

REHABILITATION OF HERITAGE STRUCTURE AND QUALITY ASSESSMENT OF ONGOING RCC STRUCTURES CONSTRUCTION WORK IN THE MAHAKALESHWAR TEMPLE COMPLEX

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Abstract:

The structural health assessment and rehabilitation of the Mahakaleshwar Temple Complex in Ujjain involves a thorough analysis of both the heritage stone structures and the ongoing RCC construction. The temple structures, comprising stone-built units with brick masonry shikars undergo visual inspection, distress mapping, and detailed Non-Destructive Testing (NDT) tests, to assess material integrity and weathering effects. Geotechnical investigations analyze foundation conditions and RCC structures will be assessed for construction deficiencies using NDT methods tests to evaluate reinforcement corrosion, concrete durability, and structural stability. Chemical analysis of concrete samples to find pH levels, chloride ingress, and sulfate content in the structure. The findings facilitate precise short-term and mid-term remedial measures to ensure structural longevity, safety, and compliance with engineering standards.

Objectives:

1. Visual inspection of various parts of stone/RC structures
2. Distress mapping of distressed structures
3. Detailed non-destructive testing (NDT) assessment
4. Interpretation of collected data and recommendation remedial measures

