

Purdue University Agricultural & Biological ENGINEERING

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From Department Head - Bernie Engel

We are in the home stretch of the fall semester. However, it seems like only yesterday that we were welcoming our students at the annual ABE Welcome Back Picnic (some pictures from the picnic are included below). Faculty and staff prepared and served food at the picnic for more than 200 of our students. Thank you again to alums and companies that provided numerous t-shirts, hats, food, and numerous other items that students received at the picnic.



If you are a Purdue football fan, it is just as well that the semester and football season are nearly behind us. However, there is always hope for next season - and actually in more than one way as Coach Hope assumes leadership for the football program.

In September, we completed a comprehensive review of our program (CSREES review) that consisted of a self study and visit by a review team of peers. The review team visited ABE facilities and met with students, staff and faculty from September 21-25. We received valuable feedback that will help make Purdue ABE an even better program.

Purdue has recently completed a new strategic plan with three major goals forming the plan's foundation:

- Launching tomorrow's leaders
- Promoting discovery with delivery
- Meeting global challenges

The Colleges of Agriculture and Engineering are currently developing their strategic plans, and we will continue planning within ABE using the feedback received in the CSREES review. ABE is well positioned to help Purdue and our colleges pursue the goals within these plans.

Go Boilers!

Our Mission

"To prepare students, citizens, and the industry for the future through innovative education and extension/outreach program, and the discovery of knowledge."

ABE NEWSLETTER

THE ABE BUILDING IN 1935



*Just Like the ABE
Building the ABE
Newsletter
is Changing!*

As you can see with this Fall issue of the ABE newsletter, we have decreased the number of pages in our newsletter but have decided to use full color the articles and news notes will be shorter but in many instances you can find a more detailed article on our web page.

Speaking of the ABE web page, a new design has been launched at www.purdue.edu/ABE.

Be sure and check it out for the latest notices on ABE events, news and job opportunities posted there.

THE ABE BUILDING TODAY



ABE FACULTY NEWS

PROFESSOR DON JONES has announced his retirement after 33 years with Purdue University and the ABE department. A retirement reception is planned for Friday, January 16th at the Beck Center, for more information visit our web page at www.purdue.edu/abe and click on “Events”.

BREAKING NEW GROUND RESOURCE CENTER is the new home of the National AgrAbility Project which was awarded 2.2 million dollars which will help thousands of disabled individuals overcome barriers to continuing their chosen profession in agriculture.

PROFESSOR JOHN LUMKES spoke at the Energy Efficiency for Households, Farms and Small Businesses trade show and forum at the White County Fairgrounds in September. John shared energy saving ideas at the Indiana Workforce Innovation in Regional Economic Development (WIRED), sponsored event.

PROFESSOR CHANG LU was recently featured in “Purdue Today” for an electrical process that caused cancerous cells to expand. This screening would allow quicker discovery and in turn quicker treatment, this process also determined whether cells were normal, cancerous or a stage of cancer already spreading to other parts of the body.

PROFESSOR BERNIE TAO was named to Purdue’s “Book of Great Teachers” in September.

PROFESSORS BILL FIELD AND DIRK MAIER invented “The Liberty Rescue Tube” which once deployed provides a temporary containment system around a victim stuck in a grain bin.

PROFESSOR MICHAEL LADISCH was named one of the “One Hundred Engineers of the Modern Era” by The American Institute of Chemical Engineers (AIChE).

PROFESSOR AL HEBER traveled to Hangzhou to visit Zhejiang University as a guest of Professor Kaiying Wang.



Professors Wang and Heber in Hangzhou

PROFESSOR MONIKA IVANTSYNOVA and her MAHA team have discovered that microstructured surfaces dramatically reduce power losses due to friction caused by hydraulic fluid. Research has shown the “valve less” design could reduce fuel demand by 40%.

PROFESSOR MARSHALL PORTERFIELD helped develop a tool to measure oxygen flux as an indicator of physiological stress in fish, these embryos are sensitive to



Fish embryo being injected with contaminants

contaminants and stressful conditions and this technology could identify and confirm the presence of minute levels of toxic substances.

