



The Geo-Institute Geosynthetics Technical Committee will live-stream the session **“Harnessing the Potential of Geosynthetics – Performance Testing for Optimized Roadway Design”** on Thursday, December 7, at 11 AM EST. The topics include:

“Evaluating the Performance of Geosynthetic-Stabilized Flexible Pavements using Different Accelerated Testing Programs,” **Abu-Farsakh**, P.E., F.ASCE

Dr. Abu-Farsakh led several research studies using geosynthetics to stabilize pavements. These studies involved constructing test sections and using sensors to measure pavement response and performance. Two types of geosynthetics were tested, along with control sections. Tests were conducted to compare the response of pavements to different types of loads. Additional tests were conducted in a laboratory setting. The results showed that using geosynthetics reduced permanent deformation in the pavement structure. The traffic benefit ratio increased up to 2.12 for pavements with a thick base layer on weak subgrade soil. Placing geosynthetics at the base-subgrade interface improved the performance of both subgrade and base layers. Adding an extra layer of geogrid further enhanced the performance of the base layer.

“Geosynthetic Performance Testing and Integration of Results,” **Eli Cuelho**, P.E., M.ASCE

Mr. Eli Cuelho will focus mainly on unpaved applications and provide an overview of the specific mechanisms of geosynthetic stabilization. He will outline an extensive research program that he led to determine the performance of ten geogrids and two geotextiles when used in unpaved road applications atop very soft subgrades. Information from this study was used to calibrate the Giroud-Han design equation for unpaved roads. He will describe this process, why it matters and how additional large-scale laboratory tests should be used to characterize the performance of geosynthetics for roadway applications.

“Full Scale testing of a new multi-aperture geogrid,” **Mark Wayne**, PhD, P.E., M.ASCE

Dr. Wayne will present the recent full-scale unpaved road testing conducted by the USCOE ERDC facility in Vicksburg MS on a new multi-aperture geogrid.