

SFI weekly newsletter for the week of November 2, 2009
A weekly service of SFI



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NEW RESOURCES

1. Workshop on Adobe Connect Pro noon to 12:55 p.m., Thursday, Nov. 19

EVENTS & CONFERENCES

1. Climate & Energy Truths: Making the Necessary Connections (Conf call) November 17, 2009

3. CFP-- International Conf on Sustainable Water Management--15 - 17 September 2010, Jamshoro – Pakistan
4. [Webcast – Techniques for Developing Green Jobs Programs](#)

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. Dr. Ann Maclean appointed Deputy Director of SFI



Dr. Ann L. Maclean, Professor of Remote Sensing/GIS in the School of Forest Resources and Environmental Science, was recently appointed Deputy Director of Sustainable Futures Institute (SFI). Dr. Maclean's extensive experience in Geographic Information Systems (GIS), Remote Sensing, Spatial Analysis, and Land Use Planning provides further balance for various social and engineering components of SFI's projects. Dr. Maclean is the lead investigator on SFI's five-year NSF "Materials Use: Science, Engineering, and Society" (MUSES) project entitled "Renewable Energy from Forest Resources: An Investigation of the Complex Interrelated Issues Associated with Generating Automotive Fuels from Lignocellulosic Biomass." This project stresses the need for interdisciplinary

research into some of the non-engineering and non-technical influences on the social acceptance of cellulosic ethanol in this country. Among the issues included in this \$1.7 Million project are forest resources availability, avian biodiversity, bioprocess engineering, transportation logistics, societal attitudes, and regional input-output economic analyses. Dr. Maclean's interdisciplinary team draws on the expertise of five other departments working on transportation, mechanical engineering, chemical engineering, and social science components related to using wood- or gas-based ethanol products in the emerging biofuels industries. Few issues are more urgent or complex than the search for renewable, viable, and sustainable fuels. Locating the types, amounts, and availability of standing biomass is the first step to the development of a sustainable fuel based on renewable forest resources.

Dr. Maclean shares SFI's philosophy that researchers need to communicate and cooperate across disciplinary lines. She said "Today's resource management problems require us to work outside the confines of our expertise. Students need to realize that their emphasis should no longer be confined to a narrowly focused course of study. Breadth is just as important as depth. For example, forest resource majors need to understand life-cycle analysis, physics and engineering fundamentals. Maybe not the nitty gritty of each subject but a good working knowledge. Students and researchers both need to be open to interdisciplinary learning and research. Working with sustainability issues has taught me that we all can achieve more by working together than if we work independently." She encourages those with questions or ideas of how SFI can further broaden its impact at Michigan Tech to contact her.

2. New SFI Grant-- Richard Donovan Fabrication and Characterization of Ultra High Pressure Water Jet Cutting Pumps

Sponsored by Montana Tech of the University of Montana \$20,291 to end Dec 31

This project entails design optimization of the APEX water jet cutting pump in order to reduce energy consumption, improve manufacturability, and serviceability. The project also includes the development of a research infrastructure that will allow startup companies easy access to high performance computing and precision manufacturing systems.

3. Upcoming World Usability Day Events

All events on Thursday, Nov. 12th,



9:30 a.m.-noon—**Paper Prototyping**—Fisher Hall lobby near the **Aftermath Coffee Shop**

11 a.m.-1:30 p.m.—**Poster session** and other exhibits—**MUB Ballroom B**

12:00-1:15—Brown Bag lunch—MUB Ballroom B "**Sense-Able Sustainability: Three Perspectives,**"

Speakers: Rick Donovan (SFI), Rick Loduha (FU Design Dept.) & Christopher Plummer (Vis & Perf Arts) **MUB Ballr**

From 9 a.m., the **Michigan Tech Library's** Lobby of digital photos entitled Picturing Sustainability

4. Call for posters and digital photos: World Usability Day 2009—Deadlines Extended

Michigan Tech is celebrating World Usability Day in the UP (WUD-UP) with a poster session in the Union on Thursday, Nov. 12 from 11 a.m. to 1:30 p.m. and a photo exhibit on the Library's Information Wall from Nov. 12 through the end of the year.

