Viterbi Civil Engineering Students Snag USC’s Best Finish Ever
Top Prizes, Corporate Attention Come at Sparks Construction Competition

March 03, 2010 —

USC Viterbi’s Civil Engineering students were prepped to shine this year at the Sparks Construction Competition near Reno, Nevada.

The 65-member USC contingent had been meeting weekly for six months to brainstorm and prepare for a contest that draws out the best students in the construction field from top schools nationwide; the students who ultimately hopped on a charter bus for Sparks in mid-February were feeling strong and confident.

But the results that the eight USC teams got surpassed their expectations: Three first place team prizes, one second place finish and a showering of corporate attention and promises of job interviews upon many students who attended — even in a rough economy.

“It was extremely gratifying to see our teams take the national spotlight and bring home trophies,” says Prof. Hank Koffman, director of Viterbi’s Construction Engineering and Management Program and USC’s faculty advisor for this year’s competition.

About three quarters of the 65 students who attended hailed from USC’s Astani Department of Civil and Environmental Engineering; the remainder came from the Marshall School of Business, the School of Architecture and School of Policy, Planning and Development.

Astani Chair J.P. Bardet told the students that the faculty are proud of their achievements. “You brought home trophies,” Bardet said at a reception organized in their honor, “which are testimonies of your abilities to build a sustainable world and to win in competitions against students of the best institutions in the nation.”

The icing on the cake from the team’s stellar showing? Validation from the corporate world, says Viterbi student Sean Smith, who is president of USC’s student chapter of the Associated General Contractors and the USC contingent’s primary coordinator.

“Sparks is like an athletic event,” says Smith. “The largest construction job fair in the country takes place that same weekend, and after competition presentations, companies will approach students who performed well and invite them to hospitality suites for a meet-and-greet.”

Smith was approached by several companies including Kiewit Pacific Co. to provide contact information for students, and CE lab manager Lance Hill was asked by Hensel Phelps Construction to serve as an ongoing liaison between company recruiters and
student prospects.

All in all, USC racked up one of the stronger showings among the schools represented. And the competition was stiff, with teams from Stanford University, UC Berkeley, the University of Washington and the University of Florida, among other schools.

The contest is sponsored each year by the Associated Schools of Construction, the professional association for the development and advancement of construction education.

USC’s eight teams competed in seven categories: Graduate, LEED, BIM, Commercial, Design-Build, Heavy Civil, and Multi-Family. Each category consisted of a different problem statement sponsored by a corporate partner.

The daylong, 16-hour competition started at 6 a.m., when students were presented with case studies, which were actual projects completed by the sponsoring companies. The students then faced time pressures and the challenge of creating strategies for execution, factoring in logistics, estimating tasks, scheduling and other factors.

The LEED competition, in which USC took first prize out of 17 schools, required competing teams to analyze and develop a LEED certification program for a healthcare facility to be constructed in the western United States. Skanska sponsored this category.

The Graduate Competition, sponsored by Clark Construction, required teams to act as pre-qualified design-build firms in preparing a bid for a complex public works facility project. The teams were required to present their proposals before a panel of judges from Clark; one of USC’s two Graduate Competition teams took first prize out of 13 teams.

The Design-Build competition, in which USC took first of nine teams, also required student teams to act as design-build firms responding to an actual RFP. Students were asked to include all design documentation and estimates as well as logistic and safety plans. This category was sponsored by Swinerton Incorporated.

USC’s Commercial Construction team placed second out of 12 schools; For this category, Hensel Phelps Construction presented an East Los Angeles high school building project and required teams to create a 28-month schedule and project plan with cost estimation.

Sophomore civil engineering student Elton Kwok also took home an individual award sponsored by Santa Monica-based Morley Builders. The award recognized presentation, teamwork and potential achievement for a younger student.

Professors and industry mentors provided guidance and invested hours teaching students the skills needed to excel in the six months leading up to the competition. For example, the chief estimator from Hathaway Dinwiddie Construction Co. sat down with students to teach the ins and outs of project estimation.

"This year’s success wouldn’t have been possible without our industry and faculty coaches," said David Kang, who along with Doreen Liou served as co-chairs of USC’s AGC student chapter.
Fundraising was also an important component; the students worked to raise $24,000 to cover the costs of hotel, transportation and meals for the 65-student contingent. Three printers and computers that could handle complex scheduling tasks also hopped on board for the ride up to Reno. Hill, the lab manager, played a role in overseeing the equipment logistics and documenting the competition with his ever-present Sony Alpha A550 camera.

"The teams outclassed other schools with their energy and self-confidence," says Hill. "It was a dream trip and I was happy to have the opportunity to participate."

The four teams that placed brought home a combined total of $5,500 in prize money. The Astani Department hosted a celebration for all students, faculty and staff involved in the competition on February 24th, complete with a Mexican buffet and desserts.