

SFI weekly newsletter for the week of June 22, 2009
A weekly service of SFI



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EVENTS & CONFERENCES

1. Footprint Forum September 9-11, 2009 | Colle Di Val D'elsa, Italy Register by July 1 and save more than 15%
2. Promoting & Marketing Alternative Transportation Options Webcast July 14, 2009; 1 – 2:30pm Eastern; Online
3. Registration Open - Greening of the Campus VIII

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. SFI's Advisory Board meets June 22 and 23



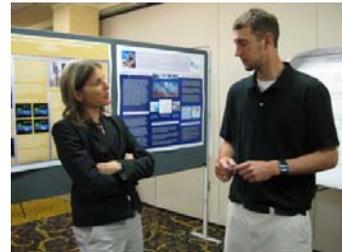
Members of the Sustainable Futures Institute Advisory Board (SFAB) met this week to review SFI activities in order to offer guidance to help SFI reach its goal of making a national and international impact in the field of sustainable systems. The advisory board brings a wide variety of expertise and experience to SFI.

Members attending Michigan Tech are pictured (from left): **Mark Mleziva**, Research Manager at Kimberly-Clark, Inc.; **Harvey Bell**, Director of Vehicle Performance of General Motors North American Operations (ret.); **Mike Hales**, Director of Corporate Environmental Compatibility Program for Dow Corning, Inc.; **Clare Mendelsohn**, Director of the Western Regional Environmental Office, Air Force DoD; and **Becky Pearson**, standing in for **Victoria Pebbles**, Associate Program Manager of the Great Lakes Commission. Chris

Swanston, Director and Research Ecologist of the Northern Research Station of the USDA was not present for the picture.

Also attending the SFAB meeting via teleconference were: **Joseph W. Allen** Director of Sustainable Development at Caterpillar, Inc; **Tina Behr-Andres**, Program Director, Water Stewardship Program at Los Alamos National Lab; and **Bill Olson**, Director of the Office of Sustainability and Stewardship at Motorola, Inc. **Damien Ejigiri**, Dean of the Graduate School at Southern University at Baton Rouge was out of the country and unable to attend. New to the board is **Kevin Kuske**, General Manager of Turnstone and Steelcase Wood at Steelcase, Inc., who was also unable to attend.

SFI sponsored a poster session on Monday of this week in conjunction with the SFAB meeting so members had an opportunity to interact with students and strengthen the network of scholars interested in promoting SFI's important research, education, and outreach work in sustainability. Pictured at right is SFAB member **Clare Mendelsohn** talking with **Colin Casey**, a member of Peace Corps Masters International in Civil and Environmental Engineering about his poster entitled "Nitrogen Cycling in Lake Superior and the Effects of Climate Change."



Monday's events were capped off with a tribute to SFI's long time Operations Manager, **Qiong (Jane) Zhang**, who is leaving Michigan Tech for a faculty position at the University of Southern Florida. She is pictured at right receiving a plaque of appreciation from SFI Director **John Sutherland**. A potluck luncheon in her honor was hosted by David Hand and the Department of Civil and Environmental Engineering (CEE) on Thursday so that SFI members could express their appreciation to Jane. Jane responded that she has enjoyed working with SFI and CEE and appreciates the tremendous support accorded to her at Michigan Tech. Jane thanked God for bringing her to Michigan Tech, which nurtured her career and gave her lasting friendships.

2. D80 awarded NSF project: Developing Global Engineers and Scientists through Collaborative Technology Innovation for Public Health Improvements in Tanzania

Tanzania is a country facing significant public health challenges. This three-year program (2009-2011), funded by the National Science Foundation, creates international research opportunities for four graduate engineering and science students (or upper level undergraduates with significant international experience) from Michigan Tech, in collaboration with undergraduate

engineering students from the University of Dar es Salaam. These students will form project teams that partner with students at the Peace House Secondary School and community members in and near Arusha, Tanzania. Projects will focus on public health problems associated with water, sanitation, indoor air, and malaria. Kurt Paterson and David Watkins are currently in Tanzania with students this summer. For more information, contact Profs. Kurt Paterson, Veronica Griffis, or David Watkins.