WUD-UP CALL FOR POSTERS/EXHIBITS&IMAGES:

The Call for Posters and Digital Photos is still open. If you have made a poster, an exhibit, or a digital photo that illustrates or explores sustainable design and/or usability, please keep reading. For More Information: Please contact Karla Kitalong, Associate Professor of Humanities, at kitalong@mtu.edu or 487-3254. Please send information by Monday, November 9 to Karla Kitalong (kitalong@mtu.edu)

5. SS5635, International Environmental Diplomacy and Law, in the Spring. MWF 11:05-11:55. CRN is 13483.

Covers main international agreements, how they are negotiated, implemented, whether the agreements are effective. There is also a SS3650 number for the course, but you must have taken an undergrad course in public international law or had substantial coverage of that topic. The graduate version will provide a few readings/problems on fundamentals of public international law to close that gap.

6. International Environmental Technology Policy in Track B of the summer by Dr. Mary Durfee

This course is at the 3000 level. Unlike 5635, this course is oriented to the comparative public policy of US, Canada, EU, Japan and entails a consideration of policies based on innovation as well as on environmental regulation.

SUSTAINABILITY NEWS

1. Larger-Than-Expected Crowd For Wind Conference in Detroit

More than 2,100 people spent this week at a pair of national wind energy events being held this week at Cobo Center. The American Wind Energy Association held both its inaugural Small and Community Wind Power Conference and Exhibition and its second Wind Power Supply Chain Conference together. During the day, hundreds of attendees heard keynotes and panel discussions on highly technical topics, including public policy, safety, ownership structure, financial structure, turbine technology, and more.

The conference presentations will be available www.smallandcommunitywindexpo.org/presentations.cfm.

Source WWJ Radio: <http://www.wwj.com/Larger-Than-Expected-Crowd-For-Wind-Conference/5609305>

SEMINARS

1. Technical Communication Seminar--Karla Kitalong (Humanities) from 4 to 5 p.m., Friday, Walker 109 TODAY!

The scientific and technical communication program will host a talk by Associate Professor Karla Kitalong (Humanities). Kitalong will talk about her experiences with technical communication, mixed reality, informal science and usable design. Light refreshments will be served. WUD—UP kicks off on Friday, November 6th with an event in the STC Speaker Series. At 4:00, in Walker 109, Dr. Karla Kitalong, Associate Professor of Humanities, will give a presentation "Usability in Scientific and Technical Communications." Dr. Kitalong will engage the audience by conducting an early usability evaluation on a series of interactive mixed-reality science museum kiosks to be installed as part of a giant exhibit called "Water's Journey through the Everglades" at the Museum of Discovery and Science in Ft. Lauderdale, FL.

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. Bioenergy - AFOSR-BAA-2009-01

DOD, USAF---Air Force Office of Scientific Research (AFOSR) Broad Agency Announcement (BAA)
Mathematics, Information and Life Sciences
Amount: \$200 million Awards average \$150,000 per year for up to five years.
Deadline Continuous.

The primary objectives of this program are to understand and improve the facility of certain microorganisms to produce biofuels, specifically molecular hydrogen and algal lipids, for use in fuel cells and air-breathing engines, and to utilize other complex or impure biofuels for use in compact power generation. The capacity to supply renewable hydrogen and jet biofuels on a macro-scale using biologically based systems will enable the military to power tanks, planes and ships at a predictable cost basis independent of foreign oil markets. This program also supports research to enable the development of biofuel cells, both microbial and enzymatic, that can convert complex and impure fuel sources into electrical energy at sufficiently high power densities to be useful in portable devices.

Bookmark Url <http://fundingopps.cos.com/cgi-bin/fo2/getRec?id=115239>
URL for more info <http://www.wpafb.af.mil/library/factsheets/factsheet.asp?id=8127>

2. NSF "Energy for Sustainability," Directorate for Engineering (ENG)

Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
Environmental Engineering and Sustainability
Upper Amount \$100,000 for generally one to three years.
Small equipment proposals of less than \$100,000 will also be considered and may be submitted.
Deadline Mar 03, 2010, with full proposal windows between February 1 to March 3, 2010.

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. Sources of sustainable energy include sunlight, wind/wave, biomass, and geothermal.

