

**International Journal of Inventive**

# **Engineering and Sciences**

**ISSN : 2319- 9598**

**Website: [www.ijies.org](http://www.ijies.org)**

**Volume-4 Issue-4, November 2016**

**Published by:**

**Blue Eyes Intelligence Engineering and Sciences Publication Pvt.**



## **Editor In Chief**

### **Dr. Shiv K Sahu**

Ph.D. (CSE), M.Tech. (IT, Honors), B.Tech. (IT)

Director, Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd., Bhopal(M.P.), India

### **Dr. Shachi Sahu**

Ph.D. (Chemistry), M.Sc. (Organic Chemistry)

Additional Director, Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd., Bhopal(M.P.), India

## **Vice Editor In Chief**

### **Dr. Himani Sharma**

Professor & Dean, Department of Electronics & Communication Engineering, MLR Institute of Technology, Laxman Reddy Avenue, Dundigal, Hyderabad, India

### **Prof.(Dr.) Anuranjan Misra**

Professor & Head, Computer Science & Engineering and Information Technology & Engineering, Noida International University, Noida (U.P.), India

## **Advisory Chair**

### **Dr. T.C. Manjunath**

Principal & Professor, HKBK College of Engg, Nagawara, Arabic College Road, Bengaluru-560045, Karnataka, India

### **Dr. Kosta Yogeshwar Prasad**

Director, Technical Campus, Marwadi Education Foundation's Group of Institutions, Rajkot-Morbi Highway, Gauridada, Rajkot, Gujarat, India

### **Dr. Dinesh Varshney**

Director of College Development Counseling, Devi Ahilya University, Indore (M.P.), Professor, School of Physics, Devi Ahilya University, Indore (M.P.), and Regional Director, Madhya Pradesh Bhoj (Open) University, Indore (M.P.), India

### **Dr. P. Dananjayan**

Professor, Department of Department of ECE, Pondicherry Engineering College, Pondicherry, India

### **Dr. Sadhana Vishwakarma**

Associate Professor, Department of Engineering Chemistry, Technocrat Institute of Technology, Bhopal(M.P.), India

## **Technical Chair**

### **Dr. A. K. Verma**

Professor, Department of Computer Science and Engineering, Thapar University, Patiala (Punjab), India

### **Dr. Durgesh Mishra**

Chairman, IEEE Computer Society Chapter Bombay Section, Chairman IEEE MP Subsection, Professor & Dean (R&D), Acropolis Institute of Technology, Indore (M.P.), India

### **Dr. Xiaoguang Yue**

Associate Professor, College of Computer and Information, Southwest Forestry University, Kunming (Yunnan), China

### **Dr. Veronica Mc Gowan**

Associate Professor, Department of Computer and Business Information Systems, Delaware Valley College, Doylestown, PA, Allman China

### **Dr. Mohd. Ali Hussain**

Professor, Department of Computer Science and Engineering, Sri Sai Madhavi Institute of Science & Technology, Rajahmundry (A.P.), India

### **Dr. Mohd. Nazri Ismail**

Professor, System and Networking Department, Jalan Sultan Ismail, Kuala Lumpur, MALAYSIA

### **Dr. Sunil Mishra**

Associate Professor, Department of Communication Skills (English), Dronacharya College of Engineering, Farrukhnagar, Gurgaon (Haryana), India

### **Dr. Labib Francis Gergis Rofaief**

Associate Professor, Department of Digital Communications and Electronics, Misr Academy for Engineering and Technology, Mansoura City, Egypt

**Dr. Pavol Tanuska**

Associate Professor, Department of Applied Informatics, Automation, and Mathematics, Trnava, Slovakia

**Dr. VS Giridhar Akula**

Professor, Avanthi's Research & Technological Academy, Gunthapally, Hyderabad, Andhra Pradesh, India

**Managing Chair****Mr. Jitendra Kumar Sen**

International Journal of Inventive Engineering and Sciences (IJIES)

**Reviewer Chair****Dr. R.Balamurugan**

Professor, Department of Electrical and Electronics Engineering, KSR College of Technology, Tiruchengode Tamilnadu, India

**Dr. Ganesh Kumar T**

Department of Computer Science and Engineering, Research Scholar, Manonmaniam Sundaranar University, Tirunelveli, India

**Dr. K.Siva Rama Krishna**

Assoc. Professor, Department of Civil Engineering, Gitam University Visakhapatnam, India

