

# BSE Update

A Newsletter of the University of Wisconsin-Madison Biological Systems Engineering Department

## BSE Updates on:

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Bill Enters Retires  
Skjolaas Receives Award

### Students

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## The Chair's Chips

The holiday season is here and the end of the Fall semester is in sight. For students and faculty, it's a hectic time of year. Final exams are looming and class projects will be due soon. For our seniors graduating in December, this is their final push. The prospect of a job or graduate school awaits. They will look back and marvel at how fast their time in the department seemed to fly, how far they have come as professionals, and how many friends they have made during their time here.

For BSE, this Fall was an important time. Along with all of the departments in the College of Engineering, our department had its six-year review by the Accreditation Board for Engineering and Technology (ABET). ABET is the official accreditation organization for university engineering programs worldwide. An ABET review looks in detail at undergraduate teaching and departmental programs to ensure that the curricula provide students with the skills needed to function effectively in the engineering profession. The reviewer looks in depth at not only current department courses, but determines whether the department has procedures in place to continually analyze student performance and improve the quality and relevance of teaching as the biological systems engineering field changes to meet society's challenges. A successful ABET review is never a given and is a goal of every engineering

department that wants to ensure its students receive a world class education.

With the able leadership of Professor Dave Bohnhoff, who organized our response, the department was given a full six-year renewal, with no outstanding problems or concerns to address. Needless to say, we are very proud of this result. It confirms that our students receive the highest in educational quality and that our instruction prepares them for success in their chosen professions.

We're not resting on our laurels, though. The review highlighted the wish of everyone, students, alumni and faculty, to attract more undergraduates to our department. To meet this goal, we are establishing a recruitment committee to investigate ways of expanding our undergraduate program. Not being in the College of Engineering makes attracting students challenging, but we feel the quality and breadth of our educational product will draw new students in if we can reach them with our message. The evolving bioeconomy in the United States also gives us an advantage, since many of our faculty are at the forefront of research in this exciting area of rural economic development and agricultural production.

So it's been a busy semester for all of us in BSE. Here's hoping your holiday season is festive and happy.



*Patrick Walsh*  
BSE Department Chair



# Faculty Update...

## Thank You

The BSE students and faculty greatly appreciate the following for their contributions to the various Biological Systems Engineering funds at the University of Wisconsin Foundation from 7/21/2006 through 11/30/2006:

Eliot Bergeland

BouMatic

Theodore and Dona Brevik

Conoco Phillips Corp.  
(for Stephen Rohleder)

Marshall Finner

James Guhl

Jim Beaton Insurance Agency

Mark Mickelson

Daniel Pederson

William Pick

Christopher and Rachel Rudd

Walter Schlessler

Ganesh Shrestha

State Farm Insurance Co.

James Whitaker

Jeffrey Zimmerman



## Ferencz (Frank) Denes Retires

In October, 2006, Ferencz (Frank) Denes retired from the Biological Systems Engineering Department faculty and was approved for an Emeritus Professor status. Frank joined the BSE faculty in December, 2000 as an Assistant Professor as part of the UW-Madison Chancellor's Food Safety Cluster. In addition he had a research appointment at the Food Research Institute on the Madison campus.

Frank received his Ph. D. in chemical engineering in 1972 from the Petru Poni Institute of Macromolecular Chemistry and GH. Asachi Polytechnic Institute in Jassy, Romania. He served as principal scientific investigator at the Institute from 1980 to 1992 and as Head of Department from 1989 to 1992.

In 1992, he joined the Center for Plasma Aided Manufacturing in the College of Engineering at the UW-Madison. He also was a member of the Executive Committee for the Engineering Research Center at UW-Madison. He continued in these positions while a member of the BSE faculty.

Frank's research interests included polymerization reactions under cold plasma conditions, unconventional polymerization processes, plasma induced functionalization of organic and inorganic polymeric substrates, and molecular evolution. Frank is recognized as an international expert in the use of cold plasmas to deposit polymeric coatings.



*Frank Denes retired from BSE in October, 2006.*

He developed applications of the cold plasma process to modify surfaces on equipment components that processed and handled food and other bio-materials.

Frank's publication record was outstanding with respect to the number and the journals in which his research work appeared. He was very successful in securing extramural funding. He had more than ten US patents issued and numerous patents pending.

He received the very prestigious Photopolymer Science and Technology Award in Chiba, Japan. This international award recognizes outstanding original work, which greatly contributes to the progress and improvement of photopolymer science and technology and work which is creative and suggests future evolutions in photopolymer science and technology. This was one of three international awards presented in 2000.

