

NSF Highlights

Project REvamp: Modifying a Community College Electrical Technology Curriculum for Renewable Energy Technician Training

Highlight ID: 21817, Version: Directorate



Technicians-in-training repair a small, wind energy turbine.

Credit: Timothy Wilhelm

Image Provided by twilhelm@kcc.edu

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Renewable energy technicians learn to install and test solar panels.

Credit: Timothy Wilhelm

Image Provided by twilhelm@kcc.edu

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Administrative

Approving Directorate/Division: EHR/DRL 2011

Program Officer: David Hanych

NSF Award Numbers:

[0802786](#)

Award Title:

Project REvamp: A Community College Electrical Technology Curriculum Model for Renewable Energy Technician Training

Start Date:

09/15/2008

Expires:

02/28/2011

Awarded Amount to Date: \$149,985

PI:

Timothy Wilhelm,
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Institution Name:

Kankakee Community College

State Code:

IL

PE Codes:

7412

NSF Contract Numbers:

Other Directorates that supported the research:

Submit Text

What is the outcome or accomplishment?

The project modified an existing electrical technology A.A.S. degree program at Kankakee Community College (KCC) by including renewable energy technologies. The new program includes a concentration and certification for renewable energy (RE) technology for technicians. Four new RE courses were developed: *Survey of Renewable Energy Technology*, *Solar Thermal Technologies*, *Solar-Photovoltaic Technology*, and *Small-Wind*

Energy Technology. The project provides a unique and effective curriculum

modification other community colleges can emulate or adapt.

What is the impact?

Although this project is not yet completed, impacts are already being seen. Students have received 3^d-party certifications including the NABCEP PV Entry Level certification and the SKALA certification for Wind Tower Safety and Tower Rescue. Stimulated by project videos, California Technical College is emulating the program. As a result of recent newspaper articles about KCC students involved in the new Small-Wind Energy course, a small-wind energy dealer hired students from the program. KCC has scheduled an all-day workshop for February 2011, the purpose of which is for PI Wilhelm to share his new curriculum model, the design and use of his laboratory training stations, and all course materials developed as part of this project, with attendees from across the Midwest and beyond.

What explanation/background does the lay reader need to understand the significance of this outcome?

Unlike California and New Jersey, Renewable Energy Technician jobs are very few and far between in the Midwest. The project seeks to train students for entry level positions in a wide variety of Electrical Technology jobs, while also giving them the skills and education to step right into Renewable Energy Technician jobs, as they arise. This strategy addresses the chicken-and-egg problem: "Do we wait for anticipated, emerging jobs to become available before we train the needed technicians; or, do we train the technicians we expect to need before the job demand exists?"

History

Submitted on 02/05/2011 by David Hanych
DRL: Approved 06/23/2011 by John C. Cherniavsky
EHR: Approved 07/07/2011 by James W. Colby