Penn State Team Selected As 1998 Boeing Outstanding Educator

Innovative Programs in Engineering Education Recognized with National Award

A team of engineering educators from Penn State in University Park, Pa., has been selected to receive the prestigious 1998 Boeing Outstanding Educator Award. As the winner, the university and team members will share a $50,000 award.

The Boeing Outstanding Educator Award recognizes individual engineering educators or teams of educators who have made exceptional contributions to improving undergraduate engineering education.

"The contributions of these educators, which are often adopted by other schools, help turn today's undergraduates into well-grounded and well-rounded engineers," said Bob Davis, Boeing vice president of Engineering and Technology. "They are the ideal employees that Boeing and technical companies throughout the country are seeking."

Competing individuals or teams are graded on improvements they have made to the educational process that enhance attributes of graduating engineering students. Each individual or team also has to provide evidence that their work has long-term, pervasive impact on engineering education and the extent to which educational improvements have become institutionalized.

The Penn State team was recognized for changing the College of Engineering's curriculum by combining engineering theory with industry-based practice, thus giving students a taste of the "real world."

By partnering with industry, the team successfully created the Learning by Industry-Driven Design program. It includes a manufacturing design and fabrication laboratory for students - known as the Learning Factory - and a first-year design course that features a student design competition. The project is based on a real-world industry problem and judged by industry volunteers and sponsors. Each year more than 1,800 students across 19 Penn State campuses enroll in the first-year design course.

Other reforms to the undergraduate engineering curriculum include courses that involve industry-sponsored projects. More than 100 projects have been completed since 1995, with 35 companies actively participating in the industry advising board annually.

"We're transforming engineering education from a passive classroom experience into an active learning community," said Engineering Dean David Wormley. "This erases the traditional boundaries between lecture and laboratory, academia and industrial practice. The program will have a significant impact on our students' ability to function in a highly competitive and increasingly diverse workplace and work force."

Nationally, individuals and teams from 17 schools were nominated for the 1998 Boeing Outstanding Educator award. The field was narrowed to four finalists, with each visited by the judging team from Boeing for an in-depth examination of the work of each nominated person or team. Besides Penn State, the other finalists were teams from Northern Arizona University, Purdue University and Arizona State University.

Of the $50,000 total award, $5,000 will be awarded to the winning team and $20,000 will be given as an unrestricted grant to further that team's programs. An additional $25,000 grant will be made to the engineering school for ongoing support of educational improvement. A formal presentation of the award is scheduled for Oct. 21 at Penn State.

This is the fourth year Boeing has granted the Outstanding Educator Award. The 1997 recipient was Dr. Robert Quinn of Drexel University in Philadelphia, Pa.; the 1996 recipient was a team of educators from the University of Maryland in College Park, Md.; and the 1995 award went to a team from the Rensselaer Polytechnic Institute in Troy, N.Y.

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