Congratulations to this year’s outstanding teachers and counselor -

Outstanding Engineering Teacher
Gary Krutz

Outstanding Agriculture Teacher
Klein Ileleji

Outstanding Counselor
Dennis Buckmaster

Further Details Available On Our Web Page At:
www.purdue.edu/ABE

MAHA LAB



MAHA Fluid Power Research Center



Leah Jamieson, Dean of Engineering & Monika Ivantysynova, Professor of ABE/ME/Lead Supervisor at the Maha Research Center

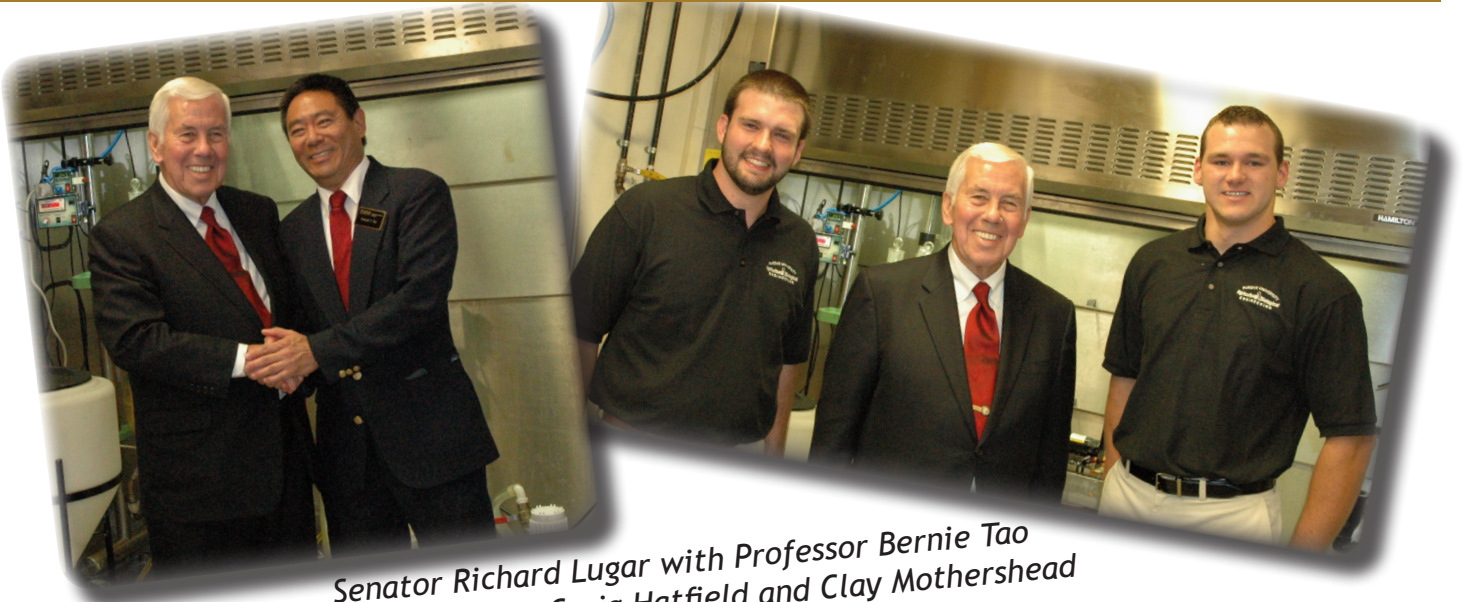
The Maha Fluid Power Research Center was formed in 2004 from a \$4 million endowment from fluid power pioneer Otto Maha. Professor Monika Ivantysynova, Professor of ABE moved from TUHH in Hamburg-Harburg, Germany to Purdue University to lead the new center.

In 2007 the Maha Lab moved to 1500 Kepner Drive in Lafayette, Indiana. This move substantially increased the size of the lab areas and has provided additional room for more graduate and undergraduate researchers.



