Discovery Park is a place to conduct inter-disciplinary research, as well as a gathering place for faculty and students to present and discuss new research ideas. Purdue University’s ambitious endeavor to bring innovation through multidisciplinary action is setting its sights high, looking to achieve unprecedented goals. Discovery Park creates a combinational power greater than any individual strength, and serves as a catalyst for drawing faculty, staff, and students to reach into other disciplines and projects in order to take Purdue to the cutting edge of academic work. Discovery Park also aims to link Purdue University more closely with the Indiana and U.S. economies, further strengthening and defining those relationships.

Agricultural and Biological Engineering (ABE) faculty and students are actively engaged in Discovery Park with more than ¾ of ABE faculty involved in one or more Discovery Park Centers. ABE faculty are also serving in key leadership roles within Discovery Park with Professor Mike Ladisch providing leadership in the Oncological Sciences and the Energy Centers and Professor Bernie Engel serving as the Interim Director of the Center for the Environment.

The centers that Agricultural & Biological Engineering are involved in are: Bindley Bioscience Center, Birck Nanotechnology Center, Energy Center, Center for the Environment and Oncological Sciences Center, each is briefly outlined below.

**Bindley Bioscience Center** - Researchers are studying cells to determine how they are regulated and respond to chemicals, mutations, environmental stimuli, age, disease, pathogens and a series of other life-altering events. The Physiological Sensing Facility (PSF) organizes intellectual exchange and fosters direct engagement with interdisciplinary scientists and engineers.

**Birck Nanotechnology Center** - Nanotechnology is an emerging science in which new materials and tiny structures are built molecule-by-molecule, instead of the more conventional approach of sculpting parts from material. Nano is a prefix meaning one-billionth, so a nanometer is one-billionth of a meter. Researchers in this center are manipulating individual atoms and molecules to manufacture structures to complex specifications.

**Energy Center** - The mission is to significantly contribute to the development of the energy solutions society is currently seeking as we prepare for the eventual transition from fossil fuels to other energy sources.

**Center for the Environment** - The mission is to enhance environmental integrity with enlightened stewardship and innovative monitoring, modeling and management of natural resources, resulting in expanded economic development and improved quality of life.

**Oncological Sciences Center** - The mission is the same as the National Cancer Institute: to eliminate cancer as a cause of death and suffering.
The start of the fall semester brings a renewed sense of excitement and energy. We recently welcomed back returning students and welcomed new students. The quality of our students continues to be outstanding, and many of our students were recognized for their academic performance by the College of Agriculture (see pages 8 & 9). Your continued support of scholarships and our teaching programs is also important in helping us attract top quality students and in providing quality education.

The most recent US News & World Report ranking of undergraduate programs indicates that Purdue ABE is ranked number 2. The faculty, staff and students of ABE are committed to the continued excellence of our programs.

Discovery Park is having a significant impact on research and engagement activities at Purdue. The interdisciplinary approach being encouraged within Discovery Park to address difficult issues is familiar to ABE faculty and students. ABE faculty are playing significant roles in the success of Discovery Park. Most ABE faculty are participating in at least one center and many are participating in two or more centers.

ABE faculty had an outstanding year in securing grants and contracts to support their research this past fiscal year that ended June 30. Grants and contracts serve as the primary source of support for graduate students and the innovative research being conducted by ABE faculty.

ABE continues to benefit from the University, College and Department strategic plans.

As a result of these plans, we will be initiating searches for additional faculty positions in the areas of Agricultural Systems Management, Biological Engineering, Ecohydrology/Ecological Engineering, and Regional Agricultural Air Quality Modeling. Please watch for announcements of these positions at our web site www.purdue.edu/ABE. If you know of potential candidates for these positions, please encourage them to apply.

The job market for ABE students continues to be outstanding. Many of the students that will graduate in May have already accepted offers in excellent positions. If you have job opportunities, including internship opportunities, for students, please let us know.

Thank you for your continued support of Purdue ABE!

