

SFI weekly newsletter for Week of February 6, 2009
A weekly service of SFI

Details for these headlines will soon be available at www.sfi.mtu.edu

SFI NEWS AND ANNOUNCEMENTS

1. An urgent plea from Shawn Otto of Science Debate 2008 to ask Senators to fund science in stimulus bill <http://www.talkingpointsmemo.com/docs/Collins-Nelson-Cuts/?resultpage=1&>
2. Winterization project helps low-income residents in Copper Country <http://www.newpowertour.com/>
3. Call for Posters! The Center for Water & Society World Water Day Poster Competition Monday, March 23, 2009

SUSTAINABILITY NEWS

1. Brownfield Redevelopment in Michigan with renewable energy offers great potential according to a new study
2. Granholm announces goal to reduce fossil fuel electricity by 45% by 2020 <http://www.michigan.gov/>
3. MSU develops process to pretreat corn waste before conversion to ethanol www.bioeconomy.msu.edu

FUNDING & AWARD OPPORTUNITIES

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2. Ducks Unlimited Institute for Wetland and Waterfowl Research (IWWR) graduate research fellowship support
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11. ERDC BAA - General Coastal Engineering, Coastal Geology, and Dredging Investigations (CHL-15)
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JOBS & POST DOCS

1. Research Associate (solar energy, energy efficiency, transportation) Houston Advanced Research Center

INTERNSHIPS, FELLOWSHIPS, SCHOLARSHIPS & OTHER STUDENT OPPORTUNITIES

1. Call for Student Proposals: DeVlieg Foundation Research Awards
2. D80 Center offers "Collaborative Technology Innovation for Public Health Improvements in Tanzania" NSF
3. Nominations Open for Dean's Fellowship from Graduate School
4. Nominations Open for Recruiting Fellowships

NEW RESOURCES

1. Cfp International Journal of Sustainable Strategic Management www.inderscience.com/ijssm
2. Presentation Materials from AASHE 2008 Conference available at AASHE.org
3. Call for Posters: ESC/BRC Graduate Research Forum Feb. 27

EVENTS & CONFERENCES

1. Engineering Sustainability 2009: Innovations that Span Boundaries
2. Michigan Agri-Energy Conference March 30-31 Kalamazoo www.agenergy.org
3. Seminars on Sustainability at Lawrence Tech, March 10 www.detroitashrae.org
4. Green Today, Jobs Tomorrow conf. May 11 at the Lansing Center www.michigan.gov/greenjobsconference
5. Michigan Wind Energy Conference March 3 & 4 in Detroit www.gleaa.org
6. Green Power Conferences :: Renewable Energy and Energy Efficiency Conferences and Exhibitions

The weekly newsletters are now posted at our Website (<http://www.sfi.mtu.edu/>). 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, or call (906)487-0044.

SFI NEWS AND ANNOUNCEMENTS

1. An urgent plea from Shawn Otto of Science Debate 2008 to ask Senators to fund science in stimulus bill

Shawn Otto of ScienceDebate2008 shawn@sciencedebate2008.com sent an urgent plea asking people to request their senators to vote for the science items in the stimulus bill that Senators Ben Nelson (D-NE) and Susan Collins (R-ME) want to cut. The proposed cuts are listed below and in the URL of this message.

NASA exploration \$750,000,000 = 50%

NSF \$1,402,000,000 = 100%

NOAA \$427,000,000 = 34.94%

NIST \$218,000,000 = 37.91%

DOE energy efficiency & renewable energy \$1,000,000,000 = 38%

DOE office of science \$100,000,000 = 100%

<http://www.talkingpointsmemo.com/docs/Collins-Nelson-Cuts/?resultpage=1&>

Member Name	DC Phone	DC FAX	Electronic Correspondence
Senator Carl Levin (D- MI)	202-224-6221	202-224-1388	http://levin.senate.gov/contact/index.cfm
Senator Stabenow (D- MI)	202-224-4822	202-228-0325	http://stabenow.senate.gov/email.cfm

2. Winterization project helps low-income residents in Copper Country

SFI's Melissa Davis's winterization project for low-income residents in Copper Country was highlighted in the Daily Mining Gazette on January 31. Melissa, managing director of New Power Tour, said her non-profit's mission is to increase the use of energy efficiency and renewable technologies. The funding for the project came from River Valley Bank in Calumet. <http://www.newpowertour.com/>

3. Call for Posters! The Center for Water & Society World Water Day Poster Competition Monday, March 23, 2009

Dow Building Lobbies 9:00 – 5:00

Graduate and undergraduate students are encouraged to become affiliated with the Center for Water and Society and enter the poster competition for cash awards. Two categories of prizes will be awarded: (1) Original Research (ex. thesis research) and (2) Coursework/Informational (ex. Course work or literature based research).

