

**SFI weekly newsletter for the week of August 31, 2009**  
**A weekly service of SFI**



**SFI NEWS AND ANNOUNCEMENTS**

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2. 2009 SFI Fall Speaker Series to feature three speakers this semester
3. 2009 Distinguished Service Awards goes to Alex Mayer!
4. *Waterlife*—free public showing Wednesday, September 9, 2009, Dow 641 7:00 pm
5. SFI's 2-yr Frontier Renewable Resources (FRR) Center for Energy Excellence (COEE) project to kick off
6. SFI's Chris Wojick reports on the Green Campus Enterprise for Michigan Public Radio
7. D80 Conference will be Saturday October 17, 2009 (9 am to 5 pm) in the Ballroom of the MUB

**NEW FUNDING at SFI**

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2. Joseph Holles (ChE)

**SUSTAINABILITY NEWS**

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2. 7th Annual P3 Awards: Nat'l Student Design Competition for Sust. Focusing on People, Prosperity & the Planet
3. ERDC Industrial Process Optimization (BAA)
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**JOBBS & POST DOCS, INTERNSHIPS, FELLOWSHIPS, and SCOLARSHIPS**

1. U of Wisconsin Aquatic Sciences Center ([www.aqua.wisc.edu](http://www.aqua.wisc.edu)) seeks Communications Manager
2. Sustainability Coordinator, Campus Planning, U Cincinnati
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5. Prof, Sociology w/ Sustainability Focus, Brooklyn College City U New York

**EVENTS & CONFERENCES**

1. Symposium on Integrated Modeling for Large Aquatic Ecosystems January 20-21, 2010 Baltimore, MD

2. Michigan Clean Water Corps 5<sup>th</sup> Annual Conference October 26-27, 2009
3. SOLM-GLBA Joint Conference Lake Michigan: State of the Lake and Great Lakes Beach Association
4. 2009 Midwest Fish and Wildlife Conference Springfield, Illinois, on December 6-9.
5. Great Lakes-St. Lawrence River Water Resources Regional Body to hold special meeting Sept 22, at 2:00 p.m.

*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. Save the date! SFI Banquet and Poster Session October 14<sup>th</sup>**

Stay tuned to this newsletter for the exciting details about this year's SFI Banquet and Poster Session to be held at the Rozsa on October 16<sup>th</sup>, the day before the big D80 conference. The Banquet will again feature a meal made up of local Copper Country foods (with a little bit of Wisconsin thrown in). Calls for Posters that feature sustainability themes will be going out soon as well. All students are invited to enter a poster. This year three prizes will be awarded. More news on this big event later.

### **2. 2009 SFI Fall Speaker Series to feature three speakers this semester**

**Peter Flynn**, Emeritus Professor and Poole Chair in Management for Engineers in the Department of Mechanical Engineering, University of Alberta, Edmonton will kick off the 2009 SFI Speaker Series on Monday, October 5, 2009. The title of his talk is "Biomass Energy: A Criterion for Picking the Right Technology."

On Tuesday, November 5, **Dan P. Davison**, CEO of Double Helix Management Services Ltd will talk about "The Millennium Model Research Foundation: Socio-Economic Model for a Sustainable Future."

The third speaker is SFI's own **Yu Cai**, Assistant Professor in the School of Technology on Tuesday, February 9. Professor Cai will speak about his research on "Green Computing," which represents a dramatic change in the priority of the IT industry from its traditional economic cost/benefit model to the new sustainable model.