Sincerely

Bernard A. Engel
Department Head & Professor
In 2004, Dr. Rabi Mohtar was invited by the Civil Engineering Department from the American University of Beirut to serve a short term as a visiting scholar. Dr. Mohtar spent the summer working on soil water modeling.

In 2005, Dr. Mohtar chaired a water management workshop in Tunisia, and was invited by the SEAMLESS European project to present a vision on the future of Agronomic modeling in Milan, as well as being invited by the National Academies to participate in a workshop on Strengthening Science-Based Decision-Making for Agricultural water management.

Dr. Mohtar is currently leading two Purdue projects in Tunisia and Jordan on water resources management and helped initiate and serves as the faculty advisor for Engineers Without Frontiers/Engineers Without Borders Clubs.

Dr. Monika Ivantysynova has been named the winner of the Japanese Fluid Power Symposium Contribution Award, which she will receive on November 10th in Tsukuba, Japan.

Dr. Ivantysynova won this award because the paper she submitted to the conference was determined to be the best by those in attendance.

The paper was written by Dr. Monika Ivantysynova, Dr. Robert Rahmfeld and Bastine Eggers and is titled: “AN ENERGETIC COMPARISON BETWEEN VALVELESS AND VALVE CONTROLLED ACTIVE VIBRATION DAMPING FOR OFF-ROAD VEHICLES”.

The award was given for creativity and exceptional scientific leadership and recognition of the impact of clean air on human health; for the development of an internationally recognized research and outreach program that uses science to understand the magnitude of the livestock air issue; the development of numerous solutions to help farmers meet increasingly stringent requirements for emission of air contaminants; the ability to find and implement workable solutions that reduce airborne emissions from enclosed animal operations; for national and international recognition for his contribution to the improvement of air quality near livestock production industries that generate more than two billion dollars annually to the state’s economy; creating a healthy air quality environment for Indiana Citizens and an important industry.

The Purdue Department of Agricultural and Biological Engineering appreciates our alumni and each spring provides awards recognizing some of our most successful alumni. If you, or someone you know is deserving of such an award, please provide us with detailed information. We are also looking for alumni volunteers, those who are active in the community with programs such as Habitat for Humanity, hurricane relief support efforts, etc.

The Purdue phone-a-thon for this year has recently started and is seeking donations to help support ABE undergraduate education. Students need your donations; some donations support scholarships, while other funds are used to upgrade our teaching facilities.

Your help in encouraging local students to consider Purdue ABE is needed as our US News & World Report ranking (now 2nd) is based on student numbers. Our ranking is also impacted by research funding (we had a great year last year and should again improve in 2005) and percent of alumni that provide support to ABE. We need to increase this percentage – even donations of just a dollar will help! For many of you, Purdue sports are your priority, but a small academic donation would be appreciated. Please send ABE gifts in c/o Professor Bernie Engel to assure these are credited properly and that matching funds are received by ABE.

Professor Krutz has checked giving by age groups nationally to home academic units. Those alumni with less than 10 years since graduation average $100 annually, while those 35 to 45 years since graduation average $1,000 annually. All gifts are appreciated and depend on many factors; our goal is to encourage you to provide ABE student support.

If you are interested in returning to campus to talk to an ABE class, please let us know. Current students are always interested in hearing from our alumni about their experiences.

The job market for our alumni remains very strong. There are a number of job opportunities for alumni with several years of work experience that we learn about. Check our web site at www.purdue.edu/ABE for job postings and further information.
Though Machine Systems Engineering is one of the oldest areas within the Department of Agricultural & Biological Engineering, many changes are taking place that have rekindled growth, interest and success in this area.

One such change came in August 2004 when Monika Ivantysynova joined the ABE staff as the Maha named professor in Fluid Power Systems. Included in a group of innovative research projects she has introduced to the department is the valveless systems project for heavy equipment. Because valves dissipate energy and generate heat, Dr. Ivantysynova explains that her goal was not only to remove valves from heavy machinery design to conserve energy but also to make the system simpler. So whereas lifting the bucket on a loader used to require complex valve design, an entire element is now eliminated from the system with the new valveless actuators, and as much as 25 percent of fuel can be saved.

