



Код: 10991

Amit Goel, Anant Gupta, Rahul Verma, Akshay Mihir Das

Structural Health Evaluation of Concrete Road Bridges – an NDT Approach

Берлин, Германия, 2012 год

17 стр; формат: 23,5 x 16 см; библиографический список: 20 единиц

For a good construction, safe operation and timely maintenance of any bridge structure, a comprehensive structural evaluation becomes necessary. For this purpose, any kind of destructive testing is highly undesirable. Non-destructive testing and evaluation (NDT&E) methods provide an ideal means for a quick testing and a comprehensive evaluation of different parameters related to the strength, durability and overall structural integrity of concrete bridges. Some of these parameters are the elastic modulus/in-situ compressive strength, uniformity and homogeneity of concrete, presence of cracks, voids and other imperfections, identification of reinforcement profile, cover and diameter, etc. This paper presents the NDT&E of Indian Railways Road bridges. The various NDT&E methods utilized are presented, and the findings are mutually compared to highlight the effectiveness of a particular method in a specific situation or for a specific purpose.

Доклад. Конференция по мониторингу технического состояния гражданских сооружений (CSHM-4), «Системы мониторинга технического состояния сооружений, обеспечивающие продление срока службы сооружений». Ноябрь, 2012. Берлин. Германия.

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Acknowledgement

References