

BSE Update

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

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The Chair's Chips

As I sit down to write this installment of the Chair's Chips, change is in the air. Winter has left us (for now) and the trees and shrubs are leafing out all over. The days are getting warmer and longer. Migratory birds have returned.

It is almost the end of the semester and our students are rapidly approaching finals week. They are fighting spring fever to keep focused on completing their courses. For some, this will be their last time through the grind, since they will graduate soon. We have done our best to prepare them but now it is their turn to move forward.

While this is always a time of anticipation as our students make choices about what to do next, I never worry because BSE, the College and the University have given them the base of educational skill and ethical practice that will ensure their success in whatever way their careers take them. They will be solid citizens, community leaders, and the types of engineering professionals that this world needs to meet its most pressing challenges. They will make a difference in our society.

This is an exciting time to be a biological systems engineer. Major worldwide challenges including reducing global warming, establishing the process and machinery technology for the emerging bioeconomy, developing more sustainable construction practices, and protecting and expanding the food supply all require biological systems engineers if solutions are to be found.

A new American and World agricultural revolution has started, and our

graduates will be in the front lines of making it a reality. The opportunities for them are just beginning and will only grow over the coming decades. If our economy is to continue to prosper, we will all need the best of their skills to be applied to solving the challenges we will continue to face in today's world.

Our faculty are constantly reviewing our course material and seeking input from our stakeholders to make sure we are keeping our curriculum solid in the basics, but on the cutting edge of the field as it moves and broadens. The department's changes and planned future adjustments were very well received and strongly endorsed during our recent accreditation review. This shows that we are on the right track and that our graduates are well prepared to contribute to society as professionals.

One more change taking place is that of department chair. After three years, I will be stepping down as department chair and Dick Straub will become chair effective July 1. Dick shares his department vision in another article in this newsletter.

So the change that is in the air here as we finish another school year is the feeling of change that brings the excitement of taking what is good and grabbing the opportunity to build on it in the future to make it even better. It is the good sense that our graduates will lead happy and productive personal and professional lives and that we have contributed to their growth as people. It is the reason our faculty and staff have devoted their careers to the University of Wisconsin.

We wish all of our graduates the best!



Patrick Walsh
BSE Department Chair



Faculty Update...

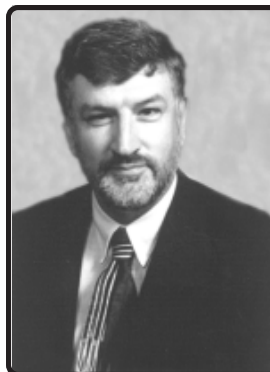
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New BSE Chair Role for Richard Straub

Beginning July 1, 2007, I will return to the Department as Chair. My appointment in Biological Systems Engineering will be half-time, with the remainder of my appointment continuing as part of the CALS Administrative team. My responsibilities in the CALS role will include management of our Federal Formula Funds (Hatch, etc.), oversight of our Research Stations, responsibility for animal related compliance issues, and serving as technical liaison with our agriculture and natural resource related stakeholders.



Dick Straub will become chair of BSE this July.

I will spend most of my time in the chair's role in leading and focusing on departmental direction, business and needs—although I hope to resume advising our undergraduates and teaching. I look forward to returning to my home department with the aim of leading the department to a forward looking position within CALS and our profession. The department has been fortunate to have had leaders such as our present Chair, Pat Walsh, and his predecessor, Ron Schuler. I hope to build on the foundation they have provided. Thanks to them both for their contributions and any help that I might need as I resume the role of chair.

Having previously served as chair, I hope to make a rapid transition into this position.

I have already met with many of our students, staff and faculty to reacquaint myself with their accomplishments, needs and concerns. I am always impressed by the quality of these folks—our human resource is our greatest asset. I also plan to engage the department and key stake-holders in a strategic planning exercise to insure that we are forward looking in our efforts.

In my new role, I hope to focus on several issues: increasing enrollment in our undergraduate and graduate programs; increasing our teaching, research and extension capacity; creating greater visibility of our program, faculty, staff and their accomplishments; and maintaining a strong relationship with our alumni and friends. I value your input as we move ahead and in many instances will solicit your insight and advice. As a start, I ask for your help in identifying students with an interest in our profession and program. I am already working on this issue.

As chair, I will attempt to maintain the high level of communication with our alumni, stakeholders, and donors. I hope many of you are able to attend our ASABE Wisconsin Alumni Breakfast to be held at the upcoming ASABE International Meeting in Minneapolis.

Sincerely,
Dick Straub

Faculty Update...

Ronald T. Schuler retired January 4 from the Biological Systems Engineering Department after more than 22 years on the faculty. Ron grew up on a farm near Valders, WI and entered the University of Wisconsin-Madison in 1958. He majored in agricultural engineering under the five-year program receiving a BS in Agriculture and BS in Mechanical Engineering in 1963. He had been enrolled in the ROTC program and served two years in the US Army as an Air Defense Artillery Director.