In addition to saving fuel with valveless systems, energy regeneration is also possible. Dr. Ivantysynova illustrates this concept with the example of lowering a load in a bucket. As the load lowers, potential energy is created that can be reused in the valveless system for other tasks, such as moving the machine without additional engine power. A process, that means even more energy savings.

“We are the first to ever go forward with something like this,” Dr. Ivantysynova enthusiastically said. “It’s essentially free because energy is put out and recovered. Basically, it’s a new twist to an old concept.”

Dr. John Lumkes also began introducing new approaches to old concepts when he joined the ABE department in August 2004 as an assistant professor.

Though many of us have heard about the hybrid vehicles that are taking the passenger vehicle industry by storm, few are aware of the electric hybrid’s cousin, the hydraulic hybrid.

“Electric hybrids are capable of storing more energy than hydraulic systems, but electric systems are also less efficient in many regards,” Dr. Lumkes said.

“In contrast to an electric hybrid system, which is most efficient for highway driving, hydraulic hybrid systems are best suited for vehicles that require a significant amount of stop-and-go activity. This is because hydraulic systems, unlike electric systems, are exceptionally efficient when it comes to storing and releasing energy in short periods of time,” Dr. Lumkes said.

“It might seem contradictory to how we usually think about efficiency, but the more stops and starts these systems have, the more improvements you’ll see,” he said.

Dr. Lumkes explains that the innovations being made in ABE regarding hydraulic systems are important not only because of their role in reducing our nation’s reliance on foreign oil, but they are also important in terms of the opportunities they provide students. Because energy is perhaps the leading problem facing the world today, it is imperative that students receive hands-on training in conservation.

“Energy will be the biggest problem engineers will have to solve in the next 50 years,” Dr. Lumkes said. “By working in our labs, students learn relevant skills in an increasingly important area.”

Dr. Klein Ileleji, ABE assistant professor, agrees that energy efficiency and sustainability are two of the biggest problems the next generation of engineers will have to face. He sees agriculture as playing a bigger role in the production of clean energy from renewable feedstock, and a change in production agriculture that will include not only food, feed and fiber production, but also distributed energy generation on farms.

“Agriculture will see a big change when producers begin to add value to their waste streams by utilizing them to produce energy, fuel and other bio-products”, Dr. Ileleji said.
“The whole integration of production systems and the mentality of farmers will be different,” he said. “We haven’t even started to teach farmers to think like this yet.”

The change he is referring to centers around the emerging interest utilizing biomass such as agricultural residues, forest residues, dedicated energy crops and livestock wastes as feedstocks for fuel and energy production. Currently, corn and soybeans are the primary feedstocks used in the Midwest for the production of alternative fuels: ethanol and biodiesel. To compliment ABE’s strong research effort conducted at the Laboratory of Renewable Resources Engineering by Dr. Ladisch and others, Dr. Ileleji is researching methods to optimize biomass feedstock production, transport and storage to make it most economically appealing to use agricultural residues for fuel production.

“Right now, it’s cheaper to access corn and soybeans than the leftovers they leave in the field,” Dr. Ileleji said. Once we find a way to cheaply collect and transport low density biomass in an environmentally sustainable way, it will be a big milestone in the production of biofuels from lignocellulosic biomass. Additionally, Dr. Ileleji explains that the U.S. will increase its national security and help the environment and rural economies by adding value to feedstocks that would otherwise have been discarded as waste.

“In the current new wave of technological progress into the bioeconomy,” he said, “it is our obligation to provide as much training as we can to the next generation of agricultural and biological engineers in this area.”

And perhaps no one knows that obligation better than Dr. Gary Krutz, an ABE professor who has watched the emerging importance of the field of Agricultural & Biological Engineering for more than 30 years.

