

# Sustainability Forum stresses conserving limited resources

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The last Sustainability Forum of the academic year was held on Friday March 30, 2012; and focused on the safety and availability of food, water and energy - as well as how all three are connected.

The forum which was co-sponsored by the Wanger Institute for Sustainable Energy Research (WISER) and the Office of Campus Energy and Sustainability (OCES) was moderated by Environmental Engineering Professor Paul Anderson who set the table by stressing the importance of conserving our limited resources.

Hamid Arastoopour, IIT Professor and Director of WISER, spoke first and mentioned four key priorities for our resources - economy, health, sustainability, and security. As population continues to grow, so does consumption, which in turn depletes our limited resources. As food, energy and water are interconnected; an increased consumption of one resource necessitates an increase in the others, thus amplifying our problem.

Arastoopour highlighted this problem through the lens of eating meat. As people achieve higher incomes, they tend to eat more meat as it is a more expensive food and thus act as secondary consumers - i.e. - eating cows

which in turn eat plants. On average only 10% of the energy is passed up the food chain and thus humans lose 90% of the energy by eating meat as opposed to going vegetarian. Pound for pound, meat also uses substantially more water than vegetables do, thus contributing to water shortages. Arastoopour transitioned this into the idea that "water-poor" countries should import goods which require substantial volumes of water to produce and vice-versa. This virtual water trading will be critical as water problems become more prevalent in the future.

While there are no quick and easy solutions to the food-water-energy nexus, Arastoopour believes that it needs to be handled both globally and locally due to the variety of resources, politics, and lifestyles in the world. The link between economy, security, health, and climate change needs to be understood and policy, technology, and economy need to be more interlinked.

Javad Abbasian, Professor of Chemical Engineering focused specifically on the water-energy connection. Agriculture, industry and residential locations need both water and energy and each resource is critical in being able to deliver the other.

He suggested that water sources and usage need to be partitioned. For example, he suggested that the water which we use to flush our toilets or cool indus-

trial processes does not need to be as purified as drinking water. It takes energy to clean water and different levels of cleaning are appropriate based on the end-usage.

Power plants which generate electricity are big users of water and represent a good opportunity for conservation. Abbasian suggested several ideas to implement cooling systems which can recycle and purify water as well as systems that use waste water as cooling water. These systems can reduce the total energy and water use for the process but require water to be slightly more expensive than the current price in order to be financially feasible.

However, it showed that there are a lot of creative ways to reduce energy and water usage by focusing on the system as a whole and innovative ways of doing current processes. Lacey Guillen, Scientist and Manager of Proficiency Testing and Method Validation at the Institute for Food Safety and Health, (IFSH) at IIT's Moffet Campus spoke about how the food industry can reduce energy as well.

The IFSH program is supported by the FDA and effectively bridges the gap between food companies and the FDA. They have departments for safety and technology, nutrition, processing, and specialty programs. They have been working with Stuart School of Business on market research and commercialization of packaging sustainabil-

ity. New technologies such as ultrasound, cold plasma, and ultraviolet processing use less energy than traditional food processing and could be staples of a more sustainable, less energy intensive food system of the future.

Even with the focus on water conservation, all speakers were opposed to the privatization of water. Instead they suggested eating better and educating people about food and where it comes from.

Arastoopour suggested that people need to consider where their food is grown and understand the implications entailing the sustainability of this vital system. On a question about why renewable energy is not as widespread in the United States as it is in Europe, Abbasian mentioned that cheaper energy is the norm here and paying more for green energy is a matter that is both cultural and corporate. He also suggested that the United States needs a sound and forward looking energy policy, giving the example of how Germany developed into a world class wind power generator by setting that as a national priority and working towards it - despite the fact that it is not the windiest place.

Keep an eye out for April's meeting which will discuss IIT's Energy Policy going forward as well as looking back at IIT's progress towards reaching its 2020 Sustainability goals.



Photo by Elizabeth Mauban

# IIT student serves community by volunteering

By Dan Zweig  
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Greek organizations nationwide are dedicated to service and philanthropy and improving their immediate communities. On March 10th Tony Iaccino from Sigma Phi Epsilon participated in his fourth year of service to an outstanding organization, Face the Future Foundation, that supports children who cannot afford facial surgery. He fundraised for the Craniofacial Center at the University of Illinois Medical Center. Each year guests come from around Chi-

cago and even the country to take part in the event, from influential doctors and researchers to company CEOs and their families.

Iaccino volunteers at the event as an integral member of the fundraising team. He is in charge of setting up a closed network with a host computer and six other computers, adding credit card scanners to each machine and syncing them with the host.

Each guest registers his or her card at the beginning of the night, then after the silent auction, live auction, and other programmed events the slips are tallied up and the items and packages are assigned to the winning bidder numbers.

At the end of the night, the guests check out and get a receipt for their purchases. All of the items are donated to Face the Future Foundation. Items include donations from Prada, the Blackhawks, the Bears, and other high end stores and companies. This year the highest winning package sold for \$17,000 and included a tour of Italy.

Each admission ticket costs from \$500-\$1,000 and each guest must be pre-registered. Other donations were given throughout the night including a generous gift from the widow of the McDonalds CEO who had previously donated over \$10,000. At the end of the night the collec-

tions were tallied at \$287,000 after ticket and item/package sales. The auctioned items alone accounted for an estimated \$170,000.

Iaccino demonstrates one of the ideals of Greek life as he sacrificed his entire weekend before Midterms to serve an organization that is dedicated to helping communities and youth in need. What is most inspirational about him is that Iaccino is using skills that make him an essential element of the fundraising event, and can serve as a role model for IIT students as they develop their skills and talents at the university, showing them how they can serve their communities and societies through their work and philanthropies in the future.