



ABe-Notes

Published the 1st Wednesday of each month

Issue 10
October 7, 2009

Projects Funded



Joseph Irudayaraj - \$298,300 - National Science Foundation - "Single molecule tools for evaluating histone modification in single living cells."

Maha Lab - has obtained a new project with AM General in South Bend, Indiana to work on hydraulic hybrid technology.

Joseph Irudayaraj - \$110,000 - Department of Defense - Breast Cancer Research Program - Idea Grant - "Real-time visualization of intracellular phosphorylation in single cells using "protein-line" kinase sensors."

Funding Opportunities

The National Research Council of the National Academies - sponsors a number of awards for graduate, postdoctoral and senior researchers at federal laboratories and affiliated institutions. These awards provide generous stipends (\$30,000 - \$35,000 for graduate students, \$42,000 - \$75,000 per year for recent Ph.D. recipients and higher for additional experience), and the opportunity to do independent research in some of the best-equipped and staffed laboratories in the U.S. Research opportunities are open to U.S. citizens, permanent residents, and for some of the laboratories, foreign nationals. Detailed program information, including instructions on how to apply online and a list of participating laboratories, is available on the NRC Research Associateship Programs Web site at: www.national-academies.org/rap.

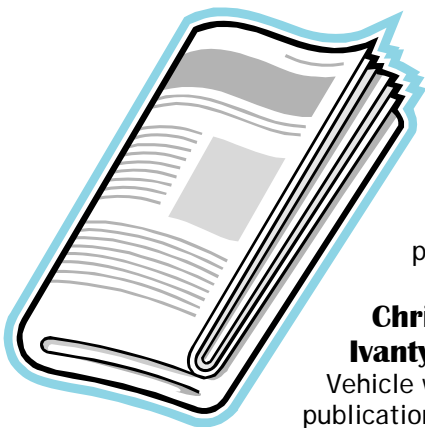
The Office of Agricultural Research Programs and Cooperative Extension Service - is supporting the continuation of the Mission-Oriented, Internal competitive Grant Program for 2010. The proposals should be sent electronically to Jessica Crum (jcrum@purdue.edu) by 5:00 pm on Monday, November 23, 2009. The maximum grant will be \$25,000 for 2010. A Review Panel composed of Department heads and ARP and CES staff will review the submissions with an announcement in January 2010 of the proposals selected. Questions may be addressed to Marshall Martin (marshallmartin@purdue.edu) or Jessica Crum (jcrum@purdue.edu).



NSF Interdisciplinary Research (IDR):

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503439 Deadline December 7. Characteristics of IDR Proposals: IDR submissions should have a level of interdisciplinary content not covered in the core programs of ENG. To be funded, IDR proposals must ultimately attract funding from at least two programs in at least two divisions of the NSF. The primary funding division must be within ENG. IDR proposals may be on any topic relevant to engineering and, in particular, should not be constrained by the current program structures. It is hoped that new fields of research will eventually emerge from IDR awards. While not an absolute requirement, an IDR proposal typically will be submitted by a small team of 2-4 investigators. The typical anticipated total award size will be \$400,000-600,000 (for up to three years), although requests of lesser or greater size, up to a total of \$1,000,000, will be considered, consistent with the scope of the proposed work.

Publications/Papers/Presentations



Monika Ivantysynova and Jonathan Baker - "Power Loss in the Lubricating Gap Between Cylinder Block and Valve Plate of Swash Plate Type Axial Piston Machines" published in the August edition of the International Journal of Fluid Power.

Abou Najm, M., Jabro, J., Iversen, B., Mohtar, R., and R. Evans - New Method for the characterization of 3D preferential flow paths at the Field. Water Resources Research, In Press.

Christopher Williamson, Shinok Lee, and Professor Monika Ivantysynova - paper entitled "Active Vibration Damping for an Off-Road Vehicle with Displacement Controlled Actuators" has been accepted for publication in the November issue of the International Journal of Fluid Power.