In the long term, 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 semiconducting, quantum and organic materials also have potential. New materials and novel fabrication techniques for solar energy conversion are supported by the program. URL for more info http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501026

3. Professional Development Education Program for sustainable communities

Sponsor: USDA, National Institute of Food and Agriculture, Sustainable Agriculture Research and Education
North Central Region - NCR SARE
Upper Amount \$75,000
Deadline: May 22, 2010

The North Central Region Sustainable Agriculture Research and Education (SARE) Professional Development Program (PDP) is requesting pre-proposals for professional development projects that provide training to agricultural professionals and educators in the Cooperative Extension Service (CES), Natural Resources Conservation Service (NRCS), other governmental agencies, and educators in the profit and nonprofit sector serving the food and fiber system. The North Central Region includes Michigan. Projects should directly contribute to the overall outcome of the North Central SARE PDP, which is educators who are knowledgeable in the general concepts of sustainable agriculture, and motivated to work in partnership with farmers,

ranchers, and the general public on developing programs and activities that enhance the sustainability of rural communities and the food and agricultural system.

Bookmark Url <http://fundingopps.cos.com/cgi-bin/fo2/getRec?id=35120> or <http://sare.org/ncrsare/PDP/pdp.htm>

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

1. Scholarship for Engineering and Science students to learn Chinese in China

http://www.alliancegloaled.org/programs/fudan_contemporary_society_and_language/engineering_and_society_summer_term/

2. Director, School of Global Sustainability, U South Florida

The University of South Florida is seeking a director for the School of Global Sustainability to fill a full-time, 12-month tenured full professor position with benefits. Candidates should have an outstanding international reputation and recognition for interdisciplinary research and scholarly activities in sustainability. Job duties include curriculum development, student recruitment, and the building and managing of an integrated, interdisciplinary faculty team to conduct research, education, and outreach in the area of global sustainability. Academic appointment will be as a tenured full professor in a university academic department consistent with the candidate's background. A doctorate in a sustainability-related discipline is required. Applications should be submitted by January 7, 2010. <http://www.higheredjobs.com/search/details.cfm?JobCode=175398795>

3. Director of Sustainability, Bunker Hill CC

Bunker Hill Community College (MA) is seeking a director of sustainability. Reporting directly to the president and serving as a member of the president's executive staff, the director will lead BHCC's efforts to fulfill the American College & University Presidents' Climate Commitment, engage the college community to refine a climate action plan, and meet institutional targets for carbon neutrality. The director will work with the faculty to coordinate the development of a sustainability curriculum for the College. Qualifications include a Master's degree, preferably in environmental studies or a closely related field. A minimum of two years experience in sustainability, energy conservation, environmental management, or facilities management is preferred. The position will remain open until filled. To ensure full consideration, application materials should be received by December 4, 2009.

<http://www.higheredjobs.com/search/details.cfm?JobCode=175399074>

4. Campus Sustainability Coordinator, Loyola Marymount U

Loyola Marymount University (CA) seeks applicants for the position of campus sustainability coordinator. Reporting to the director of plant operations, the successful applicant will encourage environmental stewardship; promote campus sustainability efforts; and be responsible for integrating, coordinating, and reporting sustainable principles, goals, and standards, including specific areas of the American College & University Presidents' Climate Commitment. Qualifications include two years of hands on experience implementing environmental or sustainability programs or five years in a related field. Experience in an academic setting is preferred. Applications are currently being accepted.

<https://jobs.lmu.edu/applicants/jsp/shared/frameset/Frameset.jsp?time=1257531607422>

4. ED, Wisconsin Inst for Sustainable Technologies, U Wisconsin Stevens Point

The University of Wisconsin, Stevens Point is seeking applicants for an executive director of the Wisconsin Institute of Sustainable Technologies (WIST). The director will serve as the top administrative officer of the WIST, providing leadership and administrative oversight to all aspects of the Institute's operations including budget, finance, programs, personnel, facilities, and equipment. Serving as the WIST administrative leader, the executive director will head the administrative team in the development and operation of appropriate mission-based short- and long-term business plans. The executive director will provide administrative oversight relevant to the three divisions of WIST (Education, Research, and Services). S/he will take a lead role in establishing public relations, networking, and collaborative efforts that lead to acquisition of grants and contracts or service revenue that support the continued operations of the Institute. Applicants should have a Ph.D. with a minimum of five years of experience or other

terminal degree with a minimum of eight years of experience. The review of applications will begin January 5, 2010. <http://www.higheredjobs.com/search/details.cfm?JobCode=175398858>

