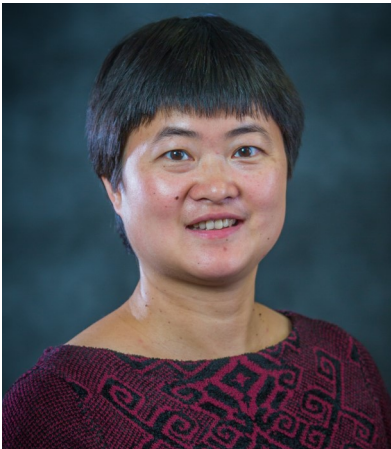


UAA Professional Development Seminar Series

Sustainable Materials and Design for Alaskan Pavements

Presented by Jenny Liu



Abstract: The paving industry and its agency partners are constantly looking for ways to improve pavement performance, increase construction efficiency, conserve resources and advance environmental stewardship. In cold regions such as Alaska and other northern states, unique engineering challenges exist due to extreme climatic conditions and unavailability of quality materials locally in some rural areas. In this seminar, Dr. Liu will share her research experience on exploring how sustainable materials such as warm mix asphalt, reclaimed asphalt pavements, and paving interlayers function in

asphalt pavements in Alaska. Laboratory investigation of performance of asphalt mixtures, numerical simulation and field monitoring of pavement structures are presented. The presentation will also present her effort on characterizing Alaskan paving materials for mechanistic-empirical pavement design. Research findings and recommendations are summarized.

Biography: Dr. Jenny Liu is a professor in the Department of Civil and Environmental Engineering at the UAF. She received her M.S. and Ph.D. degrees in Civil Engineering from Texas A&M University, and her B.S. degree in Materials Science and Engineering from Tongji University, Shanghai, China. She teaches and conducts research in infrastructure materials and pavement engineering. She is the Director of Center for Environmentally Sustainable Transportation in Cold Climates. She is currently serving as an Associate Editor for ASCE Journal of Materials in Civil Engineering, Chair of ASCE Bituminous Materials Committee, Director of American Concrete Institute (ACI) Alaska Chapter, and members of Transportation Research Board (TRB) committees of AFP70, AFK30, and AFK50, ACI Certification committee, and ASCE committees of Highway Pavement and Geo-Institute Pavements. She is a registered P. E. in Alaska and certified examiner for ACI Certifications of aggregate and concrete testing technicians.

Friday, November 18, 2016, 11:45am-12:45pm

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