

FRIDAY, JANUARY 20, 2023

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Journal of Bridge Engineering highlights CEE team's paper as Editor's Choice

Xu Han '23 PhD and Professor Dan M. Frangopol examine joint effects of corrosion and seismic hazards on structural performance indicators of bridge networks to develop optimal maintenance strategies

A paper co-authored by recent Lehigh graduate [Xu Han '23 PhD](#) and civil and environmental engineering professor [Dan M. Frangopol](#) has been selected as the [Editor's Choice article](#) in the January 2023 edition (Vol. 28, Issue 1) of the *Journal of Bridge Engineering*, published by ASCE.

Titled "Life-Cycle Risk-Based Optimal Maintenance Strategy for Bridge Networks Subjected to Corrosion and Seismic Hazards," the paper investigates "the joint effects of multiple deterioration mechanisms on structural performance indicators in a probabilistic context" and "presents a life-cycle risk-based optimal management strategy for bridge networks subjected to corrosion and seismic hazards."

The authors use an existing bridge network to illustrate their approach to optimizing infrastructure management by "maximizing the life-cycle performance at a minimum cost."

Han will graduate from Lehigh University this month with a PhD in structural engineering. He also holds a master's degree and a Bachelor of Applied Science in civil engineering from Tongji University in China.

During his PhD studies, Han was advised by Frangopol, who is Lehigh's inaugural Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture and a world-renowned expert in bridge safety and maintenance management, structural systems reliability, and life-cycle civil engineering.

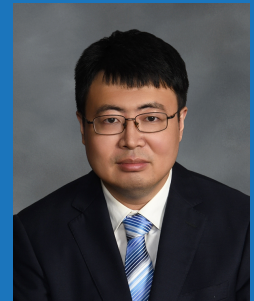
Read more about Frangopol's research and achievements [here](#).

Related Links:

- [Journal of Bridge Engineering: "Life-Cycle Risk-Based Optimal Maintenance Strategy for Bridge Networks Subjected to..."](#)
- [LinkedIn: Xu Han](#)
- [Research website: Dan M. Frangopol](#)

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Xu Han recently graduated from Lehigh University with a PhD in structural engineering.



Professor Dan M. Frangopol is the inaugural Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture at Lehigh University.

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