In retirement, Frank plans to continue his research. He will be spending much of his time in California near his daughter and her family.

# Faculty Update...

## Bill Enters Retires

**W**illiam (Bill) E. Enters, an employee of the department for 34 years, retired November 30, 2006. Bill was an undergraduate student in 1969 working on department projects until he completed his Bachelor of Science degree in Agricultural Engineering in 1972. At that time, Professors Calvin Cramer and James Converse hired Bill as specialist for their research program. In 1987, Bill was designated a Research Specialist under the direction of Professor Converse. More recently, Bill was employed by Professors K. G. Karthikeyan and Anita Thompson.

For nearly his whole career, Bill was primarily supported by the Small Scale Waste Management Project.

In addition he worked with agricultural structures, energy, and natural resource projects.

His responsibilities included design, construction and installation of instrumentation for the statewide small scale waste experimental sites, and collecting field data from those sites. His skills range from mechanical systems to electrical systems. He has developed and maintained proficiency in scientific sampling methods. Bill's knowledge is used to problem solve at job sites and is used in research data collection which ensures the data are accurate and appropriate. He worked closely with numerous graduate students, providing training in data collection methods.



*Bill Enters retired on November 30, 2006, after having been with BSE for 34 years.*

Bill has been a volunteer at church, preparing and serving food. In addition he has worked with Ozaukee, extracting census data from the 1880 census.

## Cheryl Skjolaas Receives Excellence Award

**O**n September 21, 2006, Cheryl A. Skjolaas, Senior Outreach Specialist, received an Award for Excellence from the University of Wisconsin-Extension. Cheryl assisted in building a nationally recognized program in farm safety and health for farmers and farm youth. She had a major role in our success in obtaining the funding for the National AgrAbility Project which provides education and assistance to farmers with disabilities. Her programming on this project includes conducting national conferences.

More recently Cheryl has taken on the responsibilities of Interim Director of the UW Center for Agricultural Safety and Health, due to a faculty vacancy. She is responsible for administering



*Cheryl Skjolaas received an Award for Excellence from the UW-Extension in September of this year.*

county grants for the Tractor and Machinery Certification program. She has served as co-chair of the Education Committee for the 2005 and 2006 Wisconsin Farm Technology Days. In this role she coordinated the displays in several large tents. This challenging role requires the coordination of staff across many disciplines.

Before joining the BSE Department in 1990, Cheryl was a Youth Development Agent in St. Croix County for six years. She received a BS in Agricultural Education from UW-River Falls. She grew up on a dairy farm near Stoughton, WI.

Her initial department appointment was an Outreach Specialist on the Agricultural Health Promotion Systems project funded by the National Institute of Occupation Health and Safety. At the same time she was involved in developing one of the first successful applications for a state AgrAbility program in the US in 1990. The Wisconsin program is the only state program that continues to receive funding since that time.

# Student Update...

## Activities of the Student Branch

The students had another successful Lawnmower/Snow Throwing Clinic, November 9 through 11. They serviced 99 machines which brought in \$2800. Some of the services they provide are power washing, oil change, new spark plug installation if needed, mower blade sharpening, and pickup/delivery.



Shane Williams washes a lawnmower during the Lawnmower Clinic.

For the first student meeting in September, a student-faculty mixer was held in the Agricultural Engineering Laboratory funded by the BSE faculty. During their October meeting several students shared their summer engineering experiences with club members. Reports included experiences with

Kraft Foods, New Holland Corporation and the WI Department of Natural Resources. During the November meeting, Mike Tiry (BS, 1970, Ag. Engr.) reported on Tiry Engineering, a consulting firm with numerous dairy cow facility

design projects. He described the elements of doing such projects and all the issues and regulations involved.

Students are actively designing their quarter-scale tractor for the 2007 ASABE competition. It appears they will once again have a tractor with multiple engines. Members of the student branch participated in the Wisconsin section of ASABE meeting in Madison, WALSAA Fire-Up, Homecoming Parade and CALS Career Connections.

As in past years, the students are very active in activities on and off campus. They will be participating in the 2007 Engineering Expo.



Garritt Boetcher and Jesse Munk served as co-chairs of this year's Lawnmower Clinic held in November.



ASABE members pose in front of the float they designed and created for the WALSAA Fire-Up Homecoming Parade in October.

# Student Update...

## Scholarships

On October 5, 2006 a Scholarships Recognition Reception was held to recognize donors and student scholarship recipients. BSE students received more than \$10,000 in scholarships. A big THANK YOU goes to those who established the named scholarships and those who contributed to these scholarship funds. Following are the scholarship funds, student recipient, student's hometown and option area.

