## ILLINOIS INSTITUTE OF TECHNOLOGY CONTROL OF TECHNOLOGY Winter 2012



### MAKING THINGS WORK.

The IIT Innovators Fueling Big Ideas

## ETTE from the President

"Do not go where the path may lead; go instead where there is no path and leave a trail."

—Ralph Waldo Emerson



Engineers, scientists, architects, designers, and other professionals are hardwired to make things. But at IIT, the concept of making things takes on a special meaning. An impressive quality of IIT alumni, students, and faculty is that they don't settle for average, or even good. They see the world a bit differently—and work to make things better.

A quality education provides the skills that enable progress, but motivation and passion are the drivers of transformational change. Motivation and passion are imbedded within the culture of IIT. Examples date from the founding of the university to its revival, credited to the late Robert Galvin and Robert Pritzker (IE '46) [see page 30], and are visible in our next wave of innovators and leaders, some of whom are featured in this issue.

Our students have not only high test scores, but also the enthusiasm to test their ideas over and over—even if it means a few failures along the way—in order to find the most innovative solution. We are attracting faculty who are not only inspired to develop bold research, but who also inspire our students to aim for greatness, both personally and academically. Our alumni are not only leaders in multiple areas of innovation, but also further the legacy of innovation by fostering leadership and excellence within others.

This issue highlights just a few of the many alumni, students, and faculty who are making things work better. Whether improving upon a prior invention, finding a creative new use for an existing product, or applying lessons from one area of life to find success in another, they prove that a good idea combined with passion and motivation can lead to things that change the world. They are truly following Emerson's advice.

John L. Anderson President

John L. anderson

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### SEND ALUMNI NEWS TO

Founded in 1890, Illinois Institute of Technology is a private Ph.D.-granting university that awards degrees in engineering, the sciences, architecture, law, design, psychology, humanities, and business.

### **IIT MISSION STATEMENT**

To provide distinctive and relevant education in an environment of scientific, technological, and professional knowledge creation and innovation.

IIT Armour College of Engineering
IIT Chicago-Kent College of Law
IIT College of Architecture
IIT College of Psychology
IIT College of Science and Letters
IIT Institute of Design
IIT School of Applied Technology
IIT Stuart School of Business

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### **IIT MAGAZINE ONLINE-ONLY CONTENT!**

Read extended coverage of stories featured in the print edition as well as special online-only content at **www.iit.edu/magazine** 



### Photo courtesy Fred Faulkner



### Flashback #1: Piece of History

I received my copy of IIT Magazine [fall 2011] today and, as usual, it is a spectacular piece of work. All elements: layout/design, editorial, and print quality.

I am a graduate of the Class of 1949 (WWII leftover) and my dad was a graduate of the Class of 1915. I am in the process of getting my affairs in order and came across several pictures of a track meet held on the old Ogden Field taken in 1915, I believe. The quality leaves a lot to be desired, but I think it conveys a sense of history otherwise unobtainable—unless you already have some of these kinds of pictures in your library.

Keep up the great work. The magazine has played a significant role in changing the image of IIT—for the better, of course. It does not look like the school I attended.

Fred Faulkner IE '49



### Flashback #2: View from Above

I particularly liked the cover photograph on the fall issue [fall 2011] of the campus and Loop looking north from IIT Tower.

I have an aerial view of the IIT campus and surrounding neighborhood that I made in September 1973, just after Labor Day. At that time I was in graduate school at IIT and returning to Chicago from visiting my parents in Baltimore. This photograph was made from the window of a TWA Convair 880 at approximately 8:15 a.m.; the plane was probably going about 200 mph or so at this time. Since I had to first retrieve my camera from the overhead bin and then take the picture, I didn't have a lot of time to compose the image. However, I believe the results are reasonably good. The photograph was made using a Nikkormat FTn and a Nikkor 80-200mm zoom lens, and Kodachrome 64 slide film.

Dennis W. Hetzner MET '69, M.S. '75



Photo courtesy Dennis W. Hetzner

### Write back!

IIT Magazine welcomes all signed letters to the editor and edits letters for content and clarity. Please send correspondence to:

IIT Magazine c/o Letters 3300 South Federal Street, Suite 503 Chicago, IL 60616

Email: iitmagazine@iit.edu

## **FUELING INNOVATION:** AN UPDATE ON THE CAMPAIGN FOR IIT IIT's six-year fundraising campaign, launched on June 1, 2010 and currently in its leadership phase, reached a giving total of

\$91.5 million as of December 31.

