

## **An Experimental Investigation of Conventional Concrete by Replacement of M Sand with Crumb Rubber**

R. Robert Singh<sup>1</sup>, S. Samson<sup>2</sup>, D.G.S. Nivedha<sup>3</sup>

<sup>1,3</sup> Assistant Professor, Department of Civil Engineering, VelTech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology Avadi, Chennai-600062.

<sup>2</sup> Professor, Department of Civil Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology Avadi, Chennai- 600062.  
robertwister@gmail.com

### **ABSTRACT**

Basic lightweight total concrete is a critical and flexible fabric, which offers a extend of specialized, financial and natural and protecting preferences and is outlined to ended up a prevailing fabric within the unused thousand years. For auxiliary applications of concrete, the thickness is regularly more vital than the quality. A diminished thickness for the same quality level decreases the self-weight, establishment estimate and development costs. Basic lightweight total concrete by and large utilized to diminish dead weight of structure as well as to decrease the hazard of seismic tremor harms to a structure since the seismic tremor powers that will impact the gracious building structures are relative to the mass of those structures. In this consider, lightweight total concrete was outlined with the utilize of characteristic perlite totals that will give an advantage of lessening dead weight of structure and to get a more temperate auxiliary lightweight concrete by utilize of perlite powder and scrap elastic as a substitution of the cement. Six blends were delivered with diverse cement substance and with or without perlite powder. Sixes blends partitioned into two bunches agreeing to their cement substance. In addition, each bunch had three sub blends with 5%, 10% and 15% of perlite powder as cement substitution.

**Keywords:** *Crumb, Perlite, Dominant material, Versatile material, M-sand.*