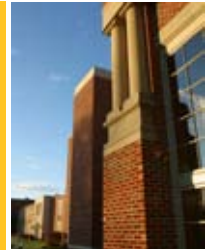


EERC EDGE

Our Edge
Is Our People



September –
October 2008



The ribbon-cutting ceremony at the EERC NCHT building dedication included honored guests (front row, left to right) North Dakota University System Chancellor Bill Goetz, UND President Robert Kelley, East Grand Forks Mayor Lynn Stauss, North Dakota Governor John Hoeven, EERC Director Gerald Groenewold, U.S. Senator Byron Dorgan, Grand Forks Mayor Michael Brown, and U.S. Representative Earl Pomeroy. In the back row are the Grand Forks–East Grand Forks Chamber Ambassadors.

National Center for Hydrogen Technology building dedication



Because of flight delays, U.S. Senator Kent Conrad arrived just after the ribbon cutting but shared with the audience plans for an ambitious new energy initiative he and others in the Senate are drafting for the legislative process.

One way the United States may be able to achieve greater energy security is through the production of hydrogen from fossil and renewable fuels and its use in fuel cells, combustion engines, and turbines. While hydrogen might seem to be a relatively new alternative form of energy, the University of North Dakota Energy & Environmental Research Center (EERC) has more than 50 years of hydrogen research involving fossil and renewable energy. As a result of the EERC's expertise, U.S. Senator Byron Dorgan designated and provided cornerstone funding for the EERC's National Center for Hydrogen Technology (NCHT) in 2004.

The EERC dedicated its new \$3.5 million building for the NCHT on September 5, 2008. The 15,000-square-

foot, state-of-the-art facility will provide researchers with the laboratory space and equipment needed to significantly enhance research, development, testing, and commercialization of hydrogen and fuel cell technologies.

"Hydrogen is not only a key bridge to energy security, but also a key solution to managing our carbon footprint," said EERC Director Gerald Groenewold in his dedication welcome.

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The lobby of the NCHT demonstration building.

NCHT dedication continued from page 1

Funding for the building itself included \$2.5 million from the North Dakota Centers of Excellence Commission, \$500,000 from the City of Grand Forks, and another \$500,000 from the EERC. The Centers of Excellence Program was proposed by North Dakota Governor John Hoeven as a way to combine education and economic development to create higher paying jobs for North Dakota citizens.

The dedication ceremonies also included remarks from University of North Dakota President Robert Kelley,

North Dakota University System Chancellor Bill Goetz, U.S. Senator Kent Conrad, U.S. Representative Earl Pomeroy, Grand Forks Mayor Michael Brown, and East Grand Forks Mayor Lynn Stauss. Honored guests included North Dakota Governor John Hoeven and Senator Dorgan, who addressed the history of the building and the NCHT Program. Senator Dorgan used his key positions in Congress to attain \$10.85 million to fund research at the NCHT. That cornerstone funding has been matched with \$49 million in private sector funding.

“This is another very exciting milestone for the Red River Valley Research Corridor,” Senator Dorgan said. “The NCHT at the EERC was created through federal funding I added in Congress to help expand research in hydrogen energy technology and to do it right here in North Dakota.”

A reception and self-guided tours of the facility followed the dedication ceremonies. General Motors (GM) also provided four Chevrolet Equinox Fuel Cell vehicles for the public to ride in and drive.

–Sandy Van Eck



The NCHT demonstration building.



EERC Deputy Associate Director for Research Mike Holmes addresses the Action Summit II participants during a panel discussion of hydrogen from fossil fuels.

Hydrogen summit focuses on barriers to the hydrogen economy

Advancing the Hydrogen Economy Action Summit II was held Thursday, September 4, 2008, at the EERC. The Summit was sponsored by U.S. Senator Byron Dorgan through the Red River Valley Research Corridor. The EERC cosponsored and organized the event. The Summit drew a capacity crowd from the United States and Canada and addressed key technological barriers facing the hydrogen economy. Three panels of 15 national experts discussed

the production of hydrogen from fossil fuels and renewable energy sources, the need for infrastructure, and hydrogen utilization in vehicles and other end uses.

“Not only is this technology better for the environment than internal combustion engines, it’s a way to help reduce America’s dependence on foreign energy,” Dorgan said. “That’s why I’ve used my positions on the Senate’s Appropriations and Energy

and Natural Resources Committees to significantly advance hydrogen programs in this country. It’s also why I’ve helped increase hydrogen research and development right here in the Red River Valley Research Corridor.”

