

Special Session on

DRIVING DECISIONS WITH DATA – PROJECT INFORMATION MODELS DURING RISK ASSESSMENTS, CONSTRUCTION AND LONG TERM MONITORING



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Aging infrastructure, growing populations, and climate change has resulted in an increased risk associated with critical infrastructure. In order to assess the performance of this aging infrastructure over time, selection of appropriate project instrumentation, monitoring intervals and integrating these and other data can be critical. Visualization, analysis and interpretation of the wholistic data set allow for better understanding of the performance of aging infrastructure and more accurately assess risk. USACE, with a large portfolio of aging infrastructure including dams, levees, locks, coastal protection and other infrastructure has recently updated guidance and best practices to improve instrumentation and monitoring programs. In addition, USACE has been improving data management and visualization techniques to aid in comprehensive assessments of project performance. New modification projects of existing infrastructure have been built along with GIS based models to allow engineers and geologists to comprehensively assess the performance and potential risks before, during, and post-construction modifications. Monitoring and modeling not only help ensure that the construction meets specification, but also help to assess long term performance and potential failure modes that can develop over time. Thus, integrated use of instrumentation, performance monitoring, data visualization and analysis can improve understanding of project behavior and risk.

For more details:



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