Maha employees, various lab equipment, and graduate students

SENATOR LUGAR VISITS PURDUE



Senator Richard Lugar with Professor Bernie Tao and ABE students Craig Hatfield and Clay Mothershead

U.S. Senator Richard G. Lugar visited Purdue University on Thursday, October 9th, and visited with two Agricultural and Biological Engineering faculty, and several students. Senator Lugar visited with Michael Ladisch, Distinguished Professor of Agricultural and Biological Engineering and Director of Laboratory for Renewable Resource Engineering (LORRE). Professor Ladisch is an expert in bioprocess engineering focused on making ethanol production more efficient.

Senator Lugar also met with Agricultural and Biological Engineering Professor Bernie Tao, who is a specialist in bio-based renewable resources and products, and is currently researching development of a soy-based jet fuel.



The Boilermaker Special

Agricultural and Biological Engineering students Craig Hatfield and Clay Mothershead also met with Senator Lugar and discussed various alternative energy sources.

Are you looking for employment or thinking about changing employment? The ABE department maintains a web page for our current students which list full-time, part-time and internship positions at - https://engineering.purdue.edu/ABE/InfoFor/CurrentStudents/job_opportunities.html.

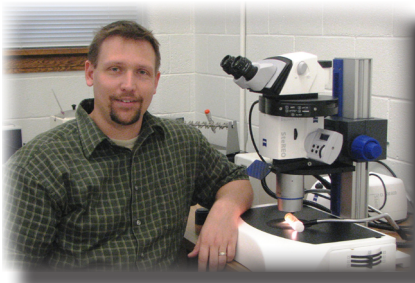
We have also started a new web page of job opportunities for our ABE alumni at - https://engineering.purdue.edu/ABE/InfoFor/AlumniAndFriends/alumni_job_opportunities.html.

UPDATE YOUR INFORMATION

We Want To Hear
From You!

Return this form to:
Purdue University
ABE Department
Attn: Micky Creech
225 South University Street
West Lafayette, IN 47907-2093
or email update to: mcreech@purdue.edu

Name: _____
Home Address: _____
City: _____ State: _____ Zip: _____
Home Phone: _____ Fax: _____
Business Name/Address: _____
City: _____ State: _____ Zip: _____
Business Title: _____ Business Phone: _____
City: _____ State: _____ Zip: _____
Work Email: _____ Home Email: _____
Work Description: _____
What Area & Year Did You Get Your ABE Degree(s)?
Area (ASM, ENRE, MSE, BFPE, Other): _____
BS _____ MS _____ Ph.D. _____
Other Information: _____



NEW ABE FACULTY - DAVID UMULIS

David Umulis joined the Agricultural and Biological Engineering department as an assistant professor in August 2008. He received his BSE in Chemical Engineering from the University of Michigan and his Ph.D. in Chemical Engineering from the University of Minnesota under the direction of Wei-Shou Hu and Hans Othmer.

For postdoctoral studies, David completed a joint appointment in Genetics, Cell Biology, and Development in the laboratory of Michael B. O'Connor and in the School of Mathematics with Hans G. Othmer at the University of Minnesota. His primary research interests include delineating mechanisms of early embryonic development and using multi-dimensional models to predict the expression of genes in response to dynamic extracellular signaling molecules called morphogens.

David and his wife Emily have a daughter named Madeline (almost 2) and are expecting another child any day now. They relocated from Minneapolis to West Lafayette in July and have been enjoying the new community ever since.

ABE ALUMNI UPDATE

JOHN SCHUELLER (MS ABE '79, PHD ABE '83) - attended the First World Summit of Agriculture Machinery in Rome Italy in May.

DOUGLAS BROWN (BS ABE '96) - has been promoted to Director of New Product Development with Rotary Lift. In his new position he is responsible for developing new products from the concept to launch. These products will be produced and sold by one or more of the Rotary Lift's three regional operational business units - Euro-Africa out of Germany, Asia-Australia out of China and North/South America out of Indiana.

JILL KRUTZ (BS ABE '98) - has accepted the position of Caterpillar Program Lead for the C715 Platform Center of Excellence. Jill will be leading a Lafayette team that will focus on the factory during the ramp up of the new assembly line, as well as focusing on supporting the field and lab test engines.

JASON MARLIN (BS ABE '95) - is a Project Engineer/ Statistician with Eli Lilly in Indianapolis, Indiana.

