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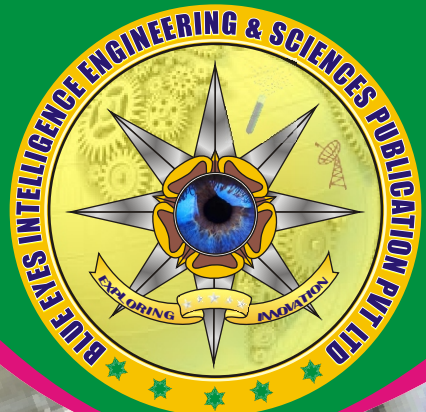
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|              | Paper Title:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Strengthening of R.C.C. Beam- Using Different Glass Fiber         |             |
|              | <p><b>Abstract:</b> Worldwide, a great deal of research is currently being conducted concerning the use of fiber reinforced polymer wraps, laminates and sheets in the repair and strengthening of reinforced concrete members. Fiber-reinforced polymer (FRP) application is a very effective way to repair and strengthen structures that have become structurally weak over their life span. FRP repair systems provide an economically viable alternative to traditional repair systems and materials. Experimental data on load, deflection and failure modes of each of the beams were obtained. The detail procedure and application of GFRP sheets for strengthening of RC beams is also included. The effect of number of GFRP layers and its orientation on ultimate load carrying capacity and failure mode of the beams are investigate.</p> <p><b>Keywords:</b> FRP, GFRP, Retrofitting</p> <p><b>References:</b></p> <ol style="list-style-type: none"><li>1. ACI 440-2R-08- Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Concrete Structures.</li><li>2. Fib-Externally bonded FRP reinforcement for RC structure</li><li>3. IS 10262- 2007 Recommended Guidelines for Concrete Mix Design</li><li>4. IS 456- 2000 Plain and Reinforced Concrete - Code of Practice</li><li>5. IS 516- 1959 Methods of Tests for Strength of Concrete</li><li>6. Lawrence C. Bank “Composites for Construction Structural Design with FRP Materials” (2006)</li><li>7. M. L. Gambhir, Concrete Technology (3rd Edition), Published by The McGraw-Hill Companies, New Delhi</li><li>8. M. S. Shetty, Concrete Technology Theory &amp; Practice, Published by S. CHAND &amp; Company, Ram Nagar, New Delhi</li><li>9. C.P. Pantelides and J. Gergely. “Seismic Retrofit of Reinforced Concrete Beam- Column T-Joints in Bridge Piers with FRP Composite Jackets”.[2005]</li><li>10. Frederick T. Wallenberger, James C. Watson, and Hong Li, “Glass Fibers” PPG Industries, Inc.</li><li>11. Giuseppe Oliveto and Massimo Marletta. “Seismic retrofitting of reinforced concrete building using traditional and innovative techniques”. University of Catania, Italy. ISET Journal of Earthquake Technology, Paper No. 454, Vol. 42, No. June-September 2005, pp. 21-46</li><li>12. Guidelines for retrofit of concrete structures. Translation from the CONCRETE LIBRARY No.95 published by JSCE, September 1999)</li><li>13. M. A. A. Saafan. ‘ Shear Strengthening of Reinforced Concrete Beams Using GFRP Wraps’ Czech Technical University in Prague Acta Polytechnica Vol. 46 No. 1/2006</li><li>14. Marvin W. Halling, Kevin C. Womack, “Retrofit of existing concrete beam-column Joints using advanced carbon-fiber composites”. Utah State University .Logan, Utah[April 2008]</li><li>15. Patil S.S. “Shear strengthening of RC beam using carbon fiber reinforced polymer composite.”University of Mumbai [2010]</li><li>16. S. K. Bhattacharyya. “Retrofitting of building structures damaged due to earthquake”. Department of Civil Engineering. IIT, Kharagpur.</li><li>17. Suresh Chandra Pattanaik. “Structural stenthening of damaged R.C.C. structures with polymer modified concrete”. Dr Fixit Institute of Structural Protection and rehabilitation, C/O-Pidilite Industries Limited, Mumbai[2009]</li><li>18. T. Jeff Guh, Ph.D., S.E.1 and Arash Altoontash, Ph.D., P.E.2. “Seismic retrofit of historic building structures”. San Francisco, California, USA. April 18-22, 2006,</li><li>19. Triantafillou, T. C.,1998 “Shear Strengthening of Reinforced Concrete Beams Using Epoxy- Bonded FRP Composites,” ACI Structural Journal, V. 95, No. 2, Mar.-Apr. 1998, pp. 107-115.</li><li>20. www.glass-fiber.net</li><li>21. www.reasins.com</li><li>22. www.retrofitting.com</li></ol> |                                                                   |             |
| 2.           | Authors:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A. B. Sawant, M. B. Kumthekar, S. G. Sawant                       |             |