After his military service, he returned to the University of Wisconsin and completed the requirements for Masters (1967) and Ph D (1972) degrees in agricultural engineering. His university faculty teaching and research appointments before joining the BSE faculty were at North Dakota State University (6 years), University of Minnesota (5 years) and University of Wisconsin-Platteville (3 years). While at UW-Platteville he also served as department chair.

Ron joined the department in 1984 as the statewide agricultural machinery extension specialist and authored numerous articles and fact sheets. He served as the person responsible for field demonstrations at the Wisconsin Farm Technology Days, formerly Wisconsin Farm Progress Days. Ron served as the Mechanical Sciences Specialist for 4-H Youth Development and led a national team in developing four national 4-H youth guides on small engines. Ron was also the leader

Ron Schuler Retires

on the very successful Wisconsin and National AgrAbility projects which provide education and assistance to farmers with disabilities. Serving as president of the Farm Health and Safety Council of Wisconsin, Ron worked with a variety of other agricultural safety and health organizations.

Ron received numerous extension achievement awards, including recognition from the Wisconsin Association of County Agricultural Agents, Wisconsin Association of Extension 4-H and Youth Development Professionals, and Wisconsin FFA. Throughout his career he received 12 ASABE Blue Ribbon Awards, and in 2005, UW-Extension recognized his achievements with the prestigious Career Award.

During his career, Ron provided agricultural engineering instruction at all levels. He taught Farm and Industry Short Course, undergraduates, and graduate students in environment, electricity, machinery, tractors, instrumentation, controls, and freshman and senior design. His research involved sunflower drying and properties, conservation tillage, soil compaction, and precision agriculture.

Ron was active on numerous department, college and campus

committees and served as the BSE department chair for five years. He served for 15 years on the college Honorary Recognition committee and was its chair for four years. During his career, he was active in ASABE, serving on nearly twenty committees and as chair of ten. Ron was elected ASABE Fellow in recognition of his achievements.

A Schuler Family Agricultural Safety and Health Fund has been established to recognize the achievements of Ron, Ron's parents and two brothers, Merle and Russell. His parents and Merle successfully operated a dairy farm for more than 65 years, frequently using extension resources and serving as a resource for extension such as field days and test plots. Russ is an Agricultural Economics graduate of UW-Madison and had a successful banking career frequently serving Wisconsin farmers and agribusinesses.

Ron Schuler Receives Easter Seals Award

Easter Seals Wisconsin selected Ron Schuler as the recipient of the Lifetime Achievement Award. Ron was selected for his leadership in the State of Wisconsin and nationally with the National AgrAbility Program. He has been instrumental in developing, supporting, and providing significant services to individuals with disabilities who wish to continue to farm, return to farming or develop an alternative agricultural occupation. The award was presented at the Easter Seals Wisconsin Annual Recognition Dinner on Thursday, May 10.

Student Update...

Activities of the Student Branch

BSE students were extremely active during the first four months of 2007. This year UW-Madison students hosted the Winter Shindig on January 13 and 14 (Saturday and Sunday). For this event, students in the Midwest are invited to participate in a number of activities. Thirty-six ASABE

members were in attendance from Illinois, Iowa State, Purdue, and Minnesota. The activities included tours of the BSE laboratories and USDA Dairy Forage Research Farm and optional tours of either Wollershiem Winery or Capitol Brewery. On Sunday, the students went to Cascade Mountain near Portage for some skiing.

On January 26, a group of students went to Milwaukee for a tour of Lakepoint Brewery and attended a Milwaukee Bucks basketball game.

During Engineering Week, they participated in a number of campus activities and hosted two events: Write It-Build It and a sheephead tournament. The first event involves one team writing directions in 25 minutes to construct some structure with toothpicks, marshmallows, pretzels and foil. These directions are given to another team which has 10 minutes to construct the structure based only on the written directions. The BSE student finished ninth out of sixteen teams in Engineering Week activities.



Visitors learn about the Badger Crank Away, an exhibit by BSE students for the Engineering Expo held April 19-21.

The student branch received the Undergraduate Group Exhibit Runner-Up award for their two exhibits at the UW-Madison Engineering Expo held April 19-21. Their outdoor exhibit was the 2006 Quarter Scale Tractor which was powered by three Briggs and Stratton engines. Periodically the engines were started. Spectators had an opportunity to sit in the operator's seat. The second exhibit, Badger Crank Away, was a short screw conveyor which could be operated by hand turning a crank. Soybeans were elevated a short distance. This was a very popular exhibit because just about every spectator passing the exhibit wanted to operate the crank.

Two other exhibits at Engineering Expo with ties to BSE were the Badger Gate and a Skid Steer Loader Attachment for Handling Trusses. These projects were part of a freshman engineering

course which allows the students to experience the engineering design process. The gate was remotely operated and designed for farmers with disabilities so they do not have to leave the vehicle to open and close farm gates. The loader attachment was designed at the request of volunteers from the Habitat for Humanity so the loader could easily lift and position the trusses as they construct homes.

