending beyond the geographical boundaries. The aim of the study is to identify the underlying factors which influence customers towards online shopping in J&K. Nine independent variables were focused namely security, appearance, quick loading, sitemap, promotion, validity, originality, believability and attractiveness to determine the degree of impact on consumer buying behavior towards online shopping. Five point likert scale was applied to measure the influential factors on intention for online shopping. The findings of the study indicated that the first five factors influence consumers towards online shopping and security is the most contributing factor for convincing customers to go for online shopping.

Paper-11

Temporary Shelters for Laborers on Construction Site and their Impact on Urban Context

Vandana Singh

School of Planning and Architecture, Bhopal

E-mail: vsingh24jan@gmail.com

Abstract: Increase in the infrastructure industry has led people to move from villages to cities and towns. Many people become laborers on constructions sites who make their own temporary shelters near the site and live in cramped unhygienic conditions. This is mostly in cases where the labor laws are not followed and no consideration is given to their living conditions. As a result of which these temporary shelters when left neglected for a considerable period develop further, increasing their area, without availability of the basic amenities. In this paper a study of the existing conditions of temporary settlements of laborers on construction site, in and around Bhopal city, have been studied through specific cases and impact of such shelter forms and processes on the urban context is analyzed. It is found that an initial planning of temporary settlement for construction labors near the site, will not only give dignity to the labor and decency of life but is also necessary for wholesome development of society and the construction region without which a threat of expanding slums and emergence of under developed pockets having low life, lesser hygiene, and threat to smooth integration of labor settlements with rest of the residential areas looms large.

Paper-12

Study of Ionospheric Scintillation (S4 – Index) over Indian Antarctic Station Maitri During the Minima of Solar Cycle 23rd

Purushottam Bhawre¹, Sunil K. Singh², Prakash Khatarkar¹ and P. K. Purohit³

¹Space Science Laboratory, Department of Physics, Barkatullah University, Bhopal, India – 462026

²Oriental Institute of Science and Technology, Bhopal, India

³National Institute of Technical Teachers' Training & Research (NITTTR), Bhopal.

*Corresponding Author: bhawre@gmail.com

Abstract: We have studied the occurrence characteristics of high latitude L band scintillations during the low solar activity period 2008 at Indian Antarctic station Maitri. To study the L-band scintillations and the associated irregularities at high latitudes, about one year observations were carried out at high latitude Indian Antarctica Station Maitri by using Novatel's dual frequency GPS receiver GISTM 4004A. The observation revealed that the high latitude L-band scintillations are observed only during night time and since it was a low solar activity period hence the observed scintillations were generally weak type (s4 index less than 0.5). Season wise, their maximum percentage occurrence is observed in winter season i.e. polar night periods from May to August 2008 as compared to summer and equinox seasons.