SFI weekly newsletter for the week of May 25, 2009
A weekly service of SFI

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In an effort to increase recognition and enhance SFI's image, we want to include more publicity about SFI member achievements. Please send announcements of your publications, presentations, awards, and names of awarded proposals to Denise Heikinen at dmheikin@mtu.edu.

SFI NEWS AND ANNOUNCEMENTS
1. Current issue of SFI Chronicle now available—Please distribute widely.

The SFI Chronicle is a periodic compilation of news from SFI that highlights current research and education projects. The March 2009 issue of the Chronicle is now posted at the SFI website. Please distribute it to colleagues and potential university and industry partners. Please send info you think is pertinent for the next Chronicle issue, which is now in preparation. http://www.sfi.mtu.edu/news-chronicle.php

SUSTAINABILITY NEWS
1. Climate Report of the American Colleges and University Presidents Climate Commission
About three-fourths of the 637 signatories of the American Colleges and University Presidents Climate Commission are meeting their reporting deadlines under a national pledge to reduce carbon emissions.


2. How Solid is Concrete’s Carbon Footprint?

Many scientists currently think at least 5 percent of humanity’s carbon footprint comes from the concrete industry, both from energy use and the carbon dioxide (CO2) byproduct from the production of cement, one of concrete’s principal components.

Yet several studies have shown that small quantities of CO2 later reabsorb into concrete, even decades after it is emplaced, when elements of the material combine with CO2 to form calcite.

Illustration showing that concrete absorbs CO2 over time. This is an NSF News item.


3. Granholm: With Renewables, Michigan Will Be ‘Magnificent’

Excerpted from GLIT Report by Matt Roush

Gov. Jennifer Granholm outlined her renewable energy plan during Thursday morning’s opening session of the Detroit Regional Chamber Mackinac Policy Conference at Mackinac Island’s Grand Hotel. Granholm said the state will have lost nearly a million jobs between 2000 and 2010, including three out of four of its auto industry jobs. That means “we cannot do things the way we have. She said she wants to diversify the economy, double Michigan’s number of college graduates and protect people to the extent possible during the current economic changes. A video outlined the state’s efforts to boost wind and solar power and battery technology. In the end Granholm remained optimistic, saying “we are going to be magnificent.”


4. T. Boone Pickens On Mackinac: Natural Gas Plus Wind Equals Less Foreign Oil

Texas oilman and former corporate raider and Republican financier T. Boone Pickens also attended the Mackinac Policy Conference to push his efforts toward wind power, electric and compressed natural gas power, along with clean coal and nuclear power. In a question and answer session with Gov. Granholm and WDIV news anchor Devin Scillian, Pickens joked that he’s rather be remembered “as an oil man rather than a gas man or a wind man,” but said that mainly he’s a geologist (his degree is in that field from Oklahoma State University).

http://www.wwj.com/Pickens-On-Mackinac--Natural-Gas-Plus-Wind-Equals-/4488066

5. U Wisconsin Oshkosh Cancels Plans to Bring KFC to Campus

The University of Wisconsin, Oshkosh has cancelled its plans to sign a 6 year contract with Kentucky Fried Chicken (KFC) after a group of faculty, students, and staff expressed concerns related to animal welfare and argued that the contract would go against the University’s commitment to sustainability. After researching the issue further, students collected over 450 signatures on a petition calling for the University to drop KFC and the University decided to consider other options.

http://www.uwosh.edu/es/students/KFC

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, John Sutherland, will sign the transmittal sheet on page 3. (If John Sutherland is
unavailable for signing transmittal sheets, Qiong (Jane) Zhang 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.

**NOTE: NSF Proposal Submission Change**

Due to an expected increase in grants.gov submissions relating to the processing of Recovery Act proposals, the Office of Management and Budget (OMB) has authorized agencies to use alternative methods for proposal submission and acceptance. Effective immediately, new funding opportunities issued by NSF will require the use of FastLane to prepare and submit proposals. Detailed instructions regarding the technical aspects of proposal preparation and submission via FastLane are available at www.fastlane.nsf.gov/. If you have any questions, contact the Sponsored Programs Office at 487-2226.

1. **Energy for Sustainability**

   **Deadline:** For FY 2009, from Feb 1 to March 2 and August 15 to Sept 15

   This program supports fundamental research and education in energy production, conversion, and storage and is focused on energy sources that are environmentally friendly and renewable.

   Hydrogen and alcohols are potential energy carriers that can be derived from renewable sources. Potential sources of hydrogen include conversion from biomass and from electrolysis, photolysis or thermolysis of water. In addition to hydrogen, biomass can be a source of liquid, solid, and gaseous fuels including biofuels such as ethanol.

   Fuel cells have the potential to convert fuels such as hydrogen and alcohols to electricity at high efficiencies and should play an increasing role in energy conversion. Critical components of fuel cells requiring additional research include catalysts and electrolytes. Development of these components also requires fundamental research on the reaction and transport mechanisms at the catalyst and membrane electrolyte interface. Advances in these areas are needed to address key challenges in efficiency, durability, power density, and environmental impacts. The engineering aspects of fuel-cell design and operation also require further study in areas such as water and thermal management.