“It’s amazing to see that engineers today can do the work I did 25 years ago in 1/20th the time, which drastically improves productivity!” he said.

Currently, Dr. Krutz teaches power and machinery courses, including machine systems design, hydraulic control systems and welding engineering. He also researches traditional farm machinery automation and robotization along with development of non-contact electronic sensors to assure food quality, and he has developed sensor technology for new plastic components that use both oil and water. Dr. Krutz is active in recruiting, and job placement of undergraduates.

Through these many roles, he plays an instrumental role in knowing what graduates of the department need to stay competitive.

With his assistance, ABE students have been funded by the top two hydraulic manufacturers in the country and many others have benefited from summer internships and scholarships.

“The top mobile hydraulic users hire our students every year and support fluid power research in emerging areas,” Dr. Krutz said. “Most of our seniors are employed prior to graduation due to fluid power, FEA, ProE, welding and other unique classes in ABE. It is not uncommon for our students to get $15,000 summer jobs in the hydraulic industry.”
Matt Hurm, Senior, BFPE

The real world. While many college students put off facing it until after they graduate, Matt Hurm saw no reason to wait. After his second year in ABE studying Biological and Food Process Engineering, Matt took a 12-week summer internship position at Kraft Foods in its Quality and Research and Development organization in Glenview, Ill. During the internship, he worked in Spoonables Productivity on process and ingredient optimization of fat-free spoonables (with mayonnaise, Miracle Whip and tartar sauce).

“I got to work on something that’s applied instead of just theoretical,” he said. “It’s rewarding to see it on the shelves; you can see the impact you have on the company.”

Matt would make formulation changes in order to create a more cost effective and efficient process by combining streams and modifying ingredients, and then test his product in the pilot plant to evaluate the modifications. Ingredients from alternative suppliers were also evaluated. Though certainly pleased by the tangible products that resulted from his internship, Matt feels even more impact from the real-world experience the job offered him.

“In school, you learn how to work through problems and basically learn to think,” he said. “It’s more difficult to learn about the atmosphere or business aspect of a big company until you actually go out there, though.”

In addition to learning about corporate culture, Matt also witnessed the importance of gaining a foot-in-the-door. Because Kraft has seen the type of work Matt is capable of, he said, his odds of being offered a job after graduation are elevated thanks to the internship.

“And even if it’s not Kraft, it makes a difference when other companies look at you, too,” he said. “Not, only did this experience help my resume, but it helped me determine what I want to look for in a job and a basis for comparison when considering future offers.”

Though Matt is still considering his options when deciding what direction he wants to take with his degree and still considers returning to his family farm after graduation, he knows he is capable of succeeding with whatever he decides.

“I think most people would be very surprised by what you can do with the degree, and the internship didn’t hurt!”

Curt Elpers, Senior, MSE

When I first came to Purdue, I wanted to pursue an education that would prepare me for a career in the agricultural machinery industry, but I wasn’t exactly sure what major would get me there.

It wasn’t long before Freshman Engineering opened my eyes to the Department of Agricultural and Biological Engineering, and the rest is history.

I quickly became impressed by the diversity, opportunity, and personal attention for students that I witnessed within the ABE Department.

I found out that in ABE, whatever you want to do, there’s no one standing in your way of doing it, and the Department just loves seeing students take charge.

Now a senior studying machine systems in ABE, I believe the Department is unique because it encourages its students to get their hands dirty and learn to do things for themselves.

In addition to classroom learning, the ABE Department helps students broaden their knowledge by supporting a variety of activities.

Getting involved beyond the classroom is vital. I’m a member of the American Society of Agricultural and Biological Engineers, the Agricultural Systems Management Club, and the honor society, Alpha Epsilon. Applying what I have learned in class has been very gratifying, and it has given me drive to come back to the classroom and learn more.

I am a CO-OP student, and I have worked at John Deere Ottumwa Works as a test and design engineer.

