

Editorial

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The second part of the themed Issue on bridges and transport network resilience contains papers relating to structural health monitoring (SHM) and its contribution toward improving resilience. Bridge and transport infrastructure monitoring activities consider different types of digital technologies with a wide variety of solutions.

A brief contribution by Roca *et al.* (2023) complements the technical issue by providing a short introduction to a supplement of the *Manual on Scour at Bridges and Other Hydraulic Structures* (Kitchen *et al.*, 2021), published in 2021, capturing additional knowledge for designers and asset managers of structures in the water environment subjected to scour.

A general overview of latest trends in bridge health monitoring is presented by Catbas and Avci (2023), with reference to emerging digital methods as the products of technology advancements, such as lidar, photogrammetry, virtual and augmented reality, among others.

The contribution by Macchiarulo *et al.* (2023) refers to remote sensor technology for providing cheaper measurements, with revisiting time to support inspection planning and maintenance prioritisation while maximising functionality and increasing resilience of bridges and transport networks (Figure 1). Satellite technologies are also exploited in the work by Panici and Kripakaran (2023) to identify bridges subjected to transport and accumulation of floating large wood debris, which may affect their structural integrity owing to collision forces on piers and exacerbation of scour at piers and abutments.

The contribution by Qian *et al.* (2023) provides insights in long-term risk and resilience assessment of bridges to support rational decision-making considering both earthquake actions and progressive structural deterioration. A general framework is then proposed considering periodic assessments, inspections and SHM, to update resilience.

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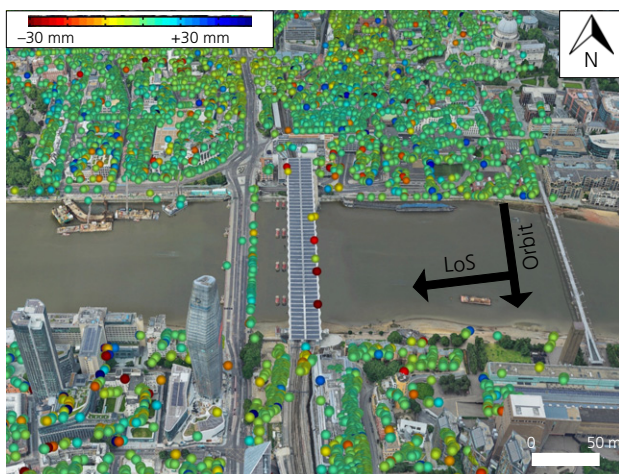


Figure 1. Example of London bridges cumulative displacement field obtained by processing 72 COSMO-SkyMed descending images from 2011 to 2015 (taken from Macchiarulo *et al.*, 2023).