**Dr. P.Sanjeevikumar**

Assoc. Professor, Department of Electrical Engineering, Bharathi Street, Jeevanandhapuram, Lawspet, Puducherry, India

**Dr. DALAH Mohamed**

Professor, Department of Mathematics, Faculty of Sciences, University of Constantine 1 / Algeria

**Dr. Shoukat Ali**

Professor, Department of Mathematics Govt. Engineering College Bikaner Karni Industrial Area, Pugal Road, Bikaner-334004 Rajasthan State, India

**Dr. Vijay K Chaudhari**

Professor & Head, Department of Information Technology, Truba Institute of Engineering and Technology, Bhopal (M.P.), India

**Dr. Ricardo Rodriguez Jorge**

Associate Professor, Technological University of Ciudad Juarez

**Dr. N. Venkatesan**

Assoc. Professor in Department of IT, Bharathiyar College of Engg & Tech, Karaikal

**Dr. Syed umar**

Assoc. Professor Department of ECM, KL University, Green Fields, Vaddeswaram, Guntur District, (A.P.), India

**Dr. Manoranjan Pradhan**

Professor, Department of Computer Science and Engineering, Gandhi Institute for Technological Advancement (GITA), At Badaragunathpur, Odisha, India

**Dr. H.S. Behera**

Assoc. Professor, Department of Computer Science and Engineering, Veer Surendra Sai University of Technology (VSSUT) Burla, Sambalpur, Odisha, India

**Dr. Sunil Kumar**

Assoc. Professor, Department of Mathematics, National Institute of Technology, Jharkhand, India

**Dr. Shrikant Tiwari**

Assoc. Professor, Department of Computer Science & Engineering, Shri Shankaracharya Group of Institutions, Chattisgarh, India

**Dr. Ahmed AbdAllah Hassan**

Assoc. Professor, Department of Computer Science and Informatics, community college, Taibah university, Al Medina Al Munawara, Saud Arabia

**Dr. Vijay H Mankar**

Associate Professor, Department of Electronics and Telecommunication, Govt. Poly Technique, Nagpur (Maharashtra), India

**Dr. Govindaraj Thangavel**

Professor & Head, Department of EEE, Muthayammal Engineering College, Rasipuram, Namakkal, Tamilnadu, India