3. Design for the Poorest 80%--A new course for Fall 2009 from D80

DESIGN FOR THE POOREST 80%
A new curricular option beginning Fall 2009

This new curricular option, catalyzed by a U.S. EPA P3 (People, Planet, and Prosperity) grant www.epa.gov/p3, will focus on Enhancing Performance and Social Acceptability of the Ventilated Improved Pit Toilet for the 2009-2010 academic year. The project will be implemented in August 2009 and culminate in a competition with 40 universities on the National Mall in Washington, DC in April 2010. This opportunity is limited to 12 students, roughly 2-3 each in the following majors, although other majors may inquire: (a) mechanical engineering, (b) civil engineering, (c) environmental engineering (d) social sciences, and (e) technical communication. Seniors and graduate students only, instructor permission required.

To facilitate easy participation for 2009-2010 several course pathways exist (6 credits total over Fall and Spring semesters):

- 1.) CE4990/CE5590 Special Topics: Design for the Poorest 80%
- 2.) Baccalaureate Thesis + Independent Study (see numbers for your department)
- 3.) Senior Design I and II (see numbers for your department)
- 4.) CE4915 International Senior Design + CE4990 Special Topics: Design for the Poorest 80%

For more information, contact Prof. David Watkins, d Watkins@mtu.edu

This new curricular option, catalyzed by a U.S. EPA P3 (People, Planet, and Prosperity) grant will focus on enhancing performance and social acceptability of the Ventilated Improved Pit Toilet for the 2009-2010 academic year. The inaugural two-semester long project starts in August 2009 and culminates in a competition with 40 universities on the National Mall in April 2010. This opportunity is limited to 12 students, roughly 2 to 3 each in the following majors, although other majors may inquire: (a) mechanical engineering, (b) civil engineering, (c) environmental engineering (d) social sciences, and (e) technical communication. Seniors and graduate students only, instructor permission required.

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Course leaders: Profs. David Watkins (CEE), (Donna Michalek (MEEM), and Kurt Paterson (CEE), plus James Dumpert (Ecology + Environment, Inc.) For more information, contact: Prof, David Watkins, d Watkins@mtu.edu

4. AASHE Digest 2008 Now Available



The Association for the Advancement of Sustainability in Higher Education has released the latest AASHE Digest, a 356-page report that compiles campus news on sustainability in 2008. Among AASHE's findings are that, in the last year, more than 66 sustainability-focused academic programs were created, at least 13 sustainability-themed research centers were opened and plans for 33 more were announced. The types of research centers varied much more than in previous years, with new centers

focused on such topics as socially responsible business, cellulosic ethanol, social entrepreneurship, green materials, and green auto technology. The Digest further reports that more than 130 green buildings were planned, started, opened or awarded LEED (Leadership in Energy and Environmental Design) certification. Michigan Tech is a member of AASHE, so all faculty, students, and staff have access to AASHE's resources simply by using their MTU email accounts and ISO passwords. The Digest chronicles progress in the United States and Canada. For a PDF of the complete Digest go to <http://www.aashe.org/files/documents/AASHEdigest2008.pdf>

SUSTAINABILITY NEWS

1. GE to build research and development center in Metro Detroit to focus on clean technology

A big announcement is expected Friday when General Electric chairman and CEO Jeffery Immelt speaks at the Detroit Economic Club meeting at the Townsend Hotel in Birmingham. In a speech entitled "Winning in a Reset World," Mr. Immelt is expected to explain that we can't just "ride this one out" and assume better times are waiting. Instead, leaders need to reset the American economy to win. Also, Immelt will likely unveil his company's plans to build a research and development center in Metro Detroit, meaning at least 1,200 jobs for the area's job-starved economy. The center will concentrate on research into clean technology. Michigan is an attractive location for GE because of the large pool of unemployed engineers. General Electric is one of the largest and most successful companies in the world, that makes a variety products.