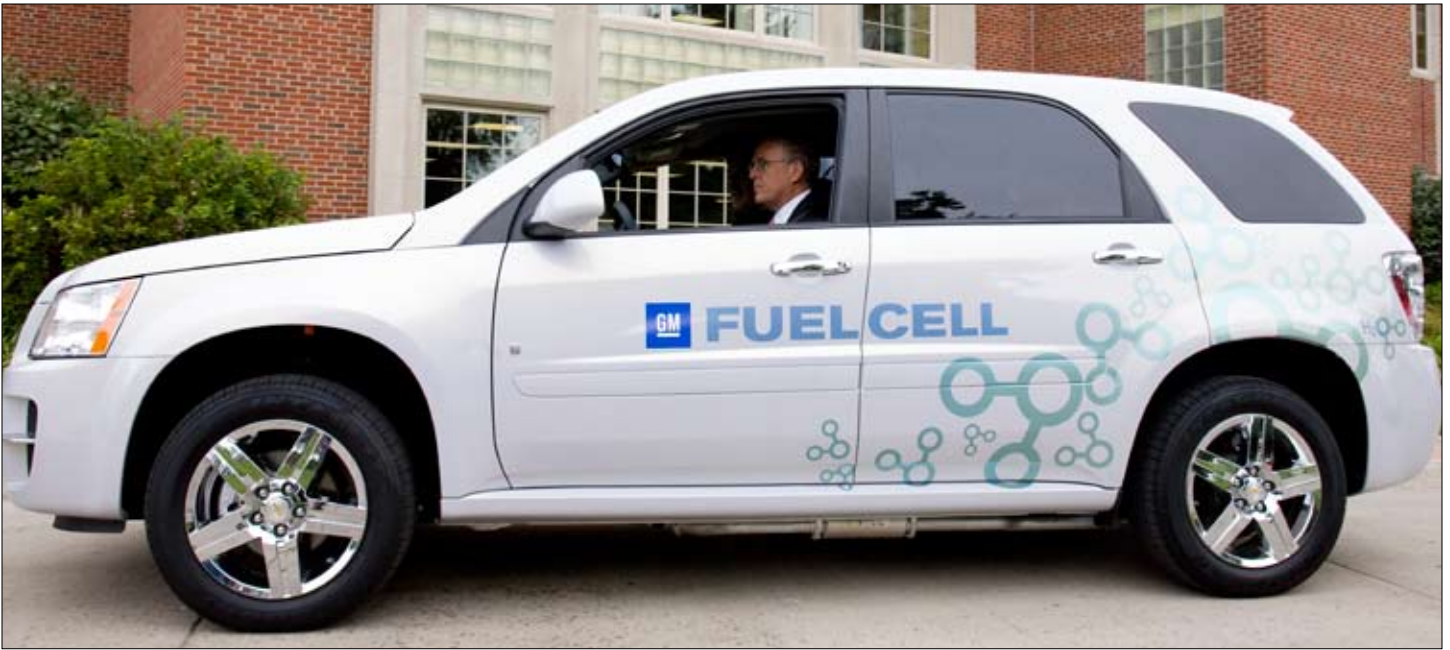
EERC Director Gerald Groenewold said, “Through the hydrogen programs at the EERC, we are breaking down the barriers, bringing down costs, and shortening the timetable to the point where hydrogen will be a major component of our national energy future.” Groenewold welcomed the attendees, along with Senator Dorgan and U.S. Representative Earl Pomeroy (D-ND).

Dorgan was a keynote presenter at the Summit. The Summit also included a keynote presentation by Keith Cole, Director of Advanced Technology Vehicle Strategies and Legislative Affairs at GM, which brought fuel cell vehicles to the Summit, and Carl Bauer, Director of the U.S. Department of Energy National Energy Technology Laboratory, which administers the federal funding for the NCHT.

Technical Directors for the Summit were Tom Erickson, EERC Associate Director for Research; Mike Holmes, Deputy Associate Director for Research; and Delore Zimmerman, Red River Valley Research Corridor Coordinating Center Coordinator.

