

**SFI weekly newsletter for the week of December 7, 2009**  
**A weekly service of SFI**



Details of these headlines are posted on the SFI website at <http://www.sfi.mtu.edu/news-newsletter.php>

**SFI NEWS AND ANNOUNCEMENTS**

1. Special Tech-Talks AQIP: "Celebrating our Strengths" 4 to 5 p.m., Tuesday, Dec. 15, in the MUB B.
2. Congratulations to SFIGERT students Valerie Fuchs and Margot Hutchins
3. Center for Water & Society Colloquium: Spring 2010
5. Biomass Energy Demonstration Project grants (total \$74,296)

**SUSTAINABILITY NEWS**

1. Whirlpool Corp. appliances featured in high-quality, affordable, sustainable kit homes

**SEMINARS**

1. Proximity to Environmental Hazards & Reported Illness in Periurban Households of the Dominican Republic
2. Small Garden Drip Irrigation in Benin: Life Cycle Thinking Assessment

**FUNDING & AWARD OPPORTUNITIES**

1. ERDC BAA - Innovative Energy Efficiency and Energy Security Initiatives (CERL-4)
2. Great Lakes Restoration Initiative
3. NSF: Fundamental Research Program for Industry/University Cooperative Research Centers (FRP) - NSF 10-507

**JOBS & POST DOCS, INTERNSHIPS, FELLOWSHIPS, and SCOLARSHIPS**

1. Student Internships Sponsored by DOE and National Renewable Energy Laboratory (NREL)
2. Kathryn Fuller Fellowships: Advancing Conservation through Science \$15,000 or \$20,000 or \$140,000
3. NRC Research Associateship Programs (RAP)
4. Director, Sustainability Studies, U California Berkeley Extension
5. Assist Prof, Env'l Policy & Sustainability Mgmt, The New School
6. IT Support Coordinator, AASHE

**EVENTS & CONFERENCES**

1. Wis. Wetlands Association's 15th Annual Wetland Science Conference Eau Claire *February 11-12, 2010*
2. CFP--Invitation To Present At Great Lakes Areas Of Concern Session IAGLR Conf. U of Toronto May 17-21 2010

Please send announcements of your publications, presentations, awards, and names of awarded proposals to Rick Donovan, Melanie Yang, and Denise Heikinen at [dmheikin@mtu.edu](mailto:dmheikin@mtu.edu), [rpdonvan@mtu.edu](mailto:rpdonvan@mtu.edu), [xunoyang@mtu.edu](mailto:xunoyang@mtu.edu).

**SFI NEWS AND ANNOUNCEMENTS**

1. **Special Tech-Talks AQIP: "Celebrating our Strengths" 4 to 5 p.m., Tuesday, Dec. 15, in the Memorial Union Ballroom B.**  
Two SF IGERT students, Margot Hutchens and Valerie Fuchs, helped design and propose Michigan Tech's AQIP Carbon Neutral project to improve the University's use of energy and materials and enhance its educational and research programs. The AQIP committee undertook a carbon inventory of its infrastructure activities using an online calculator to serve as a benchmark for

evaluating future plans. The project is now in the hands of Michigan Tech's new Green Campus Enterprise. As part of AQIP All faculty, staff and students who want to learn more about AQIP and participate in the celebration are strongly encouraged to attend. If you have any questions about AQIP or this session please contact Donna Michalek at donna@mtu.edu .

## **2. Congratulations to SFIGERT students Valerie Fuchs and Margot Hutchins for passing their PhD Defenses**

Valorie's advisors were John S Gierke & former SFI co-Director James R Mihelcic. Her dissertation is entitled *Nitrogen Removal and Sustainability of Vertical Flow Wetlands for Small-Scale Wastewater Treatment* SFIGERT student Margot Hutchins (MEEM) also defended last week. Margot's dissertation is entitled *Framework, Indicators, and Techniques to Support Decision Making Related to Societal Sustainability* Her advisors were former SFI Director John Sutherland & John Gierke.

