

# Connections

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**IN THIS ISSUE:** Alumni profiles of Wendi Hawk '05, Bob Rumer '80, Angie Sowers, '98, '00, '03, and updates from SEA!

Dear Hopkins Engineering Graduate,

*Welcome* to the first issue of *Connections*, the Hopkins Engineering alumni newsletter. The Whiting School's Office of Development and Alumni Relations is committed to connecting alumni and friends with the school and each other, providing activities of interest to our graduates, and encouraging our alumni to remain involved with the school today.

With these goals in mind, this newsletter highlights alumni achievements, includes information about the latest alumni happenings, and brings you news on upcoming alumni events. We will also provide updates on Society of Engineering Alumni (SEA) activities and fresh ideas about ways you can stay involved with each other and with current students and faculty.



In my almost two years as associate dean at the School of Engineering, it has been an ongoing pleasure to meet many of you, and I have been so impressed with the dedication and commitment of our graduates. We value your participation and if you have any suggestions for future events, alumni news to share, ways you would like to become involved, or general comments, please do not hesitate to contact me directly at [rspiller@jhu.edu](mailto:rspiller@jhu.edu) or (410) 516-8723.

Once again, welcome to the Hopkins Engineering Alumni Newsletter. I look forward to seeing you soon.

Robert Spiller, Associate Dean for Development and Alumni Relations

*Prefer e-mail?* If you would like to receive this newsletter electronically, please tell us by e-mailing [engineering@jhu.edu](mailto:engineering@jhu.edu).



ALUMNI PROFILE

## Wendi Hawk '05 EPP Alumna Impacts National Security

In 2005, **Wendi Hawk** received her master's degree in computer science from the Whiting School's Engineering Programs for Professionals (EPP). She also launched her own information technology (IT) company.

"One of the best courses I took was New Technical Ventures, taught online by Ed Addison," Hawk recalls. "We wrote business plans, and that plan became the basis for my company." Hawk Technical Solutions, a company designed to help government intelligence agencies share information, was gaining intelligence clearances and landing government contracts by the end of the year.

But, if you think last year was impressive, wait till you hear what Hawk's been doing this year.

In December, 2005 Hawk sold her company to e.magination, a local IT firm. Citing the war in Iraq and Hurricane Katrina as two indicators that government IT spending would significantly decline, Hawk knew her burgeoning company would subsequently suffer. "I was able to spot that the market wasn't going to support small companies," she says. "One thing that makes an entrepreneur successful is the ability to forecast down the road."

But selling her company didn't mean

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she was out of the game. She's now with e.magination, serving as the director of Intelligence Operations. With all but one of her

**Called "e.magine-it," the process allows organizations to share information and tools with users more effectively, directly benefiting national security.**

original staff along with her, she says running her division is just like running her own company, minus the headaches of payroll, marketing, and contracts.

"E.magination has taken a lot of the ideas I had at Hawk Technical Solutions and is using them," Hawk states, "so I feel that the merger was a success."

Hawk's latest achievement is the development and launch of e.magination's newest process within government agencies. Called "e.magine-it," the process allows organizations to share information and tools with users more effectively, directly benefiting national security.

Hawk's latest goal is getting e.magine-it to more government agencies so they can help their users to share pieces of information better to prevent future terrorist attacks. Pieces of information, she says, such as local arrest warrants, FBI Most Wanted lists, and the names of "guys taking flight lessons in Florida, with the ultimate goal of making all of us safer in the long run." ■

### SEA Online Forum

Network with Hopkins Engineering alumni, students, and faculty at your own convenience, 24 hours a day, seven days a week!  
[engineering.jhu.edu/seaforum](http://engineering.jhu.edu/seaforum)

# New All-time Weight Record Set at 13th Annual Spaghetti Bridge Competition

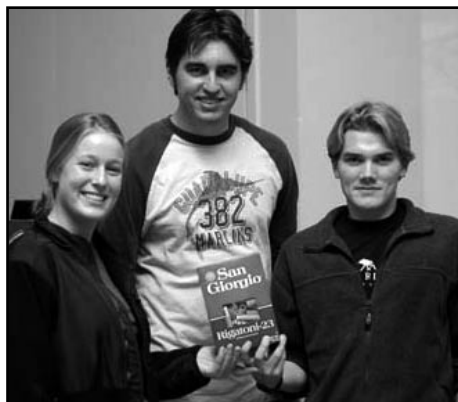
**H**ow much weight do you think a bridge made only of spaghetti and glue can hold? Did we mention that the bridge itself weighs no more than one pound, 10.5 ounces?