Abou Najm, M., Mohtar, R., Cherkauer, K., and French, B. - Effect of integrating hydrologic scaling on students learning and decision making experiences. Advances in Engineering Education Journal. In Press.

Bill Field and Gail Deboy - The 2008 Indiana Farm Fatality Report, compiled by Purdue University's Agricultural Safety and Health Program.

ABE News

Nate Mosier - presented a seminar "The Tactical Garbage to Energy Refinery: "Turning "Waste" into Opportunities" on Monday, September 21st at the Agriculture Green Week seminar.

MAHA LAB - Professor Massimo Milani from the University of Modena and Reggio Emilia in Reggio Emilia, Italy visited Maha lab from August 27-31. One of his students, Federica Franzoni, is a visiting researcher at the lab.

Don Jones - was selected to receive the 2009 Distinguished Service Recognition Award from the Indiana Chapter of Epsilon Sigma Phi.



The Annual Agricultural and Biological Engineering (ABE) Welcome Back Picnic - was once again a huge success. Over 300 ABE undergraduate and graduate students joined the ABE faculty and staff for a wonderful "Welcome Back" event on Thursday evening.

The ABE department was recently named the number one graduate program and the number two undergraduate program by U.S. News and World Report. Joining the department to help celebrate these outstanding achievements was Purdue University President, Dr. France Córdova, who spoke to students about the unlimited career opportunities they would have with their ABE degree.

Also joining in the celebration and congratulations were Dr. Leah Jamieson (John A. Edwardson Dean of Engineering and Ransbury Distinguished Professor of Electrical and Computer Engineering), Dr. Jay Akridge (Glenn W. Sample Dean of Agriculture) and Dr. Dale Whittaker (Associate Dean and Director of Academic Programs).



The Agricultural and Biological Engineering department offers three majors in two colleges; Agricultural Systems Management with the Purdue College of Agriculture, Agricultural Engineering and Biological Engineering with the Purdue College of Engineering.

The International Journal of Fluid Power is celebrating its tenth year of publication -

The Journal was established by Fluid Power Net International as the first English language, scientific and peer reviewed journal dedicated to fluid power technology. Professor Monika Iwantysynova serves as editor-in-chief of the Journal. The Journal has been published online since March 2006 and can be found at <http://journal.fluid-power.net>. The Journal has partnered with three other journals from Japan, Italy and Germany to translate and publish articles in these publications as well. Monika would like to thank everyone who's continued dedication and effort has enabled the International Journal of Fluid Power to successfully continue its mission of providing a platform for quality peer-reviewed information about fluid power technology worldwide.

Breaking New Ground/National AgrAbility Project -in

early September the Breaking New Ground Outreach Program, the National AgrAbility Project, Purdue Health and Safety, the HOSTA project, and the Indiana Rural Health and Safety Council provided and staffed displays at the 2009 Farm Progress Show at Decatur, Illinois. The displays were viewed in the Health and Safety Tent along with Illinois AgrAbility Unlimited and National AgrAbility Project's partner the Northwestern University Rehabilitation Engineering Research Center. The Northwestern Center is "Assessing and Responding to the Prosthetic Needs of Farmers and Ranchers."



Then September 15, 16, and 17, 2009 the National AgrAbility Project staffed a display at the 5th National Small Farm Conference in Springfield, Illinois. Steve Swain the project's assistive technology specialist staffed the display and also offered a poster display titled "Career Decisions Through Enterprising Ideas." September 22, 23, and 24, found the National AgrAbility Project and the Breaking New Ground Outreach Program in Ohio at the 2009 Ohio Farm Science Review.



Klein Ileleji - was recently featured in *Purdue Today* in an article about how a blend of degummed soybean oil and number two fuel oil can be used as an alternative heating fuel.

