

Civil, Architectural and Environmental Engineering



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Visiting Scholars Seminar

11:00 a.m., Thursday, April 19

215 Butler-Carlton Hall



Anil Agrawal, Professor of Civil Engineering

Dr. Agrawal is the Chief Editor of the ASCE Journal of Bridge Engineering. He has been the past-chair of ASCE Committee on Bridge Inspection, Rehabilitation and Monitoring. He is also an Associate Director of the INSPIRE University Transportation Center, led by Missouri S&T.

His research interests include inspection and deterioration of bridge elements, robotic inspection of bridge components, post-hazard assessment using drones, behavior of bridges during extreme hazards such as earthquakes, blast, fire, and vehicular impacts on highway bridges, redundancy of long span cable supported bridges and advanced geophysical methods on foundation characterization.

Reuse of Foundations of Existing Bridges

Foundations of existing highway bridges (over land and water) may have significant functional values after being under service for decades. Hence, reuse of foundations of existing bridges during reconstruction or major rehabilitation of bridges can result in major savings in costs and time. The best practice manual on bridge foundation reuse, developed as part of FHWA Foundation Characterization Program (FCP), addresses critical issues encountered during decision-making on foundation reuse, assessment of existing bridge foundations for structural integrity, durability and load carrying capacity, repair and strengthening of bridge foundations; and design of new bridge foundations for potential future reuse. In order to highlight significant benefits of foundation reuse from economic, environmental, and social perspectives; the manual includes numerous case examples on reuse of bridge foundations in the U.S.A. and Canada. The case examples also present detailed process followed in resolving integrity, durability and load capacity issues encountered during the reuse process and will serve as a knowledgebase for transportation agencies interested in reusing bridge foundations. Planning for future reuse during the construction of a new bridge is a very important sustainability initiative that has also been addressed in this manual.

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