Special Issue

Analysis and Design for Sustainable and Durable Structural Concrete in Infrastructures

Message from the Guest Editors

Structural reinforced concrete is commonly used in infrastructure such as concrete pavements, bridges, abutments, etc. The addition of polyvinyl alcohol (PVA) fibres, polypropylene (PP) fibres, or hybrid fibres to concrete would improve the structural behaviour and sustainability of the infrastructure. PVA fibres may contribute to the self-healing of concrete, and both PVA and PP would improve the structural behaviour and ductility of reinforced concrete beams and slabs.

Experimental work may be carried out on fibrous reinforced concrete slabs and beams to assess the different types and quantity of fibres on their structural behaviour and durability.

Empirical design and rational equations based on international design codes may be developed to predict the deflection of slabs and the shear behaviour of beams, taking into consideration the effect of hybrid fibres for predicting deflection/shear strength in a simple and accurate way.

Guest Editors

Dr. Ibrahim G. Shaaban
School of Computing and Engineering, University of West London, London W5 5RF, UK

Prof. Dr. Joe Rizzuto
School of Computing and Engineering, University of West London, London W5 5RF, UK

Deadline for manuscript submissions

closed (20 July 2024)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/158029

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

About the Journal

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.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)