Review of Federal Highway Administration Infrastructure R&D

Committee

Paul C. Ajegba

Chair

Paul C. Ajegba has 29 years of experience with the Michigan Department of Transportation, and was appointed by Governor Gretchen Whitmer as Director on Jan. 1, 2019. He previously served MDOT for three months as Metro Region Engineer, and before that as University Region Engineer. During his seven years in the University Region, Ajegba oversaw his team's involvement in the planning, design and construction of several major projects, including the US-23 Flex Route - a project nominated for the America's Transportation Award, landing among the top 12 national finalists. Other notable projects include the I-94 rehabilitation project in Ann Arbor/Jackson, the I-96/US-23 interchange, and the I-75 freeway project. Ajegba holds a Bachelor of Science in civil engineering from Prairie View A&M University and a Master’s Degree in construction engineering from the University of Michigan. He is a licensed professional engineer in the State of Michigan. Ajegba is a member of COMTO (Conference of Minority Transportation Officials), and serves on the following boards: AASHTO, ITS America, M-City, University of Michigan College of Engineering, the Engineering Society of Detroit, and the Mackinac Bridge Authority.

Bouzid Choubane

Member

Bouzid Chubane has been actively in pavements and materials related areas and technologies for more than 30 years. He is currently the State Pavement Materials Engineer for the Florida Department of Transportation (FDOT). In this role, he is responsible for providing leadership, strategic direction and oversight for pavement-related work and research programs as well as for building strategic partnerships with private entities and researchers to implement multi-million dollar research programs and for providing FDOT with technical expertise for safe and durable pavement systems. He recently served as Interim Director of the FDOT Office of Materials. He is also a Courtesy Professor at the Department of Civil and Coastal Engineering of the University of Florida. Before joining FDOT, he was a Research Associate at the National Research Council of Canada directing externally-funded research projects in support of private and public-sector clients and agencies.

Dr. Choubane has also been involved in pavements and pavement materials issues at the national and international levels. He serves on a number of committees of the Transportation Research Board (TRB) of the National Academies and Expert Task Groups (ETGs) as well as on various technical advisory panels and editorial boards. He is the current chair of the TRB Section on Pavements overseeing eight standing committees, including Pavement Management Systems, Pavement Condition Evaluation, General and Emerging Pavement Design, Full-Scale Accelerated Pavement Testing, Design and Rehabilitation of Concrete Pavements, Design and Rehabilitation of Asphalt Pavements, Pavement Structural Modeling and Evaluation, and Pavement Surface Properties and Vehicle Interaction. He is past chair of the TRB Committee on Full-Scale Accelerated Pavement Testing and past chair of ASTM International Committee on Pavement Management. He has served on the University of North Florida College of Engineering Advisory Board and on the Information Technology Education Advisory Committee at Santa Fe College. Dr. Choubane is a recipient of recognition awards, including Outstanding Teaching and President's Recognition awards from the University of Florida, Meyer-Horne Outstanding Achievement Award from ASTM International, and FDOT Highway Engineer of the Year Award. He authored or co-authored over sixty peer-reviewed technical papers and served as the editor for two special technical publications. Dr. Choubane earned a Master of Science (M.S.) degree from the University of Pennsylvania and a doctoral (Ph.D.) degree from the University of Florida. He is a registered Professional Engineer in the State of Florida.

Courtney Drummond

Member

Courtney Drummond is the Assistant Secretary for Engineering and Operations for the Florida Department of Transportation (FDOT), a position he has held since October 2016. He was the Director of Transportation Operations for FDOT from 2011 to 2016. Mr. Drummond has worked for the Florida Department of Transportation since 2004. He has held positions in design, maintenance, and construction and served as the Palm Beach Operations Engineer for over three years. He is a member of the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Highways. Mr. Drummond graduated from the University of the West Indies with a Bachelors degree in civil engineering and has over 20 years of experience in the area of transportation design, construction and management. He is a registered engineer in the State of Florida.

Matthew M. Farrar

Member

Matthew M. Farrar is the State Bridge Engineer for the Idaho Transportation Department. He has over 30 years of service with the Idaho Transportation in the areas of bridge planning, design, construction, and inspection/evaluation. Farrar 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. He has a Bachelors and Master of Science Degrees in Civil Engineering from the South Dakota School of Mines and Technology.

