UTC and ADVANCE Sponsored Seminar

Development of Rapid, Reliable, and Economical Methods for Inspection and Monitoring of Highway Bridges

Prof. Sharon L. Wood, Ph.D., FACI
Department of Civil, Architectural and Environmental Engineering
The University of Texas at Austin

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4:00-5:00p.m.
Durland Hall 1066

Abstract:

Deterioration of the infrastructure systems in the US is becoming a national crisis, and a significant proportion of the nation's bridge inventory has reached or is nearing the end of its design service life. It is imperative that a reliable and efficient means of evaluating and preserving the health of the country's bridge inventory be employed to ensure public safety and economic stability. This research is focused on transforming the current bridge inspection process by developing two types of wireless networks: (1) low-power, wireless sensor networks for long-term monitoring of fatigue damage in fracture critical bridges and (2) passive sensors for detection of corrosion in concrete bridge decks.

Short Bio:

Sharon L. Wood is the Robert L. Parker, Sr. Centennial Professor of Engineering and Chair of the Department of Civil, Architectural, and Environmental Engineering at the University of Texas at Austin. She received her BS in civil engineering from the University of Virginia and graduate degrees from the University of Illinois. Wood teaches courses related to the design of reinforced concrete structures and earthquake engineering, and her research is focused on developing methods for monitoring the performance of highway bridges. Wood is a fellow of the American Concrete Institute (ACI) and is a member of the Structural Concrete Building Code Committee.