On Sunday, November 5, students enrolled in the freshman course, "What is Engineering?" found out during the Whiting School's 13th annual Spaghetti Bridge Competition.

Teams of two or three students, along with several engineering alumni serving as judges and professor Michael Karweit '64, '68, met in the Glass Pavilion on the Homewood campus. The spaghetti bridges—each a meter in length and only 50 centimeters tall—were placed in front of the audience to be weight tested. One by one, the teams placed their bridge between two podiums, attached a metal chain to the underside, and began adding weight to the chain.

The most amazing moment of the day may have been when, during one bridge test, the weights crashed to the floor but it was not the bridge that had broken. Instead, it was the metal S hook connecting the chain to the bridge.

However, even that mighty bridge was trumped. Tacoma Narrows, built by Ellen Berlinghof, Rory O'Rourke, and Graham Belton (below), took the \$100 grand prize.



Before breaking, it held a net load of just over 147 pounds. Not bad for a bridge made of pasta and glue!

A special thanks to those alumni who volunteered as judges for the day.

**Murray Miller '53, '61**

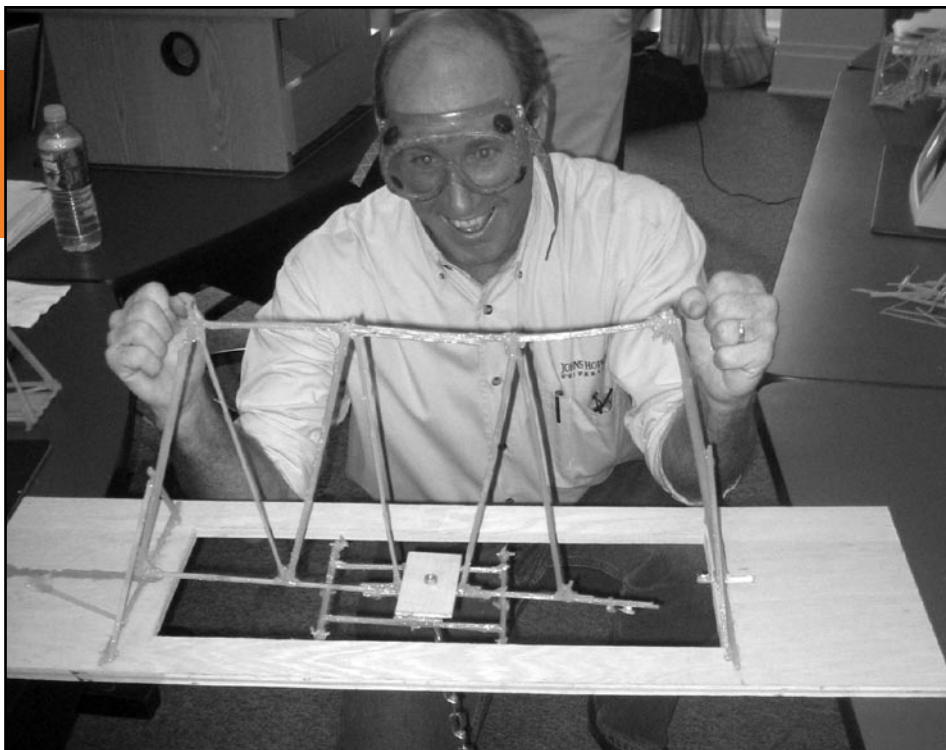
**Nicholas Deros '84, '89**

**George Jenkins '43, '47**

**George Hudgins '58, '71**



**Student teams tested their glue and spaghetti bridges on November 5, 2006. This year's winners broke the school's weight record.**



## Bob Rumer '80

### Reaching Out to the Next Generation of Engineers

The idea of getting teenagers to appreciate and become involved in engineering may seem like a full-time job. For **Bob Rumer**, who received his bachelor's in biomedical engineering from Hopkins in 1980, it is.

Rumer is now the Western regional program director for Hopkins' Center for Educational Outreach. Established in 2003 by the Whiting School, the center aims to develop educational and outreach programs for under-represented groups in science, technology, engineering, and math.

Though he spent 25 years as an engineer, mostly designing medical instruments and computer systems, Rumer decided to make the switch to educational outreach when he learned about the center during his visit to Hopkins for his 25th reunion.

"I had just seen my children go through the process of picking a school and major and it was an exciting experience for them and me," he recalls. And though he believes engineering is a great career, he says he realized then that "few high school students have an idea of what engineers do."