The EERC currently has more than \$49 million in funded hydrogen projects with more than 80 corporate partners. In addition to providing the cornerstone funding for the EERC’s NCHT, Senator Dorgan has supported billions of dollars in federal funding to invest in national hydrogen technology programs around the country through his work on the Senate Appropriations Committee. Dorgan’s first Action Summit, Building the Hydrogen Economy Action Summit I, was held at the EERC in November 2005.

–Sandy Van Eck



Senator Byron Dorgan in the driver's seat of the Chevy Equinox Fuel Cell vehicle.

Hydrogen-powered vehicles

An exciting part of the Hydrogen Summit and NCHT building dedication was the presence of four GM Chevy Equinox Fuel Cell vehicles. On the outside, the Chevy Equinox Fuel Cell looks like a normal vehicle. It was clear that GM wanted these vehicles to have the same

quality of performance as well as the same amenities a driver would expect inside the car. The difference was apparent under the hood and in actual operation—it was so quiet. The presence of the Equinox Fuel Cell vehicles at the Hydrogen Summit and NCHT building dedication gave

tangible proof that hydrogen will be able to fuel the nation once necessary production capabilities and the infrastructure to distribute hydrogen become available and system costs come down.

–Trish McGuire



EERC staff (left to right) Josh Ziman (back to camera), Research Engineer; Nola Pithey, Administrative Assistant; Dan Stepan, Senior Research Manager; and Richard Shockey, Research Engineer, check out the motor under the hood of the fuel cell vehicle while video crews capture the moment.



Partners at the Plains CO₂ Reduction Partnership annual meeting and workshops held September 16–18 in Maple Grove, Minnesota.

PCOR Partnership hosts 2008 annual meeting and workshops

The EERC Plains CO₂ Reduction (PCOR) Partnership 2008 Annual Meeting and Workshops were held September 16–18, 2008, in Maple Grove, Minnesota. The annual meeting itself was held September 17–18, 2008, and provided an update on the progress of the geologic and terrestrial Phase II validation test activities and the upcoming Phase III demonstration activities. Meeting attendees included

current and prospective PCOR Partnership members. Two workshops were held prior to the annual meeting: “CO₂ Capture, Separation, and Compression” and “Carbon Market Trading.”

In addition to the annual meeting and workshops, a separate “Geologic Characterization Meeting” was featured on September 16 for

individuals interested in a more in-depth discussion. The characterization meeting was facilitated by EERC Research Scientist Wes Peck.

More information on the 2008 PCOR Partnership Annual Meeting and Workshops and other events can be found at www.undeerc.org/PCOR/events.

– Sandy Van Eck



Photos by Wes Peck

PCOR Partnership partners had an opportunity to tour Great River Energy's new headquarters during the annual meeting.



The EERC faces in the picture of UND's Women Build crew (behind the sign) are Linda Brown, Debbie Pflughoeft-Hassett, Trish McGuire, and UND Women Build Cocoordinator Lucinda Hamre. Standing at the left is UND Women Build Cocoordinator Laurie Betting, Assistant VP for Wellness.

EERC staff participate in Habitat for Humanity® Women Build®

Several women from the EERC and UND have joined teams from other organizations and the community to build a two-bedroom house through the Grand Forks Habitat for Humanity (HFH) Women Build. HFH is a nonprofit organization that builds new or rehabilitates older homes for families in need of affordable housing. HFH accomplishes this through volunteer labor and donations of money and materials. The homeowner(s) must invest hundreds of hours of her or his own labor (sweat equity) into building the home or ones for others and must be able to provide a down payment and the monthly mortgage payments.

Prior to the start of the Women Build project, Lowe's, a home furnishing/building store and corporate sponsor of HFH, provided classes for interested women builders in exterior wall framing, roof shingling, and exterior wall siding.

"These women, who were largely inexperienced in construction, have gained skills and confidence through hands-on participation in this project," said Lucinda Hamre, EERC Research Specialist and joint coordinator of the UND team. "Most expertise has been gained on the job."

The EERC staff participating in the Women Build are Linda Brown, Lila Christensen, Charlene Crocker, Lucinda Hamre, Trish McGuire, Carolyn Nyberg, Debbie Pflughoeft-Hassett, Laura Raymond, Lucia Romuld, and Uta Thompson. EERC staff are part of a 35-woman UND team that typically works the Monday and Wednesday 3 to 7 p.m. shifts.

