

## Clarkson University Engineers Win 2009 Premier Curriculum Award for K-12 Engineering

AUSTIN, Texas – June 13, 2009 — Susan Powers, PhD, of Clarkson University today collected the winning prize — the inaugural *Premier Curriculum Award for K-12 Engineering* — for her original middle school curricular unit, “Energy Systems and Solutions.”

Powers and Jan DeWaters, also of [Clarkson University](#), are co-authors of a collection of eighth-grade lessons and activities that provide a comprehensive, practical, and engaging investigation into energy and how it is used — presented from a real-world, applied engineering point of view.



Sponsored by Engineering Pathway ([EngineeringPathway.org](#)) and the TeachEngineering digital library ([TeachEngineering.org](#)), the competition is a biennial award recognizing the creation and implementation of outstanding K-12 engineering curriculum, a growing approach to teaching K-12 science and math fundamentals.

At the [6<sup>th</sup> Annual Workshop on K-12 Engineering Education](#) of the [2009 ASEE Annual Conference & Exposition](#) in Austin, Texas, Martha Cyr, PhD, of [Worcester Polytechnic Institute](#), Worcester, Mass., representing Engineering Pathway and TeachEngineering, presented plaques and prizes to Powers in front of a luncheon audience of engineering educators.

Engineer Powers said, “We are very honored to receive this inaugural award. It helps to validate our approach to introducing engineering concepts into science classes through relevant issues and project based learning experiences. We are especially committed to increasing the energy literacy of our youth - who will have to tackle significant energy issues as either consumers or STEM professionals. The availability of our project based curriculum in the TeachEngineering digital library will help teachers from across the country to help youngsters increase their energy literacy and improve their ability to think like an engineer.”

The co-recipients share a \$1,000 award and receive recognition on the TeachEngineering and Engineering Pathway digital library websites. Powers also receives \$1,500 toward registration, travel, and accommodations to attend the ASEE Conference in Austin.

Powers is associate dean for research and graduate studies, and professor of civil and environmental engineering at the Coulter School of Engineering, Clarkson University in Potsdam, N.Y. She also is director of the Clarkson [NSF GK-12](#) project. DeWaters is a PhD candidate in environmental science and engineering at the Coulter School.

The [winning unit](#) consists of eight lessons and 19 hands-on, project-based activities in which students explore energy production and consumption issues from everyday life, learning about our nation’s energy situation and basic energy and physics concepts. Through engaging activities and the engineering problem-solving approach, students apply what they’ve learned to a culminating real-life project that reduces fossil fuel use.

The winning curricular unit is based upon work supported by the National Science Foundation under grant nos. DUE-0428127 and DGE-0338216, from the NSF GK-12 and Distinguished Teaching Scholars programs.

In addition, two finalists were recognized: Terry Carter of the [Vanderbilt University Research Experiences for Teachers](#) (RET; [VaNTH ERC](#)) in Nashville, Tenn., for his seventh-grade [Laser Light Properties: Protecting the Mummified Troll!](#) unit, and Travis M. Doll of the [Electrical and Computer Engineering Department](#), Drexel University, Philadelphia, Pa., for his eighth-grade [Sound Booth Construction](#) activity.

The winning and finalists’ curricula will be made freely available to teachers and educators through Engineering Pathway and the *TeachEngineering* digital library—online resource collections supported by the NSF National Science Digital Library ([NSDL](#)). The high-quality, classroom-tested TeachEngineering lessons engage students in science and math study with connections relevant to their lives and their futures.

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