Evaluation Criteria for Maintenance Priorities of Bridges

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Abstract

It has been observed that there is no maintenance plan in most of the developing countries and maintenance is
only conducted based on users' complaints or when significant structural defect is obvious to the public.
Therefore, it is very important to have assessment criteriaof bridges as accurate evaluation is one of the most
important and significant steps in any maintenance plan of bridges.
The main purpose of this paper is to develop a criterion which is capable of assessing and evaluating the
bridges, their overall condition and the condition of each element.Moreover,to develop a method that canrank
the bridges in a network according to their repairing urgency. First of all different inspection typesare reviewed,
then in order to obtain reliable judgment the experience and knowledge of the bridge maintenance experts in
Egypt were added to the criteria by carrying out questionnaires and interviews with these experts in order to set
the importance of each parameter in the evaluation criteria and the importance of each element of bridges.
Finally obtaining a Bridge Overall Priority Indicator (BOPI) that ranks bridges in a network according to their
condition and maintenance urgency. As a result, advancedapproach and accurate judgment to bridges is created
through evaluating and assessing each parameter that may affect bridges. Also criterion that can help decision
makers to rank the bridges according to their maintenance urgency is proposed

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