Stay tuned for times and places. Bios and abstract information for these three speakers are now up at SFI's website under NEWS: <http://www.sfi.mtu.edu/news-speaker.php>

### **3. 2009 Distinguished Service Awards goes to Alex Mayer!**

Our congratulations to Alex Mayer for winning the Michigan Tech Distinguished Service Award for 2009! Alex, Director of SFI's Center for Water and Society, won for all his efforts related to raising awareness of water-related issues and building research and education efforts related to water resources. Alex shares the honor with Janice Glime (BS). See Tech Today article: <http://www.admin.mtu.edu/urel/ttoday/previous.php?issue=20090902>

### **4. Waterlife—a free public showing on Wednesday, September 9**

**Dow 641 7:00 pm**



The Center for Water and Society is sponsoring a free public showing of *Waterlife*, a feature length documentary following the water of the Great Lakes on its beautiful and tragic journey to the sea. In addition to the Michigan Tech Center for Water and Society, it is co-sponsored by Copper Country Chapter of Trout Unlimited, Forestland Group, LLC, Lake Superior Stewardship Initiative.

Please print and display the flyer in your area: [http://www.mtcws.mtu.edu/pdf/2009-09\\_WaterLife\\_Flyer.pdf](http://www.mtcws.mtu.edu/pdf/2009-09_WaterLife_Flyer.pdf) WATERLIFE Website: <http://www.ourwaterlife.com/>

### **5. SFI's 2-year Frontier Renewable Resources (FRR) Center of Energy Excellence (COEE) project to kick off in Sault Ste. Marie**

On Sept. 14, representatives of the four research project teams from Michigan Tech and Michigan State University will meet in Sault Ste. Marie with representatives from the Michigan Economic Development Corporation (MEDC) and FRR. The purpose of this kickoff meeting is to establish a plan for communication among all the teams and to re-affirm project deliverables and timelines. David Reed from Michigan Tech and Steve Pueppke of Michigan State University were instrumental in developing this project with the MEDC. Project Leaders from SFI include David Shonnard (ChE), David Watkins (CEE), Robert Froese (SFRES), and Maria Janowiak (SFRES). Project Leaders from Michigan State University include Christopher Peterson, Ajit Srivastava, Ray

Miller, Dan Keathley, and Karen Potter-Witter. Mascoma Corporation – The Cambridge, Massachusetts-based company will use \$20 million from the COEE program to establish a cellulosic ethanol center in Kinross(eastern Upper Peninsula). The center will utilize the abundant timber resources in the area, producing fuel from nonfood, cellulosic crops (wood). Michigan State University and the Michigan Tech contingent will focus on improving the supply chain for woody biomass feedstock.

#### **6. SFI's Chris Wojick speaks for the Green Campus Enterprise on Michigan Public Radio**

Click here to see the article. Greening Michigan Tech Kyle Norris (2009-08-31)

<http://www.publicbroadcasting.net/michigan/news.newsmain/article/756/0/1548225/Environment/Greening.Michigan.Tech>

#### **7. D80 Conference will be Saturday October 17, 2009 (9 am to 5 pm) in the Ballroom of the Memorial Union Building**

This year's D80 Conference will be Saturday October 17, 2009 (9 am to 5 pm) in the Ballroom of the Memorial Union Building on the campus of Michigan Tech. This conference highlights student research and service that create solutions to difficult challenges confronting the poorest 80% of humanity. Please consider presenting your research or service project at this year's conference. The conference averages about 250 attendees, so this is a good venue to share and learn among a wonderful community of international scholars. Conference attendance is open to students, faculty, and staff at any university, as well as the general public. Cost is \*free\* but registration is required.

Submission of presentations closes on September 18, 2009. Registration for attendees closes on September 30, 2009.

You can find the registration directly at:

[http://www.surveymonkey.com/s.aspx?sm=8Y\\_2fjMqd4u9g5r9HsnLYJlw\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=8Y_2fjMqd4u9g5r9HsnLYJlw_3d_3d) or via the D80 web site: [www.d80.mtu.edu](http://www.d80.mtu.edu)

Michigan Tech's D80 Center is a consortium of 15+ international sustainable development programs focussed on creating a better future for all participants through the solution of the world's greatest challenges for the poorest 80% of humanity. Go. Learn. Contribute. Repeat.