Scott Brand and Denise Heath - were recently selected to receive the 2009 Meritorious Support Service Recognition Award sponsored by Indiana Chapter of Epsilon Sigma Phi, for their outstanding contributions to the Purdue University Cooperative Extension Service.

John Lumkes - presented a seminar "It's Not Easy Being Green - Transportation Challenges with a Global Perspective" on Thursday, September 24th as part of the Agriculture Green Week seminar.

The Maha Lab - would like to welcome Professor Hui Zhao, a visiting researcher from the Harbin Institute of Technology in Harbin, Heilongjiang, China. Prof. Zhao will perform research at the lab for one year.

Bill Field - received Purdue University's Spirit of the Land-Grant Mission Award which honors the efforts to address public issues through research and Extension by an individual faculty member in the College of Agriculture, College of Consumer and Family Sciences or School of Veterinary Medicine. The award included \$10,000 from Purdue Agricultural Research Programs and the Purdue Cooperative Extension Service to support Field's overall research program, and a \$1,500 honorarium from the Robert O. and Zelma C. Swaim Memorial Fund.

Al Heber - is starting a new study aimed at measuring greenhouse gases from dairy cows. This study is part of an industry-wide effort to reduce greenhouse gas emissions related to fluid milk - see the full article on the ABE web page at www.purdue.edu/abe.

Student News

Isaac Emery's - poster titled "The Impact of Dry Matter Loss During Biomass Storage on Net Greenhouse Gas Emissions from Biofuels Production" was awarded 2nd place at the Purdue Ecological Sciences and Engineering (ESE) symposium poster competition last week. Isaac is a PhD student in ESE and ABE working with Dr. Mosier.

The U.S. Environmental Protection Agency (EPA) - as part of its Greater Research Opportunities (GRO) program, is offering Greater Research Opportunities (GRO) undergraduate fellowships for bachelor level students in environmental fields of study. The deadline for receipt of paper applications is December 10, 2009 at 4:00 PM and December 10, 2009 at 11:59:59 PM ET for submittal of electronic applications to Grants.gov. Subject to availability of funding, the Agency plans to award approximately 30 new fellowships by July 30, 2010. Eligible students will receive support for their junior and senior years of undergraduate study and for an internship at an EPA facility during the summer between their junior and senior years. For all information on how to apply visit: http://www.epa.gov/ncer/rfa/2010/2010_gro_undergrad.html.

ABE Students - be sure to complete a survey at www.InternBridge.com/schedule - the survey collects internship and co-op related information in all of the key areas of experiential learning. The areas to be measured include why students pursue internships and co-op, program structure, supervisors, marketing, orientation, evaluation, compensation, and benefits. This comprehensive survey collects data from students who have experienced an internship and from those who have not. Intern Bridge provides student incentives, such as spring break vacations, MP3 players, and more.

Alumni News

The ABE Department - hosted a Brunch/Open House for Homecoming, which was Saturday, October 3rd. The ABE building was open for tours and many alumni joined faculty and staff members for a nice brunch, viewing of our Senior design projects, Quarter Scale Tractor Contest, BUW and Cameroon, Africa trip, as well as catching up with other ABE alumni.

FYI

MAHA LAB - Several companies visited the Maha Lab recently including MOOG Inc., and Bosch Rexroth Corporation.

Seasonal flu shot appointments to be offered on campus - Beginning Oct. 9, seasonal flu shot appointments will be available on the West Lafayette campus. Free seasonal flu shots are offered to benefit-eligible faculty and staff, graduate staff, official Purdue retirees, and their spouses/same-sex domestic partners. To view a list of flu shot events on the West Lafayette campus, click [here](#).



To register for a seasonal flu shot appointment, go to www.purdue.edu/worklife, log in using your career account and password, and click "Flu Shots." Bring your PUID to the appointment.

