UT Arlington REU Site on Hazard Mitigation

Funded by the National Science Foundation (NSF)
Research Experience for Undergraduates in Engineering Program (REU)

The University of Texas ARLINGTON

Summer Opportunity for Undergraduate Science, Technology, Engineering and Mathematics Students!

What research projects are available?

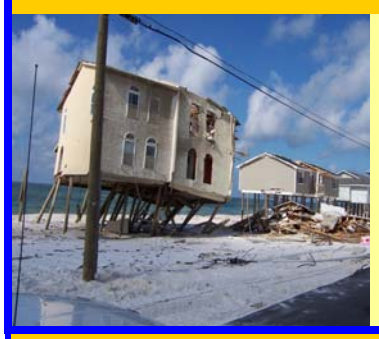
Expansive Soil Damage and Earthquake Research

Learn about expansive soils, what types of problems they induce, and how do to mitigate them. Earthquakes, liquefaction, types of soil failures under earthquakes, landslides, stabilization methods to counter the problems are included.

Air Dispersion Modeling: Planning for Airborne Terrorism Releases

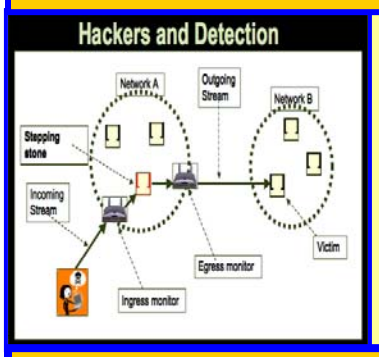
Learn to use dispersion modeling to predict concentrations of airborne toxics following a potential terrorist attack. The Dallas/Fort Worth Metroplex will be used as a case study.

Effect of Extreme Event Wind Loads on Structures



Receive hands on training for the evaluation and strengthening of residential houses for extreme winds from hurricanes and tornadoes. Computer simulation of model buildings, latest building codes and laboratory testing will be involved.

Hacker Detection: Evaluation and Improvement



Cyber-terrorism, detection and stopping hackers before they reach their targets, internet experiments and data analysis.

Power System Blackout and Restoration

Study the power system operation, protection, and control to understand the root causes of system blackout and the procedures for system restoration.

Some Important Details:

- Summer 2010 Program: June 25 – August 6, 2010
- Summer Program includes workshops, lectures, group activities, laboratory work, computer work, presentations, social activities
- $3000 stipend
- Room and Board, travel funds, if needed

What is the goal of the NSF REU Program?

Expand undergraduate student participation in engineering research, thereby attracting them to engineering careers and creating a diverse, competitive and globally-engaged engineering workforce.

Are you interested in…

- Learning about how engineering can be used to protect the public from hazards.
- Participating in state-of-the-art research related to hazard mitigation, funded by the prestigious National Science Foundation (NSF).
- Work in research groups that include engineering professors and graduate students.
- Learn about engineering as a profession and the opportunities of higher education in engineering.

If your answer to any of the above questions is yes, please consider applying for the:

UT Arlington Research Experience for Undergraduates in Engineering (REU) summer program

Benefits to students include:

- Opportunity to work with UT Arlington faculty and graduate students on state-of-the-art research related to hazard mitigation in engineering.
- Opportunity to learn about engineering as a profession, higher education in engineering and the virtues of engineering research.
- Cooperative learning with other students, graduate students and engineering professors.
- Participation stipend, other expenses.

Participating students will agree to attend a six week summer REU program at UT Arlington, be encouraged to make follow-up presentations at their parent institutions and develop dedicated web-sites on their REU project experience.

Students from Science, Technology, Engineering or Mathematics Areas are strongly encouraged to apply.

Students from groups under-represented in science and engineering are especially encouraged to apply.

Applications must be received at UT Arlington by 5 p.m. on June 15, 2010. Contacts are:

Dr. Nur Yazdani, Civil Engineering
817-272-5055 or Yazdani@uta.edu

Dr. Yvette Weatherton, Civil Engineering
817-272-1221 or weatherton@uta.edu

Dr. Stephanie Daza, Curriculum and Instruction
817-272-0305 or sdaza@uta.edu