S. No	<b>Volume-4 Issue-4, November 2016, ISSN: 2319-9598 (Online)</b> <b>Published By: Blue Eyes Intelligence Engineering &amp; Sciences Publication Pvt. Ltd.</b>		Page No.	
	<b>Authors:</b>	<b>Mohan B. Raut, R. S. Shelke</b>		
	<b>Paper Title:</b>	<b>Optimization of Special Purpose Rotational MIG Welding by Experimental and Taguchi Technique</b>		
1.	<p><b>Abstract:</b> This paper presents the study to find the optimization for special purpose rotational MIG welding operation. The MIG Welding parameters are the most important factors affecting the quality, productivity and cost of welding. This paper presents the effect of welding parameters like wire feed rate, welding voltage and tip to plate distance on MIG welding strength and quality of weld. Experiments are conducted based on design of experiments (DOE) of Taguchi Technique to achieve the required data. An Orthogonal Array, Signal to Noise (S/N) ratio and analysis of variance (ANOVA) are used to find out the welding characteristics and optimization parameters. Finally the confirmations tests have been carried out to compare the predicted values with the experimental values.</p> <p><b>Keywords:</b> MIG, optimization, Design of Experiments (DOE), Analysis of Variance (ANOVA), Signal to Noise (S/R) ratio</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>Satyaduttsinh P. Chavda, Jayesh V. Desai, Tushar M. Patel "A Review on Optimization of MIG Welding Parameters using Taguchi's DOE Method" International Journal of Engineering and Management Research (IJEMR) Volume-4, Issue-1, ISSN No.: 2250-0758, February-2014</li> <li>Nirmalendhu Choudhury, Ramesh Rudrapati and Asish Bandyopadhyay "Design optimization of Process Parameters for TIG Welding based on Taguchi Method" International Journal of Current Engineering and Technology (IJCET) E-ISSN 2277 – 4106, P-ISSN 2347 - 5161</li> <li>Mr. L. Suresh Kumar, Dr. S. M. Verma, P. Radhakrishna Prasad, P. Kiran Kumar Dr. T. Siva Shanker "Experimental Investigation for Welding Aspects of AISI 304 &amp; 316 by Taguchi Technique for the Process of TIG &amp; MIG Welding" International Journal of Engineering Trends and Technology (IJETT) Volume2, Issue2- 2011</li> <li>S. R. Patil, C. A. Waghmare "Optimization of MIG Welding Parameters for Improving Strength of Welded Joints" International Journal of Advanced Eengineering Research and Studies (IJAERS) E-ISSN 2249–8974</li> <li>S. R. Meshram, N. S. Pohokar "Optimization of Process Parameters of Gas Metal Arc Welding to Improve Quality of Weld Bead Geometry" International Journal of Advanced Engineering Research and Studies (IJAERS) E-ISSN2249–8974 ISSN (Print): 2279-0020</li> <li>Meenu Sharma and Dr. M. I. Khan "Optimization of Weld Bead Geometrical Parameters for Bead on Plate Submerged Arc Welds Deposited on IS-2062 steel using Taguchi Method" International Journal of Technical Research and Applications (IJTRA) E-ISSN: 2320-8163, www.ijtra.com Volume 2, Issue 1 (Jan-Feb 2014), PP. 08-12</li> <li>Sonu Prakash Sharma, Amit Bhudhiraja "Parameter Condition of Being Optimized For MIG Welding Of Austenitic Stainless Steel &amp; Low Carbon Steel Using Taguchi Method" International Journal for Research in Technological Studies (IJRTS)Vol. 1, Issue 5, April 2014 ISSN (online): 2348-1439</li> <li>M. Aghakhani, E. Mehrdad, and E. Hayati "Parametric Optimization of Gas Metal Arc Welding Process by Taguchi Method on Weld Dilution" International Journal of Modeling and Optimization (IJMO)Vol. 1, No. 3, August 2011</li> <li>Dinesh Mohan Arya, Vedansh Chaturvedi, Jyoti Vimal "Parametric Optimization of MIG process Parameters using Taguchi and Grey Taguchi Analysis" IJREAS Volume 3, Issue 6 (June 2013) ISSN: 2249-3905</li> <li>Chandresh N. Patel, Prof. Sandip Chaudhary "Parametric Optimization of Weld Strength of Metal Inert Gas welding and Tungsten Inert Gas welding by using a Analysis of Variance and Grey Relational Analysis" International Journal of Research in Modern Engineering and Emerging Technology (IJRMEET)Vol. 1, Issue: 3, April-2013 (IJRMEET) ISSN: 2320-6586</li> <li>Lenin N., Sivakumar M. and Vigneshkumar D "Process Parameter Optimization in ARC Welding of Dissimilar Metals" IJST., Vol. 15, No. 3, July-September 2010</li> <li>Abbas Al-Refaie, Tai-Hsi Wu, Ming-Hsien Li "An Effective Approach for Solving The Multi-Response Problem in Taguchi Method" Jordan Journal of Mechanical and Industrial Engineering (JJMIE) Volume 4, Number 2, March. 