Special Issue

Engineered Supplementary Cementitious Material-Based Mortar/Concrete with Enhanced Mechanical and Durability Performance

Message from the Guest Editors

With the increasing energy demand and carbon footprint from the production of cement, it is imperative to develop cement-based mixes, which are sustainable, environmentally friendly, and have enhanced engineering properties compared to conventional cement-based materials. Supplementary cementitious materials (SCMs) make a viable option as full or partial substitutes for cement clinkers. However, mixes incorporating SCMs must be engineered to produce mortar/concrete with enhanced properties even at high-volume substitution with a clear experimental description of the mechanisms involved. This Special Issue seeks to publish research findings on mortar/concrete with enhanced engineering properties with a significantly low carbon footprint through the use of SCMs (agricultural waste, industrial waste, and natural pozzolans). Keywords

- supplementary cementitious materials
- characterization
- fresh properties
- rheology
- mechanical properties
- durability, microstructure

Guest Editors

Prof. Dr. Adewumi John Babafemi

Department of Civil Engineering, Stellenbosch University, Stellenbosch 7602, South Africa

Prof. Dr. Riaan Combrinck

Department of Civil Engineering, Stellenbosch University, Stellenbosch 7602, South Africa

Deadline for manuscript submissions

closed (30 November 2023)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/142681

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)