My work sessions have paralleled what I have learned in class. Not only has the opportunity given me invaluable skills and experiences, but it has also given me confidence that I will get a job after graduation.

Most of all, I’ll always remember the faculty and staff in the Department and how ABE gave me the freedom to pursue what I wanted to as an undergrad.
Student Activities

The Secretary of Labor’s New Freedom Initiative Award recognizes non-profits, small businesses, corporations and individuals that have demonstrated exemplary and innovative efforts in furthering the employment and workplace environment for people with disabilities.


The Breaking New Ground team consists of: Dr. Bill Field as the project director, Paul Jones as the project manager, Denise Heath as the project administrative assistant, and Steve Swain as the Rural Rehabilitation Specialist and Outreach Coordinator. The non-profit partners are the Arthritis Foundation-Indiana Chapter and the Southern Indiana Center for Independent Living.

Since 1979, the Breaking New Ground Resource Center and Outreach Program (Breaking New Ground), located within Purdue University’s Department of Agricultural and Biological Engineering, has worked with farmers, ranchers, agricultural workers and their families to facilitate employment following disabling injuries or diseases. This multifaceted program provides a wide range of services and conducts ongoing research and outreach activities focused on increasing access to appropriate assistive technologies, peer support, self-employment business training and technical assistance.

In 1990, Breaking New Ground, which provides direct, on-site services to farmers throughout Indiana, became the primary model for the establishment of the United States Department of Agriculture (USDA) AgrAbility Program that now supports projects in 28 states to provide rehabilitation services to farm and ranch families impacted by disabilities. During the first 11 years of the AgrAbility Program, Breaking New Ground provided national leadership for the initiative during a time when it grew from 8 states to nearly 20. A primary contribution was providing training for state project staff members and the development of supportive resource materials.

Breaking New Ground is recognized as one of the leading sources of evidence-based technical information for enhancing employment opportunities for agricultural workers. Research has demonstrated that, with appropriate training, encouragement and assistive technology, it is more viable than ever before for a person with a disability, even a severe disability, to return to work in agricultural production. By enhancing the accessibility of employment opportunities in rural America, Breaking New Ground fosters strong support networks that enable individuals to remain in the communities and do the work for which they are best trained and enjoy.

Over the past 25 years, the program has worked directly with, or provided services and resources to, an estimated 30,000 farmers, ranchers, and agricultural workers seeking to remain productively engaged in some aspect of agriculture. Over the past 15 years, these efforts have included over 1,200 on-site technical consultations in more than 20 states, responses to over 17,500 calls on the Breaking New Ground toll-free helpline, the development of over 50 technical and educational resources related to disability and agriculture, and the distribution of approximately one million pieces of literature throughout the United States and Canada.
Congratulations to the following students who received scholarships at the recent College of Agriculture Scholarship Banquet.

**Purdue Academic Success Awards**
Trent Joseph Burris, Greens Fork, IN
Robert Ray Gordon, Bluffton, IN
Charles Eric Hodgman, Kalamazoo, MI
Kathryn R. Hoff, Appleton, WI
John Joseph Koehler, Ames, IA
Elspeth G. Larson, Indianapolis, IN
John Ross Mahrenholz, Poseyville, IN
Joseph Jules Mallory, Ellettsville, IN
Erin Marie Rosswurm, Columbus, IN
Jessica Tama Sloan, Skokie, IL
Chelsea Quinn Steele, South Bend, IN
Phillip William Wetzel, Indianapolis, IN

**Scholarship Awards of Excellence**
Craig Edward Barcus, Plainfield, IN
Austin Robert Deardorff, Macy, IN
Chad Michael Flechter, Ossian, IN
Derek Koehl Hastings, Orient, OH
Clark Phillip Jordan, Richmond, IN
Michael Ian McCoy, Utica, OH
Erin Marie Rosswurm, Columbus, IN

