

Strategy for monitoring and repairing of concrete bridges exposed to corrosive environments

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Proceedings of 3rd Gulf Conference on Roads (TGCR06), Muscat, 6-8 March 2006, pp. 228-235

Abstract:

Concrete bridges exposed to hot, humid and chloride-laden marine environment and/or long-term carbonation, are vulnerable to high risk of damage due to reinforcement corrosion. Regular monitoring and timely repair of the damage are essential to achieve the designed service-life. For a cost effective repair, decisions should be taken strategically instead of adopting some arbitrary measures. In this paper, criteria for taking decisions pertaining to repair of concrete bridges, subjected to reinforcement corrosion, have been described. Utility of the proposed approach has been explained through illustrative examples. Different state-of-the-art measures for the repair and rehabilitation of concrete bridges have also been briefly discussed.