

# NEESR-NEXTGEN PROGRAM FOR HIGH- SCHOOL STUDENTS

Civil Engineering:  
A Profession for the Improvement of the Quality  
of Life in the 21<sup>st</sup> Century



**The University of Tennessee,  
Knoxville**

**Knoxville, TN, USA**

**FOR MORE  
INFORMATION**

Contact Prof. T.L. Attard,  
Department of Civil and Environmental Engineering

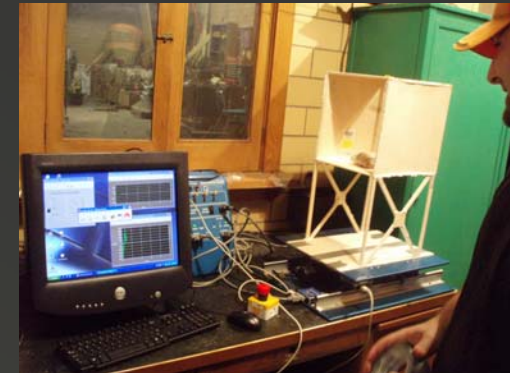
(865) 974-7706; tattard@utk.edu

Home of the Volunteers  
and Tennessee Football



## 2010 NEESR-NEXTGEN DESIGN COMPETITION

Congratulations to the winner of the 2010 Earthquake Engineering Design Competition Bronson Pennington from Bearden High School!



### NextGen HS Module

Bronson's design was able to withstand a simulation of the 1994 Northridge Earthquake. His design included shear walls on the top story and cross bracing of the bottom story of the timber structure (top right). The class generated there design in the SAP 2000 computer program (bottom right). The winner was determined by several weighted factors including; structural drift, structural accelerations, weight of the structure, and the number of connections. "The earthquake engineering program was both educational and enjoyable. I learned much about the civil engineering process as well as earthquakes, which can level the structures of generations in seconds." says Bronson.