The construction leads are experienced HFH members, who provide guidance and assistance when and where needed. Certain jobs, such as putting in the foundation, floor joists, and electrical wiring, are hired out.

"The house on North 3rd Street in Grand Forks has a nearly completed exterior after only 2 weeks of labor," said Hamre. "You should have seen Linda Brown on the roof shingling!"

The Women Build house is scheduled to be completed in December and will be inhabited by a single mother and her child.

"Thanks to the efforts of volunteers, her mortgage will be very affordable, and her home will provide long-term stability for her family," said Hamre.

For more information on the Red River Valley Habitat for Humanity, go to www.rrvhabitat.org.

–Trish McGuire

New Employees



Jordan Bremer is a Research Scientist at the EERC, where he is currently working for the PCOR Partnership to evaluate the potential for carbon dioxide storage in geologic formations.

“I like that my job at the EERC is cutting edge,” Bremer says. “I love to solve problems. Professionally, I’m very interested in the Powder River Basin because of my experience there. I’m also very interested in the Bakken Formation. I really like mineralogy and geologic history, so this is a great job for me.”

Bremer received his B.S. degree in Geology from UND in 2005. He also is a certified geologist-in-training and has radioactive safety training as well as mine safety and health certification.

Prior to his position at the EERC, Bremer served as a staff geologist for Interstate Drilling Services in Grand Forks, North Dakota, and for Consolidated Engineers and Materials Testing in Gillette, Wyoming. He did field work in those jobs.

“I’ve done a lot of drilling, logging, and field tests, especially in the Powder River Basin,” he says. “I’ve also done a fair amount of lab work and reporting for geotechnical engineering and environmental remediation.”

In his spare time, Bremer plays community hockey and likes to watch volleyball. He enjoys traveling—says he’s been “all over the place”—and camps whenever

he can. Bremer also collects rocks, builds things, and says he “rocks” at karaoke. One of his passions is playing Amtgard, an international live-action fantasy role-playing game, something like the Society for Creative Anachronism, using boffer, or foam weapons.

Originally from Apple Valley, Minnesota, Bremer came to Grand Forks for college and says that Grand Forks was on the top of his list of places to move to when he left Wyoming. Bremer’s wife is a clinical study monitor at PRACS.



Research Engineer **Tyler Curran** works in process engineering and design related to the conversion of coal and biomass to fuels, chemicals, and

energy. Tyler works in the Conversion Systems Group and is currently working on clean coal technologies including gasification for the production of hydrogen as well as combustion systems and related emission technologies such as CO₂ capture.

“I am impressed with the wide range of projects at the EERC and the diverse backgrounds of the people who work on them,” says Curran. “I hope to learn as much as I can.”

Curran holds a B.S. in Mechanical Engineering from UND. For his senior design project, he was on the first team to design the university’s fuel cell car.

Prior to his position at the EERC, Curran worked as a mechanical

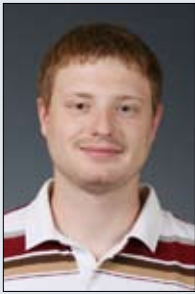
and electrical engineer at Hawkes Manufacturing in East Grand Forks, Minnesota. The company builds heavy equipment used in landscaping and turf management. Curran’s largest project was a family of wireless remote-controlled truck-mounted tree transplanters.

“That was a fantastic experience for me right out of school,” Curran reports. “I was literally thrown into being an engineer and worked independently to develop new machines and options for existing equipment. Most of the work I was involved in was new and innovative to the industry.”

Curran has an extensive list of interests. He runs with his dog nearly every night. He reports being a “motor head,” working on several car and motorcycle projects at any one time, and enjoys riding motorcycles. He “dabbles” in electronics, building personal computers and his own home audio system.

Curran is a member of the Pyrotechnics Guild International (PGI), attends the annual PGI conventions held around the United States, and also works with a new not-for-profit company in Fargo called Prairie Thunder Pyrotechnics.

“I enjoy working on large display rockets and traditional fireworks shells, blowing stuff up for people’s amusement,” Curran says.



Anthony Dockter is a Research Instrumentation Technician at the EERC, where his work involves installation, maintenance, repair, and operation of

instruments and equipment used in field testing and bench- and pilot-scale testing. He is currently working with the Mercury and Related Sampling Group. His professional interests and expertise involve computer electronics and computer hardware and software.

