

NORTH DAKOTA SOCIETY OF PROFESSIONAL ENGINEERS

2008 YOUNG ENGINEER OF THE YEAR AWARD



Debbie Jacklitch-Kuiken

Educational and Collegiate Achievements

Undergraduate and Advanced Degrees:

Bachelor of Science in Mechanical Engineering, May 2005
Minor in Mathematics
University of North Dakota, GPA 3.0

Bachelor of Science in Atmospheric Science, May 2005
University of North Dakota, GPA 3.0

Associates of Arts in General Education, May 1999
Central Lakes College, GPA 3.2

Honorary Societies:

Phi Theta Kappa

Scholastic Awards:

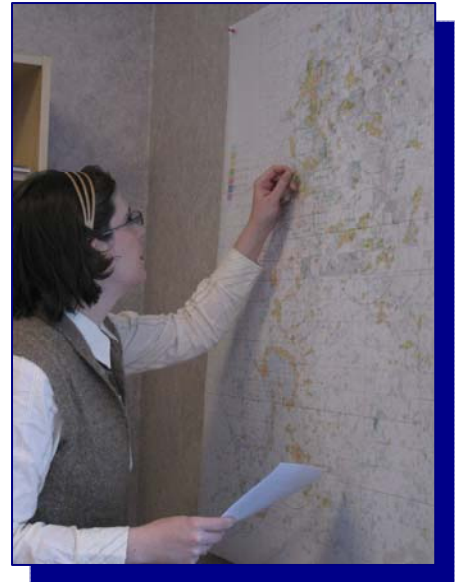
NSF Engineering Grant Recipient
Ken and Bernice Coder Scholarship at Central Lakes College

Organizations:

National Weather Association
North Dakota Society of Professional Engineers
American Meteorological Society
National Conference Trip Coordinator 2002
American Society of Mechanical Engineers Student Chapter
Regional Conference Committee Member
Society of Women Engineers

Other Activities:

Meteorology Lab Instructor, 2001 – 2004
Research Assistant, 2001
Lab Assistant, Chemical Engineering Department, 2003
Bulk Mail Coordinator, Fine Print of Grand Forks, 2000 – 2003
Lab and Sales Technician, Ritz Camera, 2003 - 2005



Professional Society Activities

Society Membership:

North Dakota Society of Professional Engineers, Chapter 01

| | |
|-------------|--|
| 2008 – 2009 | Treasurer |
| 2007 – 2008 | Treasurer |
| 2006 – 2007 | Past President, Awards Committee Member |
| 2005 – 2006 | President |
| 2004 – 2005 | President-elect |
| 2003 – 2004 | Vice President |
| 2002 – 2003 | Secretary |
| 2001 – 2002 | Secretary |

Society of Women Engineers

| | |
|------|---------------------------|
| 2008 | UND SWE Chapter Counselor |
| 2007 | UND SWE Chapter Counselor |

American Wind Energy Association, Business Member

Wind on the Wires, Business Member

University of North Dakota Mechanical Engineering Alumni Advisory Council



Oral Presentations:

WindPRO Training Course, Instructor, Minneapolis, MN Sept. 2007
WindPRO Training Course, Instructor, Los Angeles, CA, June 2007
WindPRO Training Course, Instructor, Grand Forks, ND, March 2007
WindPRO Training Course, Instructor, Boston, MA, Jan 2007
WindPRO Training Course, instructor, Grand Forks, ND Sept. 2006
WindPRO Training Course, Instructor, Winnipeg, MB, Canada, Oct. 2006
Engineering Profession, Central Lakes College's Engineering Day, Spring 2007
Engineering Profession, Central Lakes College's Engineering Day, Fall 2006
Engineering Profession, Central Lakes College's Engineering Day, Fall 2005
Engineering Profession, Central Lakes College's Engineering Day, Fall 2004
Engineering Profession – EIT Exam, UND SWE Chapter, Fall 2008
EIT/PE Exam Prep, UND SWE Winter Banquet, December 2007

Poster Presentations:

"The Atmospheric Phenomena of a Mid-Fall Blizzard" American Meteorological Society
Annual Conference, Orlando, Florida, January 2002

Civic and Humanitarian Activities

Math Counts Volunteer 2009

First Lego League, North Dakota Tournament

Research Judge, 2009

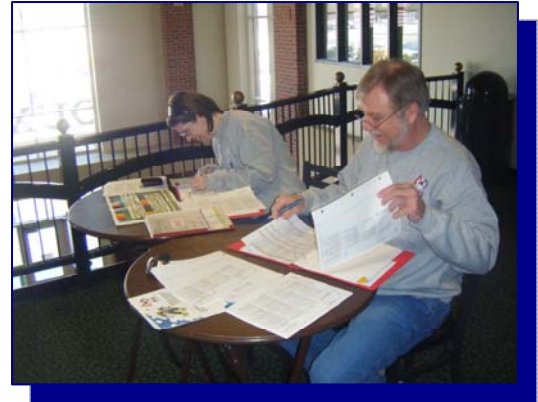
Research Judge, 2008

Technical Judge, 2007

Technical Judge, 2006

Setup-Assistant, 2005

Judge's Assistant, 2004



Pennington County Relay for Life Chili Cook-Off

Participant 2008

Participant 2007

Participant 2006

Pennington County Relay for Life Bake Sale

Participant 2008

Pennington County Relay for Life Dinner Fundraiser

Assistant 2007

Introduce a Girl to Engineering Day Event, East Grand Forks, Minnesota

Presenter 2009

Presenter 2008

Presenter 2007

Presenter 2006

Circle of Friends Humane Society

Volunteer Adoption Counselor, 2005 - Present

Bi-Annual Garage Sale Fundraiser Volunteer, 2005 - Present

Foster Parent 2005 - Present

Walk Your Paws Fundraiser Assistant 2006

Microchip Pet ID Clinics 2005 - 2007

Holiday Gift Gala Fundraiser Volunteer 2005 - 2007

Open House Volunteer

National Weather Service SkyWarn Spotter 1997 - Present

Civic and Humanitarian Activities (continued)