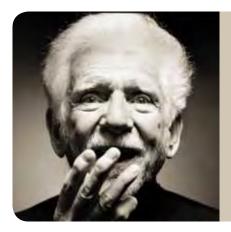
### **news**briefs

As the second half of the leadership phase of **Fueling Innovation**: The Campaign for IIT gets underway, gifts from members of the IIT Board of Trustees are contributing significantly to the campaign's momentum.

Trustee gifts include: a \$50,000 gift from Andrea Berry (CS '84) to support a new STEM+ Outreach Fund and an undergraduate scholarship in computer science; Eric Larson's \$120,000 gift supporting the Institute for Food Safety and Health; a \$150,000 gift from Martin lischke (PHYS '63) funding a proposed teaching and learning center; support for the renovation of IIT's athletic fields and an endowed scholarship from a \$650,000 gift from Robert Cornog (MET '61); a \$1 million gift from Ellen Jordan Reidy (PSYC '79, M.B.A. '81) to honor Dean Emeritus M. Zia Hassan (M.S. IE '58, Ph.D. '65) and to support entrepreneurship at IIT and facilities at Stuart School of Business and the College of Psychology; a \$2 million gift from Victor Morgenstern (CHE '64) to support the Institute of Design; and a \$10 million gift from John P. Calamos Sr. (ECON '63, M.B.A. '70) to create an endowed chair for the Stuart School of Business dean and an endowed chair in philosophy, and to support another area yet to be designated.

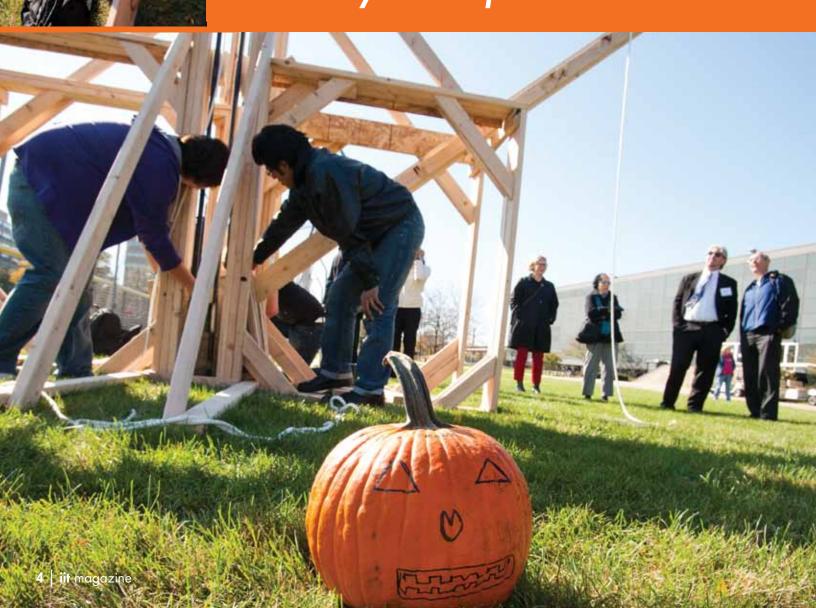
Also finding steady forward motion is the segment of the campaign focusing on scholarships. Thus far, \$12,488,496 has been raised. An increase in the amount of scholarship funds available to undergraduate and graduate students is expected to further improve enrollment and retention.

For more information about a gift to Fueling Innovation, call Susan Faraone, associate vice president for development and campaign director, at 312.567.7149, or visit the campaign website, www.iit.edu/giving/campaign\_for\_iit.



This February, Martin Cooper (EE '50, M.S. '57) will accept the 2012 Washington Award at a ceremony during Engineers Week, founded by the National Society of Professional Engineers, for his contributions to the technology of personal wireless communications. The Washington Award, one of the first national engineering awards, was developed in 1916. It is named after George Washington as a reminder that the nation's first president was an engineer whose achievements have advanced the welfare of humanity. This is the second consecutive year that an IIT alumnus has been honored with this award.



