

State-of-the Art Practices in Bridge Inspection

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Abstract : Government reports and published research have flagged and brought to public attention the deteriorating condition of a large percentage of bridges in Canada and the United States. With the increasing number of deteriorated bridges in the US, Canada, and around the globe, condition assessment techniques of concrete bridges are evolving. Investigation for bridges' defects such as cracks, spalls, and delamination and their level of severity are the main objectives of condition assessment. Inspection and rehabilitation programs are being implemented to monitor and maintain deteriorated bridge infrastructure. This paper highlights the state-of-the art of current practices being performed for concrete bridge inspection. The information is gathered from the literature and through a distributed questionnaire. The current practices in concrete bridge inspection rely on the use of hummer sounding and chain dragging tests. Non-Destructive Testing (NDT) techniques are not being utilized fully in the process. Nonetheless, they are being partially utilized by the recommendation of the bridge inspector after conducting the visual inspection. Lanes are usually closed during the performance of visual inspection and bridge inspection in general.

Keywords : bridge inspection, condition assessment, questionnaire, non-destructive testing

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020