



## Durability and Intelligent Evaluation of Concrete Structures

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### Message from the Guest Editors

Concrete structures are widely applied to buildings and infrastructures in both developed and developing countries. Although concrete is generally considered a durable construction material, there is still a great durability concern when concrete structures are subjected to harsh environments or fatigue loading. A great number of concrete structures in service need to be evaluated and repaired to ensure their safety and the maintenance of these existing concrete structures, which consume significant portions of the national wealth of countries and make conventional human-based interventions inappropriate. Moreover, structural damages or defects are usually hidden and cannot be visualized from their appearance, and thus, it is difficult to evaluate the performance of concrete structures and to propose a proper maintenance scheme. To solve these problems, intelligent evaluation methods need to be investigated so that proper maintenance schemes can be developed and the durability of the concrete structures before and after strengthening can be predicted.

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