**Sophomore Scholarships**
Lauren Nichole Ellspermann, Newburgh, IN
Robert Ray Gordon, Bluffton, IN
Jared James Haughee, Leesburg, IN
Jonathan Richard Newell, Delphi, IN
John Joseph Schumm, Oro Valley, AZ
Jessica Maria Widjaja, West Lafayette, IN

**Junior Scholarships**
Brandon Scott Bechtel, Lafayette, IN
Trent Joseph Burris, Greens Fork, IN
Aaron David Dillie, Lafayette, CO
Greg Richard Long, Clay City, IN
John Ross Mahrenholz, Poseyville, IN
Joseph Jules Mallory, Ellettsville, IN
Brent Evan Mulder, Wheatfield, IN
Amy L. Penner, Schamburg, IL
Wyatt James Roth, Star City, IN
Peter Lamar Rummel, Nappanee, IN
Jessica Tama Sloan, Skokie, IL

**Senior Scholarships**
Ross Carter Chapman, Bloomingdale, IN
Andrew Robert Cook, Peru, IN
John Joseph Koehler, Ames, IA
Elspeth G. Larson, Indianapolis, IN
Chelsea Quinn Steele, South Bend, IN
Diana Chandrawati Tjahjono, Jakarta, Indonesia
Jacqueline S. Velasco, Highland, IN
Yunita Wijaya, West Lafayette, IN
Jess Andrew Yegerlehner, Clay City, IN

**Agricultural Research Fund Scholarships**
Chad Allan Cepeda, La Porte, IN
Kathryn R. Hoff, Appleton, WI
Brittany Dawn Phillips, Monroe, WI

**Leonard B. Clore Scholarships**
Ross Carter Chapman, Bloomingdale, IN
Matthew Allen Hurm, Rockport, IN
Logan Grant Vaughn, Spencer, IN
Adam Michael Zeller, Noblesville, IN

**Farm Credit Services Scholarships**
Brent Evan Mulder, Wheatfield, IN

**Fred M. Fraser Memorial Agriculture Scholarships**
Brandon Robert Bules, Bremen, IN

**Robert L. Fuller Scholarship**
Brett Bradley Summers, Bicknell, IN

**Colonel Fletcher P. Jaquess Scholarships**
John Arnold Michel, Boonville, IN

**Marquardt Alumni Scholarship**
Alan James Doolittle, Fort Wayne, IN
Chad Michael Flechter, Ossian, IN

**Milligan Agricultural Scholarships**
Brandon Scott Bechtel, Lafayette, IN
Samuel David Nesbitt, West Lafayette, IN

**North Central Beef Cattle Association Scholarship**
Scott A. Federer, Francesville, IN
The College of Agriculture - Scholarship Awards

J. Kelly O’Neall & Margaret Ritchey O’Neall Memorial Scholarships
Jason William Garvey, Lawrenceville, IN
Ruth Lauren Pinto, Lafayette, IN
Jaret Michael Wicker, Rushville, IN

Lewis Runkle Scholarships
Katherine Marie Bush, Columbus, IN
Eric Vincent Oteham, Brownsburg, IN
Louis Edward Stephon, Indianapolis, IN
Clinton Douglas Stocklin, Greensburg, IN

Hillis D. And Esther M. Wickizer Scholarships
Brandon Robert Bules, Bremen, IN
Joseph Arthur Conley, Plymouth, IN
Peter Lamar Rummel, Nappanee, IN

The College of Agriculture faculty adopted the Dean’s Scholars Program which began this fall. There are currently 77 students enrolled in the program. Congratulations to the eight Agricultural & Biological Engineering Students enrolled.