2010 ISSN 1995-6665 Pages 314 - 323</li> <li>Mohd. Shueb, Prof. Mohd. Parvez, Prof. Pratibha Kumari "Effect of MIG Welding Input Process Parameters on Weld Bead Geometry on HSLA steel" International Journal of Engineering Science and Technology (IJEST) ISSN : 0975-5462 (IJAERS) Vol. 5 No.01, January 2013</li> <li>Biswajit Das, B. Debbarma, R. N. Rai, S. C. Saha "Influence of Process Parameters on Depth of Penetration of Welded Joint in MIG welding process" International Journal of Research in Engineering and Technology (IJRET) E-ISSN: 2319-1163 PISSN: 2321-7308</li> <li>Biswajit Das, B. Debbarma, R. N. Rai, S. C. Saha "Influence of Process Parameters on Depth of Penetration of Welded Joint in MIG welding process" International Journal of Research in Engineering and Technology (IJRET) E-ISSN: 2319-1163 PISSN: 2321-7308</li> <li>Omar Bataineh, Anas Al-Shoubaki, Omar Barqawi "Optimising Process Conditions in MIG welding of Aluminum Alloys through Factorial Design Experiments" Latest Trends in Environmental and Manufacturing Engineering (LTEME) ISBN: 978-1-61804-135-7</li> <li>Pawan Kumar, Dr. B. K. Roy, Nishant "Parameters Optimization for Gas Metal Arc Welding of Austenitic Stainless Steel (AISI 304) &amp; Low Carbon Steel using Taguchi's Technique" International Journal of Engineering and Management Research (IJEMR), Vol.-3, Issue-4, August</li> <li>S. Naveenkumar, Dr. K. Soorya Prakash, G. Gokilakrishnan, N. V. Kamalesh "Parametric Optimization of Welding process of Low carbon steel (AISI 1019) by using Taguchi's approach" International Journal for Technological Research in Engineering (IJTRE)Volume 1, Issue 7, March-2014 ISSN (Online): 2347 – 4718</li> <li>J.pasupathy, v.ravisankar "Parametric Optimization of TIG welding Parameters using Taguchi method for Dissimilar Joint (Low Carbon steel with AA1050)" International Journal of Scientific &amp; Engineering Research (IJSER), Volume 4, Issue 11 November-2013 ISSN 2229-5518</li> <li>Lakshman Singh, Davinder Singh, Pragat Singh "A Review: Parametric effect on mechanical properties and weld bead geometry of Aluminium alloy in GTAW" IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) e-ISSN: 2278-1684,p-ISSN: 2320-334X, Volume 6, Issue 6 (May. - Jun. 2013), PP 24-30</li> <li>C. Vidala, V. Infante, P. Pecos, P. Vilaca1, "Application of Taguchi Method in the Optimization of Friction Stir Welding Parameters of an Aeronautic Aluminium Alloy "</li> <li>M. St. Weglowski, Y. Huang, Y. M. Zhang "Effect of welding current on metal transfer in GMAW" International Scientific Journal (ISJ) Volume 33 Issue 1 September 2008 Pages 49-56</li> <li>Pradeep Deshmukh, M. B. Sorte "Optimization of Welding Parameters Using Taguchi Method for Submerged Arc Welding On Spiral Pipes" International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-2, Issue-5, November 2013</li> <li>Satyabrata Podder, Uttam Roy "ANFIS based Weld Metal Deposition Prediction System in MAG welding using Hybrid Learning Algorithm" International Journal of Luzzy Logic Systems (IJFLS) Vol.3, No1, January 2013</li> <li>P. Dhanapal, Dr. S.S. Mohamed Nazirudeen "Parameter Optimization of Carbide Austempered Ductile Iron using Taguchi Method" International Journal of Engineering Science and Technology (IJEST) Vol. 2(8), 2010, 3473-3482</li> </ol>			1-8
2.	<b>Authors:</b>	<b>Vijetha Vardhan R N, Girisha H N</b>		
	<b>Paper Title:</b>	<b>Experimental Investigations on Compression Ignition Engine using Mixture of Milk Scum-Niger Seed Oil Methyl Ester as Alternative Fuel</b>		

