Review of the Long-Term Bridge Performance Program: Evaluation and Monitoring

Committee

Sreenivas Alampalli

Chair

Sreenivas Alampalli is the Director of the Structures Evaluation Services Bureau at the New York State Department of Transportation (NYSDOT). In this position, he manages structural inspection, inventory, and safety assurance programs. Before taking up the current responsibility in 2003, Sreenivas served as a Director of the Transportation Research and Development Bureau, where he managed a targeted transportation infrastructure R&D program to enhance the quality and cost-effectiveness of transportation policies, practices, procedures, standards, and specifications. Dr. Alampalli obtained Ph.D. and M.B.A degrees from Rensselaer Polytechnic Institute, an M.S. degree from the Indian Institute of Technology (India), and a B.S. degree from S.V. University (India). He is a registered Professional Engineer in the New York State. His interests include infrastructure management, innovative materials, nondestructive testing, structural health monitoring, and long-term bridge performance. Dr. Alampalli is a Fellow of the American Society of Civil Engineers (ASCE), the American Society of Nondestructive Testing (ASNT), and the International Society for Structural Health Monitoring of Intelligent Infrastructure. He has received several awards, including the prestigious Charles Pankow Award for Innovation, from the Civil Engineering Research Foundation in 2000; the ASNT Mentoring Award in 2009; and the Herbert Howard Government Civil Engineer of the Year Award from ASCE Metropolitan section in 2009. Dr. Alampalli has co-authored more than 250 technical publications covering various aspects of structural performance, including a 2-volume book on Infrastructure Health in Civil Engineering.

Rebecca Curtis

Vice Chair

Rebecca Curtis is the Bridge Management Engineer with the Michigan Department of Transportation (MDOT). She oversees the statewide bridge management program areas including bridge project scoping, load rating, the bridge inventory, and big bridge management. Ms. Curtis also serves as the system manager for the bridge program. Ms. Curtis originally joined MDOT in 2006 as the Load Rating Engineer, where she was responsible for evaluating the load-carrying capacity of state-owned bridges as well as providing guidance and assistance to local agencies. While serving in this capacity, she also served on the AASHTO BRIDGEWare Task Force from 2009 to 2011. In addition to her service with MDOT, Ms. Curtis has also served as the Non-Destructive Evaluation Research Program manager for the Federal Highway Administration (FHWA). Prior to her service with the MDOT and FHWA, Ms. Curtis worked as a structural engineer for a civil engineering consulting firm where her assignments included designing, inspecting, scoping and load rating a variety of structures. She holds a B.S. degree from Michigan State University and an M.S. degree in engineering from the University of Michigan, and is a registered Professional Engineer in the state of Michigan.

Alfredo H. Ang

Member

Alfredo H-S Ang is currently Research Professor and Professor Emeritus at the University of California in Irvine, California, and also, since 1988, Professor Emeritus at the University of Illinois at Urbana-Champaign. His main area of expertise is in quantitative risk assessment and risk management, including the application of probability and reliability in civil and structural engineering, with emphasis on safety and durability of engineering systems. He has published about 400 papers and articles, and also a two-volume textbook on probability concepts in engineering, which has been translated into several languages. During his career, he has served as consultant and technical adviser to government and industry on technological risk and reliability issues, both in the United States and abroad. He also serves a a consultant to the U.S. Department of Defense on nuclear defense, the U.S. Navy on surface effect ships and the mobile offshore base, the U.S. Air Force on missile defense, and the U.S. Coast Guard on marine and offshore structures. He is a member of the NAE (elected in 1976) and has received a large number of awards from the ASCE and other societies, including Honorary Membership in the ASCE and the N.M Newmark Medal, the A. Freudenthal Medal, the E. Howard Award, and the Huber Research Prize, and the 2005 International Prize from the Japan Society of Civil Engineers. Additionally, he has been a member of the National Academies' Board on Infrastructure and the Constructed Environment for the last two years and has served on other NRC committees in the past.