More details and registration form at <http://www.mtcws.mtu.edu/education.html>

SUSTAINABILITY NEWS

1. Brownfield Redevelopment in Michigan with renewable energy offers great potential according to a new study

Brownfield Redevelopment with renewable energy offers great potential according to a new study by the MSU Land Policy Institute. The study estimates the renewable energy potential of brownfield sites in Michigan is 5,855 MW, equivalent to powering 1.8 million homes, or almost 50% of Michigan homes. Estimated economic impacts include over 17,500 construction, maintenance and operation jobs and more than \$15 billion in new investment dollars.

www.landpolicy.msu.edu

2. Granholm announces goal to reduce fossil fuel electricity by 45% by 2020

Governor Granholm in her State of the State address announced a very aggressive goal to reduce reliance on fossil fuels for generating electricity by 45% by 2020.

<http://www.michigan.gov/>

3. MSU develops process to pretreat corn waste before conversion to ethanol

Michigan State University process to pretreat corn-crop waste before conversion into ethanol will cut the cost of making biofuels from cellulose. The AFEX (ammonia fiber expansion) pretreatment process, developed by Bruce Dale, professor of chemical engineering, uses ammonia to make the breakdown of cellulose in plants 75% more efficient than when conventional enzymes alone are used. www.bioeconomy.msu.edu

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. The transmittal sheet must then be signed by the SFI Director, John Sutherland, 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.

1. Natural Environment Research Council (NERC) Changing Water Cycle Programme

Deadline TBA

The NERC is developing the Changing Water Cycle Programme, a major new research programme, as part of the Living With Environmental Change partnership. The NERC has committed to invest £10 million in the programme. The programme has been defined within three of NERC's theme action plans: Climate System, Sustainable Use of Natural Resources and Natural Hazards. It will have the following high level science goals, which will be addressed across all three themes: Climate System, Sustainable Use of Natural Resources and Natural Hazards. The programme will address the urgent needs to understand the changes taking place now; predict changes that will take place over the next few decades; and work with partners to build resilience, mitigate problems, and develop adaptive solutions. It will have both global dimensions and dimensions that focus specifically on the UK/European region. It will foster interdisciplinary research that links applied water resources issues seamlessly to fundamental climate system science. <http://www.nerc.ac.uk/research/themes/news/090205/>

2. Ducks Unlimited Institute for Wetland and Waterfowl Research (IWWR) graduate research fellowship support

Deadline Continuous

The institute's objectives are to discover new information that will help solve fundamental problems facing North American waterfowl and their habitats; to help develop highly skilled professionals in wetland and waterfowl conservation biology; and to communicate the results of the institute's research, and other important information on wetland and waterfowl biology and conservation.

<http://fundingopps.cos.com/alerts/16019>

3. Projects Sought to Address Persistent Toxic Substance Deposition to the Great Lakes

Great Lakes Commission (GLC) Great Lakes Air Deposition (GLAD) program

<http://www.glc.org/glad/>

4. ERDC BAA - Techniques for Contaminated Dredged Material Disposal and Treatment (EL-7)

United States Department of Defense (DOD) Department of the Army U.S. Army Corps of Engineers (USACE)

Deadline continuous

Specific areas of required or anticipated research include the following:

- innovative techniques, equipment, and control measures for dredging, transport, and placement of contaminated sediments.
- Development of cost-efficient technologies for control-treatment of contaminated dredged material
- Development or enhancement of computer models
- Development and/or application of new or improved environmental chemistry methodologies
- Demonstration of bioremediation technology to recalcitrant organic compounds in confined disposal facilities
- <http://fundingopps.cos.com/alerts/28451>

5. ERDC BAA - Engineering Geology (GSL-6)

DOD and Department of the Army U.S. Army Corps of Engineers (USACE)

Deadline continuous

The Geotechnical and Structures Laboratory conducts a broad range of research in the field of engineering geology in support of federal or other government technical missions. Specific areas of interest within this field include application of remote sensing to geologic and geomorphic assessments; geo-archeological investigations; applied

and numerical geomorphic analysis; computer applications in geotechnical engineering; 3-D visualization systems; uses of geographic information systems; geohydrology in military and civil applications; geologic mapping; geologic applications of mathematical techniques and geostatistics; groundwater monitoring, including well installation and design; geologic application of groundwater models; integration of geological and geophysical subsurface exploration techniques; land-loss studies; remedial measures at groundwater contamination sites; seismic hazard characterization and evaluation; subsurface exploration methods (drilling and sampling techniques); test site selection; and conceptual and geologic and hydrogeologic models.
<http://fundingopps.cos.com/alerts/28417>