	<p><b>Abstract:</b> Biodiesel is made by combining alcohol (usually methanol) with vegetable oil, animal fat, or recycled cooking grease. Among them, much different kind of fuels can be found: bio ethanol, bio butanol, biodiesel, vegetable oils, bio methanol, pyrolysis oils, biogas, and bio hydrogen. This thesis work is focused on the production of biodiesel, which can be used in diesel engines as a substitute for normal diesel. However, vegetable oils are preferred because they tend to be liquid at room temperature, and emit fewer pollutants. This work is carried out with the help of biodiesel made from Niger Seed Oil and Milk Scum Oil with methyl ester which meets the international standards. The performance and emission test were carried out in a single cylinder water cooled direct injection compression ignition engine. The hydrocarbon, carbon oxides and dioxide emissions were found to be less than that of neat diesel fuel except nitrogen oxides. Brake thermal efficiency of biodiesel and its blends was found to be less than diesel fuel. However, exhaust gas temperature, brake specific fuel consumption for biodiesel and its blends were found to be higher than that of diesel fuel.</p> <p><b>Keywords:</b> Niger Seed oil; Milk Scum Oil; Emissions; biofuels;</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Su Han park, In mo Youn, Chang Sik Lee, "Influence of ethanol blends on the combustion performance and exhaust emission characteristics of a four-cylinder diesel engine at various engine loads and injection timings" Fuel 90 (2011) 748–755.</li> <li>2. Fengxian Qiu , Yihuai Li, Dongya Yang , Xiaohua Li , Ping Sun "Biodiesel production from mixed soybean oil and rapeseed oil" Applied Energy 88 (2011) 2050–2055</li> <li>3. Mario I. Randazzo, José r. Sodr�, "exhaust emissions from a diesel powered vehicle fuelled by soybean biodiesel blends (B3–B20) with ethanol as an additive (B20E2–B20E5)" Fuel 90 (2011) 98–103</li> <li>4. Geyer SM, Jacobus MJ, Huseyin aydin. Comparison of diesel engine performance and emission from Neal and transesterfied vegetable oils ASAE 1984; 27 (2):375-84</li> <li>5. Gupta, P.K. 1994. Investigations on methyl ester of plant oils as alternate renewable fuel for compression ignition engines. Thesis, Ph.D. Punjab Agricultural University, Ludhiana, India.</li> <li>6. Deepak Agarwal, Shailendra Sinha, Avinash Kumar Agarwal, "Experimental investigation of control of NOx emissions in biodiesel fuelled compression ignition engine", Renewable energy 31(2006)2356-2369.</li> <li>7. Gvnshr Ratnakara Rao, V.Ramachanra Raju And M.Muralidara Rao, "Optimizing the compression ratio for a Mahua fuelled C I. engine", ARPN journal of engineering and applied sciences, Volume4, no: 3 May 2009.</li> <li>8. Sukumar Puhana, N.Vedaraman, Boppana V.B. Ram, G.Sankaranarayanan, Kjayachanderan, "Mahua oil methyl ester as biodiesel preparation and emission characteristics", Biomass &amp; Bio energy 28(2005) 87-93.</li> <li>9. Sharanappa Godiganur, C.H. Suryanarayana Murthy, Rana Prathap Reddy,"6BTA 5.9 G2-1 Cummins engine performance and emission tests using methyl ester mahua (Madhuca indica) oil/diesel blends", Renewable energy 34(2009)2172-2177</li> <li>10. L C Meher, S N Naik and L M Das, Methanolysis of Pongamia pinnata (karanja) oil for production of biodiesel, Journal of Scientific &amp; Industrial Research Vol. 63, November 2004, pp 913-918.</li> <li>11. Venkateswara Rao T, Prabhakar Rao G, Hema Chandra Reddy K., 'Experimental Investigation of Pongamia, jatropaha and neem methyl esters as biodiesel on C.I. Engine. Jordan J Mech Indus Eng 2008; 2(6665):117–22.</li> </ol>	9-12
--	--	------