**Lynndon A. and Norma A. Brooks Scholarship**

Kody Habeck  
Milton, WI  
Machinery Systems

**Robert H. and Willa Meier Scholarship Fund**

Matthew Bretl  
Fitchburg, WI  
Natural Resources

**WALSAA Outstanding Sophomore Scholarship**

Kody Habeck  
Milton, WI  
Machinery Systems

**Roger W. Ambrose Scholarship**

Robert VanWyhe  
Madison, WI  
Natural Resources

**Ham Bruhn Biological Systems Engineering Scholarships**

Jordan Gosz  
Manitowoc, WI  
Food and Bioprocess

Amy Jacobs  
Green Bay, WI  
Food and Bioprocess

Ryan Wojcik  
Green Bay, WI  
Machinery Systems

**Charles Eckburg Memorial Freshman Award**

Justin Banach  
Cottage Grove, MN  
Food and Bioprocess

**Vicky Lee Hirsh Endowment for Conservation Scholarship**

Danielle McIntosh  
Port Washington, WI  
Natural Resources

Steven Sell  
Rio, WI  
Natural Resources

Robert VanWyhe  
Madison, WI  
Natural Resources

**Gail Edwin and Janice Faye Janssen Biological Systems Engineering Fund**

Kari Jordon  
Cross Plains, WI  
Food and Bioprocess

**John Deere Foundation Scholarship**

Nathan Dudenhoeffer  
Corinth, VT  
Machinery Systems

**Donald S. Montgomery Scholarship**

Aaron Wepner  
Madison, WI  
Machinery Systems

**Schroeder Biological Systems Engineering Scholarship**

Ashley Gray  
Fitchburg, WI  
Natural Resources

**Dick J. and Grace B. Stith Scholarship Fund**

Hannah Uhlenhake  
Salem, WI  
Machinery Systems

**Wisconsin Agricultural Engineer Scholarship**

Nathan Dudenhoeffer  
Corinth, VT  
Machinery Systems

**Wisconsin Biological Systems Engineering Scholarship**

Thomas Hoffman  
Sun Prairie, WI  
Machinery Systems

**Peter Young Student Assistance Grant**

Thomas Hoffman  
Sun Prairie, WI  
Machinery Systems

**Martin and Kathleen Burkhardt (BSE employment assistance)**

Pete Harris  
Trempeleau, WI  
Machinery Systems



# Student Update...

## Student Branch Officers Elected

**D**uring the November 8 meeting, the ASABE Student Branch elected new officers who will serve from December, 2006 through December, 2007. The officers are:

**President:**

Kody Habeck, Milton, WI  
Machinery Systems

**Vice President:**

Adam Steen, Muncie, IN  
Machinery Systems

**Secretary:**

Hannah Uhlenhake, Salem, WI  
Machinery Systems

**Treasurer:**

Amy Jacobs, Green Bay, WI  
Food & Bioprocess

**Assn. of Equipment  
Manufacturers (AEM) Chairs:**

Kari Jordan, Cross Plains, WI  
Food & Bioprocess

Anna Mielke,  
Inver Grove, MN  
Food & Bioprocess

**Public Relations:**

Mark Frisch, Johnsburg, IL  
Machinery Systems

**Public Relations:**

Shane Williams, Madison, WI  
Machinery Systems

**Polygon Reps:**

Peter Vanderloo,  
Dodgeville, WI  
Machinery Systems

Joe Hanson, Waukesha, WI  
Natural Resources

**CALS Reps:**

Jonas Balstreri, Neenah, WI  
Natural Resources

Justin Banach,  
Cottage Grove, MN  
Food & Bioprocess

**Web-Master:**

Nate Dudenhoeffer,  
Corinth, VT  
Machinery Systems

**Public Relations:**

Andrew Bernstein,  
Union Grove, WI  
Mechanical Engineering

**Engr. Expo:**

Dan Michiels, New Franken, WI  
Natural Resources

Steve Sell, Rio, WI  
Natural Resources

Joe Hanson, Waukesha, WI  
Natural Resources

**Lawnmower Clinic (LMC) Chairs:**

Dan Hoffman, Sun Prairie, WI  
Machinery Systems Graduate  
Student

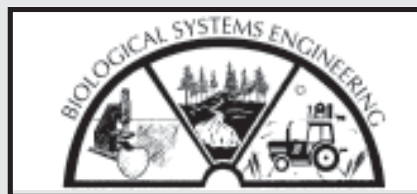
Aaron Flouro, Tony, WI  
Structural Systems Graduate  
Student



# Alumni Update...

**J**onathon (Jon) Wuest (MS, Ag. Engr., 2001) accepted a position as manufacturing engineer with the John Deere Seeding Division in the Quad Cities area. He has relocated from Ottumwa, IA to Moline, IL. He had been working on forage equipment for Deere.