5. Faculty, Architecture, Urban Planning, & Sustainable Design, New York U

The New York University Gallatin School of Individualized Study invites architects, designers, practitioners, or scholars with an interest in the history of sustainable design to apply for a full-time teaching position to commence on September 1, 2010, at the rank of clinical assistant or associate professor. The ideal candidate will have professional training in architecture and urban planning and interest in sustainable design, environmentalism and urban studies, social responsibility in design, and how urban planning and sustainable architecture can shape environmental policy. NYU seeks practitioners with a strong record of public and/or scholarly research and writing and experience working with local or national communities on sustainable design and environmental planning. Candidates should have some college-level teaching experience; the ideal candidate will have significant undergraduate teaching experience and some familiarity with advising individualized research programs. A strong interest in interdisciplinary teaching in a diversity of fields reaching into the traditional humanities or social sciences is necessary. Review of applications will begin December 1, 2009, and continue until the position is filled. <http://chronicle.com/jobs/0000613322-01>

6. Assoc Prof, Sustainability of Rural Landscapes, Michigan State U

Michigan State University (MSU) seeks to fill an associate professor faculty position in the area of sustainability of rural landscapes. The successful candidate should be a sociologist with expertise in environmental science and the relationships between ecology, technology, social change, and policy. The position will enhance interdepartmental research in the Department of Sociology (SOC) at MSU, with particular focus on strengthening social science research at the Kellogg Biological Station (KBS). This position will be shared between the Department of Sociology and KBS, with the tenure home in the Department of Sociology. The position will include a research appointment supported by the Michigan Agricultural Experiment Station (MAES). Applicants should have a Ph.D., preferably in Sociology, with research and teaching accomplishments appropriate for tenure and a rank of associate professor of sociology. Preference will be given to individuals with interdisciplinary research experience that can strengthen the research programs in agriculture and food systems at KBS and Sociology. International experience or demonstrated interest in international regions is an advantage. Review of applications will begin November 30, 2009. http://www.kbs.msu.edu/images/stories/SOC-KBS_Senior_faculty_position_description_Oct09v2.pdf

7. Two Post-Doctoral Fellowships, Env'l Studies, Williams College

The Program in Environmental Studies at Williams College (MA) invites applications for two post-doctoral fellowships in environmental studies to begin July 1, 2010. The College welcome applications from candidates who will have their PhD. in hand by the start date or who have completed their PhD. within the last five years. Williams seeks candidates trained in the humanities or social sciences to contribute to the curriculum and vitality of an interdisciplinary program. The position requires vision and initiative. Relevant fields include, but are not limited to: literature, art history, religion, anthropology, philosophy, history, and food studies. An international focus is also highly desirable. The position is open until December 31, 2009. <http://chronicle.com/jobs/0000613623-01>

8. Post-Doctoral Fellowship, Env'l Studies, Lafayette College

Lafayette College (PA) invites applications for a two-year postdoctoral fellowship in environmental studies. The College seeks an enthusiastic individual who can build upon his or her disciplinary expertise to assist Lafayette in shaping and developing its new programs in environmental studies. The post-doctoral fellow will help the College to develop a program that will help equip the next generation of citizens and leaders with the humanistic and technical skills to understand environmental challenges and make informed decisions that will shape a more viable world. A significant grant from the Mellon Foundation provides the College with the support necessary to develop curricular and extracurricular programs in environmental studies that extend beyond the classroom. The candidate should have a teaching and research focus in the arts, humanities, or social sciences in emerging areas of environmental studies such as: environmental law, environmental policy, environmental justice, the environment in literature and the arts, or global environmental issues. A faculty mentor will work with the post-doctoral fellow in course development and research pursuits to help them develop their skills as a new faculty member. The position is open until December 15, 2009. <http://www.higheredjobs.com/search/details.cfm?JobCode=175398575>