Dockter holds an A.A.S. degree in Electronics Technology with an emphasis in Instrumentation and Process Control from the North Dakota State College of Science in May of 2008.

Prior to his position at the EERC, Dockter worked as a T&C technician at Minn-Dak Farmers Cooperative in Wahpeton, North Dakota, and as a computer support technician for Microsoft products at Sykes Enterprises in Bismarck, North Dakota.

Originally from Stanton, North Dakota, Dockter now lives in Grand Forks. His hobbies include building and repairing computers and working on small engines.

When asked what he likes about his job at the EERC so far, Dockter compliments his fellow employees.

“All of the people are great and very helpful,” he says.



Kyle Glazewski is a Research Scientist at the EERC, where his work involves water quality assessments and watershed-scale water quality modeling for the

water group. His current focus is the use of the Soil and Water Assessment Tool to evaluate water quality and assess implementation of beneficial management practices in several Red River tributaries.

“I am enjoying the research possibilities and activities here at the EERC,” Glazewski says. “There are so many different projects going on all the time, and I look forward to being able to get involved with many of them.”

Glazewski holds M.S. and B.S. degrees in Geography, along with a minor in Atmospheric Sciences from UND. His focus was primarily on environmental/physical geography, with an emphasis on geographic information systems (GIS).

Prior to his position at the EERC, Glazewski served as a watershed coordinator for the Grand Forks County Soil Conservation District, managing and administering all aspects of the U.S. Environmental Protection Agency’s 319 non-point-source watershed projects at the Turtle River and English Coulee Watersheds. As an associate geographic technician for NAVTEQ in Fargo, North Dakota, he updated a global mapping database, completed quality checks on map data, and used ArcMap software to develop steps for a network updating process. Before that, he was a GIS technician for the Upper Midwest Aerospace Consortium, working on a project to study greenhouse gases in agricultural

fields in the region and a wetland study that assessed the accuracy of using LANDSAT satellite imagery to evaluate wetland health in the Prairie Pothole Region.

Originally from Maple Grove, Minnesota, Glazewski follows the Minnesota professional sports teams—the Twins, the Wild, and the Vikings, especially—but as a UND graduate, he naturally supports the Sioux football and hockey teams. He also plays golf and basketball, bowls, and skis.

Glazewski and his wife, who has her master’s degree in reading education from UND, make frequent weekend trips to the Twin Cities to visit family and friends and enjoy all the activities that are available down in that area. They have a 14-month-old son.

“My wife and I mostly just love spending time playing with him, taking him out to the park, just watching him explore and grow,” says Glazewski.



Randy Hayes is a Building Services Technician at the EERC, where he is responsible for keeping the EERC buildings and facilities looking their best.

Hayes worked for UND in the 1980s and 1990s as a building services technician. Prior to that, he worked on various pipeline projects throughout the United States and in gas plants in Stanton, Washburn, and Beulah, North Dakota.

Hayes’s hobbies include watching football, and he enjoys watching or participating in most sports. His favorite activities are hunting, fishing, golfing, and swimming.

Hayes also likes to camp and fish in the state and national parks in North Dakota and Montana.



Dustin McNally is a Research Engineer at the EERC, working on hydrogen production and purification and investigating a new technique for joining high-

temperature-strength materials. His areas of professional interest are 3-D modeling, analyzing and running experiments, and good design practices.

"I have been heavily involved in the hydrogen safety aspect of my projects. I find this topic to be both interesting and useful as hydrogen is a unique gas, and knowing how to work with it safely is important for everyone," says McNally, who recently had the opportunity to attend a hydrogen safety summer school in Belfast, Northern Ireland, for 2 weeks. He says he learned a great deal and is now implementing what he learned.

McNally received undergraduate and graduate degrees in Mechanical Engineering from UND in 2006 and 2007, respectively, and is currently working on an International Studies degree with a focus on Arabic language and foreign policy. McNally taught Introduction to Engineering as a Lecturer for the Mechanical Engineering Department prior to working at the EERC.

"I kept the class interesting by having students design and build exciting design projects such as overpowered Nerf toy guns and golf club launchers," McNally says.

A Lisbon, North Dakota, native, McNally now lives in Grand Forks.

McNally and his father built a lake cabin in the Detroit Lakes area a few years ago, and the family enjoys weekends there. McNally's hobbies include bike riding. An avid golfer, McNally has hit three holes in one while playing golf.