"When I went to Hopkins, very few of our students, maybe 10, came from California," he says. "Now, California is the largest application state. Hopkins has changed from a regional school into a national one."

**"Now, California is the largest application state. Hopkins has changed from a regional school into a national one."**

And while his current quest to introduce and enlighten teenagers to engineering consumes the majority of his work week, he still manages to find time to teach physics at both California State University Channel Islands and California Lutheran University. "Engineering starts with science, biology, and physics, which makes sciences like physics precursors to engineering."

The Center for Educational Outreach currently reaches 200 students per year. But Rumer has big plans. "Our goal is to reach 2,000 students by 2010," he says. "This program will grow into a national program for Johns Hopkins." ■

More information about the Center for Educational Outreach can be found online at <http://engineering.jhu.edu/~ceo>.

## Angie Sowers '98, '00, '03

### From Tidal Waters to Flood Waters, WSE Alumna Helps to Save the Environment

As a biologist for the Army Corps of Engineers, alumna **Angie Sowers** figures out ways to help the environment—from pondering environmental restoration projects for the Chesapeake Bay to removing debris in the wake of Hurricane Katrina.

Considering the nature of her career, it's not surprising that as a high school student, Sowers was torn between science and engineering. "I chose Hopkins," she recalls, "because it has great programs in both areas. I could try engineering and if I didn't like it, swap to science."

But she did like it and, in 1998, received her bachelor's degree in chemical engineering.



Two years later she received her master's and, in 2003, still at Hopkins, earned her Ph.D. in environmental engineering.

Now in the planning office of the Corps' Civil Works Program, her focus is on flood control, navigation, and environmental restoration of the Chesapeake Bay watershed. Her efforts have tangible outcomes, such as stream restoration, the re-creation of previously eroded islands, and oyster restoration.

"I really enjoy working on our native

*(continued on page 5)*

## Want to Get Involved with Hopkins Engineering?

The Society of Engineering Alumni (SEA) offers a wide range of opportunities for engineering graduates to stay connected with the school. From hosting social events and behind-the-scenes tours of our new facilities to providing career advice to undergraduates, the SEA is an integral part of the Whiting School's success. Below are examples of just a few of the SEA's latest activities. For information about how to get involved or a schedule of upcoming SEA events, please visit [engineering.jhu.edu/alumni-friends](http://engineering.jhu.edu/alumni-friends).

## Regional Science Fairs

The SEA is looking for opportunities to get alumni involved in science and engineering education across the country by serving as judges at junior high and high school science fairs. In addition to the fun you can have taking part in these events, you will be given a Hopkins Engineering T-shirt and Hopkins admissions information to distribute. The SEA then sends prizes and congratulatory letters to the winners after the fair. If you know of science fairs in your area, or if you wish to join a team of alumni judges, please contact Kelly Merryman in the Whiting School Development and Alumni Relations Office at (410) 516-8723 or [hopkinsSEA@jhu.edu](mailto:hopkinsSEA@jhu.edu).

## Résumé Review

The SEA's Industrial Relations committee needs alumni to critique student résumés. If you are interested in sharing your professional perspective with a current student, please contact Kim Willis in the Development and Alumni Relations Office at (410) 516-8723 or [hopkinsSEA@jhu.edu](mailto:hopkinsSEA@jhu.edu).

## Career Night



The Eighth Annual SEA Career Night was held on September 19 on the Homewood campus. A record-breaking crowd of over 140 students and 40 alumni were in attendance, representing graduate, undergraduate, full- and part-time programs and a wide array of disciplines and careers.

Local alumni spoke with students about their experiences in the professional world and offered advice on job searching, internships, graduate school, and career paths (in both engineering and other fields).

This year's event featured keynote speaker **Neil Kleinberg '81, '87**, panelists **Tim Hsieh '83, '85, '89, Linda Couch '87, '91, David Zolet '83, '87**, and host **Suzanne Jenniches '79**.

**Representing a multidisciplinary and collaborative approach to research, the new 79,000 square-foot Computational Science and Engineering (CSE) Building on the Decker Quadrangle will house researchers in disciplines such as Robotics, Computer Integrated Surgery, and Computational Medicine.**

**On September 9, over 180 alumni and students attended the eighth annual SEA Career Night.**

## Hard Hat Tour of the New Computational Science and Engineering Building

On September 28, local Hopkins Engineering alumni participated in a hard hat tour of the new Computational Science and Engineering building, scheduled to open in the fall of 2007. The tour was followed by a reception in Hodson Hall where alumni had the opportunity to speak with faculty members working in robotics and computational medicine about the new facility and the ground-breaking research they will conduct there.



