



ABE-Notes



published the 1st Wednesday of each month



Projects Funded

Joseph Irudayaraj - \$75,000 - Showalter Grant - High Speed Chemical Imaging of Live Cells using a Compressive Sampling Spectrometer. (Co-PIs: Ben-Amotz, Irudayaraj, Robinson).

Joseph Irudayaraj - \$50,000 - Purdue Cancer Center - Development and Characterization of a Xenograft mouse model for Hepatitis B virus protein x-induced Hepatocyte Tumorigenesis (PIs: Andrisani, Irudayaraj, Asem, Mohammed).

L. Wang, A. Shahbazi, C. W. Seo, and H. Yang, K. E. Ileleji - An Integrated Process for the Production of Ethanol and Biobased Products from Lignocellulosic Biomass. USDA-CSREES-1890 Institution Teaching and Research Capacity Building Grants Program. \$499,722. 10/01/08-09/30/11.



Publications



Shamsaie, A., Heim, J., Yanik, A. and Irudayaraj, J. - Intracellularly quantification by surface enhanced raman spectroscopy" ChemPhys Letters [MS#: CPLETT-08-500] (In Press).

Wang, C. and Irudayaraj, J. - Gold nanorod probes detects multiple pathogens. Small (MS#: sml.200800309) (In Press).

Varghese, L.; Sinha, R.; and Irudayaraj, J. - Single molecule kinetic investigations of association and dissociation of proteins using fluorescence cross-correlation spectroscopy. Analytica Chimica Acta. (MS#: ACA-08-437) (In Press).

Bao, N., Zhan, Y. and Lu, C. - Microfluidic electroporative flow cytometry for studying single cell biomechanics. *Analytical Chemistry*, accepted.

Papers Presented

Maringanti, C., I. Chaubey, and B. Engel - Development of a multi-objective optimization tool for the selection and placement of BMPs for pesticide control. Paper No. 083536, Annual Conference of the ASABE, Providence, Rhode Island.

Leh, M.D., S.G. Bajwa, I. Chaubey, and J. Cothren - A remote sensing methodology of delineating stream channel morphology. Paper No. 083734, Annual Conference of the ASABE, Providence, Rhode Island.

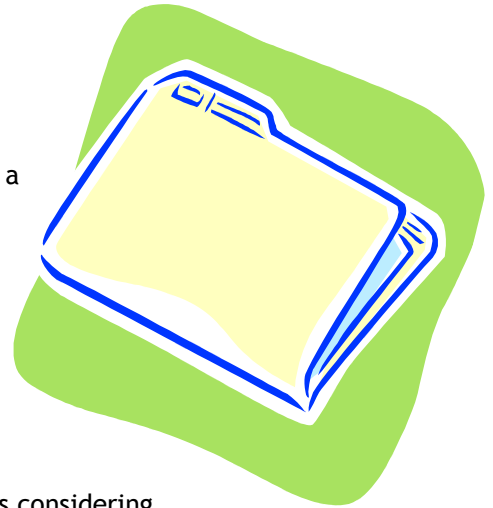
Chiang, L., M. Gitau, and I. Chaubey - Effectiveness of BMPs considering uncertainties in weather patterns in a pasture dominated watershed. Paper No. 083549, Annual Conference of the ASABE, Providence, Rhode Island.

Gitau, M., L. Chiang, I. Chaubey, and M. Sayeed - Computational approaches to evaluating BMPs considering stochasticity of weather. Paper No. 083577, Annual Conference of the ASABE, Providence, Rhode Island.

Cibin, R., K.P. Sudheer, and I. Chaubey - Global sensitivity analysis of distributed hydrologic models. Paper No. 084910, Annual Conference of the ASABE, Providence, Rhode Island.

Merriman, K.R., I. Chaubey, S. Ale, and L. Bowling - Quantification of nutrient dynamics in agricultural drainage ditches with BMPs Hoagland Ditch watershed in Indiana. Paper No. 083530, Annual Conference of the ASABE, Providence, Rhode Island.

Thomas, M., B. Engel, and I. Chaubey - Unintended consequences of biofuel production on water quality. Paper No. 084824, Annual Conference of the ASABE, Providence, Rhode Island.



ABE News

Distinguished ABE Alumni Dr. Jeffrey Arnold –

returned to the ABE department to conduct a Soil and Water Assessment Tool (SWAT) model developer's workshop on July 10-11. This was first such workshop given on SWAT model development .



Welcome Back Picnic

Thursday, September 4, 2008

ABE #106

Dr. Michael Ladisch - was recently named one of the “One Hundred Engineers of the Modern Era” by The American Institute of Chemical Engineers (AIChE). He will be featured in the October issue of CEP and will also be spotlighted on AIChE’s Centennial web site and at the Annual Meeting, which will be held in November.



