

BSE Update

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

BSE Updates on:

Faculty

Straub Receives New Appointment

ASABE Honors Brian Holmes

Students

BSE Students Place Tenth at the ASABE National Quarter Scale Competition in Peoria, IL.

Activities of the Student Branch

Alumni

BSE Alumni Win Awards and Explore New Career Opportunities

In Memoriam

Remarks from the Chair

As we get set to begin another academic year, we can reflect on the last several months and savor many successes of our students, faculty and alumni. These are described in more details later in this newsletter, but the list is impressive—beginning with our Quarter Scale Tractor team and including undergraduate and graduate student competitive awards at the ASABE International Meeting held this past summer in Minneapolis. Alumni, Bob Pofahl and Don Erbach (ASABE President), have been announced as the recipients of prestigious recognitions by the College of Agricultural and Life Sciences and the College of Engineering, respectively. Two of our alumni received ASABE recognition for AE 50 Outstanding Products and another was Elected ASABE Fellow. One of our faculty received a Presidential Citation for his work supporting ASABE. These exemplify the quality, work ethic, and achievement of our department and alumni that we have come to expect. Congratulations to all!

years of our profession. Agricultural production changes, energy, natural resource issues, climate change, water use and quality, food safety, consumer demands, and ever-changing world politics will continue to cause us to reflect and shift our efforts as new issues emerge. This is something that we have done successfully as a profession and a department for more than a century and it is something that we will need to continue to do in order to secure our future.

Such change should not be resisted or feared, but rather should be relished and welcomed. Who can better meet the issues related to food and fiber, bio-energy, natural resource protection and environmental stewardship than an agricultural and biological engineer? As a department and as a profession, we are in excellent positions to be significant contributors to helping address and solve many of our world's problems. Let us take on that challenge and insure that all, for the next century and beyond, can have the blessings and bounty that we have experienced.

This summer also commemorated the 100th anniversary of our professional society, ASABE, which was founded here in our building on the UW-Madison campus in 1907. During the time since, the profession, the Society, and the Department have changed to meet the needs and challenges of the time and will need to continue that process as we launch into the next 100

Dick Straub
BSE Department Chair



University of Wisconsin - Madison
College of Agricultural and Life Sciences

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 4/30/2007 through 8/24/2007.

Nathaniel Q. Altfeather

Gary and Sandra Bubenzer

Michael O. Dreischmeier

Brian J. Holmes

Brian and Jill Huenink

John Deere Foundation

Andrew G. Jirovec

Lee L. Knispel

Gary W. Krutz

Doug and Mary Kay Reinemann

Stephen A. Rohleder

Thomas P. Schomisch

James F. Schwarz

Richard R. Stowell

Mark W. Waldvogel

Gregory B. Weber

Wisconsin Farm Tech. Days

Straub Receives New Appointment



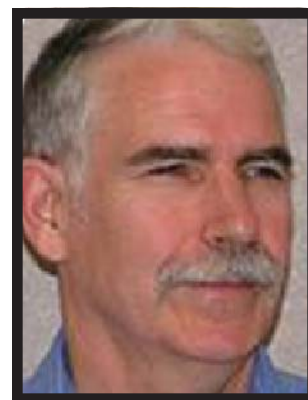
Dick Straub, BSE Dept. Chair, and newly appointed Director of Ag Programs and Research Stations.

Richard J. Straub BS'72, MS'75, PhD'80, all in Agricultural Engineering was appointed Director of Agricultural Programs and Research Stations for the Wisconsin Ag Experiment Station and Research Division by Dean Molly Jahn of the College of Agricultural and Life Sciences.

As director, he will be responsible for thirteen research stations located throughout Wisconsin and have a leadership role in the college's Research Division. He will also manage the College's Federal Formula funds, overseeing animal-related compliance issues and serve as Technical Liaison with the College's stakeholders. Dick, who began serving as the BSE Department Chair on July 1, will split his time equally between the two positions.

ASABE Honors Brian Holmes

At the 2007 Annual International ASABE meeting in Minneapolis, Brian Holmes received a Presidential Distinguished Award Citation from International ASABE President Charles Sukup at the Awards Luncheon on June 20. Brian received his award for his role on a special ASABE committee providing distinguished service to the Society and exceptional execution of their responsibilities to investigate potential limitations on non-engineer members within ASABE relating to obtaining the grade of Fellow. On April 21, the ASABE Boards of Trustees overwhelmingly approved the committee proposal. This will result in ASABE bylaw changes.