	<p><b>Authors:</b> Akansha A. Tandon, Sujata Tuppada</p>	
	<p><b>Paper Title:</b> Efficient Feature Selection by using Global Redundancy Minimization and Constraint Score</p>	
3.	<p><b>Abstract:</b> Highlight choice has been an imperative examination point in information mining, in light of the fact that the genuine information sets regularly have high dimensional elements, for example, the bioinformatics and content mining applications. Numerous current channel highlight determination routines rank highlights by improving certain element positioning paradigms, such that related elements regularly have comparable rankings. These related components are excess and don't give substantial shared data to help information mining. Along these lines, when we select a predetermined number of highlights, we plan to choose the top non-excess elements such that the helpful common data can be augmented. In past examination, Ding et al. perceived this essential issue and proposed the base Redundancy Maximum Relevance Feature Selection (mRMR) model to minimize the repetition between consecutively chose highlights. In any case, this system utilized the ravenous hunt, in this way the worldwide component excess wasn't considered and the outcomes are not ideal. In this paper, we propose another component choice system to internationally minimize the element repetition with boosting the given element positioning scores, which can originate from any regulated or unsupervised techniques. Our new model has no parameter with the goal that it is particularly suitable for reasonable information mining application. Trial results on benchmark information sets demonstrate that the proposed system reliably enhances the component choice results contrasted with the first systems. In the interim, we present another unsupervised worldwide and nearby discriminative component determination strategy which can be brought together with the worldwide element excess minimization structure and shows unrivalled execution.</p> <p><b>Keywords:</b> Feature selection, feature ranking, redundancy minimization.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. D. Cai, C. Zhang, and X. He, "Unsupervised feature selection for multi-cluster data," in Proc. 16th ACM SIGKDD Int. Conf. Knowl. Discovery Data Mining, 2010, pp. 333–342.</li> <li>2. P. N. Belhumeur, J. P. Hespanha, and D. Kriegman, "Eigenfaces vs. fisherfaces: Recognition using class specific linear projection," IEEE Trans. Pattern Anal. Mach. Intell., vol. 19, no. 7, pp. 711–720, Jul. 1997.</li> <li>3. D. P. Bertsekas. Constrained Optimization and Lagrange Multiplier Methods. Belmont, MA, USA: Athena Scientific, 1996.</li> <li>4. J. Wu and J. M. Rehg, "CENTRIST: A visual descriptor for scene categorization," IEEE Trans. Pattern Anal. Mach. Intell., vol. 33, no. 8, pp. 1489–1501, Aug. 2011</li> <li>5. G. Forman and E. Kirshenbaum, "Extremely fast text feature extraction for classification and indexing," in Proc. Int. Conf. Inf. Knowl. Manag., 2008, pp. 1221–1230</li> <li>6. R. Kohavi and G. H. John, "Wrappers for feature subset selection," Artif. Intell., vol. 97, no. 1/2, pp. 273–324, 1997</li> <li>7. Y. Saeys, I. Inza, and P. Larra-naga, "A review of feature selection techniques in bioinformatics,"</li> <li>8. D. Cai, C. Zhang, and X. He, "Unsupervised feature selection for multi-cluster data," in Proc. 16th ACM SIGKDD Int. Conf. Knowl. Discovery Data Mining, 2010, pp. 333–342</li> <li>9. X. Cai, F. Nie, and H. Huang, "Exact top-k feature selection via l2,0-norm constraint," in Proc. 23rd Int. Joint Conf. Artif. Intell., 2013, pp.</li> </ol>	13-16

