

## June 2009 MEETING

Wednesday, June 10, 2009

### TECHNICAL PROGRAM

#### Soil Strength in Shallow Soils

**Speaker:** Dr. Aubeny, Associate Professor, Department of Civil Engineering at Texas A&M

#### PRESENTATION SUMMARY

To an audience of about 70 at the HESS Club, Dr. Aubeny, an associate professor of Geotechnical engineering in the Department of Civil Engineering at Texas A&M University and a licensed professional engineer in Texas, California and Colorado gave a slide presentation titled, "Shear Strength of Shallow Soils."

The information presented by Dr. Aubeny was relevant to practical problems such as stabilizing shallow slopes, construction on deep organic soils, pipeline embedment, etc. He discussed the technical difficulties facing designers in these areas including the difficulty of sampling and testing predominately organic soils and very soft clays with undrained shear strengths less than 100 psf.



Dr. Aubeny discussed several of the projects that he has worked on including dam and levee designs and investigations in the San Joaquin valley near the mouth of the Sacramento River in California. He also discussed his involvement and findings in multiple embankment projects for the transportation department of Colorado.

Dr. Aubeny's studies of shallow slopes determined that

- Wetting of slopes triggers the failures
- Soil suction decreases as wetting occurs
- Soil suction does not trend to zero even in the saturated state
- The lower limit of suction is on the order of 7-12 kPa
- And that failure can occur on very flat slopes.

To download Dr. Aubeny's slide presentation, [click here](#)

To read the August 2002 FPA presentation summary by Dr. Aubeny, [click here](#)

#### PAST PRESENTATIONS (click here)