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Abstract

ALGORITHMICAL APPROACH OF BRIDGE CONDITION ASSESSMENT

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The paper deals with the concept of technical condition of a bridge which represents an evaluation of the entire set of characteristics of the bridge, as technical system, at a certain moment in time. These characteristics combined with the influence of the environment determine the present and future behavior of the system from the point of view of the technical purpose it was constructed for.

In the world of research, different persons or organizations have treated the problem differently. Although there is a common path, finally no common result was obtained. The experience of experts and the research were translated into regulations and even the bridge engineering is the same the results were different.

The interpretation and the equations, where they were developed, are generally different. While there is no unique view on this subject the article proposes an algorithm for the technical condition of the bridges based on the Romanian regulations.

The final equation considers that fundamental is the structural condition and the close related items are aggravating factors.

The algorithm is continuing and developing the experience of Romanian bridge inspectors and tries to put the subjective observations on an objective base, offering a framework for quantifying the general condition. This work is subject of continuous further revision and will be included in the development of the Romanian Bridge Management System.

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