

## **[U-M Engineering \(http://www.engin.umich.edu/\)](http://www.engin.umich.edu/)**

- [About \(http://www.engin.umich.edu/college/about\)](http://www.engin.umich.edu/college/about) +
- [Research \(http://www.engin.umich.edu/college/research\)](http://www.engin.umich.edu/college/research) +
- [Academics \(http://www.engin.umich.edu/college/academics\)](http://www.engin.umich.edu/college/academics) +
- [Admissions \(http://www.engin.umich.edu/college/admissions\)](http://www.engin.umich.edu/college/admissions) +
- [Departments \(http://www.engin.umich.edu/college/departments\)](http://www.engin.umich.edu/college/departments) +
- [Giving \(http://www.engin.umich.edu/college/giving/\)](http://www.engin.umich.edu/college/giving/) +
- [Info for You \(http://www.engin.umich.edu/college/info\)](http://www.engin.umich.edu/college/info) +

<https://facebook.com/michigan.engineering> <https://twitter.com/UMEngineering>  
<https://instagram.com/michiganengineering> <https://youtube.com/michiganengineering>



<http://umich.edu>

University of Michigan


© 2015 THE REGENTS OF THE UNIVERSITY OF MICHIGAN

MICHIGAN ENGINEERING | COLLEGE ADMINISTRATION, 1221 BEAL AVENUE, ANN  
ARBOR, MI 48109-2102  
+1 (734) 647-7000

[CONTACT THE COLLEGE \(http://www.engin.umich.edu/\)](http://www.engin.umich.edu/)  
[SAFETY INFORMATION \(http://safety.engin.umich.edu/\)](http://safety.engin.umich.edu/)



# **Woven Wind wins Smarter Planet Challenge**

1/18/2013 

From: Jennifer Judge Hensel

Michigan Engineering



Michigan

Engineering students have been recognized internationally for their efforts to utilize traditional local skills and materials for creating wind power in a small mountain village in Guatemala.

The Woven Wind team, a multidisciplinary group of students, won first place in the IBM/IEEE Smarter Planet Challenge, which identifies team-based student projects that are changing the world. The team will receive \$5000, which they will use to help fund their next trip to Guatemala.

Woven Wind is a project team under BLUElab (Better Living Using Engineering Lab) that is developing a wind turbine with blades made of woven material. The students are working with women weavers in Nueva Santa Catarina Ixtahuacan, Guatemala, to put their woven pieces in the blades of the design.

“The primary goal of Woven Wind is to empower and bring together women to contribute in providing energy to their community,” said chemical engineering student and Woven Wind co-founder Michelle Fernandes. “There is also an education portion, which focuses on teaching the community and other local schools about wind energy, electricity, and how to incorporate this all into their culture.”

The village retains strong roots to its Mayan background, and the women of the area continue to create traditional Mayan weavings with a back-strap loom. The students have created two prototypes of a wind turbine using the weavings, and plan to return to the village for its third trip this summer to implement its latest design ideas.

“We hope the technology will bring electricity to this region, which struggles with the reliability of their current power source,” said chemical engineering student and Woven Wind co-founder Sita Syal. “We also hope to impact the women who will weave the blades and give them a way to make income and support their families.”

In addition, the students plan to begin working with the village’s high school to teach students about wind energy and electricity, and how they can utilize local resources to their advantage. “We hope that

children in the area can use experience with sustainable energy and technical projects like this to innovate and become entrepreneurial in the future,” said Charlie Kosuth, Woven Wind project leader and a junior in mechanical engineering.

“It feels amazing to win this award and I'm so excited and blessed,” said Fernandes. “All our hard work and long hours dedicated to making this project successful have been recognized and I am so proud that we won. I was on the founding team and am currently a senior, so there isn't a better way to graduate than winning first place in an international competition!”

University of Michigan BLUElab engineering students develop a wind turbine in a Guatemalan village using only locally available materials and hand-woven fabric.

Article topics: [BLUE Lab \(/college/about/news#newsTopic=BLUE+Lab\)](#) , [Student Projects \(/college/about/news#newsTopic=Student+Projects\)](#) , [Student Teams \(/college/about/news#newsTopic=Student+Teams\)](#)

**About Michigan Engineering:** The University of Michigan College of Engineering is one of the top engineering schools in the country. Eight academic departments are ranked in the nation's top 10 -- some twice for different programs. Its research budget is one of the largest of any public university. Its faculty and students are making a difference at the frontiers of fields as diverse as nanotechnology, sustainability, healthcare, national security and robotics. They are involved in spacecraft missions across the solar system, and have developed partnerships with automotive industry leaders to transform transportation. Its entrepreneurial culture encourages faculty and students alike to move their innovations beyond the laboratory and into the real world to benefit society. Its alumni base of more than 75,000 spans the globe.

**Add us on Snapchat!**