

सी.एस.आई.आर.-केन्द्रीय भवन अनुसंधान संस्थान CSIR-Central Building Research Institute रूड़की - 247 667 (भारत) Roorkee - 247 667 (India)

Structural Engineering Group

Agro Industrial Alkali Activated Composite for Prefabricated Building Elements & 3D Volumetric Construction

Period: 35 Months (April 2022 - March 2025)

Project Investigator:

Ajay Chourasia

Type of

Government Funded

Project: Sponsored

sponsored by:

Ministry of Housing and Urban Affairs, Government of India, New Delhi-110011

Cost: Rs. 952.17 Lakh

Objectives:

- Characterization of materials of industrial and agro waste alkali activated concrete for 3D printing and 3D volumetric structural element
- Evaluation of rheological, physico-mechanical and durability parameters
- Development of 3D concrete printed buildings and modular volumetri units
- Evaluation of seismic performance on full scale 3DCP/3DMV buildings under displacement controlled lateral cyclic loads
- Development of mix design and structural design guidelines for 3DCP and 3DMV buildings