As an alum, you can have a JHU e-mail alias. Visit this Web site: [https://jhed.johnshopkins.edu/Tools/email\\_alias/index.cfm?fuseaction=alumni\\_login](https://jhed.johnshopkins.edu/Tools/email_alias/index.cfm?fuseaction=alumni_login).

## New SEA Officers and Council Members

The SEA Council has 45 members, an executive committee consisting of five officers, and four standing committees: Student Relations, Communications, Industrial Relations, and Nominations. This October we welcomed a new group of officers as well as seven new council members.

### 2006–2008 Executive Committee:

Raquel M. Silverberg '92, *Chair*  
Joseph F. Strohecker '53, *Vice Chair*  
Carl D. Liggio Jr., Ph.D. '96, '00, '01,  
*Secretary*  
Cecilia Lenk, Ph.D. '76, *Treasurer*  
Scott L. Kugler '94, *Regional Liaison*

### New Members:

Jacqueline M. Akinpelu, Ph.D. '80  
Christopher Aldrich '96  
Richard H. Buckholz Jr., Ph.D. '79  
Steven J. Gitomer, Ph.D. '64, '66  
Johna Till Johnson '86  
David C. C. Mao '86  
Christopher Mengler '86



**Outgoing chair Lewis G. Miller '57, '61 hands over the gavel to Raquel M. Silverberg '92.**

We thank all of our current and outgoing members for their hard work and dedication to the SEA! And we wish to offer a special thanks to outgoing chair Lewis G. Miller '57, '61, and outgoing secretary Charles S. Schrodell Jr. '57 for their many years of service to the SEA.

**Engineering students and alumni gathered on October 27th for the annual Student and Alumni Barbeque.**



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oyster restoration project,” she says, adding that only 1 percent of the bay’s oyster population in the mid-to-late-1800s exists today. “Oysters are the only animal in the bay that builds reefs,” Sowers explains. “Other animals depend on those reefs, so when that habitat goes, we lose that entire piece of the bay ecosystem.”

And though she strongly endorses the bay’s oyster restoration project, she also recognizes other, less local needs. This past year, Sowers volunteered as part of an Army Corps of Engineers team in New Orleans after Hurricane Katrina. She spent the month of

**“In the past year we’ve restored the system to what it was, which some would say isn’t a big deal, but it’s actually quite amazing that we’ve been able to do that so quickly.”**

October there, working 12-hour days directing and supporting debris removal.

“In the past year we’ve restored the system to what it was, which some would say isn’t a big deal,” she comments, “but it’s actually quite amazing that we’ve been able to do that so quickly.” She adds that eventually the city will receive improvements such as barrier islands, wetlands, natural ridges, levees, spillways, floodgates, proper evacuation routes, communication systems, and pumping stations.

And though Sowers continues to stay involved with the New Orleans effort by working on feasibility studies conducted by Louisiana and Mississippi restoration projects, for now she’s back in Baltimore, focused once again on local environmental issues. ■

2007

**Sunday, January 7**

■ *San Diego, Alumni  
Networking Event*

4:00 PM - 6:00 PM

University Club Atop Symphony Towers,  
San Diego

**Thursday, January 18**

■ *Scottsdale, Dinner  
and Conversation With  
Steven David, Ph.D.*

6:30 PM - 9:30 PM

The Chart House, Scottsdale

**Saturday, April 7**

■ *Sixth Annual Lacrosse Game,  
Dinner, and Lecture*

1:00 Game time Hopkins vs. Duke

4:00 Cocktail Hour

5:00 Dinner and Lecture

<http://engineering.jhu.edu/include>

</content/pdf/alumni/lacrosse.pdf>

Call (410) 516-8723 for more information!

**Friday, April 20 – Sunday, April 22**

■ *Homecoming at Homewood*

Events for all alumni! More information  
and registration can be found at <http://alumni.jhu.edu/reunion/>

We frequently update our events  
calendar. Visit our Web site at  
[engineering.jhu.edu/~alumni/SEA-events](http://engineering.jhu.edu/~alumni/SEA-events).

*Help us keep in touch!*

We can't tell you about alumni events—  
and classmates won't be able to find  
you—unless your information is up-to-  
date in HopkinsNET. Take a look at your  
listing and update your profile today at  
[www.alumni.jhu.edu](http://www.alumni.jhu.edu).

*Show your school pride!*

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# Connections

NEWS FOR ALUMNI OF THE  
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