

(54) Title of the invention : RECYCLING OF BRICK AGGREGATE AS PARTIAL REPLACEMENT OF COARSE AGGREGATE IN CONCRETE

<p>(51) International classification :G01N0003040000, C04B0018160000, G01N0001280000, C04B0028000000, B28B0007360000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : <b>1)St. Martin's Engineering College</b> Address of Applicant :Sy No. 98, 100, Dhulapally Road Dhulapally, Kompally Secunderabad Telangana India 500100 Secunderabad -----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)M. Bhavani, Student, CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>2)Pottenolla Manohar Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>3)Anudeepu Chowdary Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>4)K. Ajay Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>5)Gunda Aditya Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>6)T.Sushmitha Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>7)D. Sannitha Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>8)Kothakapu Sushwin Reddy Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>9)Ch.Vinay Kumar Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>10)P. Guruswamy Goud, Assistant Professor, CE, SMEC</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>11)K. Srikan Reddy Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p> <p><b>12)Kothakapu Sushwin Reddy Student CE</b> Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad -----</p>
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(57) Abstract :

The use of concrete is truly large and day by day the cost of the conventional material cost is also rising. So, it is beneficial to use the optional materials for making the concrete. The project focuses on coarse aggregate in concrete. In this project work, the study has been done on the replacement of coarse aggregate with demolished brick aggregate. The optional source is brick as a coarse aggregate. Brick produced due to over burning. The brick has irregular shape and it is also used as coarse aggregate in some places where the stone aggregate is not effortlessly available or if available its cost is high. These rejected bricks can also be an implicit source of coarse aggregate. It's partly or completely a replacement of the conventional material. We replaced the coarse aggregate in ratios of 15%, 25% and 35% in M25 grade of concrete. A complete thirty-eight numbers of concrete samples are cast with and while not crushed bricks. Tests are conducted on fresh and hardened cement concrete, for example, compressive strength test, split tensile tests and flexural test at 7 days and 28 days of curing period. The 25% replacement of brick is considered as the best because of strength and economy, hence we use it in enough loaded structures the result shows that the aggregate that concrete derived from brick aggregate attained lower strength than the regular concrete

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