## **3. Center for Water & Society Colloquium: Spring 2010**

UN5990 Special Topics – Interdisciplinary, CRN 13812, 1 Credit

Impacts of Climate Change on the Great Lakes Ecosystem

Schedule: Spring 2010, Fridays 4:00-5:00

Course Leaders: Alex Mayer (asmayer@mtu.edu), others to be announced

[http://www.mtcws.mtu.edu/education\\_colloquium.html](http://www.mtcws.mtu.edu/education_colloquium.html)

## **4. Biorefinery, part of SFI's Wood-to-Wheels Center for Energy Excellence project in Alpena, Gets \$18 Million Stimulus Grant**

The federal government has awarded nearly \$18 million to build a refinery in Alpena that will produce biofuels. The U.S. Energy Department announced the grant to American Process Inc. last week. The biorefinery will convert processed wood from Decorate Panels International, a hardboard manufacturing plant in Alpena, to cellulosic ethanol and potassium acetate. The project will go online in 2011. Gov. Jennifer Granholm says the refinery will bring 160 jobs to the Alpena area and strengthen Michigan's effort to be a leader in biofuels production.

Production at the plant will be up to 890,000 gallons of ethanol and 690,000 of potassium acetate, a chemical with many industrial uses. The award was one of 19 integrated biorefinery projects selected to receive up to \$564 million from the American Recovery and Reinvestment Act to accelerate the construction and operation of pilot, demonstration, and commercial scale facilities. The projects – in 15 states – will validate refining technologies and help lay the foundation for full commercial-scale development of a biomass industry in the United States. Federal officials said the selected projects are part of the ongoing effort to reduce U.S. dependence on foreign oil, spur the creation of the domestic bio-industry and provide new jobs in many rural areas of the country.

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## **5. Biomass Energy Demonstration Project grants (total \$74,296)**

These awards, by Bureau of Energy Systems, were awarded to Lansing Board of Water & Light, Wyandotte Municipal Services, and Michigan Technological University. Grants received by the utility companies will demonstrate the feasibility of co-firing various biomass fuels in their existing generating facilities. The Michigan Tech study will evaluate the potential for operating snowmobiles on a higher ethanol-blended fuel (i.e. E15, which is 85% gasoline and 15% ethanol). This demonstration will be conducted in conjunction with the annual Clean Snowmobile Challenge competition in March. [www.michigan.gov/biomass](http://www.michigan.gov/biomass)

## **SUSTAINABILITY NEWS**

### **1. Whirlpool Corp. appliances featured in high-quality, affordable, sustainable kit homes.**

The American Sustainability Initiative--or AmeriSus, for short--will launch in January with a goal of placing 12,000 affordable sustainable homes throughout 15 states over the next two years. Each of these homes will feature energy-efficient Whirlpool brand appliances.

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## **SEMINARS**

### **1. Proximity to Environmental Hazards & Reported Illness in Periurban Households of the Dominican Republic**

Tuesday, December 15, 2009 DOW 873 3:00 pm by remote from U. of South Florida

MS Defense: Glenn Vorhes, Environmental Engineering

Former SFI CO-Director James Mihelcic, Advisor

## **2. Small Garden Drip Irrigation in Benin: Life Cycle Thinking Assessment**

Wednesday, December 16, 2009 DOW 873 9:00 am by remote from U. of South Florida

MS Defense: Olga Castro, Civil Engineering

Former SFI CO-Director James Mihelcic, Advisor

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### **FUNDING & AWARD OPPORTUNITIES**

*To submit research proposals through the Sustainable Futures Institute, add "SFI" to the DEPT/CENTER/INSTITUTE(S) column for identifying the PI's and co-PI's. SFI Director, David Shonnard, will sign the transmittal sheet on page 3. (If David Shonnard is unavailable for signing transmittal sheets, Rick Donovan can also sign for SFI). Submitting proposals under SFI provides wider publicity and recognition for your research as well as a 10% return on your incentive account.*