MAHA Fluid Power Lab - has completed the move to 1500 Kepner Drive, Lafayette - the building is located east of Highway 52 on McCarty Lane.



Student Papers



Jonathan Baker - earned the Backe Award for the best paper at the 5th FPNI-PhD Symposium in Krakow, Poland for his paper "Investigation of Power Losses in the Lubricating Gap Between the Cylinder Block and Valve Plate of Axial Piston Machines".

Josh Zimmerman - presented his paper "The Effect of System Pressure Level on the Energy consumption of Displacement Controlled Actuator Systems" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Chetan Maringanti - received third place in the Graduate Student Paper Competition in M.S. Category in the Annual Conference of the ASABE.

Rajneesh Kumar - presented his paper "Towards on Optimal Energy Management Strategy for Hydraulic Hybrid Powertrains Based on Output-Coupled Power Split Principle" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Edward Hughes - presented the poster "Mini-Excavator Performance Prediction and Verification Through Experiment" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Najoua Jouini - received Honorable Mention for his paper "Valve Plate Surface Temperature Prediction in Axial Piston Machines" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Mark Thomas - received first place in the Graduate Student Paper Competition in Ph.D. Category in the Annual Conference of the ASABE.

Ganesh Seeniraj - presented his paper "Noise Reduction in Axial Piston Machines Based on Multi-Objective Optimization" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Matteo Pelosi - presented his paper "A New Fluid-Structure Interaction Model for the Slipper-Swashplate Interface" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Andrew Fredrickson - presented his paper "A Study of Gap Flow conditions Between the Piston and the Cylinder of an Axial Piston Pump" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Richard Klop - received Honorable Mention for his paper "Investigation of Noise Source Reduction Strategies in Hydrostatic Transmissions" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Laurent Ahiablame - received the Ivanhoe Foundation Fellowship at the annual conference of ASABE.

Kyle Williams - presented his paper "Towards an Optimal Energy Management Strategy for Hybrid Hydraulic Powertrains Based on Dual Stage Power Split Principle" at the 5th FPNI-PhD Symposium in Krakow, Poland.

Daniel Dyminski - presented the poster "Modeling of Bent Axis Axial Piston Machines - New Approach" at the 5th FPNI-PhD Symposium in Krakow, Poland.



Student News

A group of students from ABE attended the ASABE International conference in Providence, Rhode Island - A great time was had by all! The ABE department hosted a breakfast during the conference where alumni, students, faculty and staff enjoyed socializing.

The Pre-professional Council elected new officers, including President James Bartlett, National Alpha Epsilon Honor Society elected Alice Robinson as the new Vice President. Allison Calahan was elected to head a committee which will interact with and help revitalize other AE chapters, and Alpha Epsilon at Purdue University received the "Most Outstanding" Chapter Award! Congratulations to all!



The MAHA Lab would like to recognize six undergraduate researchers for their contributions this summer



**Sihle Wilson -
Florida A&M University**



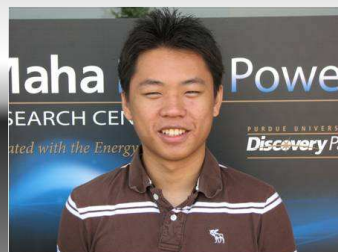
**Laura Rodriguez -
Instituto Tecnológico de
Ciudad Juárez**



