

# International Journal of Emerging Science and Engineering

ISSN : 2319-6378

Website: [www.ijese.org](http://www.ijese.org)

**Volume-5 Issue-3, MARCH 2018**

**Published by:**

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



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|    | <b>Paper Title:</b>  | <b>Experimental Investigation on Cenosphere Bricks with Silica Fume</b>                 |     |
| 1. | <p><b>Abstract:</b> Our project based on made of bricks using cenosphere and silica fume materials. since cenosphere is collected as waste material from thermal power plants and also silica fume known as micro silica collected as a product of the silicon and ferrosilicon alloy producing .those are used as partial replacement material in cement .the ingredients of brick are cenosphere (20%) ,pp cement (18%), quarry dust (50%),silica fume (12%).the mix proportions are mixed and the mould of 230mm×100mm×100 mm used for molding of bricks .then the compressive strength, water absorption test ,efflorescence test ,acid test ,impact test were performed to find out the quality of bricks we have tested few specimen as per proportions to obtain the results . we also compare those bricks with the fly ash bricks now a days these bricks are commonly used instead of clay bricks in construction the brick has a proportion of fly ash (60%) , quarry dust (50%),opc (10%).we introduce cenosphere and silica fume instead of fly ash and also compare these cenosphere bricks with the fly ash bricks .</p> <p><b>Keywords:</b> Cenosphere, PPC (Portland Pozzolana Cement), Quarry Dust, Compressive, Acid Test, Water Absorption Test and Impact Test, Efflorescence Test.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. S.Lalithkumar, A. Priyadarshini, M.Manoj Kumar, N.Sekar Pandian , Experimental Study on Low Density Bricks ( Cenosphere Bricks): International journal of Recent Technology and Engineering . Detailed Study About Cenosphere Bricks Comparison of Low density Brick and Fly ash Brick</li> <li>2. Prabir Kumar Chaulia and Reeta Das, Process Parameter Optimization for Fly Ash Brick by Taguchi Method: Material Research; 2008.11. 159-164.</li> <li>3. Tutunlu Faith, and Atalay Umit.Utilization of Fly ash in Manufacturing of Building Brick: International Ash utilization Symposium, Center for applied Engineering Research; 2001 paper 13.</li> <li>4. Wang, J., Zhang, M., Li, W., Chia, k., and, Liew, R. (2012). Stability of cenospher in lightweight cement composites in terms of alkali-silicareaction. Cement and Concrete Research, 42, 721-727.</li> <li>5. Y, X., Shen, Z., Xu, Z., and, Wang, S. (2007).Fabrication and structural characterization of metal films coated on cenosphere particle by magnetron sputtering deposition. Applied Surface Science, 253, 7082- 7088.</li> <li>6. Cao, X., and, Zhang, H. (2013).Investigation into conductivity of silver-coated cenosphere composites prepared by a modified electroless process. Applied Surface Science, 264, 756- 76</li> </ol> |   | 1-5 |
| 2. | <b>Authors:</b>  | <b>Rohit B. Pawar, N. K Nath, S. B. Satpal</b>  |     |
|    | <b>Paper Title:</b>  | <b>Design and Analysis of Wheel Hub</b>   |     |
|    | <p><b>Abstract:</b> In this project various methodologies adopted by present researcher for analysis of Mahindra TUV wheel hub and upright assembly with main objective of analysis and optimization of the vehicle. This analysis will assist researchers working in the field of development of the structural design and mass reduction of vehicle through optimization methods conducted by FEA software viz. Catia V5 R20 and Ansys (workbench 16). The review includes key areas of researches as shape optimization, static load analysis and fatigue load analysis using FEA. This literature gradually discusses about the research methodology, software and the outcomes of the discussed researches and is planned to give a brief variety of the researches carried out on the wheel hub and upright assembly.</p> <p><b>Keywords:</b> Mahindra TUV, FEA software viz. Catia V5 R20 and Ansys (workbench 16).</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Suhaimi Khalis bin, "Design and Fabrication Of An upright With Brake Capilar Mounting For Formula Versality Race Car", April 2011.</li> <li>2. Rangababu, Daavulura, Depti and K, Ramana B., "Optimal Design and strength Analysis Of Wheel Hub Using Different Type Of Material", Oct-Dec 2015.</li> <li>3. Das, Abhijeet, "Virtual Prototype Of Upright Assembly Of Race Car For SUPRA SAEINDIA Competition", Oct 2014.-March-2015.</li> <li>4. Razak I.H.A.Yusopm, "Simulation And Optimization Analysis Of Steering Knuckle Component For Race Car", Nov2014.</li> <li>5. Dyapa,Anudeep Reddy,Vishal, "Design And Analysis Of Upright Of An FIA Related Cruiser Class Solar Electrical Vehicle", April 8,2018.</li> </ol>   |   | 6-8 |