*Please feel free to contact SFI in regards to proposal development – SFI can serve as a "hub" for bringing together different faculty, merging concepts related to sustainability, providing literature review assistance, etc.*

#### **1. ERDC BAA - Innovative Energy Efficiency and Energy Security Initiatives (CERL-4)**

Sponsor: DOD, Army, Army Corps of Eng (USACE), Eng R&D Center (ERDC), Construction Engineering Research Lab (CERL)

Proposals are sought that address the need for improved energy efficiency and improved energy security by federal, state, and private sector energy users. Federal agencies are required to meet stringent energy efficiency targets mandated by Executive Order. Products/methods/techniques that will improve overall energy efficiency or reduce reliance on nonrenewable energy sources are of interest. These include but are not limited to

- combined heat and power generation;
- fuel cells;
- low Nox boilers/burners;
- natural gas cooling and compressed air;
- storage cooling;
- wind;
- geothermal; and
- solar power generation, and high efficiency heating/ventilating/and air-conditioning systems.

In addition, proposals are also sought for products/methods/techniques that will improve the robustness of energy delivery systems and reduce the risk of loss of energy services due to economic dislocations, depletion of natural resources, natural or man-made disasters, as well as for products/methods/techniques which will facilitate cost effective, reliable, and sustainable utility support to deployed forces in underdeveloped regions of the world.

<http://fundingopps.cos.com/cgi-bin/getRec?id=75649& ksTicket=8c1bdfdd69e2d58982772fb9c933f6ea& ksExpires=2009122500:00:00>

#### **2. Great Lakes Restoration Initiative**

**Public Great Lakes RFP Webinars Wednesday, December 16, 2009 10:00 am – 12:00 pm**

RFP webinars for clarification of the Great Lakes Restoration Initiative Request for Proposals

[http://epa.gov/greatlakes/fund/2010rfp01/2010rfp01\\_webinar.html](http://epa.gov/greatlakes/fund/2010rfp01/2010rfp01_webinar.html)

**Great Lakes Restoration Initiative Request for Proposals**

<http://epa.gov/greatlakes/fund/2010rfp01/index.html>

**Bob Shuchman's** (Michigan Tech Research Institute) write-up of the summer EPA presentations on the GLRI is here:

<http://www.mtri.org/GreatLakesRestorationInitiative.html>

#### **The Great Lakes Multi-Year Restoration Action Plan Outline**

The Great Lakes Multi-year Restoration Action Plan Outline advances the Great Lakes Restoration Initiative by strategically identifying goals, objectives and targets for programs and projects to address the most significant environmental problems in the Great Lakes ecosystem. The U.S. EPA, together with its federal agency partners on the Great Lakes Interagency Task Force,

is leading this effort in consultation with many other stakeholders. This Action Plan Outline covers activities from 2010 through 2014. Similar to the Great Lakes Restoration Initiative 2010 Funding Plan, it builds upon the extensive planning and collaboration that was done by the Great Lakes Interagency Task Force and a wide variety of stakeholders and non-governmental partners in development of the 2005 Great Lakes Restoration Strategy to Restore and Protect the Great Lakes and their subsequent collaboration over the last 5 years. This Action Plan Outline uses the GLRC Strategy as its base and will implement portions of that Strategy. The federal government proposes to use the resulting Action Plan in the development of the federal budget for Fiscal Year 2011 and future years. The Action Plan Outline incorporates outcome-oriented performance goals and measures to direct Great Lakes protection and restoration funding to the following Focus Areas:

- Toxic Substances and Areas of Concern
- Invasive Species
- Nearshore Health and Nonpoint Source Pollution
- Habitat and Wildlife Protection and Restoration
- Accountability, Monitoring, Evaluation, Communication, and Partnerships

Funds will be used to strategically implement both federal projects and prioritized/competitive grants. (Note: These funds will not be directed toward water infrastructure programs that are addressed under the Clean Water or Drinking Water State Revolving Fund program.) Funding will be used or distributed directly by EPA through grants and cooperative agreements or through interagency agreement transfer of funds to other federal agencies for subsequent use and distribution. Most grants will be issued competitively. Annual reports to the President, beginning in 2011, will describe accomplishments to date, activities planned for the upcoming year, and progress toward meeting ecosystem goals.