Clark P. Jordan, Richmond, IN
Craig E. Barcus, Plainfield, IN
Austin R. Deardorff, Macy, IN
Derek K. Hastings, Orient, OH
Elizabeth M. Hawkins, Xenia, OH
Michael I. McCoy, Utica, OH
Eric M. Rosswurm, Columbus, IN
Eric M. Barnard, Flora, IN

Student Clubs & Officers

ASM
President: Kevin Wenning
Vice President: Kalen Bell
Secretary: Adam Zeller
Treasurer: Matthew Gillespie
Ag. Council Rep: Scott Federer & Neal Wolheter

ASABE
President: Cody McKinley
Vice President: John Mahrenholtz
Secretary: Joe Mallory
Treasurer: James Bartlett
Ag. Council Representative: Greg Long
Recorder/Scribe: Ben Heber

BFPE
President: Elspeth Larson
Vice President: Kyle Roth
Secretary: Keith Convery
Treasurer: Matt Hurm

www.purdue.edu/abe
Kevin A. Price, B.S. ABE, ‘00
Yancey Power Systems
Serving Government, Business & Residents

My life significantly changed since I married Lori (Tuttle) Price, (B.S. ABE, ‘00) and we moved to Atlanta, Georgia in June 2000. Coming from a town with a population of 1500 people, to a city with over 6 million people was quite a change. In April 2003, the birth of my son has turned my world around again. It has been a wonderful experience as a father. I am active in our local church participating in the choir and with youth and recreational activities. I also spend time working on our house with the many different projects Lori and I come up with.

Work keeps me very busy. I am responsible for a new division of the company called, Yancey Power Packaging. This division provides custom packaging solutions for generator and engine products. This includes weather protective and sound attenuated enclosures for generator sets, custom factory testing, and development for Caterpillar. I also spend part of my job managing high profile projects mainly for data centers, the Center for Disease Control, and Southern Company. These projects have multiple generators with controls to parallel with the utility and provide power redundancy.

Some responsibilities that I currently have that relate to my education at Purdue are applying basic diesel and natural gas engine engineering everyday as I design for engine application. I also utilize mechanics of materials and machine design for the base and enclosure. In acoustic enclosures I design the acoustic paneals and splitters for the enclosures.

What I like best about my job is that I never do the same thing twice. The North American power generation market is unique, and there are always new solutions to create. There are challenges with product, people and facilities every day.

The most unique quality of my job is the open-ended job description. I basically do anything that is requested by our customers whether they are other Caterpillar dealers, engineers or end users. I will go from creating a development plan on a new product with the financial impact, to design a control scheme for a generator set. I have the opportunity to mold the industry with one of my solutions and reach customers worldwide.

Purdue ABE has provided me with the engineering fundamentals that have allowed me to succeed in the company and in the industry. ABE 330, 210, 405 and 450 all stick out in my mind as being major contributors to my success.

The Senior Design project that I did with Tom Mellencamp (B.S. ABE, ‘00) and Chad Hubbard (B.S. ABE, ‘00) is one of the most interesting college work projects that I did while at Purdue. Our group designed a water-lubricated transmission with Professor Krutz. We spent a lot of time designing and creating it, even though I do not think it was that great of a success, but we learned from it. Also, the 1/4 scale tractor design competition provided an opportunity to work with everyone and compete nationally.

Besides meeting the love of my life, ABE has provided me with the confidence that I am prepared for the world as good as, if not better than, any other school or program in the nation.

What motivates me is responsibility. I want to be the person with the answers. I want people to know when they ask a question, I will provide the correct answer and follow through on my word. And, I want to be able to provide the best life possible for my family.
Class Notes

1950’s

Dr. Donn DeCoursey (B.S. ’57-M.S. ’58) Retired from the U.S. Department of Agriculture’s Research Service (ARS) after 37 years. During his time with ARS Donn lived in Oklahoma, Mississippi and Fort Collins, Colorado, where he currently resides. Donn enjoys volunteering, and traveling in his travel trailer and recently built a locker as a fund raising item for a local girl scout group.

1960’s

Jim Reel (B.S. ’62) visited the Purdue campus for the Akron, Ohio game. Jim is retired from Soil Conservation Service, now NRCS. Prior to his retirement in 1994, he served as one of 15 members of the Presidents Committee on Flooding in the Midwest. During his career with SCS he taught Project and Program Engineering Administration throughout the United States.