#### **NEW FUNDING at SFI**

1. **Alex Mayer** (CWS) has received \$249,998 from Higher Education in Development/US Agency for International Development for a project, "Enhancing the Capacity for Sustainable Forest Management in Chiapas and Oaxaca."

2. **Joseph Holles** (ChE) was awarded \$300,000 from NSF for a 3 year project entitled "Bimetallic Overlay Catalysts for Sustainable Fuel Production from Lactose."

#### **SUSTAINABILITY NEWS**

##### **1. Request for environmental models of Great Lakes from Joe DiPinto of LimnoTech**

On behalf of the Great Lakes Observing System (GLOS), LimnoTech is developing a comprehensive inventory of environmental models that have been applied in the Great Lakes Region. We are asking for your help to identify relevant models that you have developed or applied in the Great Lakes Region. In 2002, LimnoTech developed a Great Lakes Model Inventory (see link below) aimed at identifying model frameworks of value for the Great Lakes Water Withdrawal/Diversion Annex. We are now expanding and updating that inventory to include model frameworks and applications that can be used to address GLOS societal goals (listed below). Almost all models applied in the Great Lakes Region could be used to address one of the following goals, so please consider sending us the information necessary to include it in the model inventory.

GLOS Societal Goals

- Regional Climate Change Forecasting and Impact Assessment
- Safety and Efficiency of Marine Operations
- Natural Hazard Mitigation
- National and Homeland Security
- Public Health Risks
- Protection and Restoration of Coastal Aquatic Ecosystems
- Sustained use of Aquatic Resources

We have created a fact sheet template that can be used to quickly identify the features of your particular model framework or model application. Simply replace the red guidance in each box with your model information. Facts sheets already exist for many "off the shelf" models (see link below), but feel free to fill out a fact sheet for applications of any of these "off the shelf" models. Any citations to reports or publications are appreciated. Models that are under development can still be included in the model inventory, just include an estimated completion date in the notes field.

All model and model applications identified during this search will be compiled and posted on the GLOS website to facilitate discussion and collaboration within the Great Lakes modeling community. Please email us with any questions you have regarding this request for information and please forward this email to anyone you think could contribute to this effort.

Fact Sheet Template – [www.limnotech.com/GLOS\\_Models/FactSheet-Template-LTI\\_Final\\_082609.doc](http://www.limnotech.com/GLOS_Models/FactSheet-Template-LTI_Final_082609.doc)  
Appendix B List of Models – [www.limnotech.com/GLOS\\_Models/Existing\\_Model\\_Inventory.pdf](http://www.limnotech.com/GLOS_Models/Existing_Model_Inventory.pdf)

Please send completed fact sheets to [modelupdate@limno.com](mailto:modelupdate@limno.com) no later than Thursday, September 10, 2009 to be included in the inventory.

Links for more information                      Great Lakes Observing System [www.GLOS.us](http://www.GLOS.us)  
GLOS Modeling and Assessment Clearinghouse <http://wiki.glin.net/display/GLMAC>  
LimnoTech 2002 Model Inventory <http://tinyurl.com/mq8ehk>

## 2. MSU turns rutabagas into oil

Turning Rutabaga into Oil is being worked on by MSU researchers who say they may be able to genetically modify the turnip-like vegetable to churn out more oil and store it throughout the plant. The rutabaga hasn't had much presence on U.S. dinner tables (except as a popular vegetable among Copper Country Finns), which gives it an advantage for use as biofuel. MSU professor Christoph Benning says he's focusing on the rutabaga because the root vegetable already has the "machinery" for producing oil and it grows well in northern states.

## 3. NY Times Blogs on Green Campus Rankings and Ratings



*The New York Times* has published a blog post on emerging campus sustainability ranking and rating systems. The post mentions the Princeton Review, the Sustainable Endowments Institute's Green Report Card, AASHE's Sustainability Tracking, Assessment & Rating System (STARS), the Sierra Club's "Eco-Enlightened" Colleges, and the Aspen Institute's Beyond Grey Pinstripes survey of

green MBA programs. Campuses mentioned include Harvard University (MA); Yale University (CT); the University of California, Berkeley; the University of New Hampshire; Dickinson College (PA); Middlebury College (VT); and the University of Colorado at Boulder.