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2. Compuware to add farmer's market in atrium

Compuware Corp. employees received an e-mail this week announcing there will be a farmers market every Thursday in the expansive atrium at its downtown Detroit headquarters. The Eastern Market AM Fresh Farm Stand will be held from 11 a.m. to 2 p.m. from June 25 to Oct. 29 at Compuware, One Campus Martius in Detroit. Compuware officials said they'd feature locally grown fruits and vegetables but will also include fruit and vegetables sourced from further away to provide a wide range of choices.

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3. Michigan Energy Fair adds green careers forum

The Great Lakes Renewable Energy Association will host its annual Michigan Energy Fair June 26-28 at the Manistee County Fairgrounds in Onkama. The three-day event features more than 100 vendors and informational programs on sustainable living, from wind to solar to building techniques and more. Last year more than 6,000 people attended the event. More at www.glrea.org.

4. Dow captures solar power with fluid technology

Midland-based Dow Chemical Co. is shedding light on Concentrating Solar Power systems with Dowtherm, a heat transfer fluids that collect, transport and store solar generated heat. CSP technology uses mirrors to reflect and concentrate sunlight onto receivers that collect solar energy and convert it to heat. Dowtherm A heat transfer fluids collect the heat energy and transport it to a power generating station. The transported heat converts water to steam, which in turn drives turbines to make electricity. (The Michigan Energy Report.)

5. Kinetic Wave Power, Advanced Battery Concepts win big at GLEQ

The Great Lakes Entrepreneur's Quest hosted its statewide business plan competition award ceremony this month with partner organizations Automation Alley and NextEnergy at the James B. Henry Center on the Michigan State University campus. The GLEQ \$25,000 Grand Prize in the emerging company category was awarded to Kinetic Wave Power LLC of Midland. Kinetic Wave Power has developed technology to use renewable energy contained in ocean waves. In the new business idea category, Advanced Battery Concepts LLC of Midland received the first place award of \$5,000. Advanced Battery Concepts has developed battery electrode technology, branded GreenSeal, which enables improvements in battery performance while lowering costs. Additionally, flexibility in packaging combined with weight savings enables new applications to become feasible for lead-acid batteries. Advanced Battery Concepts also received two innovation awards, the Automation Alley Advanced Manufacturing Innovation Award of \$12,500 and the NextEnergy Alternative Energy Innovation Award of \$10,000.

6. Northern Michigan University to burn wood for combined heat and power

In May 2008, NMU was granted a permit from the Michigan Department of Environmental Quality to begin construction of a combined heat and power co-generation addition to its existing Ripley Heating Plant, capable of burning wood chips, biofuel, coal and natural gas to produce energy for NMU's campus and Marquette General Hospital (MGH). Federal stimulus funds played a role in NMU dropping the coal-burning permit because NMU did not want to reduce its chances of receiving money for green projects, such as the co-generation plant, because it had the ability to burn coal. The \$55 million plant will not only provide heat and steam to NMU and MGH, but also host a research wing where students can study biomass fuels.

<http://www.miningjournal.net/page/content.detail/id/529236.html?showlayout=0>

7. Detroit Firm to Make Film Fest Carbon Neutral

Detroit-based Carbon Credit Environmental Services said last week that it's partnering with the Detroit Windsor International Film Festival to make the event "green" through carbon offsetting. The festival takes place Thursday, June 25 through Sunday, June 28, and is presented by Wayne County and hosted by Wayne State University. This process will be achieved by a greenhouse gas and carbon dioxide energy audit performed by CCES, providing an estimate on how much CO2 will be emitted during the event.

