

## **SEISMIC ASSESSMENT METHOD FOR EXISTING REINFORCED CONCRETE BRIDGES**

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### **ABSTRACT**

Bridges are one of the main and most vulnerable components on transport infrastructure network, due to aggressive environment, degradation during the years of service, steel corrosion etc. A considerable number of existing Albanian bridges have been designed and constructed before 1989 year, according to former design code. Now days the design seismic code and their requirement are change. Therefore we need to assess seismic performance of bridges under different seismic loadings in different levels of reliability regard in requirements of new standards to seismic actions. Developing fragility curve on assessing bridges performance is effectively methodology in evaluation of vulnerabilities of existing reinforced bridges. This study concerns on providing a new method of seismic bridge assessment for bridge typology in Albania by means of fragility curves, considering columns as most vulnerable component. Ductility analysis for circular section piers is estimated by moment curvature curves. The proposed method is also illustrated by two application assessment presented the step by step procedure.

**Keywords:** Seismic assessment, Fragility curve, Reinforced bridges, moment curvature.