6. ERDC BAA - Innovative Technologies for Treating Hazardous Waste and Contaminated Surface and Ground Waters (EL-3)

Deadline continuous

DOD and Department of the Army U.S. Army Corps of Engineers (USACE)

The Environmental Laboratory is continuing to conduct research, develop technologies and apply strategies to treat complex organic and metal-contaminated hazardous liquids, off-gases, soils sludges, sediments, and residuals from past disposal practices. Research is divided into two major categories, technologies for treating contaminated soils and sediments, and innovative technologies for treating contaminated surface and ground waters. Areas of research include

- physical and chemical technologies to minimize or reduce the quantity and toxicity of hazardous waste;
- biological processes and methods to detoxify or destroy hazardous waste constituents;
- techniques for in situ treatment of ground-water aquifers;
- laboratory design criteria for and field implementation of piloting equipment for promising technologies; (5) computer-based techniques to assess operational performance of various treatment processes or systems; and
- improved analytical chemistry techniques and methodology to assess treatment technologies.

<http://fundingopps.cos.com/alerts/28446>

7. ERDC BAA - Numerical Water Quality and Contaminant Modeling (EL-8)

DOD and Department of the Army and U.S. Army Corps of Engineers (USACE)

Deadline continuous

The Environmental Laboratory announces research opportunities involving numerical water quality and contaminant modeling. This area of research involves development and application of water quality and contaminant fate/transport models for both surface water and the subsurface, or groundwater. Emphasis is on formulation of the appropriate physical, chemical and biological algorithms; improvement of mathematical and numerical methods; collection and assemblage of data for model evaluation; conduct of field and laboratory process investigations designed to develop/improve model descriptions; dynamic linkage of water quality and biological models, including biomass-based, individual-based, and population-based biological models; integration of contaminant exposure models with biological effects data or models to quantify risk; incorporation of uncertainty analysis into modeling; and development of software to provide graphical user interfaces and modeling environments to enhance model utility and ease of application.

<http://fundingopps.cos.com/alerts/28452>

8. ERDC BAA - Structures Research (Civil Works) (GSL-19)

DOD, Department of the Army, U.S. Army Corps of Engineers (USACE)

Deadline continuous

The Structures Laboratory announces structures research opportunities.

- Develop design/analysis methods for eliminating or reducing structural vibration of steel gates
- Develop validated nonlinear design and analysis tools for gravity and arch dams:
- structural reliability/risk analysis for assessing sensitivity of structural design/analysis procedures
- Nonlinear/linear system identification research is needed for improving current vibration testing
- develop simplified/advanced computerized methods for soil-structure interaction (SSI) analysis
- development of computer programs for design of hydraulic structures and related structures

<http://fundingopps.cos.com/alerts/28441>

9. ERDC BAA - Soil and Rock Mechanics (GSL-5)

DOD and Department of the Army and U.S. Army Corps of Engineers (USACE)

Deadline continuous

The Geotechnical and Structures Laboratory announces research in soil and rock mechanics.

<http://fundingopps.cos.com/alerts/28415>

10. Higher Education Research Experiences for Faculty at Oak Ridge National Laboratory

Oak Ridge Associated Universities (ORAU) and Oak Ridge Institute for Science and Education (ORISE)

Faculty Opportunity--College or university full-time faculty members are eligible to apply. U.S. citizens and permanent residents are eligible to apply.

Amount: The stipend is based on the participant's regular salary, and is negotiable.

This program provides opportunities to participate in ongoing energy research. Desired disciplines include computer sciences, engineering, mathematics, and physical and natural sciences.

<http://fundingopps.cos.com/alerts/54714>

11. ERDC BAA - General Coastal Engineering, Coastal Geology, and Dredging Investigations (CHL-15)

DOD and Department of the Army and U.S. Army Corps of Engineers (USACE)

Deadline continuous

The Coastal and Hydraulics Laboratory announces opportunities for research in general coastal engineering, coastal geology, and dredging investigations.

