

**BEST PROJECT LIST****BATCH 2015-2016**

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## **BEST PROJECT 1**

### **FLEXURAL BEHAVIOUR OF RCC BEAM REINFORCED WITH I SECTION**

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**HARISH P.**

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***Guided by:***

R. NANDHAKUMAR M.E.,

Assistant Professor,

Department of civil Engineering,

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This Project presents experimental test data with the theoretical analysis on the effect of replacing normal reinforcement with an equivalent I-section. By this method of casting the beam is expected to have a greater load bearing capacity. The experimental work includes identification of point of failure of both normal and composite beam and comparison of results between both the beams. The specimens of size 1x0.15x0.15m of grade M25 were experimented. When both the specimens were subjected to three points loading in flexure testing machine it was observed that composite beam has 57% more load bearing capacity than the normal reinforced beam. Thus from our experimental investigation we hereby suggest usage of RCC beams reinforced with I-section instead of conventional RCC beams.

## **Best project 2**

### **VALORISATION OF GGBFS IN PERVIOUS CONCRETE**

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#### ***Guided by:***

C. SURESH, M.E.,

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This project deals with the investigation of strength & permeability of pervious concrete made by partial replacement of cement (OPC 53 Grade) with GGBFS (20%,30%,40%).Pervious concrete is an advanced high porosity concrete due to its ability to allow the water to pass through. It is used as pavement in parking areas, light traffic areas, pedestrian walkways and sustainable construction due to its low load carrying capacity. Hence, valorization of GGBFS (Ground Granulated Blast Furnace Slag) in pervious concrete can adequately improve its strength and upgrades to usage in higher capacity roads.

### **Best project 3**

#### **FRACTIONAL SURROGATE IN CONCRETE USING CIVIC AND FEASIBLE MATERIAL**

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***Guided by:***

Dr.DASARATHY, Ph.D.,  
Professor,  
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The demand for natural sand in the construction industry has increased a lot resulting in reduction of sources and increase in price. Thus there is an increased need to identify a suitable substitute i.e. eco-friendly and inexpensive. In this project soil is recommended as a replacement of fine aggregate in concrete which is available in various forms as in construction sites, excavated foundation soil, etc. The behavior of partially and fully replaced sand by soil is tested by conducting the preliminary tests like sieve analysis, water absorption. The soil is replaced in 0%, 25%, 50%, 75%, 100% in spite of sand in M20 grade concrete commonly using in construction site. The concrete specimens were tested for compressive strength, splitting tensile strength at 7 days, 14 days, 28 days and the results obtained were compared with the strength of normal concrete.

**Best project 4**  
**AN INVESTIGATION ON PARTIAL REPLACEMENT OF FINE AGGREGATE  
BY SEA SAND**

<b>LOGANATHAN. K</b>	<b>(Reg.No:113112103023)</b>
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<b>SHARATH KUMAR.T.R</b>	<b>(Reg.No:113112103045)</b>
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***Guided by:***

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We study the suitability of sea sand for concrete production. Our aim is to compare compressive strength and salt contents of concrete with respect to M50 grade concrete produced by river sand and sea sand. We analyze the compressive strength of concrete cubes constructed with sea sand and river sand to investigate. The crushing strength was measured after the curing days of 7,14 and 28 days. We further investigate the chloride contents in the sea sand to assess whether the contents are within the permissible level for concrete production. We are replacing as the percentage of sea sand as 15%, 20%, 25%, 100%. We also were adding the silica fume of 6% in cements weight for increasing the strength of concrete. And we are planned to do the SEM test (scanned electron microscopy) to find the salt contents present in the concrete.

**Best project 5**  
**UTILIZATION OF WASTE MATERIALS IN HIGH STRENGTH CONCRETE**

**B.MURUGACHITRA**  
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In this project we are going to replace the cement with Metakaolin and silica fume and for coarse aggregate with ceramic waste partially for 4, 8, 12, 16, 20, 24, 28 percentages and the specimen is casted for 7, 14, 28 days of curing for each curing date. We have casted three specimens for different percentage of replacement and in this we have tested the specimen for cube compression and split tensile and after completing the curing dates we have got the following peak values. For the replacement of 20%, the compression strength was  $67.55\text{N/mm}^2$  and the split tensile strength was  $6.88\text{N/mm}^2$ . We recommend this particular percentage of replacement of Metakaolin, silica fume and ceramic wastes greatly influence the strength properties of the concrete.