



# UEE Seminar Series

*Hosted by School of Urban & Environmental Engineering*

## Recommended Practice for Incorporating Geogrid in Mechanistic Empirical Pavement Design

**Speaker : Prof. Kwon, Jay-Hyun**  
**Civil and Construction Eng, Kennesaw State Univ.**

In recent years there has been an increased number of cases where geogrid have been incorporated into unbound road base layers to promote roadway optimization. The term optimization in this context refers to the use of geogrid to form a mechanically stabilized base course layer which leads to an improved performance of unbound layers by controlling particle movement and reducing permanent deformations. A mechanistic based pavement design approach offers a better means to accommodate the geogrid effect within the pavement structure. Guidance published by AASHTO recommends that pavement designs incorporating the effect of a geosynthetic need to be based upon experimentally derived input parameters. Performance data obtained from full scale accelerated pavement test studies and monitored field trials can be used to determine the influence of a geogrid on performance over the life of the pavement. The concept of pavement optimization and research studies conducted for the quantification of the effectiveness of geogrid stabilized pavement structures will be presented.