<http://www.wwj.com/Detroit-Firm-To-Make-Film-Fest-Carbon-Neutral/4643903>

8. Report puts Lansing-area green economy at 4,500 jobs

The capital area has a green economy supporting 4,500 jobs, according to a new report released Monday by Capital Area Michigan Works. The region's green economy boasts jobs in manufacturing, construction, professional and technical services and utilities. Manufacturing accounts for over one-third of the region's green collar economy, more than 1,400 jobs, due to the emphasis on producing more fuel-efficient vehicles as well as manufacturing's diversification into making parts for alternative energy devices and other green products.

<http://www.wwj.com/Report-Puts-Lansing-Area-Green-Economy-At-4-500-Jo/4651236>

9. Fixing Detroit: UM study shows how far, how fast, how fuel efficient

As the domestic automobile industry struggles to address the worst financial crisis in its history, a new report released Monday by the University of Michigan Transportation Research Institute analyzes critical choices faced by automakers and finds that broad, deep, fast change is necessary for success. According to the report, "Fixing Detroit: How Far, How Fast, How Fuel Efficient?" successful turnarounds hinge on rapid cultural transformation, which requires replacement of management teams. Further, the report finds that the existing culture within the domestic auto companies systematically underestimates the value of fuel economy, which has crippled profitability.

<http://www.wwj.com/Fixing-Detroit--How-Far--How-Fast--How-Fuel-Effici/4650869>



10. Lawmakers Ask National Academies to Study Ways to Help Research Universities

Four members of Congress have sent a letter asking the National Academies to appoint a national commission to identify the "top 10 actions" that Congress, state governments and others could take to strengthen the international competitive position of American research universities, saying: "We are concerned that they are at risk." The signers were Sens. Barbara Mikulski (D-Md.) and Lamar Alexander (R-Tenn.), and Reps. Bart Gordon (D-Tenn.) and Ralph Hall (R-Texas).

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.

1. New Funding for Solar Energy Conversion: RCSA's Scialog

Preliminary proposals are due August 17, 2009.

RCSA is pleased to announce a new research funding program --Scialog® 2009: Solar Energy Conversion. Scialog 2009 will accept proposals describing fundamental research at the molecular and nanoscale level that are directly related to conversion of solar energy to electricity or fuels. Preference will be given to plans describing: (i) development of novel high-performing materials that possess greater stability, lower cost, or offer higher efficiency than materials currently used in solar energy devices; (ii) innovative, highly efficient methods for solar energy conversion that take advantage of unique chemical or optical properties and are poised to overcome current bottlenecks limiting performance efficiency.

Scialog® Objectives include:

- supporting individuals or collaborative teams of academic scientists within five years of their tenure date who present innovative approaches that address the designated research topics,
- enabling higher-risk research that might fall outside the boundaries of traditional federal funding streams, and
- establishing and convening communities of researchers.

A Scialog award will provide \$100,000 for an individual PI or \$250,000 for a team of PIs over three years with considerable discretion for the PI. The full award is for direct costs and no overhead expenses are allowed. A full program description along

with application instructions can be found on our website, or please feel free to contact us via email or telephone, 520.571.1111 for Jack R. Pladziewicz, Ph.D., Vice President, Research Corporation for Science Advancement www.rescorp.org

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

1. Asst Prof, Environmental Studies, Southwestern U

Southwestern University (TX) seeks a tenure-track assistant professor of environmental studies to begin fall 2010. Qualifications include a Ph.D. in Environmental Studies, Environmental Geography, Urban Studies, Public Health, or a related field. The successful candidate will have a broad knowledge of environmental studies and current environmental concerns. This faculty person will help develop a core environmental studies curriculum and will teach in that curriculum. Courses will include an interdisciplinary Introduction to Environmental Studies, a Senior Research Seminar, and courses in the person's area of specialty. Consideration of applications will begin October 1, 2009 and will continue until the position is filled. <http://chronicle.com/jobs/id.php?id=0000602387-01&pg=s&cc=>

