

ASSESSMENT OF EMERGENCY BRIDGE DESIGN ALTERNATIVES BY USING ANALYTIC NETWORK PROCESS

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ABSTRACT

The article presents the basic process that uses analytic network process (ANP) to assess emergency bridge design alternatives. ANP is an effective method for the assessment of bridge design alternatives and is widely used in decision making with dependence and feedback. ANP considers all factors, estimates the relative influence from the factors, values factors with ratio ranging from 1 to 9, makes pairwise comparisons on factors, and synthesizes to obtain overall results. An ANP case is conveniently computed by the super decisions ANP software. The case in this study shows how it works. Results of the research provide valuable information and knowledge for Engineers of assessing bridge design alternatives.

Keywords: analytic network process (ANP), decision making, emergency bridge, alternatives assessment

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