

## Connecticut DOT's TRAC Program Hosts Summer Program

By Sharon Okoye

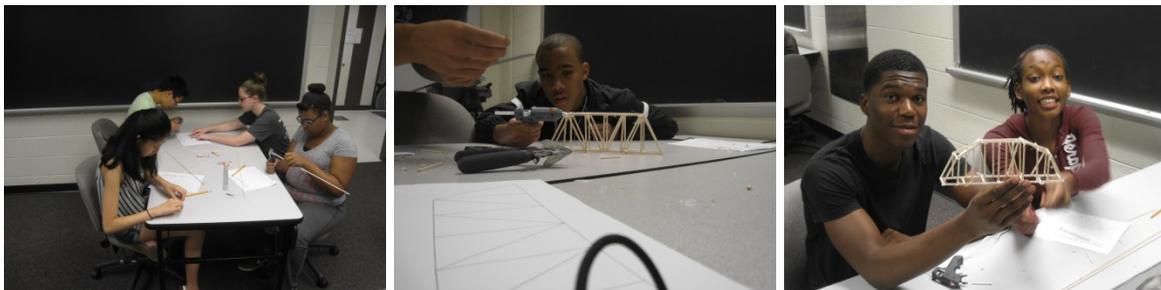
The Connecticut Department of Transportation's (CTDOT) TRAC program partnered with Central Connecticut State University (CCSU) to host a 1 week program from July 28 to August 1, 2014, to introduce a wide range of transportation modes to twenty-one high school students from all over the state.

This is the second consecutive year CTDOT has administered the Federal Highway Administration's (FHWA) National Summer Transportation Institute Program (NSTI) in partnership with CCSU. The NSTI program's goal is to provide awareness of science, technology, engineering and math (STEM) educational and transportation career opportunities to local high school students. The students were selected out of a pool of 44 applicants.

During the 1 week program, students were given the opportunity to explore many modes of transportation (aviation, water, highway, rail, transit). There were opportunities to examine how the complex transportation system upon which we all rely is designed, built and maintained through lectures, hands-on engineering laboratory experiments with CCSU professors, field trips to various CTDOT transportation hubs, and presentations from professional speakers (public and private sector) discussing their career paths and current transportation issues. CTDOT speakers included Commissioner James Redeker, Deputy-Commissioner Anna Barry, Tom Harley, Priti Bhardwaj, Jordan Pike, Susan Baillargeon, and Susan Molden.

Kevin Bell, one of American Association of State Highway Transportation Officials (AASHTO) enthusiastic TRAC instructors, came from Michigan to hold a half day workshop at the university demonstrating TRAC's Bridge Building Module. The participants were given the opportunity to design a 3D rendering of a truss bridge using Model Smart software. The strength of each of the bridge's truss members was tested during the design process to ensure durability. Next, participants broke up into small groups to build a small scale bridge model. Ultimately, the models were competitively tested for load bearing capacity to see which model had the highest load capacity. This was achieved by applying weights until failure was achieved. The winning bridge held a whopping 85 lbs. before failure!

Overall, it was a great opportunity for participants to experience and understand the theory behind effective design and construction of bridges, and when participants were asked, this was one of the favorite workshops of the week!



Students working in groups to build small scale bridge models.