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Poster Book

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**Unleashing Potentials
Shaping the Future**

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Treated Rubberised Engineered Cementitious Composites (ECC) for Modern Civil Engineering Material



INTRODUCTION

Engineered Cementitious Composite (ECC) - Excellent mechanical qualities and permanence that has a lot of interest from researchers and engineers

Rubberized Engineered Cementitious Composite (R-ECC) - a type of ECC in which fine aggregate is partially or entirely replaced by crumb rubber (CR)

ISSUES/ PROBLEM STATEMENT

Due to a limited supply, excessive exploitation of fine aggregate, a natural resource, will increase its depletion cost.

Tyre manufacturing demand for road vehicles has contributed to the rapid expansion of urbanization, increasing tyre manufacturing.

NOVELTY

- Treated R-ECC as partial sand replacement in ECC
- Usage of crumb rubber in ECC as a retrofitting material
- Sustainable Development Goal (SDG) 9 and 11

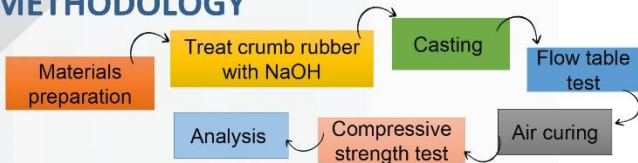
CONCLUSION

- All ECC or RECC specimens had passed the target for flowability test and compressive strength.
- The optimal percentage of CR as partial fine aggregate replacement in the ECC mixture is 10%.
- The material R-ECC promises to significantly provide new sustainable alternative materials in construction building.

OBJECTIVES

To identify the optimum percentage of crumb rubber as sand partial replacement in the ECC

METHODOLOGY



COMMERCIALIZATION



RECOGNITIONS



CONFERENCES & PUBLICATION



Dear author,
Congratulations! Your paper "Utilization of Sodium Hydroxide (NaOH) to Treat Used Tyres as Sand Partial Replacement in Engineered Cementitious Composites" has been accepted for publication in IJIE's International Journal of Integrated Engineering. Your manuscript will soon be forwarded to the Production Team who will prepare it for publication and you will be notified of a publication date once your paper has been scheduled for the special issue.

FINDINGS

