Assessment of Existing Reinforced Concrete Bridges for Effective Rehabilitation

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ABSTRACT: Methods for the reliability assessment of existing reinforced concrete bridges are developed taking into account principles of new European standards Eurocodes and international documents ISO. Considering actual conditions of existing bridges, the partial safety factors given in Eurocodes for structural design of new bridges are modified using probabilistic methods. The outlined procedures are applied to the assessment of a reinforced concrete bridge. It appears that the partial factors may be reduced considering a target reliability level specified for actual conditions of existing bridges.

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