

Engineering Review of Recycled Concrete Production for Structural and Non-Structural Applications (Green Concrete)

Authors : Hadi Rouhi Belvirdi

Abstract : With the increasing demand for sustainable development, recycled materials are receiving more attention in construction projects. To promote sustainable development, this review article evaluates the feasibility of using recycled concrete in construction projects from an economic and environmental perspective. The results show that making concrete using recycled concrete is a suitable strategy for sustainable development. A complete examination of the physical and chemical properties of these recycled materials also provides important information about their suitability for use in the construction industry. Most of the studies do not show surprising results of the compressive or bending strength of these materials, and only the aspect of sustainable development of these materials is of interest. Their application can be investigated more in masonry and joinery works, but among them, there were studies that sometimes obtained more compressive and bending strength than the control sample, which can be used in concrete structures. Most of the cases introduced and discussed in this study can be implemented and help the country and the people of Iran preserve the environment and discuss sustainable development.

Keywords : environmental recycling, sustainable development, recycled materials, construction management

Conference Title : ICGEE 2024 : International Conference on Green Energy and Environment

Conference Location : Los Angeles, United States

Conference Dates : October 28-29, 2024