George Hearn

Member

George Hearn is associate professor of civil engineering at the University of Colorado at Boulder. Prof. Hearn has more than thirty-five years' experience in bridge inspection, design, rehabilitation, and management. Prof. Hearn has served as principal investigator for bridge-related projects sponsored by the National Science Foundation, the National Academies, the US Federal Highway Administration and the State of Colorado. He is author of the 2014 synthesis on practices for bridge load posting, the author of the 2012 case studies of bridge management practices in Idaho, Michigan and Virginia, the author of the 2010 report on the domestic scan on Bridge Management Decision Making, author of NCHRP Synthesis 375 Bridge Inspection Practices (2007), the principal investigator for NCHRP Project 14-15 Developing a National Database System for Maintenance Actions on Highway Bridges (2010), and the principal investigator in evaluation of bridge preservation costs for Colorado DOT (2012). He evaluated bridge deck durability for Colorado DOT (2007), designed modular reaction walls for CU’s earthquake testing laboratory, wrote the report for the international scan trip on bridge preservation and maintenance (2005), developed a conceptual plan for a Colorado DOT system for maintenance management of retaining walls and sound barriers (2003), evaluated the effects of non-divisible loads on fatigue life of steel bridges for Colorado DOT (2001), established procedures for the use of NDE test data in element-level condition reports for the FHWA (2000), studied the reliability of field testing methods applied to highway bridges for the National Science Foundation (1998), developed methods for segmental inspections as a refinement to element-level condition reports for Colorado DOT (1997), and created the NBI translator for element-level condition data for the FHWA (1994 and 1997 revision). George Hearn is a member of the FHWA expert task group for bridge preservation, member of the NRC committee for technical advice to FHWA long-term bridge performance program, and chair of TRB committee AHD30 Structures Maintenance. George Hearn is a licensed professional engineer.

Mostafa Jamshidi

Member

Mostafa Jamshidi is Chief Engineer of the Nebraska Department of Transportation (NDOT). He has been active in the design and construction of highway projects for the last 30 years. He coordinates the activities of all eight districts and four divisions including materials and research, construction, operations, rail and public transportation divisions. He serves as the chair of the AASHTO Committee on Materials and pavements. He has served on numerous NCHRP panels and was a member of the warm mix asphalt European scan tour. He has also served as the NDOT’s Materials and Research Engineer from 2000 to 2011, when he was responsible for coordinating the activities of six sections including pavement design, geotechnical engineering, pavement management, research, and both flexible and rigid pavement quality control and quality assurance programs. Mr. Jamshidi has served as the department’s Assistant Bridge Engineer, Structural Engineer, Geotechnical Engineer, and Project Construction Engineer. He is a graduate of the University of Nebraska, Omaha with a degree in civil engineering and is a registered professional engineer in the State of Nebraska.

Gary J. Klein

Member

Gary Klein (NAE) is Executive Vice President and Senior Principal of Wiss, Janney, Elstner Associates, Inc. (WJE). He joined WJE in 1979 and has since investigated hundreds of concrete, steel, and wood structures. Most assignments have involved deterioration, distress, or failure of buildings and bridges. Mr. Klein's experience also includes the investigation of parking structures, tunnels, transit structures, stadiums, piers, environmental facilities, and wind turbines. Many of these studies have included repair design and construction observation services. Mr. Klein has also provided expert testimony in connection with many collapse and structural investigation projects. From 1973 to 1979, Mr. Klein worked at the Chicago firms of McDonough Engineering, Inc., and HNTB. While with these firms, he was responsible for structural design and plan preparation for new bridge and tunnel construction as well as investigation and rehabilitation of existing structures. He received his Bachelor of Science, Civil Engineering in 1973 and a Master of Science, Civil Engineering in 1975, both from the University of Illinois at Urbana-Champaign. Mr. Klein was elected to the National Academy of Engineering 2016 for investigations of national and international infrastructure and conveying knowledge from these investigations to the profession. He is an Honorary Member of the American Concrete Institute (ACI) and serves on several ACI technical committees. Mr. Klein also serves as a member of the National Construction Safety Team Advisory Committee.

Patricia Leavenworth

Member

Patricia Leavenworth is the Chief Engineer for the Massachusetts Department of Transportation (MassDOT) as position that she has held since 2013. She previously held the positions of Highway Director, Construction Engineer, and Operations Engineer in her over 30 years with the MassDOT. Leavenworth is a member of the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Highways. Leavenworth holds a Master of Science degree in Civil Engineering from the Worcester Polytechnic Institute and a Bachelor of Science degree in Civil Engineering from the Norwich University Military College of Vermont. Leavenworth is a licensed Professional Engineer in Massachusetts.

