

Team of Engineers Honored with ASCE's J. James R. Croes Medal

BY Staff

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Sunyong Kim, Ph.D., EIT, M.ASCE; **Dan M. Frangopol**, Sc.D., P.E., Dist.M.ASCE; and **Mohamed Soliman**, S.M.ASCE, are the recipients of the **J. James R. Croes Medal** for their paper "Generalized Probabilistic Framework for Optimum Inspection and Maintenance Planning," published in the March 2013 issue of ASCE's *Journal of Structural Engineering*. This paper presents a probabilistic framework for optimum inspection and maintenance planning and continues to push the envelope of bridge maintenance by introducing uncertainties at all levels to produce usable inspection routines and assist in maintenance decisions. The paper describes a very important advance in inspection and maintenance scheduling for time-dependent deterioration of structures or systems, and also illustrates the ability to determine the impacts of better inspections (damage detected earlier) and maintenance actions (or even replacement actions) on the service life of a structure and its total life-cycle cost. The paper concludes that with much of our nation's infrastructure in maintenance delinquency, this method could go a long way toward determining which significant structures or systems could best benefit (at the minimum cost) by extension of their service life.

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