MichiganTech
TECH TODAY
May 21, 2012
Michigan Technological University Faculty/Staff Newsletter * Published Daily by University Marketing and Communications

News

Healthy Tip of the Week
brought to you by HuskyPAW

The human body improves itself through hard work. The more it is used or exercised, the better it gets.

Update: Generations of Discovery Campaign
Michigan Tech's Generations of Discovery Campaign seeks to raise $200 million by 2013.

Tech Today tracks the progress of the initiative with monthly announcements of gifts from individuals and from corporations and foundations.

In the month of April, 698 donors made gifts totaling $975,152:

* $0 to $24,999 category--690 donors made gifts totaling $189,672.

* $25,000 to $249,999 category--7 donors made gifts totaling $535,480: 2 outright gifts totaling $148,480; 3 pledges totaling $187,000; 2 planned gifts totaling $200,000.

* $250,000 and above category: 1 pledge of $250,000 for an Enterprise fund.

The campaign total as of April 30 was $170,948,713.

Two Parking Lots Close
A majority of parking spaces in lots 31 and 34 will not be available today to allow contractors to complete the asphalt paint markings. The spaces affected are along Phoenix Drive immediately in front of the Great Lakes Research Center, Dow Environmental Sciences and Engineering Building and along the south side retaining wall. The parking areas affected will be barricaded but the road will remain open to traffic. For more information, contact Facilities at 487-2303.

From Lemons to Lemonade: Reaction Uses Carbon Dioxide to Make Carbon-Based Semiconductor
by Marcia Goodrich, magazine editor

A Michigan Tech materials scientist, Professor Yun Hang Hu, has discovered a chemical reaction that not only eats up the greenhouse gas carbon dioxide, it also creates something useful. And, by the way, it releases energy.

Hu's research team developed an exothermic reaction between carbon dioxide and Li3N that forms two chemicals: amorphous carbon nitride (C3N4), a semiconductor; and lithium cyanamide (Li2CN2), a precursor to fertilizers.

"The reaction converts CO2 to a solid material," said Hu. "That would be good even if it weren't useful, but it is."

And how much energy does it release? Plenty. Hu's team added carbon dioxide to less than a gram of Li3N at

330 degrees Celsius, and the surrounding temperature jumped almost immediately to about 1,000 degrees Celsius, or 1,832 degrees Fahrenheit, about the temperature of lava exiting a volcano.

Hu's work is funded by the National Science Foundation. To reac the article, see Solid Materials. The article is authored by Hu and graduate student Yan Huo and published in the Journal of Physical Chemistry.

You can read more and see a TEM image of the carbon nitride on the Michigan Tech news site.

Staff Service Recognition Luncheon Tickets are Now Available
Staff Council will host the annual Staff Service Recognition Luncheon from noon to 1 p.m., Wednesday, June 6, in the Memorial Union Ballroom. Awards will be given to eligible staff who have reached a five-year anniversary date of service. Recent retirees will also be recognized.

The luncheon will feature the Delicious Southern Fare Buffet. Tickets are $5 and can be purchased from any of the Staff Council and Service Recognition Committee members listed below, or from Dining Services (Memorial Union 101).

The deadline to purchase tickets is Friday, June 1. Seating will be on a first-come, first-served basis; reserved seating will not be available.

The luncheon will be followed by a presentation of awards to more than 140 staff members. If you are unable to attend the lunch, please join us for the awards presentation beginning at approximately 12:30 p.m.

If you have any questions, or to purchase tickets, contact the following:

Staff Council members:
Sherry Anderson, College of Engineering; Karen Hext, Human Resources; Janelle Hosafros, Alumni Relations; Allyson Jabusch, Computer Science; Rhonda McClellan, Facilities Management; Karen Wade, Center for Diversity and Inclusion

Service Recognition Committee members:
Arlene Collins, University Marketing and Communications; Colleen Erva, Financial Aid Administration; Peggy Gorton, School of Technology; Lynda Heinonen, Enrollment Services; and Tanya Maki, School of Business and Economics.