Campus flu shot appointments are not for H1N1. The first shipment of H1N1 vaccine is expected to arrive no earlier than late October. There are government-mandated criteria in place for distribution of the vaccine. It will be offered first to those at greatest risk. For the latest information, refer to www.purdue.edu/fluinfo and www.cdc.gov/h1n1flu.

Beginning Nov. 9, PUSH will provide seasonal flu shots based on vaccine availability on a walk-in basis. The Urgent Care Center on the ground floor of PUSH, 601 Stadium Mall Drive, will have flu shots available from 8:30 a.m. to 4:30 p.m. Monday through Friday. You may experience some wait time. Bring your PUID.

Professor Monika Ivantysynova - and her husband, Jaroslav, hosted a beginning of the school year party for the employees of Maha Lab. Everyone had a great time and enjoyed the great September weather.

CIGNA - Purdue's medical plan administrator for 2010, will be on campus in October to give Purdue faculty and staff an opportunity to learn more about the company before benefits open enrollment begins on October 26. Cigna will kick off each session with a 20 to 30 minute presentation about the services and tools it will offer Purdue medical plan participants in 2010.

Employees simply need to stop by, and do not need to register in advance, session times are:

October 7 from 9:00 am to 11:00 am, Room 1142, Lawson Computer Science Building

October 8 from 9:00 am to 11:00 am, Room 1142, Lawson Computer Science Building

October 12 from 2:00 pm to 4:00 pm, Room 224, Class of 1950 Lecture Hall

October 15 from 9:00 am to 11:00 am, Room 1142, Lawson Computer Science Building

October 20 from 9:00 am to 11:00 am, Room 1142, Lawson Computer Science Building

October 22 from 9:00 am to 11:00 am, Room 1142, Lawson Computer Science Building

The Purdue University Police Department - is offering a R.A.D. (Rape Aggression Defense) course in October. The training will be held on three consecutive Sundays: October 11, 18, and 25 from 4 p.m. to 8 p.m. each night. **Attendance is required at each of the three sessions.** R.A.D. training will be held at the Purdue Police Department (205 S. Martin Jischke Dr). R.A.D. is a 12 hour long program which is a comprehensive course of realistic self-defense tactics and techniques. R.A.D. Systems is one of the largest self-defense networks in the United States. The courses at Purdue are free and are taught by certified R.A.D. instructors whose initial focus is on education and awareness, prevention, risk reduction, and avoidance of assault and rape that then progresses to the basics of hands-on defense training. Instructors provide a workbook/reference manual and hands-on training. The R.A.D. system is dedicated to teaching defensive concepts and techniques against various types of assault by utilizing easy, effective, and proven self-defense/martial arts tactics. It will provide the knowledge to make an educated decision about resistance. The program is designed for women and is suitable of all ages (over 12) and abilities.



Affiliation with the University is not required to register, and participants will be registered in the order in which the requests are received. Athletic style clothing is recommended and shorts are not permitted. Please be aware that the R.A.D. course is very physically demanding. To register yourself and/or another woman, please contact Lt. Sarah Sheppard at sasheppard@purdue.edu.

Calendar

October 2009	
10	Football - Purdue vs Minnesota @ Minnesota
17	Football - Purdue vs Ohio State @ Purdue
19	Faculty-Staff Meeting - 11:30 am - ABE #301
21-24	National FFA Convention in Indianapolis - contact T. Egger at 494-8470
24	Football - Purdue vs Illinois @ Purdue
28	High Tech Job Fair for Indiana Companies - PMU Ballrooms
31	Football - Purdue vs Wisconsin @ Wisconsin
November 2009	
2	Faculty-Staff Meeting - 11:30 am - ABE #301
7	Football - Purdue vs Michigan @ Michigan
14	Football - Purdue vs Michigan State @ Purdue
16	Faculty-Staff Meeting - 11:30 am - ABE #301
21	Football - Purdue vs Indiana @ Indiana
30	Faculty-Staff Meeting - 11:30 am - ABE #301

