



We Are

AEI/ASCE National Student Competition Winners!

Student teams from the AE Department at Penn State took top honors in four of the five submission categories. AE students won first place awards in the categories of Building Systems Integration, Construction Management, Mechanical, and Structural. In their first year entering the competition, all five Penn State AE teams qualified for the nationals capturing a record 13 of the available 15 competition presentation slots, leading to four first-place finishes and nine runner-up awards.

Professor M. Kevin Parfitt, one of the lead advisors for the Penn State team said, “Bob Holland and I went in the first day of class and told the students that if we enter the national competition, we were doing it with the intent to win and the workload would reflect that fact.” The students never even blinked and told their advisors that they welcomed the opportunity to prove they were the top AE program in the country. AE students in our challenging five-year program are no strangers to hard work and long hours but their dedication and efforts were unsurpassed. No school in the history of the completion has ever qualified five teams and captured so many honors in one year.

Overall coordination and management for all five teams was provided by lead faculty advisors, M. Kevin Parfitt and Robert J. Holland, who also served as technical advisors in the Integration category. Additional AE faculty serving as technical advisors to the AE students included: Andres Lepage (Structural), Craig Dubler (Construction), Richard Mistrick (Lighting/Electrical), and Jelena Srebric (Mechanical).

This year’s student competition project challenged the teams to provide a design development for a new elementary school building to be located in an urban setting in Reading, PA. (shown above) Some of the significant challenges with this project included sustainability, budget, and security requirements. The student participants were encouraged to work together in multi-disciplinary teams and consider how the engineered systems work with or enhance the architecture of the building. Space programming for the building was shown on the schematic plans. Additionally, the design submittals were required to address the challenge to integrate and optimize, on a life cycle basis, all major high performance attributes, including energy conservation, environment, safety, building security, durability, accessibility, cost-benefit, productivity, sustainability, functionality, and operational considerations. Submissions were entered in the Building Systems Integration category and one or more of the following four categories: Structural Systems Design; Mechanical Systems Design; Electrical Systems Design; and Innovative Construction Management and Construction Methods.

Nineteen teams participated in the first round of competition and represented the architectural engineering programs at the University of Nebraska, Drexel University, Kansas State University, Oklahoma State University, University of Missouri of Science and Technology, Texas A&M University-Kingsville, Milwaukee School of Engineering, the University of Kansas, Penn State, California Polytechnic State University, and North Carolina A&T State University.

Penn State AE teams rose to the top of the finals competition by representing five of the seven teams chosen as finalists in the competition. The following Penn State AE teams presented their projects to the jury on Wednesday, April 3:

Team Nexus: building systems integration and construction management categories. The team members were Alexander Byard, Patrick Allen, Rachel Barrow, Melanie Fonner, Bradley Frederick, Brian LaChance and Anthony Palmer. Winner in construction management category.

Team Studio VI: structural systems and mechanical systems categories. The team members were Michael Brown, Brandon Rupert, Tyler Donnell, Chongsheng Feng, Angie Veintimilla and Maxwell Becker.

Team Creation: building systems integration, structural systems, mechanical systems and electrical systems categories. The team members were Jenna Dumke, Mike Hoffacker, Pat Zusa, Amanda Small, Emily Wychock, Kristiana McMunn, Jeff Sopinski, and Abigail Kun. Winner in building systems integration category and mechanical category.

Team Unitus: electrical systems and construction management categories. The team members were Daniel McGee, Brittany Notor, Devon Saunders, Eric Cook, Brian Blenner, Matthew Hoerner, Keith McMullen and Kyle Houser.

Team Organic: building systems integration, structural systems and construction management categories. The team members were Nicholas Ramondo, Frank Campisino, Matthew Fogarty, Stephen Hirlinger, Michael Rossmell, Michael Stremski, and Jacob Walker. Winner in structural category.

The remaining two teams were from Kansas State University (presented and won in the electrical category) and Drexel University (presented in the mechanical systems category). Additionally, an individual award for innovation was presented to the team from Drexel University.

Dan McGee, a member of Team Unitus, commented, “I was really impressed by Penn State’s overall performance in the AEI student competition. All teams performed exceptionally. It is a great example of why I am so proud to be graduating from the Penn State AE program.”

The jury consisted of volunteer building industry practitioners and representatives of the Charles Pankow Foundation and AEI. The 2013 jury members were: Debora Roberson, RA, LEED AP - Roberson Butz Architects; Charles DeLisio, AIA, PE, LEED AP - Parsons Brinckerhoff Federal Design Division; Robert P. DeScenza, PE, LEED AP BD+C - Thornton Tomasetti; Erik Sohn, PE - Wiss, Janney, Elstner Associates, Inc.; David W. Bernhardt, PE - Providence Engineering Corporation; Emily L. Trumbull, PE, LEED AP BD+C - Building Dynamics, LLC; Katie McGimpsey, PE, LEED AP - Affiliated Engineers, Inc.; Roger M. Thies, PE, LEED AP - Barton Associates Inc.; James S. Bates, PE, LC, LEED APBD+C - HDR Architecture, Inc.; Christine Brazill, PE, LC, LEED AP - Aspire Engineering; Robert D. Grottenthaler, PE, LEED AP, DBIA - Barton Malow Company; and Amanda Goolsby, DBIA, LEED AP - Balfour Beatty Construction.

The competition was generously sponsored by the Charles Pankow Foundation, Johnson Controls, SOM, Wallace Engineering, WJE, Affiliated Engineers, Nabih Youssef Associates, Weidlinger, Langan, Bentley, Simpson Gumpertz & Heger, WSP - Flack + Kurtz, and Gregory P. Luth & Associates.

The student event was a tremendous success thanks to the hard work of the participating teams, the faculty advisors and the jurors. Special thanks goes to Keena Chapin of Wallace Engineering, chair of the AEI National Student Competition Committee, for all of her work in organizing the competition and running the judging process for 2013.

Looking ahead, the finalist presentations for the 2014 competition will be held at the AEI Student Conference at Drexel University in Philadelphia, PA, on March 27-29, 2014.

Professor Holland summed up this year's event with the following, "Our AE teams dominated the national competition by qualifying in thirteen of the fifteen final presentations slots (determined by blind submissions) and winning four of the five first place awards in the presentations at the AEI Conference. Our students definitely made us **Penn State Proud!**"