Brian Holmes, Professor: Farmstead Engineering, Energy, was honored by ASABE at the annual meeting in Minneapolis, MN in June of this year.

Student Update...

BSE students Place Tenth at the ASABE National Quarter Scale Competition in Peoria, IL.



2007 Tractor and pulling sled in competition, Richard Wipperfurth is the operator.

From May 31 through June 3, BSE students competed well in the ASABE National Quarter Scale Competition in Peoria, IL. The team placed tenth of thirty teams in the competition. Members of the UW-Madison were Mark Frisch, Mike Koltes, Matthew Sherman, and Richard Wipperfurth. All are seniors in the machinery systems area.

The competition includes a written report, design presentation, and four pulls. The teams are judged on the safety, ergonomics and sound, manufacturability, and serviceability of their tractor. BSE's team placed third in the pull competition, the major component of the event. The team placed 20th for their written report and 19th in design presentation.

For the remaining elements, the team placed 22nd in ergonomics and sound, 20th in manufacturing, 19th in maneuverability, 16th in serviceability and 13th in safety.

X-Team Places First in Competition

The UW-Madison team placed first of twelve teams. The x-team is made of younger students who made design changes to the previous year's model. The team was lead by Cody Habeck, a junior in Machinery Systems. The team placing is based on a tractor pull, design report and presentation. They placed second in the pull, 7th in the presentation, and 3rd in the design report. The event provides training for students who will be team members next year.



X-team tractor preparing to pull.

Student Update...

Activities of the Student Branch

Hannah Uhlenhake, a junior in Natural Resources and Environment, was elected Chair of the Advisory Board for the International Preprofessional Council of ASABE at the Annual International Meeting in June 2007. Hannah will serve through the 2008 meeting in Providence, RI.

Two BSE seniors received Activity and Leadership Awards from the Wisconsin Agricultural and Life Sciences Alumni Association at the Commencement Breakfast on May, 19. Richard Wipperfurth, a Machinery Systems graduate from Lodi represented the BSE student branch and Robert Van Wyhe, a Food Engineering Systems graduate represented the Poultry Science Club.

Matthew Bretl and Nicole Weinberg, seniors in Natural Resources and Environment, received first place the G. B. Gunlogson Environmental Design competition at the 2007 International ASABE meeting for their presentation and report, "Design of a Low-Cost Wastewater Collection System for Communities in El Salvador". Matthew and Nicole completed this project as part of their senior design course in BSE.

In the Graduate Student Research Competition, Matthew F. Digman, MS '06, BSE, received a third place award for his presentation and report, "Real-Time Moisture Measurement on a Forage Harvesting System Using Near Infrared Reflectance Spectroscopy". Matt completed this research as part of his master's program. The award recognizes excellence in the conduct and



Hannah Uhlenhake was elected chair of the Advisory Board for the International Preprofessional Council of ASABE.

presentation of research to build the knowledge base needed by engineers who design equipment, facilities and processes for the sustainable operation of a biological system. Matt is currently pursuing a doctorate degree while employed at the USDA Dairy Forage Research Center in Madison.

The UW-Madison entry in the 2007 ASABE AGCO Student Design Competition placed fourth with the Universal Sprayer Attachment for a Zero Turn Mower. Team members were Eric Bergum, Matthew Deschane and Emily Wiegmann. Emily and Eric are in Machinery Systems and Matt is in the Food and Bioprocess Engineering area.



What is ASABE?

The American Society of Agricultural and Biological Engineers is an educational and scientific organization dedicated to the advancement of engineering applicable to agricultural, food, and biological systems. Founded in 1907 and headquartered in St. Joseph, Michigan, ASABE consists of 9,000 members in more than 100 countries.

ASABE membership is open to all (engineers as well as non-engineers) who are interested in the knowledge and application of engineering in agricultural, food, and biological systems. To learn more about ASABE, its activities, and membership, visit their web site at <http://www.asabe.org>.

BSE's student branch has an exciting semester ahead of it! The Fall Welcome Social and ASABE Meeting in the Lower Lab takes place in September. Faculty, staff and students have an opportunity to meet new people or reconnect with familiar BSE faces.

Regular Branch Meetings are held the second Wednesday of each month—food at 5 p.m. with meeting to follow, room 101, 460 Henry Mall.

Alumni Update...

