

## Special Issue on **Resilient Civil Infrastructure under Dynamic Loadings**

# CALL FOR PAPERS

The resilient infrastructural system is an important component in modern city concept. The main principals are safety, sustainability, function maintainability, and fast recoverability after natural and/or manmade hazards. Resilient civil infrastructure is an effective way to reduce or even avoid large economic loss due to the down time of the infrastructure, for example, following a strong earthquake. One example is Christchurch City, New Zealand, which has been paralysed for more than six years due to the damage of infrastructure that has still not been fully repaired today, following the strong earthquake in 2011.

In the traditional design of civil infrastructure, for example, bridges, cities, port facilities, and underground pipes, the structures are considered as an isolated system for simplicity. The influence of the surroundings, for example, supporting ground and adjacent structures, is ignored, even though it is well known that under a dynamic load a building on soft ground will behave differently from that on firm soil. To ensure structural integrity and high performances of resilient infrastructures, a holistic consideration in the design is essential. Accurate studies can be achieved through combining related subsystems into one big analytical system, namely, the “coupled structural system.”

The Special Issue addresses the challenges and emerging problems in the research area related to the integral study of resilient infrastructural systems under dynamic loadings, for example, wind, traffic, tsunamis, and earthquakes. Papers describing original theoretical investigation, new outcomes resulting from physical experiments and new measuring methods are welcome.

Potential topics include but are not limited to the following:

- ▶ The analysis, modelling, control, and applications in
  - ▶ Fluid–solid coupled systems
  - ▶ Soil-foundation-structure systems
  - ▶ Adjacent building systems
  - ▶ Vehicle-bridge systems
  - ▶ Transmission tower-line systems

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/sv/dcs/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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