JASON BROWN (BS ABE '01, MS ABE '02) - has added a new member to his family - a baby girl! Jocelyn Grace Brown was born on June 7th at 1:23 pm, she weighed in at 9 pounds and was 21 1/4 inches long. Jason says she is growing like crazy and already has a Boiler outfit!

YULIN LU (MS ABE '06, PHD ABE '08) - recently moved to Boston to start working for Mascoma Corporation as a Research PD Engineer.

ADAM SEDERLUND (BS ABE '03, MS ABE '05) - is a Cylinder Design Engineer with Caterpillar.

PHIL WETZEL (BS ABE '06) - has spent the last two years with Eaton Corporation at their truck headquarters in Michigan, developing a new diesel exhaust system to enable engines to meet the upcoming EPA 2010 on-road and tier 4 final off-road emissions regulations. Phil recently got a commercial drivers license to drive the test vehicle semi-trucks. He has also spent some time working with En'Urga (a Purdue Research Park Company) and Dr. Paul Sojka of Purdue's Mechanical Engineering department on nozzle design and spray measurement equipment for diesel injectors.

RYAN WILLIAMS (BS ABE '02) - was recently promoted to Application Engineer with Rexnord Industries and will be working out of Indianapolis at the corporate headquarters. In his new position he will be handling RMS's, bearing failure analysis, customer issues, installs and on-site customer training. Previously he served as Lead Production Facilitator and has been with Rexnord for four years.

KUMAR NAVULUR (PHD ABE '96) - has assumed the role of President of Pixxures Inc. which is a leading provider of aerial photographic mapping products and services, direct-digital orthophotography, planimetric and topographic mapping, vector alignment, and GIS products and services via the Internet.

JOHN "JT" BEEHLER (BS ABE '95) - is a Design Engineer for Honeywell in South Bend, Indiana.

MATT KRUER (BS ABE '96) - is a Project Engineer for Clarcor Air Filtration System in New Albany, Indiana.

THE ABE DEPARTMENT WISHES TO EXTEND
SINCERE SYMPATHY TO THE FAMILY AND FRIENDS
OF WILLIAM HENRY FRIDAY III

William Henry Friday III joined the Purdue University Agricultural Engineering department (now ABE) as a faculty member in 1955 and retired in 1991.

Professor Friday died on August 12, 2008.

CALENDAR

December

- 13 Classes End
- 20 Semester Ends, Student Break Begins
- 21 Fall Commencement
- 25 University Holiday
- 26 University Holiday
- 31 University Holiday

January

- 1 University Holiday
- 2 University Holiday
- 12 Classes Begin
- 19 University Holiday

February

- 7 Ag Alumni Fish Fry
- 14 Valentine's Day
- 16 President's Day

March

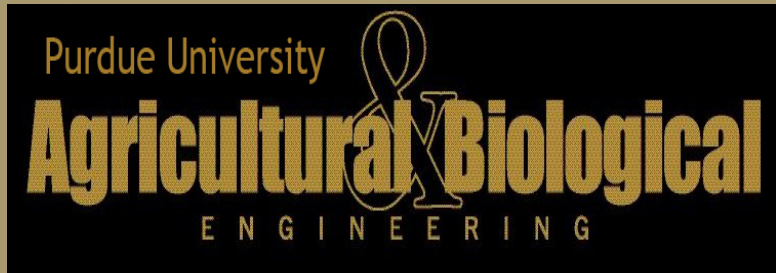
- 8 Daylight Saving Time Begins
- 16 Student Spring Break Begins
- 21 Student Spring Break Ends

April

- 18 Spring Fest
- 19 Spring Fest
- 23 ABE Spring Banquet

ABE ALUMNI KEEP IN TOUCH!

We would like to keep in touch with you about ABE activities and events, as well as other college and department events, so be sure you send your email address to Micky Creech at mcreech@purdue.edu



PURDUE
UNIVERSITY

Published for Alumni and Friends of
the Department of Agricultural and
Biological Engineering



Newsletter:
Micky Creech, Editor



<http://www.purdue.edu/abe>

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