<http://greeninc.blogs.nytimes.com/2009/08/20/ranking-universities-by-greenness/>

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## SEMINARS

### 1. Michigan Clean Water Corps 5th Annual Conference October 26-27, 2009

R.A. MacMullan Conference Center  
Higgins Lake (Roscommon, MI)  
<http://www.micorps.net/conference>

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## FUNDING & AWARD OPPORTUNITIES

To submit research proposals through the Sustainable Futures Institute, add "SFI" to the DEPT/CENTER/INSTITUTE(S) column for identifying the PI's and co-PI's. SFI Director, David Shonnard, will sign the transmittal sheet on page 3. (If he 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.

### 1. International Collaboration in Chemistry between U.S. Investigators and Their Counterparts Abroad (ICC) - NSF 08-602

Sponsored by NSF Directorate for Mathematical and Physical Sciences (MPS) and Division of Chemistry (CHE)

**Amount:** CHE anticipates funding approximately \$15,000,000 in 3-year awards. The estimated number of awards is 10 to 40. The exact number of awards and total funding depend on the quality of proposals and availability of funds. 20 awards out of 80 proposals were funded in FY 2009.

**Deadline:** required pre-proposal due Nov 3, 2009. Full proposal due Jan 29, 2010 to NSF and collaborating country's office

NSF seeks to enhance opportunities for collaborative activities in the NSF Division of Chemistry—including Chemical Synthesis; Chemical Catalysis; Theory, Models and Computational Methods; Chemical Measurement and Imaging; Chemical Structure, Dynamics, and Mechanisms; Macromolecular, Supramolecular and Nanochemistry; Environmental Chemical Sciences; or Chemistry of Life Process—between U.S. and foreign investigators. To realize this goal, the Division of Chemistry at NSF has partnered with its counterparts in Austria, China, France, Germany, Japan, Luxembourg, Poland, Russia, Spain, and United Kingdom.

The ICC program seeks new and highly innovative three-year collaborative projects that break new ground and demonstrate a high level of synergy between the collaborating investigators. Formation of new collaborations is strongly encouraged. The proposed projects must also be in areas that are supported by the participating programs in the partnering agencies. NSF awards will support the research of U.S. investigators while the partnering international funding agencies will support the research of the collaborating foreign investigators. The ICC program aims to realize the NSF strategic goal of developing a diverse, globally-engaged, U.S. science and engineering workforce. The program therefore requires that U.S. applicants will allocate significant financial resources in their proposed proposal budget to ensure meaningful participation of students, postdoctoral research associates, and junior investigators, including those from underrepresented groups, in the proposed international research collaborations through extended research visits to the collaborator's laboratory abroad. The program also encourages the development and use of cyberinfrastructure to increase the level of synergy of the proposed projects.

URL for more info <http://www.nsf.gov/pubs/2009/nsf09608/nsf09608.htm>  
<http://fundingopps.cos.com/cgi-bin/fo2/getRec?id=94642>

### 2. 7th Annual P3 Awards: Nat'l Student Design Competition for Sustainability Focusing on People, Prosperity and the Planet

U.S. EPA, National Center for Environmental Research, P3 Award Program

**Amount:** Approximately 40 awards for Phase I for an approximate total of \$850,000 total.

Upon the successful completion of Phase I, Phase I grant recipients will have the opportunity to apply for Phase II funding of up to \$75,000 for two additional years including direct and indirect costs (see Background section for more information). Proposals for Phase II grants requesting an award of more than \$75,000 will not be considered. Cost-sharing is not required for either Phase I or Phase II grants.