<http://fundingopps.cos.com/alerts/28410>

12. Coastal and Estuarine Land Conservation Program (CELCP)

U.S. Department of Commerce and NOAA and Ocean and Coastal Resource Management

http://www.coastalmanagement.noaa.gov/land/celcp_fundingop.html

JOBS & POST DOCS

1. Research Associate (solar energy, energy efficiency, transportation) Houston Advanced Research Center

HARC, a private, not-for-profit applied scientific research facility dedicated to sustainable development, is located in The Woodlands, Texas, 30 miles north of Houston. HARC offers competitive compensation and excellent benefits, as well as the opportunity to work in a stimulating collaborative environment. A description of HARC research programs is available at www.harc.edu. More information about The Woodlands is available at www.woodlandsonline.com. Duties include, but are not limited to: the position includes management of construction (renovation) projects and would involve preconstruction meetings, project claims reviews, project close-out documentation, schedule monitoring, progress meetings, project close out, drawing reviews, etc. This staff position will be directly involved in a range of projects that currently include solar energy, energy efficiency - including renovation of commercial buildings, hydrogen and fuel cells education/outreach, and transportation. The position is intended to rapidly develop project management skills and project support tasks as the staff member demonstrates capabilities for working across a broad spectrum of responsibilities. The individual will be involved with various teams on projects directed by senior staff.

Minimum of Masters Degree in technical, engineering, or environmental sciences.

Please submit a résumé through the HARC website: <http://www.harc.edu/jobs>

INTERNSHIPS, FELLOWSHIPS, SCHOLARSHIPS & OTHER STUDENT OPPORTUNITIES

1. Call for Student Proposals: DeVlieg Foundation Research Awards

Deadline Feb. 16

The DeVlieg Foundation is accepting both undergraduate- and graduate-student proposals for the DeVlieg Research Awards in Wildlife and Environmental Studies. These proposals should be related to wildlife or environmental research that will be conducted either in summer 2009 or during the 2009-10 academic year (beginning in the fall semester). These grants, ranging from \$1,500 to \$5,000, are administered by Michigan Tech. Priscilla Khoury at pjkhoury@mtu.edu. Questions should be directed to Khoury by email or at 487-1608.

2. D80 Center offers “Collaborative Technology Innovation for Public Health Improvements in Tanzania” NSF
Deadline--Wednesday February 25, 2009

The D80 Center is offering a new program for graduate students and faculty to partner with counterparts in Tanzania to begin assessing public health problems and potential solutions. Four graduate students will be selected to participate on the 2009 team. Travel, housing, meals, stipend, and a small research fund are provided. Any graduate student in the natural or human sciences, or any engineering field, is encouraged to apply.

3. Nominations Open for Dean's Fellowship from Graduate School

The Graduate School will offer up to 10 Dean's Fellowships to assist with the recruitment of highly talented applicants to Michigan Tech's PhD programs. The fellowship will provide partial support for the recipient's first year in a PhD program. The support will include a stipend of \$2,000 per academic-year semester (fall and spring) as well as full summer support (minimum stipend plus minimum full-time tuition and fees).

For more details on the program, see www.gradschool.mtu.edu/financial/deans-fellowship.html . Full guidelines for material to be included in the nominations and how nominations will be reviewed can be found at www.gradschool.mtu.edu/financial/Deans-Fellowship-01_07_09.pdf .

Nominations for students beginning in fall 2009 are due by 4 p.m. on Feb. 27. Contact Debra Charlesworth (ddc@mtu.edu) or Heather Suokas (hlsuokas@mtu.edu) with any questions about the program or nominations.

4. Nominations Open for Recruiting Fellowships

The Graduate School is accepting nominations for Recruiting Fellowships. Three Recruiting Fellowships of \$2,000 each are available to help attract outstanding PhD candidates to Michigan Tech. These fellowships are available through the generosity of the class of 1950. Preference will be given to students who have the greatest potential to contribute to the goals of the Michigan Tech strategic plan. This fellowship must supplement support from another source, such as a GTA or GRA appointment. Nominations are due to Debra Charlesworth (ddc@mtu.edu) in the Graduate School by 4 p.m. on Friday, Feb. 20, and will be reviewed by a faculty panel that will make recommendations to the dean of the Graduate School. Only new PhD students entering in summer or fall 2009 are eligible. Each program may nominate up to two students. Each nomination must be accompanied by the application found at www.gradschool.mtu.edu/forms/recruiting.pdf .

NEW RESOURCES

1. CFP INTERNATIONAL JOURNAL OF SUSTAINABLE STRATEGIC MANAGEMENT

The International Journal of Sustainable Strategic Management (IJSSM) is a forum for publication of refereed, cross-disciplinary work in the field. The IJSSM serves as an interface among business leaders, policy makers, economists, and management scholars. The IJSSM seeks contributions with global relevance concerned with organizational and economic sustainability. Readership includes professionals, academics, researchers and policy makers. The IJSSM publishes original and review papers, technical reports, case studies, book reviews, and research notes. Both qualitative and empirical submissions are invited. The IJSSM publishes papers on topics including but not limited to:

- Crisis management from perspectives of society, government, and the organization
- Economic theory and strategic industrial resource development
- Economic theory and strategic ecology
- Ethical and social responsibility considerations in sustainable management practice
- Resource management from a public policy perspective
- Role of information management in sustainable development
- Strategic management from the perspective of sustainability of performance
- Sustainability of competitive advantage from organizational and other perspectives

For additional information, please contact the editor, Dr. John A. Parnell, at john.parnell@uncp.edu or access the journal homepage on-line at www.inderscience.com/ijssm.