**W**arren Tenpas (BS, Ag. Engr.) passed away on May 7, 2006, in Sun City, AZ. He had an engineering career with Deere.



**G**anesh Shrestha (MS, Ag. Engr., 1983) currently has a position as a health care facilities surveyor with the Wisconsin Department of Health and Family Services. He was recently assigned to review construction plans of hospitals in the Milwaukee and Green Bay regions for life safety and building code compliance.

# Funding Update...

As 2006 draws to a close, please give some consideration in contributing to one of the Biological Systems Engineering Department Funds listed below:

- Agricultural Safety and Health Fund**
- Biological Systems Engineering Facilities Fund**
- Biological Systems Engineering General Fund**
- Biological Systems Engineering Student Activities Fund**
- Dick and Grace Stith Scholarship**
- Ervin Schroeder Scholarship**
- Farm Machinery Research Fund**
- Ham Bruhn BSE Scholarship**
- Ham and Janet Bruhn Distinguished Graduate Fellowship**
- Gail and Janice Janssen BSE Scholarship**

- Lynndon and Norma Brooks Scholarship**
- Martin and Kathleen Burkhardt Fund (BSE Employment Assistance)**
- Milking Research and Instruction Laboratory Fund**
- Orrin Berge Scholarship**
- Rural Energy Issues Fund**
- Robert and Willa Meier Scholarship**
- Sixties Decade Computer Lab Equipment Fund**
- White Clover Dairy Research Fund**
- Wisconsin BSE Scholarship**

We sincerely wish to thank our alumni and friends who have generously supported the College of Agricultural and Life Sciences Department of Biological Systems Engineering. Your gifts today are more important than ever as the University faces challenging budget constraints. Gifts made to the Department of Biological Systems Engineering help us with scholarship, facilities improvement, endowed professorship and graduate fellowships, and carry on our tradition as leaders and innovators in the biological systems engineering field.

An annual household gift of \$500 or more qualifies you and your spouse for membership in the College of Agricultural and Life Sciences Dean’s Club. As a member of the Dean’s Club you will receive special invitations to the Dean’s Football Brunch held in the Fall, the annual Dean’s Club Recognition program in May, as well as periodic mailings about the College and a Dean’s Club Pocket Calendar. An invitation to join the prestigious Bascom Hill Society is extended to those who provide support of \$25,000 or more to the department or to a specific project or program of their choice. You can pledge your commitment over a 10-year period, provide for a gift in your will, or give a gift of annuities or appreciated stock. If you have specific questions about giving, please contact Sandra Brown at the UW Foundation (Phone: 608-265-2925; e-mail: sandra.brown@uwfoundation.wisc.edu).

### Department of Biological Systems Engineering Fund

I/we would like to join other alumni and friends in support of the Department of Biological Systems Engineering Fund.

I/we wish to pledge \$ \_\_\_\_\_ over \_\_\_\_\_ years. Please remind me of my pledge in \_\_\_\_\_ (month).

I/we contribute \$ \_\_\_\_\_. (Contribution is enclosed.) My company will match this gift; company form enclosed.

I/we wish to have my contribution support \_\_\_\_\_ fund.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Please charge my gift of \$ \_\_\_\_\_ to my:    MasterCard    Visa    American Express

Card number \_\_\_\_\_ Expiration date \_\_\_\_\_

Cardholder’s name as it appears on credit card (please print): \_\_\_\_\_

Cardholder’s Signature: \_\_\_\_\_ Date \_\_\_\_\_

Make checks payable to University of Wisconsin Foundation and return this form to:

**University of Wisconsin Foundation**  
**US Bank Lockbox**  
**PO Box 78807**  
**Milwaukee, WI 53278-0807**

# Alumni Update

Name: \_\_\_\_\_

Degree and Date(s):    BS (        )    MS (        )    PhD (        )

Home Address: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Position: \_\_\_\_\_

Employer: \_\_\_\_\_

News to share: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Please return to: BSE Update  
460 Henry Mall, Madison WI 53706  
or email information to:  
bse@wisc.edu**

**University of Wisconsin**

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