

TECHNIQUES FOR SPECIAL FOLLOWING OF THE DEGRADATIONS DEVELOPMENT FOR A RAILWAY PASSAGE

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Abstract. Nowadays, most of the transportation infrastructure is already built, the main challenge being the maintenance of these structures in optimal conditions of safety and comfort for users. Therefore, in recent years, research in the field of bridge maintenance has focused on the development and implementation of special monitoring programs that can identify and warn transportation infrastructure managers of the appearance and development of degradation, and especially the possibility of collapse of the construction element in the near future. In addition to familiarizing readers with the structural design of the Constanta Bridge, this work proposes the presentation of the main technologies used for implementing the in-service behavior monitoring program, along with the arrangement of data acquisition units and a brief interpretation of the information provided by the monitoring system. In the conclusions of the article, the authors will draw attention to the bearing capacity of the structure, affected by the development of degradation processes and the need for emergency implementation of rehabilitation and strengthening works of the passage.

Keywords: *bridges, monitoring, rehabilitation, structural analysis, structural health monitoring.*