BSE Alumni Win Awards and Explore New Career Opportunities

Donald C. Erbach (BS '64, Agr. Engr.; BS '65, Mech. Engr.; MS '66, Agr. Engr.) was installed as President of ASABE at the 2007 Annual International ASABE Meeting in Minneapolis on June 20. ASABE has a membership of nearly 9,000 representing more than 100 countries. As ASABE President, he has numerous duties including conduct of the affairs of the organization by presiding at the Board of Trustees Meeting. He also represents the organization at international and national meetings and events. Don is retired from his most recent position, National Program Leader in the USDA's Agricultural Research Service. Don will be in Madison from October 24 – 27. He is scheduled to be on the program for the Wisconsin Section of ASABE on October 24 in Madison.

On October 26, Don will receive the Distinguished Service Award from the UW-Madison College of Engineering. This day-long program starts with technical updates from the college in the morning, a department celebration at noon and an evening program at the Monona Terrace Convention Center. For more details, contact Ron Schuler by phone (608-262-0613) or email (rschuler@wisc.edu). All alumni and friends are invited.

Robert Pofahl (BS '71, Agr. Engr.; MS '74, Agr. Engr.) will be recognized by the College of Agricultural and Life Science as an Honorary Recognition Award recipient for his support of UW-Madison. The event will take place on October 25 in Great Hall of the Memorial Union. Anyone interested in attending and needing more information for this

event should contact Ron Schuler by phone (608-262-0613) or email (rschuler@wisc.edu).

Kifle G. Gebremedhin (MS '75, Agr. Engr.; PhD '78, Agr. Engr.) was installed as an ASABE Fellow at the 2007 Annual International Meeting in Minneapolis, June 19, 2007. Gebremedhin is a professor in the Biological and Environmental Engineering at Cornell University and was honored for his outstanding contributions in teaching and research in the area of structures and environment. He is nationally recognized for his diaphragm design research including testing a full-scale post-frame building and developing interactive software called METCLAD. He has authored more than 150 peer-reviewed journal articles, conference proceedings and technical papers. His awards are numerous including the ASABE Henry Giese Structures and Environment award. Before joining the Cornell University faculty, Gebremedhin was a member of the Civil Engineering faculty at the University of Wisconsin-Platteville.

Two UW-Madison alumni were recognized for their role in two of the ten outstanding products from the past twenty years of the ASABE AE50 program. Each year ASABE honors companies offering the best products engineered for agricultural, food, biological and related systems available on the market. A panel of experts in these fields will choose up to 50 winners. A part of the ASABE Centennial Celebration was the recognition of ten designs from the past twenty years.

Ed Priepke (BS '67, Mech. Engr. and Agr. Engr.; MS '68, Agr. Engr.)

was honored for the design of the On-the-go Two Speed Shift on Skid Steer loader. Ed is a Senior Product Engineer with New Holland in Lancaster, PA.

William Nelson (BS '87, Agr. Engr.; MS '88, Agr. Engr.) was honored for the Perfect Milk Meter. Bill is Vice-President for Product Innovation at Bou-Matic in Madison, WI.

Jill (Grodecki) Huenink (BS '03, Agr. Engr.) received an ASABE Presidential Citation for distinguished service to the Society in the establishment of the ASABE 100 Multi-Media Competition for high school students including developing the concept, soliciting support, developing the competition rules, and promoting the event.

Ross Peebles (BS '90, Agr. Engr.; MS '78 Agr. Engr.) is currently working in the Tractor Product Evaluation Group at CNH Burr Ridge Operations. He ran the PTO Dyno Test Cell evaluating the Case IH Magnum and New Holland series tractors. His work involves cooling, exhaust and engine software performance. He has been active in the Chicago Section of ASABE.

Eliot Bergeland (BS '92, Constr. Admin.) is currently a project manager of the mechanical division for the Hooper Corporation in Madison, WI. He lives in Brooklyn, WI.

Two BSE alumni were featured in the College of Agricultural and Life Sciences Alumni Career Stories. They were **Nate Altfeather** (BS '03, MS '05, Biol. Sys. Engr.) and **Brad Yanke**

(Continued on page 6)

Funding Update...

Please consider contributing to one of the Biological Systems Engineering Department Funds listed below:

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
 Schuler Family Ag Safety and Health Fund
 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 Funds

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: _____ E-Mail: _____

Address: _____

City: _____ State: _____ Zip: _____

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**

Non-Profit Org.
U.S. Postage
PAID
Madison, WI
Permit No. 658

University of Wisconsin
Biological Systems Engineering - UPDATE
460 Henry Mall
Madison, WI 53706