Special Issue

Durability and Integrity of Reinforced Concrete Structures under Corrosion

Message from the Guest Editors

In the new era of sustainable development, durability is a fundamental criterion in the design of reinforced concrete (RC) structures, whereas the majority of the existing building stock presents vulnerabilities due either to the quality of materials or environmental conditions. The corrosion of steel reinforcements is identified as the major degradation factor of RC structures in the long term, with remarkable multifaceted adverse effects which lead to degradation of the serviceability and bearing capacity.

This Special Issue aims to add evidence to the scientific progress achieved through research in assessing the corrosion damage of reinforced structures.

- Monitoring of corrosion level via surface concrete cracking
- Measurement of critical chloride concentration in the laboratory and on site
- Assessment of corroded RC structures
- Modeling the corrosive factor in RC elements
- Coatings to enhance durability of structures exposed to chloride-induced corrosion
- Bond-slip degradation due to corrosion
- Case studies and applications

applsci/special_issues/RC_Corrosion

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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