

## Special Issue

# Machine Learning Applications in Civil Engineering for Sustainability

### Message from the Guest Editors

Today, studies making approximations without examining various assumptions are insufficient. For this reason, it need to consider all effects and possibilities in engineering problems. These effects and possibilities can cause innovative methods to take too long. With machine learning, these processes can be shortened, and user-oriented design and prediction models can be created. In that case, a sustainable built environment will be provided by proposing realistic predicted results and forecasting of unknown issues. The Issue aim to solve and propose new methods in the application of topics including but not limited to the following: Progressive damage of reinforced concrete; Damage score estimation of existing buildings; Prediction of the penetration depth of gravity corers; Predicting the splitting tensile strength of recycled aggregate concrete; Underground utility network characterization; Modelling of shape-memory alloy members; Forecasting the capacity and strength of structural members; Fault detection and diagnostics of heating, ventilation, and air conditioning; Earthquake-resistant building design; Structural optimization, etc.

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### Guest Editors

Prof. Dr. Gebrail Bekdaş

Dr. Sinan Melih Nigdeli

Prof. Dr. Zong Woo Geem

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### Deadline for manuscript submissions

closed (30 September 2023)



## Sustainability

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### Editor-in-Chief

Prof. Dr. Marc A. Rosen

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