

## ABSTRACT

Polyethylene Terephthalate (PET) is generally utilized plastic for the storage of soft drinks and non-carbonated beverages. This plastic is a waste after it is consumed. Because of the deficiency of landfill locations, burning is generally utilized which in roundabout way influence and contaminates the earth. Thus, the utilization of disposed plastic used in concrete appears to be one of the possible solutions to this problem. This project focuses mainly on Polyethylene Terephthalate (PET) waste in terms of fibres in a cementitious matrix similar to an engineered cementitious composite (ECC). ECC is classed as high ductile concrete which is flexible instead of brittle (like concrete) having the property of strain hardening. Small fibres from PET bottles are cut using custom made cutter in the lengths of 10mm. 2% fibre of the total volume of the composite was used. Three mixes having Pet fibres, PVA fibres and PP fibres will be prepared and three-beam and three cylinders were cast. These specimens were then tested for compression and bending. The results were analysed and it was found that the addition of PET fibre reinforced cementitious composite give great results in terms of flexure strength, ductility and crack resistance.