Patent Search

Invention Title	METHOD FOR PREPARATION OF SUSTAINABLE TERNARY BLENDED CONCRETE USING SILICA FUME AND ZEOLITE
Publication Number	47/2024
Publication Date	22/11/2024
Publication Type	INA
Application Number	202441088674
Application Filing Date	16/11/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	C04B0018140000, G01N0033380000, B81C0001000000, C04B0040000000, C07K0007080000

Inventor

Name	Address	Country
Dr. Pala Gireesh Kumar	Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Mr. Nekkanti Haripavan	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Mr. Butti Venkatesh	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Mr. Ramgopal. L	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Dr. S. Manjula	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Dr. B. Sudhir Kumar	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Ms. Vatsavayee Manasa	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Mrs. Penmetsa Lavanya	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Mr. S Sriharsha	Assistant Professor, Department of Civil Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India
Mr. Shaik Subhan Alisha	Assistant Professor, Department of Civil Engineering, Vishnu Institute of Technology, Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India

Applicant

Name	Address	Country	N
SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN	Vishnupur, Bhimavaram, West Godavari, Andhra Pradesh, India, PIN-534202	India	I

Abstract:

METHOD FOR PREPARATION OF SUSTAINABLE TERNARY BLENDED CONCRETE USING SILICA FUME AND ZEOLITE The present invention provides a sustainable and eff method for preparing ternary blended concrete using silica fume and zeolite. This method optimizes the properties of concrete while reducing its environmental foot offering significant advantages in terms of performance, durability, and cost-effectiveness. The concrete exhibits improved resistance to chemical attack, reduced per and enhanced mechanical properties compared to conventional concrete.

Complete Specification

Description:4. DESCRIPTION

Technical Field of the invention

The present invention relates to a method for preparing a sustainable ternary blended concrete, particularly for construction applications, which incorporates silica and zeolite as supplementary cementitious materials (SCMs) to enhance the mechanical properties, durability, and environmental sustainability of concrete. This m improves the performance of traditional Portland cement-based concrete by reducing the carbon footprint and utilizing industrial by-products, thus contributing to friendly building practices.

Background of the invention

Concrete is one of the most widely used construction materials in the world, but its production is responsible for significant environmental impact, primarily due to high CO_2 emissions associated with the manufacture of Portland cement. Various efforts have been made to reduce the environmental footprint of concrete by usir supplementary cementitious materials (SCMs), such as fly ash, slag, and silica fume.

View Application Status