**HKU Department of Civil Engineering Seminar ASCE Greater China Distinguished Lecture** 

## Man-made Extreme Hazard Effects on **Bridges**

Date: 2nd Oct 2024 E.

- 🕓 Time: 5:00 pm 6:00 pm (HKT)
  - Venue: Room 612B, Haking Wong Building, HKU
- Zoom: 927 6643 6409



## Abstract

Highway bridges are frequently vulnerable to collapse because of man-made extreme hazards, such as blast, vehicular impacts, vessel impacts, large ship impacts, etc. There are numerous examples of the collapse of highway bridges because of these extreme hazards. The presenter has investigated these hazards and their effects on bridges extensively over last 15-20 years. This presentation will highlight modeling of these hazards, their effects on safety of bridges and countermeasures to improve safety of highway bridges, particularly longspan bridges.

## **About the Speakers**



Prof. Anil Agrawal is a Herbert G. Kayser Professor of Civil Engineering at the City College of New York, distinguished member of ASCE, and past Chief Editor of the ASCE Journal of Bridge Engineering during October 2009 to September 2021. He has been the past chair of the ASCE SEI Committee on Bridge Inspection, Rehabilitation and Monitoring and ASCE SEI Committee on Structural Control and Sensing. He has also been the chair of the Engineering Mechanics committee of Metropolitan Section ASCE since 2013 and is vice-chair of ExCom of the SEI Technical Community Committee. He is recipient of several prestigious awards, including Performance Excellence Award from the City University of New York in 2000, President's Award for Excellence in Scholarship, Teaching and Service from the City College of New York in 2015, Richard R. Torrens Award for outstanding performance as editor of the Journal of Bridge Engineering from the ASCE in 2019, Arthur M. Wellington Prize for the paper, "Heavy Truck Collision with

Bridge Piers: Truck Collision with Bridge Piers: Computational Simulation Study," Journal of Bridge Engineering, June 2019, from the ASCE in 2020, Metropolitan Section Civil Engineer of the Year Award for character, professional integrity, contribution to academia, and years of outstanding service to ASCE and the civil engineering profession from the Metropolitan Section of ASCE in 2022, and, Ernest E. Howard for "significant contributions in structural engineering for extreme hazard mitigation and blast and impact protection of highway bridges" from the ASCE in 2022, 2022 Research Implementation award for the project "NJDOT UAS/Drone Procedures Manual and Best Practices for Use in New Jersey" by the New Jersey Department of Transportation and 2023 Raymond C. Reese Research Prize for the paper "Performance-Based Design Framework for Concrete Barriers Subjected to Truck Collision," Journal of Bridge Engineering, August 2021. He has published more than 132 peer reviewed papers, 26 major reports and more than 200 conference papers.

CPD certificates will be issued by the ASCE. Contact Mr. DONG via zhikun@connect.hku.hk.

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