EFFECT OF GEOPOLYMER CONCRETE WITH PLASTIC WASTE AND GLASS POWDER AS A FINE AGGREGATE: A REVIEW

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The Emission of CO2 from cement production is one of the major environmental concerns which can directly impact the health and contribute to global warming and another major issue is disposal of solid wastes like plastics, glass etc. into open areas and landfills that pollutes the environment and creates a health hazards around the world. To overcome these issues we are completely replacing cement concrete with geopolymer concrete which is sustainable and low carbon eco-friendly concrete and it has an ability to recycle a variety of waste materials. Therefore, in this paper we are discussing the materials properties and examining the properties of geopolymer concrete by incorporating plastic waste and glass powder as replacement for fine aggregates. Further the methodology that can be adopted for the preparation of geopolymer concrete is discussed. Finally the conclusion and recommendations for geopolymer concrete are also provided.
Keywords: Geopolymer concrete, plastic waste, glass powder.

A BRIEF REVIEW OF RECENT PROGRESS ON DEEP SEA SOIL CHARACTERISTICS FOR THE DEEP SEA MINING PROCESS

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In worldwide, to overcome an unborn deficit of resource, deep sea mining (DSM) technology have been developed for lesser marketable values. As a core element, deep sea soil characteristics play an important part in deep sea operations. Grounded on the development in the last decades, this paper presents the significance and challenge of deep sea soil behaviors and reviews the pressure sinkage and shear strength characteristics of deep sea soil. Firstly, the characteristics of deep sea deposition were reviewed. The commerce considering deep sea deposition to the tracked deep sea mining vehicle performance is discussed also, the pressure sinkage characteristics are reviewed in the field of deep sea mining. In the end, the current study precedence is proposed. This paper may give an appreciation of the current exploration status of deep sea soil for deep sea mining systems, which enlightens the unborn development for balancing technology.
Keywords: Deep sea soil, Sinkage, Shear strength, Current research