University of North Dakota Mechanical Engineering Alumni Advisory Council
Member 2006 - Present

UND School of Engineering and Mines Freeman Award Committee
Judge 2007
Judge 2006

Minnesota Street Rod Association
Member 2004 – Present

Northern Cruz Club
Treasurer/Secretary 2002 - 2004
Events Coordinator 2004 – 2006

Prime Steel Car Club
Car Show Volunteer 2008



Continuing Competence



Short Courses and Seminars:

“Career Futuring Webinar Series” by Lynne Waymon, SWE Webinar

“SASS-E Girlz: Skills, Attitude, Science, and Smarts for Engineering”,

Dr. Lisa Hinkelman, SWE Webinar,

“Improving Your Emotional Intelligence (EQ)” by Pamela Fay, SWE Webinar

“Work Life Effectiveness” by Kathleen Barton, SWE Webinar

National/International/Regional Conferences:

American Wind Energy Association, Wind Resource Assessment Workshop,
Portland, Oregon, September 24-25, 2008

American Wind Energy Association, WINDPOWER 2007,
Los Angeles, California, June 3-6, 2007

Canadian Wind Energy Association, CANWEA 2006,
Winnipeg, Manitoba, Canada, October 2006

American Society of Mechanical Engineers Student Regional Conference,
Grand Forks, North Dakota Spring 2005 – Registration Assistant

Engineering Achievements



Company: National Wind Assessments

Current Position: Project Manager, Wind Analyst, Mechanical Engineer, and Meteorologist.

Primary Responsibilities: Perform wind resource assessments, wind data quality performance, wind modeling, wind farm layout and design, micro-siting turbine layouts, and metrological monitoring towers, and managing project schedules.

Distinctive Strengths: Debbie is one of the pioneers in the United States specializing in design of wind energy systems. Unique in her field, Debbie combines the dual qualifications of a meteorologist with mechanical engineering to bring an insightful and fully rounded approach to the assessment, design, installation and operation of wind energy systems. She is also an expert in WindPro, the world's foremost wind modeling software; she is licensed as both an instructor and technical support specialist for this computer program. Debbie is one of only a handful of individuals within the United States licensed to instruct the program; fewer than a half dozen colleges in the United States are currently offering it in their engineering curriculum.

Summary of Experience: Debbie has designed or assisted in the design of over 10,000 MW of wind energy systems in her career. She is currently in the process of assessment, design or development of an additional 3,000 MW of utility-scale wind energy systems. Debbie's dual-track undergraduate degrees result in an in-depth understanding of the climatic vagaries inherent in the energy capture of this renewable resource. She is able to analyze weather systems, climatic patterns and the topographic affects on wind boundaries to effectively and efficiently site systems to the stakeholders' advantage.

Award-winning Ways: Debbie is not just a exceptional engineer in the growing field of wind energy systems; she is an advocate for the engineering profession. During college, she was involved in the student chapters of SWE and ASME, and upon graduation, she has continued to encourage young people to pursue careers in math, science and engineering. Debbie maintains her involvement with SWE at the University of North Dakota and has been an officer with NDSPE Chapter 1 since entering her profession full-time. But it is her work with high school students that is particularly noteworthy. She has returned to her Alma Mater to speak about the opportunities in science-based careers, she is a judge with the First Lego League competitions, she is a volunteer with Math Counts and each year, she visits local elementary schools for "Introduce a Girl to Engineering Day," encouraging young women to recognize and embrace their talents and interests in engineering. As a spokesperson, mentor and role model for the engineering profession, Debbie's contributions are immeasurable. She has personally touched and inspired the imaginations of hundreds of young people and opened their eyes to the potential of a career in engineering. She is a credit to the profession, both as an engineer and as a role model.

Professional Experience

- Project Manager-Wind Energy Analyst** 2008 - Present
National Wind Assessments
Wind resource assessment, wind modeling, data analysis, wind turbine layout design, and managing project progress.
- Lead Project Engineer** 2007 - 2008
EAPC Architect Engineers
Wind resource assessment studies, wind farm design, technical/training/sales support for WindPRO.
- Mechanical Engineer/Meteorologist** 2005 - 2007
EAPC Architect Engineers
Develop wind farms, analyzed wind data, and feasibility analysis.
- Mechanical Engineer/Meteorologist Intern** 2004 - 2005
EAPC Architect Engineers
Develop wind farms, analyzed wind data, and feasibility analysis.
- Lab Instructor** 2001 - 2004
Dept. of Atmospheric Science University of North Dakota
Prepare lab session, lecture, instruct lab, grading, and lab up-keep.
- Research Assistant** Summer 2001
Regional Weather Information Center UND
Prepared radar data for database library, researched forecasting techniques, and lead weather briefings.