The U.S. EPA, as part of the P3 Award Program, is seeking applications proposing to research, develop, and design solutions to real world challenges involving the overall sustainability of human society. The P3 competition highlights the use of scientific principles in creating innovative projects focused on sustainability. The P3 Awards program was developed to foster progress toward sustainability by achieving the mutual goals of economic prosperity, protection of the planet, and improved quality of life for its people-- people, prosperity, and the planet – the three pillars of sustainability. The EPA offers the P3 competition in order to respond to the technical needs of the world while moving towards the goal of sustainability. Please see the P3 website (<http://www.epa.gov/P3>) for more details about this program. [http://www.epa.gov/ncer/rfa/2010/2010\\_p3.html](http://www.epa.gov/ncer/rfa/2010/2010_p3.html)

### 3. ERDC Industrial Process Optimization (BAA)

Deadline: continuous

Abs: identify new opportunities for industrial energy reduction achieved through new technologies and improved system and operational modifications while simultaneously reducing toxic air emissions. Emphasis shall be placed on implementing changes that could be applied to numerous military industrial installations. <http://fundingopps.cos.com/alerts/75650>

#### 4. ERDC Construction Materials Made from Recycled Wastes

Deadline: continuous

The Construction Engineering Research Laboratory announces research opportunities involving construction materials made from recycled wastes. Research is currently being conducted on construction materials made from recycled, post-consumer wastes with a primary focus on products made from recycled plastics. Required research on these polymeric materials includes, but is not limited to, studies concerning the relationship of fabrication techniques to end-product properties, degradation mechanisms in various environmental exposures, long-term mechanical properties and durability in severe and varying environments, creep behavior at varied temperatures and loads, behavior and design of bolted connections, quality assurance techniques, design criteria for structural applications, and modeling techniques to predict material behavior in different loading situations over the life-cycle of the product. <http://fundingopps.cos.com/alerts/41644>

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

##### 1. U of Wisconsin Aquatic Sciences Center ([www.aqua.wisc.edu](http://www.aqua.wisc.edu)) seeks Communications Manager

Application deadline is Sept. 30, 2009

The ASC administers the UW Sea Grant Institute and UW Water Resources Institute, which support multidisciplinary research, education and outreach for the protection and sustainable use of Wisconsin's water resources. Required degree and experience: Bachelor's degree plus at least 5 years experience managing a communications or media relations team conveying scientific or technical subjects to wide audiences. Preferred background: Master's degree in a scientific field or in journalism, public relations, or related field plus at least 5 years experience communicating biological, aquatic or environmental science and research in higher education institutions. For details on how to apply and a detailed description of this position, please see the online position vacancy listing: [http://www.ohr.wisc.edu/pvl/pv\\_062660.html](http://www.ohr.wisc.edu/pvl/pv_062660.html)

##### 2. Sustainability Coordinator, Campus Planning, U Cincinnati



Campus Green is a 6-acre open space that serves as a gateway to the West Campus and a bridge to the East Campus and Medical Center

The University of Cincinnati (OH) Department of Campus Planning, Design, and Construction invites applications for a Sustainability Coordinator position. Under the general direction of the University Architect/Associate Vice President for Planning, Design, and Construction, the successful candidate will coordinate activities with the Associate VP of Facilities and the Executive Director of Utilities to assist with the American College & University Presidents' Climate Commitment and work on sustainability efforts at the University. The one-year position with a possible extension will also develop strategies to promote sustainability efforts and lead the effort to create implementation plans, attend meetings in support of sustainability efforts as required, assist in maintaining accurate records of sustainability initiatives and accomplishments, and create and maintain

ongoing updates to the campus sustainability website. A bachelor's degree with three years of experience or equivalent is required. The position is open until filled.