<http://www.epa.gov/greatlakes/glri/glmyrapo.pdf>

### **3. NSF: Fundamental Research Program for Industry/University Cooperative Research Centers (FRP) - NSF 10-507**

Deadline: Feb 02, 2011 Amount: \$50,000 to \$200,000 for 10 awards.

No Cost sharing required.

Internal coordination required--one proposal per center.

NSF-supported I/UCRCs serve many industry research needs in areas such as advanced electronics; advanced manufacturing; advanced materials; biotechnology; civil infrastructure systems; information, communication, and computing; energy and environment; fabrication and process technology; and health and safety. These investments contribute to advances that are important for the environment, energy, transportation, information technologies, health-related industries, the economy, and other areas that impact our daily lives and quality of life.

Industry-defined fundamental research projects must demonstrate measureable industry collaboration and involvement that accelerates fundamental research. Evidence of industry-defined fundamental research must show that the proposed industry participation extends the centers capabilities into areas or projects that might not otherwise be researched. Should the fundamental research proposals be awarded, there may be opportunities for additional funding for opportunities such as GOALI (NSF-09-516) - Graduate and Undergraduate Student Industrial Fellowship or Research Experienced for Undergraduates (NSF 09-598) - REU

URL for more info <http://www.nsf.gov/pubs/2010/nsf10507/nsf10507.htm>

## **JOBS & POST DOCS & INTERNSHIPS, FELLOWSHIPS, SCOLARSHIPS and CFPs**

### **1. Student Internships Sponsored by DOE and National Renewable Energy Laboratory (NREL)**

Graduate and undergraduate students have the opportunity to participate in the laboratory's research and development programs, initiate new areas of research, and establish a base for ongoing collaborations through NREL's Research Participant Program. Students with new ideas and talents can contribute to research of mutual interest at NREL while also contributing to the transfer of the technology resulting from that research.

Undergraduate and graduate students who are enrolled full-time in a U.S. college or university, have successfully completed at least the sophomore year of school by June of the current year, and plan to continue full-time education the following fall term may apply for open positions.

URL for more info [http://www.nrel.gov/employment/student\\_interns.html](http://www.nrel.gov/employment/student_interns.html)

### **2. Kathryn Fuller Fellowships: Advancing Conservation through Science \$15,000 or \$20,000 or \$140,000 Deadline for applications is January 31, 2010**

WWF-US is pleased to announce the availability of Kathryn Fuller Fellowships for 2010. For nearly 50 years WWF has committed to delivering science-based conservation results while incorporating the latest research and innovations into our work. The Kathryn Fuller Fellowships supports PhD students and postdoctoral researchers

working on issues of exceptional importance and relevance to conservation in WWF-US priority places <http://www.worldwildlife.org/science/fellowships/fuller/priority-places.html> in the following three areas: ecosystem services, measuring and monitoring carbon stocks in forests, climate change impacts on and adaptation of freshwater resource. Fuller Fellows receive \$15,000--\$20,000 or \$140,000 over a period of up to 2 years to cover research expenses. For more information on complete eligibility requirements, selection criteria, and how to apply, please visit the Fuller Fellowship webpage <http://www.worldwildlife.org/science/fellowships/fuller/item1296.html>

### **3. NRC Research Associateship Programs (RAP)**

The mission of the NRC Research Associateship Programs (RAP) is to promote excellence in scientific and technological research conducted by the U. S. government through the administration of programs offering graduate, postdoctoral, and senior level research opportunities at sponsoring federal laboratories and affiliated institutions. In these programs, prospective applicants select a research project or projects from among the large group of opportunities listed on this website. Prior to completing an application, prospective applicants should contact the proposed Research Adviser to assure that funding will be available if their application is recommended by NRC panels. Once mutual interest is established between a prospective applicant and a Research Adviser, an application is submitted through the NRC WebRap system. Reviews are conducted four times each year and review results are available approximately 6-8 weeks following the application deadline.

