SEMINAR SERIES

PRESENTATION

Thursday, January 9, 2014 – SPoRT VCL – RM3027 – 11:00a

Jamie Banks

Manager, Industrial Hygiene & Chemical Management
Science, Technology and Engineering Group
Wyle, Huntsville, Alabama

Development of Decision-Support Tools for Transportation Infrastructure Adaptation in Response to Climate-Induced Flood

Climate change is a problem of growing concern that brings increased intensity and frequency of precipitation. Communities require tools that can accurately assess climate-change induced impacts so adaptation strategies can be developed and prioritized. A review of the literature suggests that one such tool that could be used for this purpose is the HAZUS-MH program from the Federal Emergency Management Agency (FEMA), also known as Hazus. Comparing Hazus' default flood modelling predictions to a known, well-characterized event indicated Hazus can roughly predict the magnitude of a flood (as a function of flood surface area) and the areas of impact; however, this predictive ability was limited to larger scale (US county-sized) areas only. Hazus uses well known models developed by the US Army Corps of Engineers (USACE) to predict flood values however; the data employed by these models may be out of date when looking at climate change trends. Improving the data in Hazus' flood model could provide an inexpensive, readily available tool with sufficient predictive ability to be employed by communities across the country for identifying adaptation needs and assisting in policy planning and resource allocation.