# **Special Issue**

# Advances in Machine Learning for the Prediction of Construction Materials Properties

#### Message from the Guest Editor

This Special Issue, "Advances in Machine Learning for the Prediction of Materials Properties," is dedicated to cutting-edge research that explores the use of ML techniques for modeling and optimizing the properties of critical construction materials, including soils, unbound aggregates, cementitious composites, and asphalt mixtures. Emphasis is placed on how ML can significantly minimize testing time and reduce the reliance on extensive laboratory programs without compromising prediction reliability. Innovations such as deep neural networks, support vector machines, and ensemble learning are capable of modeling nonlinear and multi-factorial behaviors that conventional empirical models cannot capture. These tools are reshaping the way we design, test, and manage materials in civil engineering applications, paving the way for a more sustainable, efficient, and resilient built environment.

#### Guest Editor

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#### Deadline for manuscript submissions

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## Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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