# Special Issue

# Application of Machine Learning in Structural Engineering in Construction

## Message from the Guest Editors

Artificial intelligence (AI) is currently transitioning from research to deployment. In civil engineering (CE), the development of AI-related technologies represented by machine learning, computer vision and intelligent robotics is also on the rise. By exploring the intersection and integration of these technologies with CE, this Special Issue is dedicated to demonstrating the possibilities for leveraging machine learning, computer vision, and robotics in CE, including, but not limited to, the following wide range of topics:Performance prediction and evaluation based on machine learning
Improvement and optimization of machine learning algorithms in CE
Challenges and solutions of machine learning in CE applications
Computer automatic visual recognition for CE
Deep Learning applied for structural control and structural health monitoring
Application of 3D point cloud data in Civil Engineering
Robotic automatic construction and building technology
Ingenious applications of robots in CE
Improvement of deep learning algorithms for scene-specific defect detection

## Guest Editors

Dr. Xinyu Zhao

Dr. Jinjun Xu

Dr. Yong Yu

Dr. Yunchao Tang

## Deadline for manuscript submissions

closed (31 August 2023)

# About the Journal

**Message from the Editor-in-Chief**

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

**Editor-in-Chief**

Prof. Dr. David Arditi
Construction Engineering and Management Program, Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, 3201 South Dearborn Street, Chicago, IL 60616, USA

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

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JCR - Q2 (Construction and Building Technology) / CiteScore - Q1 (Architecture)

**Rapid Publication:**
manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).