

Voinovich School project blows away attendees at world's largest wind energy conference

On May 4, the Great Lakes WIND Network (GLWN) showcased their new interactive website, database and mapping tools developed by Ohio University's Voinovich School of Leadership and Public Affairs to more than 23,000 attendants at WINDPOWER 2009, the world's largest annual wind energy event in Chicago. According to the director of GLWN, these tools attracted endless attention at GLWN's pavilion rendering the GLWN's staff "virtual prisoners at the pc."

The Voinovich School has been working with GLWN since July of 2008 to create an information database and interactive website that will help connect companies who supply or have the potential to supply parts for wind energy manufacturing, said Dave Simon, Geographic Information Systems (GIS) Manager at the Voinovich School, who has been working on the project.

The Voinovich School became involved in the project when GLWN was awarded a grant from the Ohio Department of Development. As GLWN collected vast amounts of data from various companies, they needed a way to aggregated it and "they recognized the expertise that the Voinovich School could bring to that part of project," said Voinovich School Director of Energy and Environmental Programs, Scott Miller.

"[The Great Lakes WIND Network] chose to work with the Voinovich School because we are more than technicians, we offer a lot of insight," said Tael Kim, Senior Software Engineer for the Voinovich School. "We are not an IT company, we know what people need because we have a full understanding of the projects we work on and their objectives."

The Voinovich School began by designing a database and a database management system, explained Kim, who actually created the system. It allows GLWN to easily add, manage and find data.

The next step for the Voinovich School was to create a presentation tool that would make the information available for and useful to the public, said Kim. The school found their solution in an internet-based GIS mapping function which allows the data to be displayed visually.

"You can tell people (verbally) everything you know," said Miller, "but to see it on a map really helps to explain it. It's the perfect tool for a project such as this where you are trying to identify the location of companies in the wind supply chain"

GIS mapping is an important tool that the Voinovich School uses often for a variety of projects. It is a technique used to create visual maps with the capacity to hold an unlimited amount of data. Each feature, for example a company, can contain information not only about the company's location, but also its phone number and web address, what it specializes in, and how many employees it has. All of this information can then be displayed on a map.

“The benefit of using GIS mapping,” said Kim, “is that all of the data can be seen visually.”

In addition to offering a visual appeal, the map also offers the ability for in-depth searches of companies. Users can search by political district, Ohio Department of Development region, or a variety of other attributes to locate and learn more about specific companies. This information is incredibly useful for people hoping to find potential suppliers or business partners who fit a specific profile. According to Simon, users can find companies and then discover “all the information associated with them.”

GLWN hopes to use the database and map to connect companies working on creating wind energy, thus improving the wind energy supply chain in Ohio, said Miller. Since this information helps identify which companies are in the wind supply chain, manufacturers will have an incentive to expand their current product line, to partner with other companies, to expand and develop innovative new services and products, and possibly relocate to Ohio to capitalize on the huge number of companies located in this state.

“This is a tremendous opportunity for Ohio. ...Ohio can use the information to bring companies into the state,” he said. “Most companies use just-in-time delivery, so knowing where their suppliers are located is extremely important.”

The Voinovich School plans to wrap up this part of the project in the near future, then continue into phase II which includes expanding the database and map to include other states and, according to Kim, other countries.

“[GLWN] is taking a big picture approach and think even more broadly,” said Miller. “What they are doing is unique, important and valuable for wind suppliers beyond the Great Lakes.”

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