   Wind power is a growing source of electrical energy. Increased efficiency requires a fundamental knowledge of the interaction of wind with the blade structure. Understanding the fluid flow, and optimizing blade design are important aspects in developing more efficient wind generators. Photovoltaic devices have the potential to supply a significant fraction of electrical energy to the power grid. Although silicon-based materials have been most widely used, other semiconductor materials and titanium dioxide also have potential. The program supports new materials and novel fabrication techniques for solar energy conversion.


2. **Energy Efficiency and Renewable Energy Research, Development, Demonstration and Deployment**

   **Total Funding Available:** $2.5 billion
   $800 million for projects related to biomass
   $400 million for geothermal activities and projects
   $1.3 billion for base program activities, such as research and demonstrations into additional renewable technologies

   Provides funding for research, development, and demonstrations of renewable energy technologies (including biomass, geothermal, water power, and solar energy) and energy efficiency demonstrations for industrial and commercial practices (such as combined heat and power projects). Grants may also be used to accelerate research and development for advanced batteries necessary for the conversion to electric vehicles and the storage of energy to increase the effectiveness of renewable energy projects. Specific funding is set aside for projects related to biomass and geothermal activities.

   For More Information: See the DOE website at: [www.doe.gov](http://www.doe.gov) For more detailed information on specific Department of Energy (DOE) grants, including guidance, Requests for Applications, and initial consultation with DOE staff, go to DOE’s Recovery Act Clearinghouse at: [https://recoveryclearinghouse.energy.gov/](https://recoveryclearinghouse.energy.gov/)


   **Required Letter of Intent Due July 01, 2009**  **Full Proposal Deadline August 24, 2009**

   **Estimated Number of Awards:** 100 to 120 *ranging from* $250,000 to $2,000,000;
approximately 6-10 awards ranging from $2 million to $5 million; approximately 3-5 awards ranging from a total of over $5 million to $10 million. The award duration for ARI-R² grants up to $2 million is up to three years; award duration for grants over $2 million up to $10 million is up to four years.

No Cost Sharing
The purpose of this program is to enhance the Nation’s existing research facilities where sponsored and/or unsponsored research activities and research training take place to enable next-generation research infrastructure that integrates shared resources across user communities. Consistent with NSF’s mission to strengthen the U.S. science and engineering enterprise, the ARI-R² program will:

- Update existing research facilities at institutions of higher education (including graduate and undergraduate institutions, among which are included community colleges) and other non-profit research organizations (e.g., independent research museums, independent research laboratories, and research consortia) in order to support research that can address the challenges of the 21st century.
- Enable academic departments, disciplinary and cross-disciplinary units, or multi-organization consortia to renovate research facilities through the addition or augmentation of cyberinfrastructure, other than general-purpose computing systems or data storage systems, to create environments that enhance research and integrate research with education.
- Improve access to and increase use of next-generation research facilities for researchers, educators and students.
- Assist research organizations, including those that have historically received limited Federal research and development funds, to improve their science and engineering research environments.

Contact David Shonnard if interested in submitting a multidisciplinary proposal to create a better research infrastructure for forest-based advanced biofuels research at Michigan Tech.

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**JOBS & POST DOCS & INTERNSHIPS, FELLOWSHIPS, SCHOLARSHIPS and CFPs**

1. **Program Officer and National Sea Grant Social Science Specialist**
   Deadline: Wednesday June 10, 2009
   NOAA’s National Sea Grant College Program is reopening its advertisement for a Social Scientist/Program Officer to work in the Silver Spring, MD, headquarters office. The position will serve as both a Program Officer and the National Sea Grant Social Science Specialist. To learn more about the National Sea Grant Office, please go to: [http://www.seagrant.noaa.gov/index.html](http://www.seagrant.noaa.gov/index.html) If you have any questions about this position, please contact Nikola Garber at 301-734-1079 or nikola.garber@noaa.gov.

2. **Sustainability Coordinator, U Memphis**
The University of Memphis (TN) seeks a Sustainability Coordinator to coordinate all activities related to sustainability and recycling; supervise employees; and work with students, faculty, and staff to enhance sustainability efforts campus-wide. A Bachelor’s degree is required as is three years of experience managing a recycling program. Applications are due May 29, 2009, TODAY!!

