Structural Health Monitoring in Civil Engineering Using Artificial Intelligence, Machine Learning and Novel Sensor Technologies

Message from the Guest Editor

The work of continuous monitoring is quite difficult and costly, particularly when there are a lot of measurement nodes. Although sporadic monitoring is simpler to set up, real-time structural monitoring is not possible with this technique. Furthermore, the measurements must be taken by an operator on-location, which is costly. Recent advancements in sensor technologies have led to many low-cost but efficient solutions for procuring long-term monitoring data from instrumented structural systems. This Special Issue's aim is to investigate creative techniques and intelligent practices for structural health monitoring (SHM). It will cover a wide array of subjects, from dealing with SMH to artificial intelligence (AI) in civil engineering. Special attention will be paid to the development of novel sensor technologies, for continuous SHM and smart concrete applications, including SAW-integrated sensors and distributed optical fiber sensors. The impact of climate extremes on the performance and long-term viability of built heritage will also be a focus.

Guest Editor

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