2. Adjunct Instructor, Environmental Science, U San Francisco

The University of San Francisco (CA) seeks an Adjunct Instructor of Environmental Science to teach one lecture section and one lab section of ENVS 110, Understanding Our Environment, during the Fall 2009 semester. In addition to teaching the lecture and lab and attending the field trip, the Instructor will hold office hours, meet weekly with other lab instructor to discuss experiments and grading of labs, and turn in lab grades to other lecture instructors in a timely manner. Applicants should have a Ph.D. in a field related to environmental science by August 2009. Teaching experience is desirable. <http://www.higheredjobs.com/search/details.cfm?JobCode=175378375>

NEW RESOURCES

1. STARS Pilot Results Released



Throughout 2008, nearly 70 institutions pilot tested the Sustainability, Tracking, Assessment & Rating System (STARS) -- a voluntary, self-reporting framework for gauging relative progress toward sustainability for colleges and universities. AASHE has released a detailed summary of results and feedback received (pdf).

2. AASHE 2009 Awards Program is Accepting Applications and Nominations

AASHE invites applications and nominations for our 2009 AASHE Awards Program. All winners will be announced at the Greening of the Campus conference in September, and will be featured in Sustainability: The Journal of Record. The categories are:

- * Campus Sustainability Leadership Awards - one award in each of four categories by size of school.
- * Student Sustainability Leadership Award - \$750 prize to an undergraduate student from an AASHE member institution who has demonstrated outstanding leadership in promoting campus sustainability.
- * Student Research on Campus Sustainability Award - for the best research paper of any length on campus sustainability that was completed in the previous 12 months and not previously published.

Nominations are highly encouraged (but not required to win). Please send letters of nomination to awards@ashe.org with contact information for the nominated institution or individual. AASHE staff will encourage nominees to apply. The application deadline for all awards has been extended to July 8th.

3. New AASHE Resource on Campus Fair Trade Practices & Policies

AASHE has released a new resource that lists colleges and universities in the US and Canada that are purchasing goods that are certified Fairtrade for use in their dining facilities and campus stores. The new resource is only available to AASHE members. Michigan Tech is a member.

EVENTS & CONFERENCES

1. Footprint Forum September 9-11, 2009 | Colle Di Val D'elsa, Italy



Register by July 1 and save more than 15 percent

From resource scarcity to the economic crisis, the world is ready for systemic change. The Ecological Footprint is being employed like never before to understand our ecological budget and the limits of one planet. Now it is time to take our efforts to the next level - to go beyond calculating and applying Footprint data to developing the breakthrough strategies we will need to meaningfully alter humanity's course.

Footprint Forum 2009 will be the first gathering of its kind centered on the issue of ecological limits and how they will influence the future, from the global economy and the marketplace of tomorrow to our ability to achieve our most vital human development goals. The select group of participants, which includes government ministers, corporate leaders, ecological economists, academics and Footprint practitioners, consist of the leading thinkers on this issue. They are asking the questions no one else is yet asking - and helping drive the answers that will provide our best hope for a positive and sustainable human future.

<http://www.regonline.com/builder/site/Default.aspx?eventid=741606>

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. Registration Open - Greening of the Campus VIII

September 20-23, 2009; Indianapolis, IN

Ball State University and AASHE invite registration for Greening of the Campus VIII: Embracing Change. Keynote speakers will include Geoff Chase, Dean of Undergraduate Studies at San Diego State University (CA); Frances Moore Lappé, author of *Diet for a Small Planet*; and Jerome Ringo, President of the Apollo Alliance. Other conference features will include pre-, post-, and in-conference workshops; a two-day tradeshow focused on promoting environmentally sustainable and socially responsible products and services; panels, forums, and posters; and a networking reception with the Labs 21 conference. Early registration ends August 1, 2009. Discounts are available for students and AASHE members. <http://goc.iweb.bsu.edu/index.html>