James S. Nelson

Member

James S. Nelson is Director of Bridges and Structures Bureau and State Bridge Engineer at the Iowa Department of Transportation. He is responsible for leading the Bridges and Structures and Bureau and oversees the development and implementation of standards, policies, procedures and research for bridges and structures. Mr. Nelson serves on national committees responsible for developing specifications for bridge design and construction. Prior to his current role he was the Transportation Engineer Manager in the office of Bridges and Structures. Mr. Nelson received his B.A. and M.S. in Civil Engineering from Iowa State University.

Jorge A. Prozzi

Member

Dr. Jorge A. Prozzi, Professor, Fellow of Clyde Lee Endowed Professorship in Transportation Engineering, Department of Civil, Architectural and Environmental Engineering at the University of Texas at Austin. He received his BSc. in Civil Engineering from the Universidad Nacional del Sur, Bahia Blanca, Argentina in 1989. He obtained his BSc. (Hons.) in Civil Engineering from the University of Pretoria (South Africa) in 1996 and his M.S. and Ph.D. in Civil Engineering from the University of California, Berkeley in 1998 and 2001, respectively. Dr. Prozzi and his research team have ongoing experimental research on testing and behavior of road building materials, design and rehabilitation of pavements; asphalt technology; mechanistic and empirical design; accelerated pavement testing; applications of probability and statistics to pavement engineering problems; reliability; and pavement management systems.

He has also conducted analytical research on the application of quantitative methods by applying advanced econometrics for the development of performance models for the optimum management of the pavement infrastructure. He teaches classes on the design of bituminous mixtures, asphalt technology, elementary statistics for civil engineers, and pavement design and performance. In addition, he has teaches a graduate class on modeling tools with engineering applications, which allows him to teach about some of his cutting-edge research work in the area of econometrics and modeling.

Dr. Prozzi has been active in Transportation Research Board (TRB) activities for many years, including serving as Chair for both the International Activities Committee and the Subcommittee for Latin American Transportation Research and Practice. He has served as a panel member for projects funded by the National Cooperative Highway Research Program. In addition, he is or has been a member of several TRB committees in the areas of pavement engineering, management, and technology transfer. He has authored or co-authored more than 20 refereed archival journal publications, 45 refereed conference proceedings, and 40 technical reports.

Carmen Swanwick

Member

Carmen Swanwick is the Utah Department of Transportation (UDOT) Region 2 Deputy Director. Carmen served as the Department’s Chief Structural Engineer for almost ten years and has over 15 years of experience as a consultant in structural engineering within the transportation industry. She received both her Bachelors and Masters degrees from the University of Utah in Civil/Structural Engineering. Carmen is also the AASHTO Committee on Bridges and Structures Chair and participates in numerous National Cooperative Highway Research Program (NCHRP) projects and Transportation Research Board (TRB) Committees. Carmen has been involved in several Department initiatives through the years including the Accelerated Bridge Construction (ABC) program, development of the Unmanned Aerial Systems (UAS) program and recently the Digital Delivery effort with an emphasis on Building Information Modeling (BIM) for bridges and structures.

Joyce Taylor

Member

Joyce Taylor is Chief Engineer for the Maine Department of Transportation. She graduated from the University of Maine at Orono in 1986 with a BS in Chemical Engineering. She worked at Department of Environmental Protection in the Hazardous Waste Program and moved into the Lake Protection group. She worked with developers and contractors on lake protection issues providing technical assistance and training. Taylor moved into the Toxic Use Reduction program and worked with companies to voluntarily reduce use of hazardous materials. In 1995, she went to work for a consultant, Lakes Environmental Association, and her clients included Maine DOT and several towns. Her primary work involved providing technical assistance and training to contractors on erosion control and stormwater issues. She started work for Maine DOT in 1999 as the Environmental Engineer for the Construction Division. Taylor moved onto the Urban & Arterial Highway program as a construction support manager. She was promoted to the Division Engineer position in Fairfield, worked with the State Aid crew and the former Regional Program. She moved back into the Urban & Arterial Highway Program as the Assistant Program Manager of Construction. She was promoted to the Assistant Bureau Director of Project Development in 2004 and became the Bureau Director in 2010. Taylor became the Chief Engineer for MaineDOT in 2013.