

Review of the Long-Term Bridge Performance

Program: Expert Task Group for Bridge Traffic and Truck Weights

Committee

Jugesh Kapur

Chair

Jugesh Kapur has 30 years' experience in bridge engineering and is currently employed by Burns & McDonnell as a senior associate bridge engineer in Kansas City, Missouri. He was the former State Bridge Engineer for the Washington State DOT. He managed a staff of 130 bridge designers and inspectors. Mr. Kapur's responsibilities included bridge design, bridge inspections, load ratings and reporting of National Bridge Inventory Data to the Federal Highway Administration. He monitored bridge quality and assurance during design and inspections, determined the fiscal and programmatic impacts of existing and proposed transportation legislation, and directed development and delivery of critical bridge projects accordingly. Mr. Kapur was a member of AASHTO's bridge technical committees on bridge loads and security, the chair of bridge bearings and expansion joints committee and vice-chair of the bridge seismic loads committee. He serves on many NCHRP's research panels. He is a University of Washington graduate and a registered professional engineer in civil and structural engineering in Washington and Oregon.

Andrzej S. Nowak

Vice Chair

Andrzej S. Nowak is Elton & Lois G. Huff Eminent Scholar Chair and Department Chair of Civil Engineering at Auburn University. He received M.S. and Ph.D. degrees from the Warsaw University of Technology in Poland. His area of expertise is structural reliability and bridge engineering, and major research accomplishments include the development of a reliability-based calibration procedure for calculation of load and resistance factors. The procedure was successfully applied on calibration of AASHTO LRFD design code for bridges, ACI 318 Code for Concrete Buildings, Canadian Highway Bridge Design Code, and British Standard BS-5400. He is an Honorary Professor of the Warsaw University of Technology and Krakow University of Technology, and a Fellow of ASCE, ACI, and the International Association for Bridge and Structural Engineering.

George H. Conner

Member

George H. Conner is the State Maintenance Engineer for the Alabama Department of Transportation (ALDOT). He and his staff oversee and manage ALDOT's programs for roadway, roadsides, vegetation management, bridge maintenance, bridge inspection, bridge rating, traffic operations, access management, oversize/overweight vehicle permits, scour, hydraulics, outdoor advertising, and emergency management. After time spent as an Air Force Civil Engineering Officer and a Structural Engineering Project Designer, Mr. Conner joined ALDOT's newly formed Bridge Load Testing office in 1992 and managed ALDOT's bridge rating program. Other positions within the department include Assistant State Maintenance Engineer for Roadsides and Assistant State Maintenance Engineer for Bridges. Mr. Conner was a member and chair of the AASHTO BRIDGEWare Task Force. He participated in the 2006 International Technology Scanning Tour for Commercial Motor Vehicle Size and Weight Enforcement. He was a member of the AASHTO Subcommittee on Bridges and Structures, and currently serves on the AASHTO Subcommittee on Maintenance. He holds B.S. and M.S. degrees from the University of Alabama, and is a registered Professional Engineer in Alabama.

Dan M. Frangopol

Member

Dan M. Frangopol is Professor of Engineering and holds the Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture at Lehigh University. He is also Emeritus Professor of Civil Engineering at the University of Colorado. His main research interests are in the application of probabilistic concepts and methods to civil infrastructure systems including structural reliability, probability-based design and life-cycle optimization of bridges, structural health monitoring, life-cycle performance maintenance and management of structures and infrastructures under uncertainty, risk-based assessment and decision making, bridge resilience to disasters, and stochastic mechanics. He is a Distinguished Member of the American Society of Civil Engineers (ASCE), holds two honorary doctorates and three honorary professorships, and is the recipient of several national and international awards including the Nathan M. Newmark and T.Y. Lin Medals.

Anne-Marie H. McDonnell

Member

Anne-Marie H. McDonnell is a Transportation Engineer with the Connecticut Department of Transportation, Research Unit. Ms. McDonnell is the principal investigator for the Federal Highway Administration's (FHWA's) Long-Term Pavement Performance Program (LTPP) activities in Connecticut. She has worked extensively on the evaluation of traffic monitoring equipment, and specifically on weigh-in-motion (WIM) technology. In this role, she was the principal investigator on a project to install and evaluate the first quartz piezoelectric WIM sensors on a highway in the United States. She is currently a co-principal investigator on a project in Connecticut entitled, "Development and Evaluation of a Dual-Purpose Bridge Health Monitoring and Weigh-In-Motion System." Ms. McDonnell is currently a member and Chair of the TRB LTPP Expert Task Group on Traffic Data Collection and Analysis, member of the TRB Highway Traffic Monitoring Committee, Chair of the TRB Subcommittee on Weigh-In-Motion, and a member of the Task Force on Traffic Monitoring Conferences. She is a member of the Board for the International Society of Weigh-In-Motion. Ms. McDonnell has been employed by the Connecticut Department of Transportation for 25 years. She holds a B.S. degree in civil engineering from the University of Massachusetts and an M.S. degree in civil engineering from the University of Connecticut. She is a registered Professional Engineer in the State of Connecticut.

Ted M. Scott, II

Member

Ted Scott holds the position of Director of Engineering with American Trucking Associations, Inc. (ATA) in Alexandria, VA. Currently he is responsible for engineering and truck technology issues such as roll stability, braking, truck cab crashworthiness, electronic on-board monitoring systems, event data recordings, and other ITS/CVO related programs. Previously, he was Director of Specials Projects at ATA, and Director of Government Relations for Roadway Express and YRC Worldwide. Mr. Scott was also Director of Highway Operations at the American Trucking Associations with responsibility for truck size and weight, bridge formula and highway finance issues. He received a B.S. degree in civil engineering from the University of New Mexico and an M.B.A. from Boston University. He also served as an officer in the U.S. Army Corps of Engineers for 24 years, with overseas service in Panama, Viet Nam, England, and Germany, and U.S. assignments with the Engineer Topographic Laboratory, Vicksburg Engineer District, and the Office of the Chief Engineers, Pentagon. He is a graduate of the U.S. Army Command and General Staff College.

Bala Sivakumar

Member

Bala Sivakumar is Vice President, Director of Special Bridge Projects, with HNTB Corp. With more than 29 years of experience, his expertise includes design, evaluation, and rehabilitation of complex bridges, weigh-in-motion (WIM) studies, and live-load modeling for bridges. Mr. Sivakumar is recognized as an expert in WIM studies, bridge live load modeling, and load and resistance factor rating (LRFR) of bridges. He was the primary author of the 2003 AASHTO LRFR Manual and the 2008 AASHTO Manual for Bridge Evaluation (MBE). Mr. Sivakumar served as a consultant to the FHWA and the Oregon Department of Transportation on calibrating state-specific live load factors using Oregon WIM data. He has completed WIM data studies and bridge live load calibration for the New York State Department of Transportation and the New Jersey Turnpike. He is currently assisting Oklahoma and Louisiana with statewide WIM data analysis and bridge design load calibrations. Mr. Sivakumar holds an M.S. degree in structures from Cornell University.