9. Faculty Position, Environmental Policy, Santa Clara U

The Environmental Studies Institute at Santa Clara University (CA) invites applications for a tenure-track assistant professor position in environmental policy for fall 2010. Applicants should have a Ph.D. (completion required by the time of appointment) in environmental studies or a related field. The successful candidate will conduct research in one of the following areas: U.S. environmental policy, international environmental policy, environmental justice, urban planning, agricultural policy, or energy policy. The position is open until November 15, 2009. <http://chronicle.com/jobs/0000613759-01>

10. - Pew Center on Global Climate Change

The Pew Center on Global Climate Change seeks a highly qualified and committed person to focus on the Pew Center's Solutions program, including technology initiatives as well as state and regional climate policy. This position reports to the Vice President for Innovative Solutions.

Starting Date: As soon as possible.

<http://www.pewclimate.org/about/careers/solutions-fellow-transportation> For more information about the Pew Center visit www.pewclimate.org.

NEW RESOURCES

1. Workshop on Adobe Connect Pro noon to 12:55 p.m., Thursday, Nov. 19

The Center for Teaching, Learning and Faculty Development is conducting a workshop, "Getting Connected," from noon to 12:55 p.m., Thursday, Nov. 19. Lunch will be provided to those who register by Monday, Nov. 16. Chad Arney, systems administrator for Educational Technology Services, will present an introduction to using Adobe Connect Pro. Attendees will experience a live Connect Pro conference, plus learn about licensing and getting started with online communication technology.

To register for this workshop, contact the CTLFD at 487-2046 or via our online registration website:

<http://www.admin.mtu.edu/ctlfd/workshops>.

EVENTS & CONFERENCES & Webinars

1. Climate & Energy Truths: Making the Necessary Connections (Conf call)

Date: November 17, 2009

Time: 12:00 PM Eastern, 9:00 AM Western

Robert M. Perkowitz, ecoAmerica, will discuss how Campus Sustainability Professionals can use this data to move forward sustainability issues on campus and in upcoming climate legislation.

Climate and Energy Truths

<http://ecoamerica.org/sites/default/files/press/ecoAm_Climate_Energy_Truths.pdf> is a communications research project conducted to determine effective frameworks and messages for speaking with the American public about climate change, climate solutions, renewable energy and carbon-based fuels. It is an ecoAmerica <http://ecoamerica.org/> project conducted by Westen Strategies and Lake Research Partners with support from NRDC, Pew and individual investors.

Instructions:----Please join the session on TBA by dialing: 712-775-7000 passcode 667911#. If you have any difficulties accessing the session, please e-mail Janna Cohen-Rosenthal <<mailto:jannacr@brandeis.edu>> for assistance. See Resources <<http://sites.google.com/site/campussustainmedia/resources>> for relevant materials and a recording of the call a week after this date. Note: The call is limited to the first 100 participants. If you can not call in we will be posting the recording with in one week. To be reminded about calls please fill out information here: <http://sites.google.com/site/campussustainmedia/> Please see <http://ecoamerica.org/> for more information.

3. CFP-- International Conf on Sustainable Water Management--15 - 17 September 2010, Jamshoro – Pakistan

Abstracts are welcome on the following four broader themes: Water supply and distribution, Wastewater management, Stormwater management, Sustainable water management decision making and planning associated case studies and experiences with the implementation of technology and policy based solutions on sustainable water management. Each theme includes a selection of generic sub topics. Abstracts in agreement with overall broader themes will be considered. Accepted abstracts will be invited to prepare full papers. For abstract submission, click here.

<http://www.wedc.com.pk/swm2010/>

4. Webcast – Techniques for Developing Green Jobs Programs

November 17 & 18, 2009; 1 – 2:30pm Eastern; Online

Academic Impressions will host "Techniques for Developing Green Jobs Programs." Participants in the two-part webcast will learn about the techniques other schools have used to develop successful green jobs programming. The first session will focus on strategies to research local and regional industry trends, employer needs, and market conditions and size. The second session will discuss identifying and leveraging internal resources and collaborating with stakeholders across campus. http://www.academicimpressions.com/web_conferences/1109-green-jobs.php?q=4006x274891yT