|              | Paper Title:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Utilization of Neutralized Red Mud (Industrial Waste) in Concrete |             |
|              | <p><b>Abstract:</b> Sustainable industrial development causes accumulation of heaps of waste disturbing the natural mechanism the waste can be sometime best alternative for conventional; material like red mud. Red mud is industrial waste obtained as by product from Bayer method of alluminium extraction in this process, alkaline digestion of 2.5 T of bauxite affords alumina &amp; 105 T of red mud. The average 4 million tones of red mud produces per annum, this amount composed of Fe &amp; Ti oxides behaving as chemically inert material with variable percentage of nominal SiO2, Al2O3 &amp; Na2O3 which are partly present in cement. This paper covers significance of red mud over Portland cement by partial replacement of cement up to certain extent.</p> <p><b>Keywords:</b> Industrial development, industrial waste, red mud.</p> <p><b>References:</b></p> <ol style="list-style-type: none"><li>1. J. Pera, R. Boumaza and J. Ambroise, ‘Development of a pozzolanic pigment from red mud Cement and Concrete Research’, Volume 27, Issue 10, October 1997, Pages 1513-1522.</li><li>2. P.E. Tsakiridis, S. Agatzini-Leonardou and P. Oustadakis, ‘Red mud addition in the raw meal for the production of Portland cement clinker’, Journal of Hazardous Materials, Volume 116, Issues 1-2, 10 December 2004, Pages 103-110.</li><li>3. Paramguru, R.K., Rath, P.C., Misra, V.N., ‘Trends in red mud utilization - A review’, Miner. Process Extr. Metal. Rev. 26(1), (2005), 1-29.</li><li>4. Venkatarama Reddy, B. V., Rao, S. M. and Arun Kumar, M. K., ‘Characteristics of stabilized mud blocks using ash modified soils’, Indian Concrete Journal, 2003, 77, 903–911.</li><li>5. Yogananda, M. R. and Jagadish, K. S., ‘Possolanic properties of rice husk ash, burnt clay and red mud’, Build Environ, 1988, 23, 304–308.</li><li>6. New construction materials in India, RMP Corrugated roofing Sheets’, Civil Engineering and construction Review 2002.</li><li>7. Cement News, ‘Cement Production’, International cement review, August 2009.</li><li>8. Dr. K. K. Jain, S. K. Singh and Laljee Sahu, ‘The Geo Technical properties of Red Mud and Red Mud Lime Mixtures’, Indian Highways, October 2001.</li><li>9. Dr. R. P. Joshi, V.G.M. Desai and B. S. Setty, ‘The use of locally available materials for low cost housing’, Proceeding of</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                   |             |

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|    | <p>National seminar on 'Recent advances in low cost building material and technology', Anantapur 1992.</p> <p>10. Dr. Y. P. Kakar, 'Management of Industrial Solid Waste Need for Recycling', Civil Engineering &amp; Construction Review, February 1998</p> <p>11. Guelensoy, Hueseyin, Mahramanhoglu, Mehmet. , 'Studies on the strengths of concretes produced from cements prepared with the addition of red mud', Cimento ve Beton Dunyasi (1996), 1(3), 17-21</p> <p>12. Mohan Rai, M. P. Jaising, CBRI Rookee, 'Advances in Building Materials and Construction'.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |
| 3. | <p><b>Authors:</b> Rajesh Nema, Rajeev Thakur, Ruchi Gupta</p> <p><b>Paper Title:</b> Design &amp; Implementation of FPGA Based on PID Controller</p> <p><b>Abstract:</b> Proportional-Integra-Derivative controllers are universal control structure and have widely used in Automation systems, they are usually implemented either in hardware using analog components or in software using Computer-based systems. In this paper, we focused our works designing on building a multi-channel PID controller by Field Programmable Gate Arrays (FPGAs). To overcome the hardware complexity by the use of more processors for multi channel, we are using single PID controller for multi channel .Multi channel can be implemented by the use of FPGA.when the error is more it can differentiate and produce the constant output, when signal is low when compared to reference signal it can integrate it.FPGA can offer parallel processing, more speed.</p> <p><b>Keywords:</b> FPGA, PID, PWM, SENSOR.