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Announcement

Award-winning paper in 2022

Papers published in *Bridge Engineering* are eligible for awards from the Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Friday 14 October 2023, ICE president Keith Howells presented an award to the following paper published in *Bridge Engineering* in 2022. The editorial panel nominated their best papers and an awards committee chaired by Tim Broyd allocated the awards.

John Henry Garrood King Medal

The John Henry Garrood King Medal, presented for the best paper on bridges, was awarded to Blagojević *et al*. (2022).

Abstract

Functional recovery of transportation infrastructure after a disaster is essential for community disaster resilience, as the recovery of damaged community components depends on their accessibility for repair. This paper presents a community disaster recovery simulation that accounts for community components' accessibility for repair using a demand–supply framework. The considered components of a community are viewed as suppliers and/or users of various resources and services essential for community functionality, reflected in components' supply and demand properties. Whenever the demand of a component is not met, that component ceases to operate, simulating interdependency effects. Similarly, recovery demand is attributed to damaged components, representing the amounts of resources and services (e.g. workers, machinery and transportation services) that these components need to recover. The proposed framework is illustrated on a virtual community with 3600 inhabitants supported by several interdependent infrastructure systems. The results show that the transportation network damage slows down the recovery of the virtual community by preventing access to damaged components and reducing the ability of the community to mobilise available repair resources. Furthermore, the effect of such prolonged transportation system recovery on the damage-free infrastructure systems whose functionality was decreased due to their dependency on the affected infrastructure systems, is quantified.

REFERENCE

Blagojević N, Didier M and Stojadinović B (2022) Simulating the role of transportation infrastructure for community disaster recovery. *Proceedings of the Institution of Civil Engineers – Bridge Engineering* **175(3)**: 150–159, https://doi.org/10.1680/jbren.21.00018.