Matthew M. Farrar

Member

Matthew M. Farrar is the State Bridge Engineer for the Idaho Transportation Department. He has over 28 years of service with the Idaho Transportation in the areas of bridge planning, design, construction, and inspection/evaluation. He serves on the AASHTO Subcommittee for Bridges and Structures as the Chairman of the technical committee T-18 Bridge Management, Evaluation and Rehabilitation. Vice Chairman of technical committee T-10 Concrete Structures, and as a member of technical committee T-14 Steel Bridges. He is Idaho's state coordinator for the Long Term Bridge Performance Program.

William M. McEntee

Member

William Michael McEntee served as Director of the Permits and Environmental Concerns Department of the Road Commission for Oakland County from 1992 until retirement in 2010. He served as Environmental Concerns Coordinator and Environmentalist with the Road Commission from 1976 through 1992. Responsibilities included issuance of permits to public utilities, communities, developers and others to use or perform work within public road rights of way. This included the review and approval of plans, inspection of work, construction or replacement of roads and bridges, pedestrian facilities, drainage systems, traffic control and coordination with the work of others. Other responsibilities included ensuring agency compliance with federal, state and local laws, rules, and regulations related to environmental protections, coordination with the Michigan Department of Transportation, cities, villages, townships and adjacent counties; development of public involvement activities, conducting public hearings, preparation of environmental assessments, 4(f) statements, wetland permits, inland lakes and streams permits, development of mitigation sites and coordination with consulting engineers on projects undertaken by consultant contract. Mr. McEntee was first appointed to the Michigan Transportation Asset Management Council in 2002 representing the County Road Association of Michigan. He was recently re-appointed to a 3-year term through 2015. He serves as Chair of the Data Committee, and is active with the Midwest Bridge Preservation Partnership and serves as the local agency representative to the Board of Directors.

Soheil Nazarian

Member

Soheil Nazarian is the McIntosh Murchison Chair Professor of Civil Engineering at the University of Texas at El Paso (UTEP). He has more than 25 years of experience in the areas of materials and nondestructive testing as related to transportation infrastructure and lifeline. He has been the principal investigator (PI) and co-PI of more than 90 research projects funded by federal and state agencies such as Texas Department of Transportation, FHWA, National Science Foundation, Army Research Office, USAF Office of Scientific Research, and the 2nd Strategic Highway Research Program (SHRP2). Among his recent projects, he has been the co-PI of two SHRP2 projects entitled “Nondestructive Testing to Identify Concrete Bridge Deck Deterioration,” and “High-Speed Nondestructive Testing Methods for Mapping Voids, Debonding, Delamination, Moisture, and Other Defects Behind or Within Tunnel Linings.” He is a pioneer in the development and improvement of the spectral analysis of surface waves method for nondestructive testing of infrastructure. He is the author or coauthor of more than 170 technical articles in journals and conference proceedings primarily sponsored by the ASCE, the American Society for Testing and Materials, and TRB. He has also coauthored more than 90 technical reports in the areas of nondestructive testing, pavement materials, and geotechnical engineering.

Charles Sikorsky

Member

Charles S. Sikorsky is a Senior Bridge Engineer with the California Department of Transportation (Caltrans). He has been with Caltrans since 1991, where his primary duties and responsibilities currently include fiscal management of the Caltrans seismic research program; management of Caltrans-funded research (structures) at various universities, in particular the University of California, San Diego (UCSD); as well as evaluation and implementation of nondestructive damage evaluation algorithms in structural health monitoring of bridges. He also serves as the Caltrans Program Manager for the Seismic Response Modification Device Facility at UCSD; and acts as liaison between the Department and the Caltrans Seismic Advisory Board. His field experience includes providing construction support, such as review and approval of falsework and temporary supports for the San Francisco Oakland Bay Bridge West Approach Project; as well as the I-280 Retrofit Project in San Francisco following the Loma Prieta earthquake in 1989. Before returning to graduate school in 1983, Dr. Sikorsky served in the United States Air Force (USAF) as a civil engineering officer during the period from 1978 to 1983. During that time period his military design / construction experience included design / construction of F-15 aircraft facilities for the Royal Saudi Air Force and facility construction in support of the USAF Space Program. He holds a bachelor of science (civil engineering) degree from Lehigh University, and master of science (civil engineering) and Ph.D. degrees from Texas A&M University. He also serves as an associate editor for Structural Health Monitoring and reviews articles for several prominent journals. He is a registered professional engineer in the State of California and a member of the Society of Experimental Mechanics.