

Special Issue

New Trends in Sustainable Concrete and Its Structural Applications, 2nd Edition

Message from the Guest Editors

Sustainability is very important to the continued growth of our society and human civilization. In particular, cement, a main constituent material of concrete, emits a large amount of CO₂ and other greenhouse gases, so it constitutes the most important axis of the sustainability issue. In addition, due to restricted natural resources, the constituents of concrete are gradually depleted. To address this sustainability issue in concrete construction, new innovative technologies have been developed in the last decades. Recently, limestone calcined clay cement is being spotlighted as one of the alternative types of cement with lower CO₂ emissions.

All concretes that utilize these technologies can be called “sustainable concrete,” but sustainable concrete is not limited to just cement and constituent materials; it can be extended to technologies related to the entire cycle of concrete manufacturing, construction, operation, and disposal.

From these viewpoints, subjects that will be dealt with in this Special Issue will focus on recent trends in sustainable concrete research, and also case studies that prove the structural performance of sustainable concrete.

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