1970’s

Dennis Bilton (B.S. ’73) currently residing in Alta Loma California. Dennis works as the Director of Sales for MAF Industries, a company that designs and manufactures hi-tech equipment for fresh fruit and vegetables.

Dennis feels that he uses the technology that he learned at Purdue University daily by utilizing resources and thinking “outside the box” and by listening to both colleagues and customers to develop useful solutions. Dennis and his family enjoy water sports, golfing and auto racing.

1980’s

Elling Z. Johnson III (B.S. ’81-M.S. ’83) has recently relocated to Sturgeon Bay, Wisconsin with Shuttle Lift Inc. Shuttle Lift Inc. custom builds cranes for industrial uses. Elling has worked with Shuttle Lift Inc. for approximately 15 years. Elling moved to Sturgeon Bay in September but is already active in local church activities and missions.

Elling would be happy to hear from former classmates and friends, his current address is:

Elling Z. Johnson III
PO Box 520
Sturgeon Bay, WI 54235
or you can email him at - ejohnson@shuttlelift.com

1990’s

Scott Renshaw, M.D. (B.S. ’95) after graduating from Purdue, Scott started medical school at Indiana University and graduated in 2000.

Scott completed his residency training in family medicine at Indiana University and did a fellowship in academic leadership and underserved medicine, which he finished in 2004 and was hired as faculty at the Indiana University School of Medicine.

Scott teaches students, residents and fellows two days a week and is involved in seeing patients 3 days a week.

His research interests include retention and recruitment of students into rural and underserved medical sites and mental health training for residents.

Classmate Lost & Found

Class Notes is an excellent tool to keep former friends advised of your latest email address - just send me a note, mcreech@purdue.edu to be included in the next newsletter!

Your News is Good News...

Please share your accomplishments and activities, and remember to keep us updated with your current address and email. Your classmates and fellow alumni like to keep in touch by reading Class Notes.

Send your news to the ABE Newsletter Editor: Micky Creech Purdue University ABE Department 225 S. University Street West Lafayette, IN 47907 or email to: mcreech@purdue.edu
NOVEMBER
23-26 Thanksgiving Vacation (No classes)

DECEMBER
12-17 Final Exams
18 Commencement
   9:30 a.m. (Ag. & Eng.)
19 Winter Break Begins

JANUARY 2006
1 New Years Day
8 Winter Break Ends
9 Spring Semester Begins

MAY
12 Commencement
   8:00 p.m. (Eng.)
13 2:30 p.m. (Ag.)

Name Change

Name Change Recognizes Link Between Agriculture, Biology

The American Society of Agricultural Engineers has announced that it has changed its name to the American Society of Agricultural and Biological Engineers.

The name change provides formal acknowledgment of the close integration and shared history of agricultural and biological engineering.

Melissa Moore, ASABE Executive Vice President, explains that the change more clearly represents the breadth and depth of the profession.

“Biology has always been at the core of the profession,” says Moore, “and the profession has taken the lead in developing the engineering, the education curriculum, and the applied research for systems dealing with plants, animals, humans, and the environment.”

The action also follows the lead of university departments in the U.S. which, one by one, have adopted names that reflect the unique and broad education experience they provide. Once known simply as agricultural engineering, these departments now include the word biological in their names or such variations as biosystems and bioresources. Accordingly, graduates of these programs possess the engineering skills that deal with all agricultural and biological systems, including the entire food and fiber chain.

The name change was approved earlier this year by membership vote and formally adopted July 19 at the Society’s annual business meeting.

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

Gibson to Retire

After 26 years with Purdue University, Professor Harry Gibson will retire at the end of the 2005 semester. A retirement party is being planned for late January or early February - watch the ABE website for further information or contact Becky Peer at peerb@purdue.edu or 765-494-1162.

http://www.purdue.edu/abe

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