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Efficient Dynamic System Implementation Of Fpga Based Pid Control Algorithm For Temperature Control System. Volume 3, Issue 2, July – September (2012), pp. 306-312</li> <li>2. High-Speed and Low-Power PID Structures for Embedded Applications PATMOS'11. Madrid: Spain (2011)"</li> <li>3. ISSN 0974-2190 Volume 2, Number 1 (2010), pp. 71--82 Analysis and Implementation of Discrete Time PID Controllers using FPGA</li> <li>4. FPGA technology for multi-axis control systems Armando Astarloa*, Jesús Lázaro, Unai Bidarte, Jaime Jiménez, Aitzol Zuloaga Accepted 1 September 2008</li> <li>5. Design and Implementation of Modular FPGA-Based PID Controllers, Yuen Fong Chan, M. Moallem, Member, IEEE, and Wei Wang, Member, IEEE-2007.</li> <li>6. Simulink/Modelsim Simulable VHDL PID Core for Industrial SoPC Multiaxis Controllers Jesús Lázaro, Armando Astarloa, Jagoba Arias, Unai Bidarte, Aitzol Zuloaga IEEE-2006.</li> <li>7. Xilinx Corp. Multipliers.</li> <li>8. National Semiconductor. LMD18245 3A, 55V DMOS Full- Bridge Motor D</li> </ol>                                                                                                                                                            | 14-16 |
| 4. | <p><b>Authors:</b> VPS Naidu, Bindu Elias</p> <p><b>Paper Title:</b> A Novel Image Fusion Technique using DCT based Laplacian Pyramid</p> <p><b>Abstract:</b> A novel image fusion technique using discrete Cosine transform (DCT) based laplacian pyramid is presented and studied. It is concluded that fusion with higher level of pyramid provides better fusion quality. The execution time is proportional to the number of pyramid levels used in the fusion process. This technique can be used for fusion of complementary information images as well as multi model image fusion. The proposed algorithm is very simple, easy to implement and could be used for real time applications. MATLAB code has been provided for quick implementation and validation of the proposed algorithm.</p> <p><b>Keywords:</b> Image fusion, DCT, Pyramids.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. H. Li, B.S. Manjunath and S.K. Mitra, "Multisensor image fusion using wavelet transform", Graph. Models Image Process, 57(3), pp.235-245, 1995.</li> <li>2. VPS Naidu and J.R. Raol, "Pixel-Level Image Fusion using Wavelets and Principal Component Analysis – A Comparative Analysis" Defence Science Journal, Vol.58, No.3, pp.338-352, May 2008</li> <li>3. A. Toet, L.J. Van Ruyven and J.M. Valette, "Merging thermal and visual images by a contrast pyramid", Opt. Eng. 28(7), pp.789-792, 1989.</li> <li>4. Rick S. Blum, "Robust image fusion using a statistical signal processing approach", Image Fusion, 6, pp.119-128, 2005.</li> <li>5. VPS Naidu, "Discrete Cosine Transform-based Image Fusion", Special Issue on Mobile Intelligent Autonomous System, Defence Science Journal, Vol. 60, No.1, pp.48-54, Jan. 2010.</li> <li>6. N. Ahmed, T. Natarajan and K.R.Rao, "Discrete Cosine Transform", IEEE Trans. On Computers, Vol.32, pp.90-93, 1974.</li> <li>7. Shutao Li, James T. Kwok and Yaonan Wang, "Combination of images with diverse focuses using the spatial frequency", Information fusion, 2(3), pp.167-176, 2001.</li> <li>8. <a href="http://en.wikipedia.org/wiki/Principal_components_analysis">http://en.wikipedia.org/wiki/Principal_components_analysis</a></li> <li>9. <a href="http://www.imagefusion.org">http://www.imagefusion.org</a></li> </ol> | 17-24 |
| 5. | <p><b>Authors:</b> Okoli F. I, Onubogu J. O, Okezie C. C, Okorogu V. N</p> <p><b>Paper Title:</b> The Simulation of the Control of an Industrial Mixer using PLC</p> <p><b>Abstract:</b> This paper is as a result of the need for an effective, reliable and highly flexible method for the control of processes within an Industrial environment. The objective of this study is to simulate the control an industrial mixer and by doing this we can develop a program that can be used for the actual implementation of such a model. This mixer is controlled using a programmable logic controller and programmed using ladder logic language.</p> <p><b>Keywords:</b> Effective, reliable and highly flexible method.</p> <p><b>References:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 25-29 |

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