"Comparing that to the 18 holes in one that Tiger Woods has and considering that he has played a billion more holes than I, makes me, on average, the most accurate player in the world," McNally says.



Kyle Palmiscno is a Research Engineer at the EERC, where he works in the area of process engineering and design related to the conversion of

coal and biomass to fuels, chemicals, and energy. Palmiscno is very interested in the use of alternative energy resources for energy production. Palmiscno is working on two critically important projects. The first is a Fischer-Tropsch (FT) system that can take a slipstream from several systems and make FT liquids for synthetic petroleum. The second is a biomass feed system for the EERC transport reactor development unit to analyze various biomass fuels.

"I enjoy being able to see a project or design from basically the idea stage all the way through to operation," Palmiscno says of his work at the EERC.

Palmiscno holds a B.S. degree in Mechanical Engineering from the University of North Dakota, which he received in May 2008. As a student, Palmiscno worked at the EERC as a drafter for nearly 3 years. He also had a summer internship at NASA's Marshall Space Flight Center

in Huntsville, Alabama, where he worked on the water recovery system that is being designed for future exploration missions.

A lifelong resident of Grand Forks, Palmiscno and his wife, who's in her first year of medical school at UND, just bought a house in town a few months ago. Palmiscno says much of his spare time has been spent remodeling the house since they moved in. He's currently finishing the basement.

Palmiscno says the couple's favorite pastime is spending time on the water or "just lazing around" at Lake Andrusia, Minnesota, where relatives have a cabin. Palmiscno also enjoys camping and canoeing. A sports enthusiast, he says that he primarily follows baseball, but he'll "watch just about anything."

Last March, Palmiscno and his wife traveled to Italy for a week. "It was amazing," he says. "We got to see Rome, Florence, and Venice. One of the more amusing moments of the trip came on the train ride from Venice to Rome. The trip lasted about 3 hours, and with 5 minutes to go, we found out the people across from us were from Grand Forks. Small world!"



Thomas Powers is a Technology Development Operator at the EERC, where he is responsible for the construction, operation, and maintenance of bench- and pilot-

scale test equipment, including reactors; high-temperature and high-pressure hydrotreating units; combustors; and materials handling, wastewater treatment, and hydrogen production facilities. His other

duties include field sampling, making equipment, data collection, and troubleshooting.

“The thing that has interested me the most since being here is the diversity of my job,” Powers says. “No two days are alike.”

Powers holds a construction electricity degree from the Northwest Technical College (now known as Northland Community and Technical College) in East Grand Forks, Minnesota, and is a licensed journeyman electrician in North Dakota and Minnesota. Prior to his position at the EERC, he worked for Bergstrom Electric in Grand Forks as a journeyman electrician for 8 years.

A native of East Grand Forks, Powers now lives in Grand Forks. His interests include his Springer Spaniel and building custom furniture and cabinets.



David Terhark is a Research Instrumentation Technician at the EERC, where his work involves the installation, maintenance, repair, and operation of

instruments and equipment used in field testing and bench- and pilot-scale testing.

“This is an amazing place to work,” says Terhark. “I am enjoying learning something about all of the different projects I am working on.”

Terhark holds an Electronics degree from Moorhead Area Technical College and a Class B boiler license in Minnesota. After college, Terhark spent 2 years in the U.S. Army,

spending one of those years with the infantry in Vietnam.

Prior to his position at the EERC, Terhark was an electronics technician at North American Foods/RDO Foods of Fargo. Before that, he worked for the JR Simplot Company and, after the Army, Western Potato.

Terhark lives in Kempton, North Dakota, south of Larimore. His hobbies are fishing and doing yard work. He purchased land near his home and has begun a major tree-planting effort, with plans for a garden. Terhark enjoys traveling and has visited Yellowstone National Park a number of times on the way to see his brother in Phoenix.



Joshua Ziman, a Research Engineer at the EERC, works with the Northern Great Plains Water Consortium. His work focuses on a variety of issues

related to energy-water sustainability. Ziman’s professional areas of interest are sustainable construction and power sources, cradle-to-cradle endeavors, and alternative sources of power.

Of his experiences so far, Ziman says that “the friendliness and helpful nature of everybody at the EERC is tremendous.” He goes on to say that he “greatly enjoys the opportunity to openly discuss ideas based on their merit.”