<http://sites.nationalacademies.org/pga/rap/>

### **4. Director, Sustainability Studies, U California Berkeley Extension**

The University of California, Berkeley Extension Department of Engineering and Technology invites applications for the full-time position of program director to manage courses, contracts, and curricula in the engineering and technology fields. The successful candidate will also manage a portfolio which offers approximately 200 courses to 2300 enrollments annually. Other duties will include program development and administration in engineering and technology and related programs. Applications are due January 4, 2010.

<http://www.higheredjobs.com/search/details.cfm?JobCode=175405411>

### **5. Assist Prof, Env'l Policy & Sustainability Mgmt, The New School**

The New School (NY) seeks applicants for a newly-created, tenure track faculty position in environmental policy and sustainability management. A focus in one or more of the following policy or management areas is desired: sustainability strategy, environmental and resource economics, environmental assessment, environmental health, and urban environmental policy and planning. The position will be housed at the New School for Management and Urban Policy, which is currently integrating with the University's Graduate Program in International Affairs. The successful candidate will teach in and provide intellectual leadership for a planned master's degree program in environmental policy and sustainability management. She/he will also work closely with management and policy faculty. The position is open until filled. <http://www.higheredjobs.com/search/details.cfm?JobCode=175404981>

### **6. IT Support Coordinator, AASHE**

AASHE is seeking an IT support coordinator to work as part of the IT Team to provide technical support for AASHE staff and members. Responsibilities will include working with the AASHE staff to define and prioritize internal IT projects; leading small-scale IT initiatives; supervising IT support interns; assessing organizational IT training needs and developing staff-wide tutorials; serving as the gateway IT Manager regarding the purchase of all software, hardware, and other IT supplies; and evaluating new IT architectures including hardware, software, and networks. A bachelor's degree in computer science or equivalent experience is required. The position is open until filled. The screening of applications will begin January 4, 2010. <http://www.aashe.org/highlights/jobs/it-support-coordinator>

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## **EVENTS & CONFERENCES**

### **1. Wis. Wetlands Association's 15th Annual Wetland Science Conference Eau Claire February 11-12, 2010**

<http://www.wisconsinwetlands.org/2010conference.htm>

### **2. CFP--Invitation To Present At Great Lakes Areas Of Concern Session IAGLR Conf. U of Toronto May 17-21 2010 Session 49. Lessons from the Past, Solutions for the Future: Great Lakes Areas of Concern**

Chaired by: *Patrick Lawrence*, University of Toledo, Dept of Geography & Planning, Toledo, 43606 USA; Phone: [\(419\) 530-4128](tel:4195304128); Fax: (419) [530-7919](tel:4195307919); E-mail: [patrick.lawrence@utoledo.edu](mailto:patrick.lawrence@utoledo.edu). Gail Krantzberg, McMaster University, Hamilton, ON L8S 4L8 Canada; Phone: [\(905\) 525-9140](tel:9055259140), Ext. 22153; E-mail: [krantz@mcmaster.ca](mailto:krantz@mcmaster.ca).

This session will focus on the experience and lessons learned from the planning and management of the Great Lakes Area of Concern with an eye towards how the past can drive and inform the future efforts to address the Beneficial Use Impairments and resolve water quality concerns at the AOCs. Abstracts are due **January 15th** and information on submissions can be found at <http://iaglr.org/conference/callpapers.php>