For more information, see Staff Council.

Sports News

Former Tech Coach Joins US Ski Team
by Ian Marks, assistant director, athletic communications and marketing

Former Michigan Tech assistant Nordic ski coach Jason Cork has been named an assistant coach for the US Cross Country Ski Team. Cork will work primarily with the men's World Cup team under the leadership of cross country head coach Chris Grover.

Cork joins the team after several successful seasons at Central Cross Country (CXC Team), with his athletes dominating the USSA SuperTour. Cork was the USSA's Cross Country Domestic Coach of the Year in 2011. He also coached at the Durango Nordic Ski Club.

"Jason Cork has been an extremely influential coach both with Team CXC and the Durango Nordic Ski Club," said Grover. "This past season was a great example, with the tremendous success of Team CXC athletes both domestically and internationally."

A native of North Pole, Alaska, Cork worked with CXC after serving as an assistant coach at Michigan Tech.

"Working with the CXC Team was a great experience," said Cork. "Coaching some of America's fastest skiers taught me a lot. I wouldn't have the opportunity to work with the US Ski Team had CXC not given me the opportunity to join its team, where I learned more about training and racing at a higher level."

Tech Soccer Team Ranks Ninth Nationally in Attendance
The Michigan Tech women's soccer team ranked ninth in the nation in home attendance in NCAA Division II in 2011. The Huskies averaged 357 fans per game.

Grand Valley State narrowly edged Tech for the top spot among GLIAC schools, ranking eighth with 363 fans. Other GLIAC schools in the top-75 include Tiffin 56th (207 fans), Ferris State 59th (204) and Ashland 69th (193).

The Huskies posted a record of 7-9-1 during its second year as a program.

Regular Features

On the Road
Joan Chadde (CEE) traveled to Detroit last week as part of the Urban Forest Stewardship Program that involves eight public schools.

Michigan Tech coordinates the event at Belle Isle that showcases student work in three programs, Adopt-a-Beach, Invasive Species Removal and the Creation of an Interpretive Trail.

The initiative, funded by the USDA Forest Service, is intended to integrate forestry into curricula.

In offering the program, Tech partners with the Michigan Alliance for Environmental and Outdoor Education and Belle Isle Nature Zoo.

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Pasi Lautala, director of the Rail Transportation Program (RTP), a part of the Michigan Tech Transportation Institute (MTTI), PhD student Hamed Pouryousef (CEE), and undergraduate David Sutton (CEE) recently attended and presented at the 2012 Joint Rail Conference, "Technology to Advance the Future of Rail Transport," in Philadelphia, April 17-19.

Lautala presented "Tuning Transatlantic Collaboration in Rail Higher Education (TUNRail)--Final Outcomes," based on his project that is supported by the Fund for Improvement of Postsecondary Education (FIPSE), US Department of Education.

Lautala also chaired two sessions in the conference. Pouryousef presented a paper, "The Role of Railroad in Multimodal Woody Biomass Transportation in Michigan," and Sutton presented a paper, "Industry-Student Collaboration to Develop Sustainability Metric for Concrete Tie Production."

In the News
The research of Joshua Pearce (MSE) on water purification is featured in the CBC article, "A Gram of Salt Helps Treat Murky Water."

In Print
John Gagnon, promotional writer for University Marketing and Communications, has authored the book, "Lake Superior Profiles: People on the Big Lake," published by Wayne State University Press. The book portrays people who work on and around the Big Lake. It is available locally at the Campus Bookstore and Book World in Houghton. It is also available at Amazon.com and Book World online.

New Funding
Assistant Professor Bo Chen (ME-EM/Advanced Power Systems Research Center) and coPIs Professor Jeff Naber (ME-EM), Professor David Shonnard (ChE) and Dean Jacqueline Huntoon (Graduate School) have received $48,660 from the National Science Foundation for a project, "US-China Workshop and Planning Visit on Sustainable Fuels and Clean Vehicles."