Ziman received a B.S. degree in Chemical Engineering from the South Dakota School of Mines and Technology in 2007. In addition, he received certification as an E.I.T (engineer in training) in South

Dakota. Prior to accepting his position at the EERC, Ziman lived in Lincoln, Nebraska, where he was a production assistant for an Archer Daniels Midland soybean extraction plant.

Originally from Dickinson, North Dakota, Ziman’s interests include hunting with his brothers and downhill skiing. Ziman and his wife enjoy hiking with their dog, trying new cuisine, and traveling. Ziman hopes one day to visit Machu Picchu.

Transitions



Jason Laumb has been promoted to the position of Senior Research Manager at the EERC, where he leads the Energy Conversion Systems Group, a multidisciplinary

team of scientists and engineers who develop advanced energy conversion and emission control technologies. Laumb has served as a Research Manager at the EERC since 2001. He holds an M.S. degree in Chemical Engineering and a B.S. degree in Chemistry from UND.

“I am excited to be working with such an outstanding group of people,” Laumb says. “Interfacing daily with such talented people has been the biggest reward.”

–Sandy Van Eck

SNAPSHOTS:

Wolfe finishes her first triathlon!



Photo by Brian Reinke

Stephanie Wolfe (left) on the last part of the triathlon.

As if she doesn't already have a busy enough schedule with her work as a Research Specialist with the PCOR Partnership, Stephanie Wolfe recently completed her first sprint triathlon at the LifeNets Triathlon in Mandan, North Dakota. LifeNets is a nonprofit organization that develops programs offering practical assistance to promote the well-being and self-sufficiency of disadvantaged people throughout the world. Nearly \$2200 was raised at the Mandan event.

The sprint triathlon is one of the fastest growing triathlons and is approximately one-half the size of an Olympic marathon and one-eighth the size of a full (or iron) triathlon. The LifeNets sprint triathlon included a 500-meter swim, 13-mile bike ride, and 3.1-mile run. Wolfe placed third in her age division and 24th overall out of 52 participants. She was seventh out of the pool, which was a terrific position to be in. However, the biking section was more difficult than she expected.

"I had a mountain bike, while the others had road bikes," said Wolfe. "And I wasn't used to the hills in Mandan, as I did all my training in Grand Forks. However, I did make up a little time and distance in the running section."

On why she decided to compete in a triathlon, Wolfe said, "Because it pushes me to work out and to reach goals. Nothing beats the feeling you get when you accomplish an event like this—what an adrenaline rush!"

National tennis champ



Photo by Madhavi Marasinghe

ERC Programmer/Analyst Madhavi Marasinghe's daughter, Lalangi Madhavi, and her five teammates recently returned from the Jr. Team Tennis National Championships in Mobile, Alabama. The Grand Forks team finished first in the advanced division of the 2008 U.S. Tennis Association (USTA) 14-and-under championships, defeating a team from Austin, Texas. This team is the first team from North Dakota to participate in USTA Jr. Team Tennis and played its first season this summer in qualifying for and winning the National Championship.

"The kids played so well during the entire tournament!" said Madhavi Marasinghe. "They beat teams from New Mexico, Pennsylvania, Florida, Texas, and the Mid-Atlantic. This was very exciting for everyone because no one ever imagined a team from such a small town in North Dakota could win this, compared to the teams from across the country."

Congratulations, Lalangi!

—Trish McGuire

SNAPSHOTS:



Potato head float

Who says engineers have no sense of humor? EERC Research Engineer Dave Dunham (second from left) and friends built this Mr. Potato Head, which was the Cottonwood Community Church entry for the UND Potato Bowl Parade. The float had interchangeable body parts and sat atop a Honda Civic, which Dunham drove using a camera and TV setup. The left arm was designed to wave and was hand-operated from within the float.

-Sandy Van Eck

Season's Greetings

Upcoming Events

HYDROGENWORKS
The Premier Professionals Training Course

February 17-19, 2009, San Diego, CA

INTERNATIONAL CONFERENCE ON
AIR QUALITY

Mercury, Trace Elements, SO₂, Particulate Matter, and Greenhouse Gases



October 25-29, 2009, Arlington, VA

**Biomass '09: Power,
Fuels, and Chemicals
Workshop**

July 14-15, 2009
Grand Forks, North Dakota

EERC EDGE

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