<https://www.jobsatuc.com/applicants/jsp/shared/frameset/frameset.jsp?time=1252085719606>

##### 3. Sustainability Fellow, Unity College

Unity College (ME) seeks a Sustainability Fellow with expertise in sustainability and energy accounting to develop a comprehensive and cost-saving energy plan for campus buildings. The Fellow will identify and propose a suite of campus renovation projects that will reduce greenhouse gas emissions, perform cost-benefit analysis of projects, and will identify and seek out potential funding sources. Applicants should hold an advanced degree in sustainability or a related field and have training in energy and climate emissions accounting. The full-time, six-month position will begin this fall. Review of applications will begin immediately.

<http://www.unity.edu/AboutUnity/Jobs/StaffJobListings.aspx>

##### 4. Faculty Position, Corporate Env'l Sustainability, Duke U

Duke University (NC) invites applications for tenure-track faculty positions in the area of Corporate Environmental Sustainability to begin in the fall of 2010. As a faculty member, the individual will hold joint appointments in the Fuqua School of Business and the Nicholas Institute for Environmental Policy Solutions (NIEPS). Applicants should

have a strong research record in corporate environmental sustainability and must be willing to contribute to the research missions of both Fuqua and NIEPS. Applicants should have a Ph.D. by the date of appointment, a strong research record, and ability to teach in Fuqua's Ph.D. and MBA programs.

<https://academicjobsonline.org/ajo/Duke/Fuqua%20School%20of%20Business/151>

#### **5. Prof, Sociology w/ Sustainability Focus, Brooklyn College City U New York**

The Brooklyn College of the City University of New York Department of Sociology invites applications for a position as Professor of Sociology to begin September 2010. The College is seeking candidates with a specialization in the area of sustainability and whose research and teaching interests can speak to, and make use of, Brooklyn's social context. The successful candidate will be expected to teach at least one methods course each semester, as well as to contribute to the Department's courses in social theory. <http://chronicle.com/jobs/0000606952-01>

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#### **EVENTS & CONFERENCES**

##### **1. Symposium on Integrated Modeling for Large Aquatic Ecosystems January 20-21, 2010 Baltimore, MD**



"Putting the Best Available Science and Information Technology to Use: Integrated Modeling and Analysis to Support the Management and Restoration of Large Aquatic Ecosystems"

Genevieve Borg (SS) was on the planning committee for this symposium during her internship with the EPA's Council for Regulatory Environmental Modeling this summer.

Website: <http://www.epa.gov/crem/2010-symposium.htm>

##### **2. Michigan Clean Water Corps 5<sup>th</sup> Annual Conference October 26-27, 2009**

R.A. MacMullan Conference Center

Higgins Lake (Roscommon, MI)

<http://www.micorps.net/conference>

##### **3. SOLM-GLBA Joint Conference Lake Michigan: State of the Lake and Great Lakes Beach Association**

September 29 – October 1, 2009

Hyatt Regency Milwaukee, Wisconsin

<http://www.aqua.wisc.edu/solm/>

##### **4. 2009 Midwest Fish and Wildlife Conference Springfield, Illinois, on December 6-9.**

The purpose of the conference is to share new research, management experiences, and valuable insight on fish and wildlife issues. Conference organizers say that it is the "premier fish and wildlife conference in the central U.S., with more than 1,000 attendees at past conferences." For additional conference information, or to register, click here: <http://www.dnr.state.il.us/Midwest/index.htm> Contact Mark Gorman (202/464-4015) at the Northeast-Midwest Institute.

##### **5. Great Lakes-St. Lawrence River Water Resources Regional Body to hold special meeting Sept 22, at 2:00 p.m.**

This conference call meeting will be open to the public and will include an opportunity for public comments. An agenda and materials to be discussed will be available at <http://www.glsregionalbody.org/Meetings.aspx> in coming weeks. Also see [www.cglg.org](http://www.cglg.org) in coming weeks.

The Council of Great Lakes Governors serves as Secretariat to the Regional Body and the Compact Council. If there are questions, please call 312-407-0177 or e-mail [cglg@cglg.org](mailto:cglg@cglg.org).