

**Environmental Engineering**

**and Earth Sciences**

**EEES Department Seminar**

**“Evaluating Ecohydrological Function and Green Infrastructure to Support Low Impact Development in Coastal South Carolina”**

**PRESENTED BY**

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**Dan Hitchcock**

Abstract: In coastal South Carolina, a region experiencing both increased development and climate variability, my research focuses on the definition of ecohydrological criteria for sustainable land and water resource guidance, specifically in upland areas that ultimately drain to tidal creeks and rivers. Results have implications for watershed planning and site engineering, including stormwater management and the development of design criteria for low impact development. Forested water budgets are being refined with the goal of defining pre-development conditions for sustainable land use decision-making. Stormwater control measures, specifically engineered wetlands and bioretention systems, are being investigated to determine hydraulic and water quality performance considering influence of shallow groundwater. An assessment of existing resources (green infrastructure) and their benefits – via ecohydrological services at various scales – can provide guidance toward resource protection with the goal of creating resilient communities – whether by conservation or restoration efforts, or by better site design during land use change.

2:30 PM

**Friday, October 16, 2015**

**L.G. Rich Laboratory Advanced Material Center**

**Refreshment following Seminar**

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