

Defectoscopy of Reinforced Concrete Structures with Using an Ultrasonic Method for Failure Monitoring

Authors : Sabina Hublova, Kristyna Hrabova, Petr Cikrle

Abstract : Sustainable development and preservation of existing buildings are becoming increasingly important worldwide. In order to reduce the amount of CO₂ emissions in the air and to reduce the amount of waste from building structures, we can predict an increasing demand for maintenance of some existing buildings in the future. The use of modern diagnostic methods, which allow detailed determination of the properties of structures, the identification of critical points, could be the great importance for the better assessment of existing structures. Non-destructive methods could be one of the options. From these methods, ultrasonic appears to be a highly perspective method, thanks to which we are able to identify critical points of an element or a structure. The experiment will focus on the use of electroacoustic methods for defectoscopy in reinforced concrete columns.

Keywords : sustainability, defectoscopy, ultrasonic method, non-destructive methods, electroacoustic methods

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