The Quarter Scale Tractor Team members are busy preparing their 2007 tractor for the competition scheduled for May 31 through June 3, in Peoria, IL at the Expo Gardens. The 2007 tractor is expected to be powered by four Briggs and Stratton engines. The 2006 tractor, powered by three engines will be redesigned and prepared for competition by the X-team members who are underclass students are gaining some experience. The 2006 tractor was exhibited at the 2007 Engineering Expo.



The UW's Quarter Scale Tractor was on display at the Engineering Expo.

Student Update...

Wisconsin Section of ASABE Awards

Kody Habeck, junior in the Mechanical Systems area, received the Wisconsin Section of ASABE Outstanding Agricultural Engineering Undergraduate Student of the Year Award. Kody is currently the president of the UW-Madison ASABE Student Branch; last fall he served as its treasurer. He also serves as the leader of the X-team on the Quarter Scale Tractor Team. This team redesigns the previous year's UW-Madison Quarter Scale tractor and competes with X-teams from other universities at the national competition. Other ASABE activities include the Winter Shindig, and tours of a hydroelectric dam, Lakefront

Brewery and Leinenkugel's Brewery. Outside of ASABE, Kody is a member of the Collegiate FFA, Badger Dairy Club and the Babcock House Cooperative. Kody has excellent grades. He plans to secure an engineering position with a major agricultural machinery company.

Garritt Boettcher, a graduate student in the Mechanical Systems area, received the Wisconsin Section of ASABE Outstanding

Agricultural Engineering Graduate Student of the Year Award. Garritt was one of the leaders on the 2006 UW-Madison Quarter Scale Tractor Team which placed third in the 2006 competition. He was a leader on the Lawnmower/Snowthrower Clinic. Garritt was active the Babcock House Cooperative. He completed his bachelor's degree in Biological Systems in the Structural Systems area. His graduate research focuses on reducing the dry matter losses during storage of large round bales of forage and biomass. Garritt has accepted an engineering position with Deere in Horicon, WI and he plans to be involved in the family beef farm.



Kody Habeck, junior in the Mechanical Systems area, received the Wisconsin Section of ASABE Outstanding Agricultural Engineering Undergraduate Student of the Year Award.



Garritt Boettcher, a graduate student in the Mechanical Systems area, received the Wisconsin Section of ASABE Outstanding Agricultural Engineering Graduate Student of the Year Award.

Alumni Update...

In Memoriam

Arnold M. Flikke, BS Agr, 1941, a former Department Head of the Agricultural and Biological Engineering Department at the University of Minnesota died on January 11, 2007. Flikke was born July 8, 1919 in Viroqua, WI. When he was a child, his family moved to Greenwood, WI in Clark County. After completing high school in 1936, he entered the University of Wisconsin-Madison majoring in Agricultural Engineering. He completed his BS in Agriculture in 1941 and then went to the University of Minnesota where he received a Agricultural Engineering master's degree in 1943. In 1944 he entered the US Navy and returned to the University of Minnesota in 1946 when he started his teaching and

research career. In 1972 he completed the requirements for his PH. D. in Agricultural Engineering at Auburn University. He returned to the University of Minnesota and served as Department Head from 1973 through 1983 and retired from teaching and research in 1987. He taught courses on electricity, soil-plant engineering, instrumentation, structures and physics. His research focused on the application electricity in agriculture, livestock watering systems and controls. He was elected as a Fellow of the ASABE in 1981 and received a National Farm Energy Council Award. He served as the academic advisor to many of the students who graduated from the University Minnesota majoring in Agricultural Engineering.

David Ahlgren, BS Agr, 1962 died on March 13, 2007 in Stillwater, MN. Dave joined the Wisconsin National Guard as a pilot. His frequent donations to this department are gratefully acknowledged. In 1965 he started his 29-year career as a pilot with Northwest Airlines. He continued serving in the US Air Force which included serving as a liaison officer for the US Air Force Academy and retiring as a lieutenant colonel. When at the UW-Madison he was member of the UW Marching Band. As a hobby he developed a strong interest in birds, presenting numerous programs for elementary schools and nature centers. He also was a avid woodworker, constructing more than 85,000 Peterson style bluebird houses and numerous bird feeders.

Got News? Please keep us updated!

Thank you for continuing to send your business cards and information updates. We appreciate hearing from you!



If you haven't kept in touch, please send us your business card and/or complete the form at the end of this newsletter.

Latest News

Joel Clary, BS Agr. Engr. '87, reports he is an HVAC and Plumbing Engineer with Summit Design LLC in Fond du Lac. He specializes in geothermal and HVAC design.



Please Join Us for Breakfast

All UW-Madison alumni and friends are invited to our UW-Madison BSE Alumni Breakfast at the International ASABE Meeting in Minneapolis. A light breakfast will be served Tuesday, June 19 from 7:00 am to 8:00 am in rooms M100-A, B, I, J. We look forward to meeting our alumni at this no-cost breakfast. If you plan to attend be sure to register for it as you register for the meeting.

Funding Update...

Please give some consideration in 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: _____

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City: _____ State: _____ Zip: _____

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

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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:

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Milwaukee, WI 53278-0807

Alumni Update

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