2. Presentation Materials from AASHE 2008 Conference available at AASHE.org

AASHE has posted more than 150 slide sets, papers, posters, and other materials from presentations at AASHE 2008 on the conference website. Presentation materials can be located through three different methods: keyword index of presentation materials, concurrent session schedules, and abstracts.

See also: Concurrent Sessions

See also: Conference Session Abstracts

3. Call for Posters: ESC/BRC Graduate Research Forum Feb. 27

Abstracts due by noon on Thursday, Feb. 26

Join the Ecosystem Science Center (ESC), the Biotechnology Research Center (BRC) and the School of Forest Resources and Environmental Science for the Fifth Annual ESC/BRC Graduate Research Forum, to be held Friday, Feb. 27, from 3 to 5 p.m. in the atrium of the U. J. Noblet Forestry Building. For more information, contact Jill Fisher, jhfisher@mtu.edu.

EVENTS & CONFERENCES

1. Engineering Sustainability 2009: Innovations that Span Boundaries

April 19-21, 2009 David L. Lawrence Convention Center, Pittsburgh Pa.

Mascaro Center for Sustainable Innovation and Carnegie Mellon Steinbrenner Institute

Conference Topical Areas:

- * Green building design and construction
- * Greening the indoor environment
- * Sustainable distributed power for the built environment
- * Sustainable urban drinking water, stormwater & wastewater infrastructure
- * Design of more sustainable transportation grids
- * Using principles of sustainability to foster innovation and economic development

<http://www.mascarocenter.pitt.edu/conference/>

2. Michigan Agri-Energy Conference March 30-31 Kalamazoo www.agenergy.org

Join other farmers, service providers, rural and agricultural leaders, researchers, and state policy makers to learn more about the latest trends in renewable energy. www.agri-energy.info

- Biomass Production and Logistics
- Conversion technologies
- Forest Product Resources
- Anaerobic Digestion,
- Large Wind
- Small Wind
- Solar/Geothermal
- Food and Fuel

3. Seminars on Sustainability: SOS for the Environment conference at Lawrence Tech, March 10

5th Annual Seminars on Sustainability: SOS for the Environment conference will be held at Lawrence Tech on March 10. The conference offers concurrent seminars in Sustainable Building Design, Codes & Standards for Sustainability, and Maintenance for Sustainable Buildings www.detroitashrae.org

4. Green Today, Jobs Tomorrow conference May 11 at the Lansing Center

The conference will focus on workforce and economic development for Michigan's emerging green economy. The conference is aimed at bringing together business, education and training, labor, environmental, community, and policy advocacy partners who are currently working on nurturing a green economy and talent base in Michigan. Van Jones (founder and president of Green For All and the author of The Green Collar Economy), Sen. Stabenow, and Kate Gordon (Co-Director of the Apollo Alliance) will speak. To sign up for email updates about the conference, please visit www.michigan.gov/greenjobsconference.

5. Michigan Wind Energy Conference March 3 & 4 in Detroit www.girea.org

The conference will meet the needs of a diverse audience including wind energy developers, manufacturers and potential suppliers to the wind industry, local government officials and planners, utility staff, building owners and managers considering a wind turbine for their own facility, contractors, attorneys, consultants, colleges and universities, and state and federal agencies. The conference will have six workshop tracks: commercial wind, community wind, small wind, off-shore wind, manufacturing, and legal, finance, & training.
www.glrea.org

6. Green Power Conferences :: Renewable Energy and Energy Efficiency Conferences and Exhibitions

Corporate strategies for clean, green production Chicago, USA, April 29-30 2009

The Sustainable Manufacturing Summit will examine the latest developments in sustainable strategies for manufacturers of all sectors. This event offers access to the corporate executives and green experts leading the transformation to sustainable and cost-efficient manufacturing. The summit format is a combination of case studies and expert panels tackling key green topics for manufacturers including energy efficiency, clean technologies and renewables, carbon management and offsetting, climate policy updates and supply chain management. This is a must-attend event for those charged with developing corporate environmental strategies and their advisers.

http://www.greenpowerconferences.com/corporateclimateresponse/sustainable_manufacturing_summit_US09.html