3. **Postdoctoral Fellow, Sustainability, U South Carolina**
The University of South Carolina School of the Environment invites applications for a Postdoctoral Fellow position in the area of Sustainability or Sustainable Development. USC seeks a researcher with expertise in the analysis of environmental, social, and/or economic information to address significant issues related to ecological systems, population development, resource utilization, and/or social and economic impacts as they relate to Sustainability science. A Ph.D. degree is required. Applications should be received by June 8, 2009.
http://www.environ.sc.edu/faculty_positions.htm

4. **Energy Conservation Outreach Specialist, Office of Sustainability, Portland State U**
The Portland State University Office of Sustainability, in partnership with the AmeriCorps Northwest Service Academy, seeks an Energy Conservation Outreach Specialist. The successful candidate will serve as the energy conservation outreach
point person at PSU, create web-based and printed materials, speak to classes and departments, compile a monthly e-bulletin, implement an energy conservation competition in the fall and spring semesters, and plan the competition for fall 2010. Strong oral, written, and graphic communications skills are required, as is experience with resource conservation in a campus environment. The position is open until filled.

http://www.northwestserviceacademy.org/positions/PSU.pdf

5. Asst/Assoc Prof, Env'l Policy, Sir Wilfred Grenfell College
Sir Wilfred Grenfell College (NL) seeks to fill a tenure track position in Environmental Policy at the rank of Assistant or Associate Professor to commence December 1, 2009. Applications are encouraged from candidate specializing in environmental policy from a variety of fields including law, public policy, geography, political science, economics, sociology, and environmental studies. Specific area of expertise may include environmental law, renewable and non-renewable resources, land use planning, international environmental policy, climate change, or conservation. The successful candidate will teach at both the graduate and undergraduate level. A Ph.D. or near completion is required. Candidates should have demonstrated research success in Environmental Policy. The deadline for receipt of applications is August 1, 2009. http://www.swgc.mun.ca/admin/Pages/tenure.aspx

CALL FOR PAPERS
1. Call for Green Curriculum Articles for the Journal of Metropolitan Universities
The quarterly journal Metropolitan Universities is soliciting article proposals for an upcoming issue that will examine how universities are using green-inspired curriculum to promote a socially-just and environmentally-sustainable society, both in their local communities and globally. Possible topics for the special issue include, "Why should urban and metropolitan universities incorporate green issues in their curriculum? Why not?," "What challenges do urban and metropolitan campuses face when designing and implementing green-inspired curriculum?," "How should faculty integrate green learning in their curriculum? What models are proving to be successful?," and "How have universities partnered with communities and/or other universities to increase public literacy about environmental sustainability and its impact on social justice and social capital?" Proposals should be 300-500 words in length and final manuscripts should be 4,000-7,000 words in length. Proposals are due June 15, 2009.

http://www.compact.org/events-jobs-grants-more/call-for-proposals/special-issue-on-green-learning-at-metropolitan-universities/6399/

NEW RESOURCES
1. Data.gov, “a one-stop shop for free access to data generated across all federal agencies”
The Obama administration has begun its first agency feeds onto Data.gov, a new Web site that promises to release vast amounts of raw data, so taxpayers can see what’s going on more instantly and clearly, and, ideally, come back with suggestions on how to fix government problems. The new site began modestly with about 50 feeds that allow the public to see what the government knows about mineral resources, migratory birds, earthquakes and other things. The next 240,000 feeds are on tap for next month. The White House budget director, Peter Orszag, says the goal is to have “a one-stop shop for free access to data generated across all federal agencies.”

http://www.data.gov/

EVENTS & CONFERENCES
DEADLINE SUBMISSION: 15th July 2009
We encourage you to submit your abstracts and participate in the annual edition of ICERI 2009, the International Conference of Education, Research and Innovation, that will be held in Madrid (SPAIN), on the 16th, 17th and 18th of November, 2009. The objective of ICERI 2009 is to share your experiences in the fields of Education, Research, Innovation, Technology and International Collaboration. It is an International Forum for lecturers, researchers, professors, engineers, educational scientists and technologists. You can either present your projects person--oral and poster presentations—or virtually: if you cannot attend in person.

www.iated.org/iceri2009
2. Promoting & Marketing Alternative Transportation Options Webcast
July 14, 2009; 1-2:30pm Eastern; Online
Academic Impressions will host a webcast entitled, "Promoting and Marketing Alternative Transportation Options." The event will teach participants to analyze the campus culture; craft a message about transportation alternatives; consider how to effectively communicate the message; and identify communication channels and tactics that will be effective for your campus. The webinar will be led by Holly Parker, Director of Sustainable Transportation Systems at Yale University (CT).

http://www.academicimpressions.com/web_conferences/0709-marketing-tdm.php?q=3245v274891yT

3. Conference on Sustainable Laboratories
September 22-24, 2009; Indianapolis, IN
The International Institute for Sustainable Laboratories invites participants to its Labs21 2009 Annual Conference. The event will include a parallel reception with Ball State University's and AASHE's "Greening of the Campus VIII: Embracing Change" conference; keynote speaker John C. Lechleiter, CEO of Eli Lilly; open discussion, and presentations on laboratory operations and maintenance, research and development campuses' sustainability efforts and the need for investors/developers, laboratory security, and combined heat and power. Early registration ends May 29, 2009. TODAY!! http://www.i2sl.org/labs21/conference/conference2009.html