

# WISE

WATERLOO INSTITUTE  
FOR SUSTAINABLE ENERGY



## LECTURE SERIES

FREE ADMISSION | OPEN TO THE PUBLIC

BUILDINGS | CARBON CAPTURE AND STORAGE | FUEL CELLS | NUCLEAR | POLICY | PLANNING  
RENEWABLES | SMART GRID | STORAGE | SUSTAINABLE MOBILITY | SUSTAINABILITY ANALYSES

PRESENTED BY THE WATERLOO  
INSTITUTE FOR SUSTAINABLE ENERGY

Friday, October 9, 2015  
2 - 3 pm  
CPH 4333

## SUSTAINABILITY AND GEOHERMAL ENERGY STUDIES IN GEOTECHNICAL ENGINEERING

**Dr. Anand Puppala**, University of Texas at Arlington

The first part of the lecture will discuss sustainability oriented research projects and will then focus on a geothermal energy research project currently being conducted at UT Arlington.

Sustainability topics ranging from the use of recycled or reuse materials comprising of reclaimed asphalt pavement (RAP) and recycled crushed concrete aggregates as well as coal combustion products for various applications including as treated pavement bases will be covered.

Potential use of geothermal energies in pavement geotechnical engineering will also be presented through selected case studies. The studies identify sustainability benefits that have been achieved from early research concepts in laboratory environment through to full scale field implementation demo projects.

### Biography



**Dr. Anand Puppala**, PE, D.GE, F-ASCE currently serves as Associate Dean - Research in the College of Engineering and is a Distinguished Teaching and Scholar Professor in the Civil Engineering department at the University of Texas at Arlington (UTA) in Texas, USA. Dr. Puppala received his BE, MTech and PhD from GITAM, IIT Chennai and Louisiana State University, respectively. He received many teaching and research awards including 2013 UTA Distinguished Researcher award and 2010 UT System's Regents Teaching Award. He was the First Engineering Professor from UT Arlington to receive this regents teaching honor in Texas. Dr. Puppala served as President of United States Universities Council on Geotechnical Education and Research (USUCGER) from 2007-2009. He also chaired American Society of Civil Engineers (ASCE)'s Geotechnical Institute's "Engineering Geology and Site Characterization" committee from 2003-2006.

Dr. Puppala is the current Chair of Soil Mechanics section of the National Academy of Science's Transportation Research Board (TRB). He has been conducting research on sustainable utilization of recycled materials, dams and embankments, stabilization of expansive soils, in situ intrusive methods for site characterization, and pavement material characterization studies. He has been a recipient of several major research grants totaling well over \$11 Million from federal, state and local government agencies. His research is highly regarded by the professional community, as evidenced by his scholarly record of 300+ publications including 165 Journal and Geotechnical Special Publications. He has supervised 20 Doctoral and 52 Masters' thesis students.

Dr. Puppala is a current editorial member for several journals. He also edited several books including seven ASCE's Geotechnical Special Publications.