1240-1246

10. X. Cai, F. Nie, H. Huang, and C. Ding, "Feature selection via  $l_{2,1}$ - norm support vector machine," in Proc. IEEE Int. Conf. Data Mining, 2011, pp. 91-100
11. X. Chang, F. Nie, Y. Yang, and H. Huang, "A convex formulation for semi-supervised multi-label feature selection," in Proc. AAAI Conf. Artif. Intell., 2014, pp. 1171-1177
12. C. Ding and H. Peng, "Minimum redundancy feature selection from microarray gene expression data," J. Bioinformatics Comput. Biol., vol. 3, no. 02, pp. 185-205, 2005
13. M. Douze, H. Jégou, H. Sandhawalia, L. Amsaleg, and C. Schmid, "Evaluation of gist descriptors for web-scale image search," in Proc. ACM Int. Conf. Image Video Retrieval, 2009, p. 19
14. R. O. Duda, P. E. Hart, and D. G. Stork, Pattern Classification. New York, NY, USA: Wiley, 2012

4.	<b>Authors:</b>	<b>Ibrahim Nuruddin Kazi, A. K. Gupta</b>	17-21
	<b>Paper Title:</b>	<b>Availability of Construction Material Resources and Their Quality Assessment with Special Reference to Kolhapur Region</b>	
<b>Abstract:</b>		Quality assurance of building materials is very essential in order to build strong durable and cost effective structures. When construction is planned building materials should be selected to fulfill the functions expected from them. The objective of this project is to discuss the importance of quality assurance of most common building materials such as cement, aggregates, steel and bricks in accordance with relevant standards. Material testing is a must in all industries, particularly the building sectors. This is because an incorrect assessment of a material would ultimately be harmful to people and the environment. The infrastructural development of a nation, eventually leads to the prosperity and growth of that country. Utilization of high quality construction materials leads to high quality infrastructures. The quality of such materials should be assessed properly in an accepted laboratory, using standard test methods. Construction includes the materials used in buildings, highways, bridges, railway and metro projects. The key to reliable construction and infrastructure development is the civil engineering techniques, technologies and most importantly the building/construction materials used. Construction materials include cement, aggregate, reinforced steel, bricks, various types of composites etc. Proper assessment of the properties of these materials is vital to ensure the quality and durability of the final structure that is made with them. The quality of building material used to construct any kind of structure plays a determining role in maintaining its durability. High quality building material ensures safety of the building and enhances its resistance against adverse climatic changes. Therefore, testing of building material, prior to its usage in construction, becomes of grave importance for construction material manufacturers. Testing for quality of construction materials is very important. Objective of testing construction materials is to provide an assurance to the user on the reliability of the materials. Thus, construction materials testing laboratories make a useful contribution to national development through the estimation of the quality of construction materials.	
<b>Keywords:</b>		Quality, materials, effective, structures. Construction, objective, cement, aggregates, cement, aggregate, reinforced steel, bricks, various types of composites etc.	
<b>References:</b>		<ol style="list-style-type: none"> <li>1. Geologic construction-material resources in Osborne county, Kansas (By Charles P. Walters and Larson Y. Drake), This paper elaborates the purpose of investigation and investigation procedure of construction material resources. It mainly focuses on natural resources of material like stone and aggregates by studying geological data for the respective area. W.-K. Chen, Linear Networks and Systems (Book style). Belmont, CA: Wadsworth, 1993, pp. 123-135.</li> <li>2. Geology and production of construction material resources of Lebanon: a preliminary study (M.R. Khawlie, K. Hinai), This paper elaborates Construction material resources of Lebanon are discussed in terms of geology, distribution and production.</li> <li>3. IS: 650-1991 Indian Standards Sand for testing cement specification, Scope: This standard lays down requirements for Standard sand used in testing of cement.</li> <li>4. IS: 2691-1988 Indian standard specification for burnt clay facing bricks, Scope: This standard specifies the dimensions, quality and strength of burnt clay facing bricks used in buildings and other structures.</li> <li>5. IS: 1077-1992 Indian standard common burnt clay building bricks- specification, Scope: This standard lays down requirements for classification, general quality, dimensions and physical requirements of common burnt clay building bricks used in buildings.</li> <li>6. IS: 383-1970 Coarse and fine aggregates from natural sources for concrete (second revision) Scope: This standard covers the requirements for aggregates, crushed or uncrushed, derived from natural sources, such as river terraces and riverbeds, glacial deposits, rocks, boulders and gravels, for use in the Production of concrete for normal structural purposes including mass concrete works.</li> <li>7. IS: 226-1975 Structural steel (standard quality) (fifth revision), Scope: This standard ( Part I ) covers the requirements of mild steel and medium tensile steel plain bars in round and square sections for use as reinforcement in concrete.</li> </ol>	

5.	<b>Authors:</b>	<b>Ashwini Kulkarni, R. N. Pakade, Lalsingh Khalsa</b>	22-28
	<b>Paper Title:</b>	<b>Thermoelastic Effects on Some Hollow Structures</b>	
<b>Abstract:</b>		In this paper, an attempt has been made to solve inverse problems of thermoelasticity of a finite length hollow cylinder occupying the space $D : a \leq r \leq b, -h \leq z \leq h$ . Marchi-Fasulo transform and Hankel transform techniques are used to obtain the general solution for the set of boundary value problems. Particular types of boundary conditions have been taken to illustrate the utility of the approach. The transformed components of the stresses and temperature distribution have been obtained. A numerical inversion technique is employed to invert the integral transform, and the resulting quantities are presented graphically. Key words: Hollow cylinder, Thermoelastic problem, March	
<b>Keywords:</b>		Hollow cylinder, Thermoelastic problem, Marchi- Fasulo and Hankel transform techniques.	
<b>References:</b>		<ol style="list-style-type: none"> <li>1. Archi E and Fasulo A: Heat conduction in sector of hollow cylinder with radiation, Atti, della Acc.sci. di.tori no, 1(1967), 373-382.</li> <li>2. Nowacki W: the state of stress in thick circular plate due to temperature field. Ball. Sci. Acad. Palon</li> <li>3. Noda N; Hetnarski, R.B. Tanigawa. Y: Thermal stresses, second edition Taylor and Francis, New York (2003). 260.</li> <li>4. Ozisik M.N.: Boundary Value problem of heat conduction, International text book company, Scranton, Pennsylvania (1986), 135.</li> <li>5. Wankhede P.C.: on the quasi-static thermal stresses in a circular plate. Indian J. Pure and Application Maths, 13, No. 11 (1982), 1273-1277.</li> </ol>	

	<ol style="list-style-type: none"><li>6. Roy H.S.; Bagade S.H.; Khobragade N.W.: Thermal Stresses of a Semi Infinite Rectangular Beam. IJEIT vol.3 (2013) pp.442-445.</li><li>7. Khobragade N.W.; Khalsa L.H.; Gahane T.T. and Pathak A.C.: Transient Thermo elastic Problems of a Circular Plate with Heat Generation, IJEIT vol.3 (2013) pp. 361- 367.</li><li>8. Love, A.E.H: A treatise on the mathematical theory of elasticity (Dover publication, Inc, New York, 1964).</li></ol>	
--	---	--