**Nicholas Browdues -
Purdue University**



**William Hinson -
Purdue University**



**Ivan Swandono -
Purdue University**

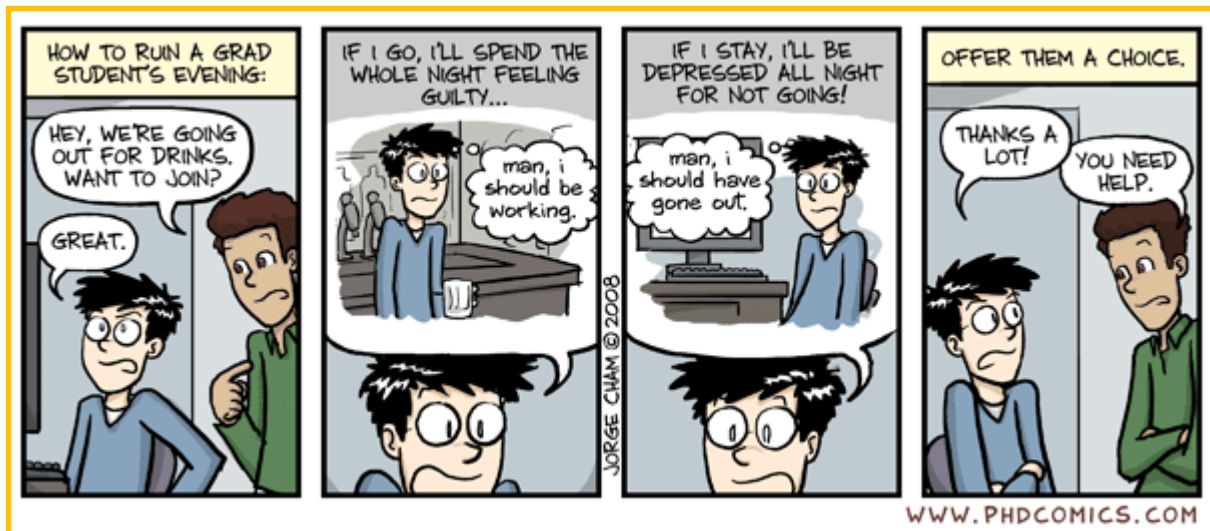


**Michael Cross -
University of Tennessee
at Knoxville**



Mark Thomas - was selected by ASABE as the 2008 Graduate Student Research Award winner! This award recognizes excellence in the conduct and 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. Winners were honored on July 2, 2008 during the ASABE Annual International Meeting awards recognition program held in Rhode Island Convention Center in Providence, Rhode Island.

Undergraduate researcher in Dr. Chang Lu's lab, Yuemin Celina Chee (BEE, Cornell University) won 2008 SURF Best Young Researcher Award. ABE grad student Jun Wang was her graduate student mentor.



Faculty & Staff News

Bernie Tao - has been selected for induction into Purdue's Book of Great Teachers. This is an honor given to Purdue's very best faculty and recognizes their long-term contributions to the University. Bernie will be formally inducted in a ceremony on August 28, 2008.

Al Heber - traveled to Hangzhou to visit Zhejiang University as a guest of Professor Kaiying Wang. Al gave a seminar on his research and visited modern swine and dairy farms.



Denise & Kathy

Denise Heath - celebrated 30 years with Purdue University - congratulations!

Kathy Brewer - celebrated 25 years with Purdue University - congratulations!

Rabi Mohtar - was recently featured in the spring edition of "Purdue Agriculture Connections" magazine. Rabi research in soil and water science earned him the Purdue Agriculture Research Award.



ABE Sympathy

Helen Willsey -
(Wife of Dick, retired ABE Staff member).

Anna Dale -
(Wife of Al, retired ABE professor).

Patricia Cooper -
(Mother of Connie McMIndes, Business Office)

Alumni News

Dr. 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 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.

Matt Kruer (BS ABE '96) - is a Project Engineer for Clarcor Air Filtration System in New Albany, 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 7 at 1:23 pm, she weighed in at 9 pounds and was 21 ¼ inches long. Jason says she is growing like crazy and already has a Boiler outfit!

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

Yulin Lu (MS ABE '06) - recently moved to Boston to start working for Mascoma Corporation as a Research PD Engineer.



ABE Farewell

Sam Hanni - has taken a position at Kansas State University as a Milling Operation Manager working with Dr. Dirk Maier.



Calendar

August 2008	
6-17	Indiana State Fair - contact D. Kirkpatrick at 494-9113
12	Crop Report at the Indiana State Fair, Our Land Pavilion - contact B. Forbes at 494-2722
15	Purdue Day at the Indiana State Fair - contact D. Kirkpatrick at 494-9113
18-19	Agriculture New Faculty Tour
25	Fall Semester begins
29	Faculty Meeting - 12:30 pm - ABE #301
September 2008	
1	University Holiday
4	ABE Welcome Back Picnic
8	Faculty Meeting - 12:30 pm - ABE #301
15-19	Galaxy III Conference in Indianapolis - http://sharepoint.agriculture.purdue.edu/ces/galaxy/default.aspx
16-18	Ohio State Farm Science Review in London, Ohio - contact D. Kirkpatrick at 494-9113
20	Family Day activities from 9:00 am to 11:00 am in Pfendler 2 nd floor gallery - contact L. Barber at 494-8482
26	Faculty Meeting - 12:30 pm - ABE #301
28	Scholarship Banquet at 12:00 pm PMU Ballrooms - contact L. Barber at 494-8284
October 2008	
6	Faculty Meeting - 12:30 pm - ABE #301
13, 14	October Break
20	Faculty Meeting - 12:30 pm - ABE #301
25	Homecoming
November 2008	
3	Faculty Meeting - 12:30 pm - ABE #301
17	Faculty Meeting - 12:30 pm - ABE #301
26-29	University Holiday
December 2008	
1	Faculty Meeting - 12:30 pm - ABE #301
13	Fall Classes End
15	Faculty Meeting - 12:30 pm - ABE #301
15-20	Fall Final Exams - Semester Ends.
21	Fall Commencement
25, 26	University Holiday