

# ICES 2024

**TITLE OF PROJECT: EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF CEMENT BY LIME AND COCONUT FIBER**

NAME OF ALL AUTHORS: VIJAY DATTATRAY LOKHANDE , SUMIT BANU PHATE , PRATHMESH GANESH KAMALE , DNYNESHWAR NETAJI SHELAKHE

NAME OF YOUR MENTOR: *Prof. S. D. JAGDALE*

NAME OF YOUR COLLEGE: SVERI's COLLEGE OF ENGINEERING , PANDHARPUR

ABSTRACT (150-300 words):

This experimental study aims to formulate a novel concrete mixture by incorporating Lime and Coconut Fibre as substitutes for traditional cement. The primary objective is to assess the impact of Lime and Coconut Fibre concrete on various properties, including workability and adhesion of aggregates. Following the preparation of concrete blocks, the weight difference between the original concrete and those incorporating Lime and Coconut Fibre is examined.

The experimental approach involves varying proportions of Lime and Coconut Fibre, ranging from 1%, 2%, 3% to 5%, 10%, and 15%, replacing cement in the concrete mix. Subsequently, a series of tests is conducted for both fresh and hardened concrete. The anticipated outcomes suggest that alterations in the proportion of Lime and Coconut Fibre may result in changes to both density and compressive strength, with potential decreases observed in relation to the percentage of these materials in the concrete mixture.

KEYWORDS: LIME, COCONUT FIBER, WASTE UTILIZATION, CEMENT

CATEGORY: CONCRETE TECHNOLOGY AND BUILDING MATERIALS