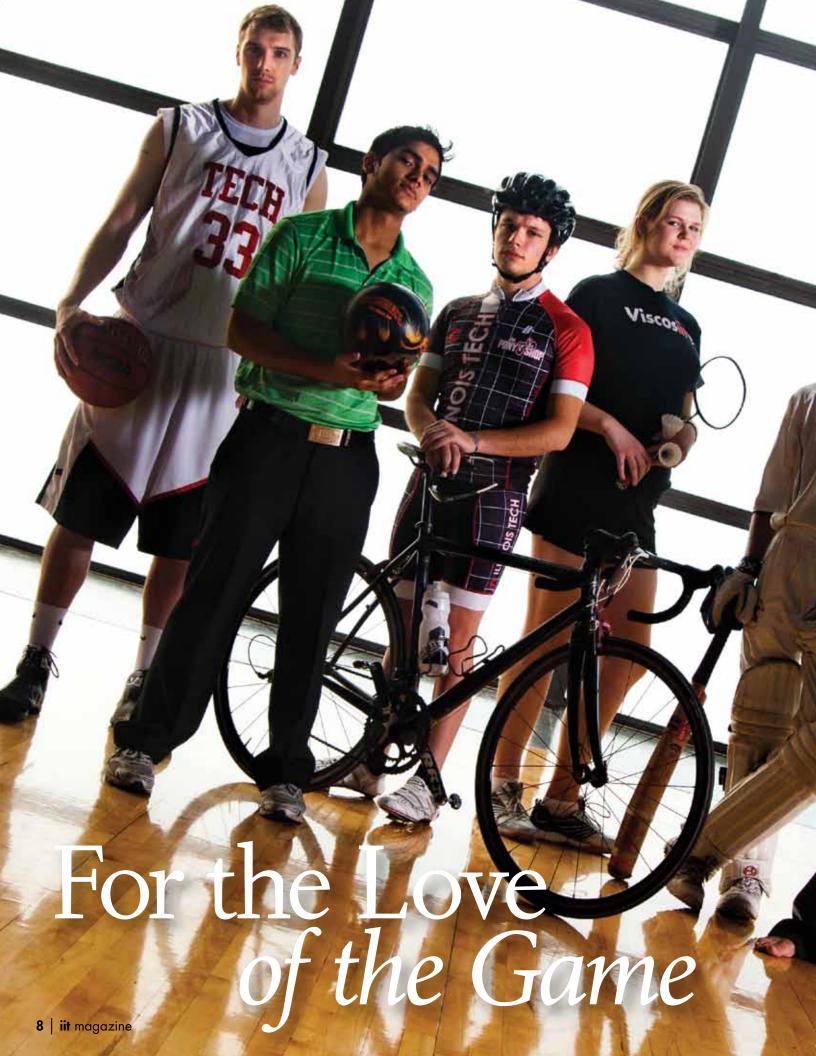


### **news**briefs

IIT's Main Campus—on the National Register of Historic Places and named by the American Institute of Architects as "one of the 200 most significant works of architecture in the United States"—has received its latest accolades. In 2011, Forbes magazine listed it as one of "America's most beautiful college campuses," and Architectural Digest named it among the "10 college campuses with the best architecture." When designing the campus from 1939-1958, Ludwig Mies van der Rohe took cues from industry—warehouses, factories, and the materials used in their construction—and not only translated them into a functional master plan for the university, but also created innovative and visually stunning new directions in architecture. IIT's Mies van der Rohe Society offers guided tours of Mies' buildings on campus. For a close-up look at how Mies made industry work in architecture, visit the Mies Society website, www.miessociety.org/tours, for tour information.

## ILITARIAN





### **news**briefs

IIT students may be singleminded when it comes to achieving personal academic excellence, but outside the classroom, students-hailing from more than 100 countries compete in a variety of studentled intramural sports that reflect their diversity.

Name: Ian A. Sisson Major: Architecture

Year: 4th

Sports Club: Men's Basketball Club Good luck ritual: "I listen to music and always

tie my left shoe first."

### Most appealing aspect of the game:

"Basketball is the greatest team sport. Everyone in the unit has a role to play. When two teams meet that understand the game well and put out every ounce of effort until the final buzzer sounds, the competition can become pretty spectacular."

Name: Romit Girdhar

Majors: Computer Science/Applied

Mathematics Year: 4th

Sports Club: Strike Force Bowling League The Bog bowling buzz: "Leagues

consisting of 14-18 teams are scheduled every semester. The top three teams win prizes in the playoffs, with prizes also given to the most valuable male and female players. Strike Force is looking to further improve the program by hiring a bowling coach and encouraging bowling as a competitive sport on campus."

> **Most memorable bowling** experiences: "One was when I first scored a 200+ game. The second was when I represented IIT in a United States Bowling Congress collegiate tournament. It was a dream come true to be representing my school."

Name: Ian Carr

Major/Minor: Mechanical Engineering/

Philosophy **Year:** 3rd

**Sports Club:** Illinois Tech Cycling Fave food fuel: "Pasta, of course.

A Belgian waffle is nice, but I don't suggest too much syrup."

**Great races:** "Last year, the club was ranked fourth among Midwest Division II National Collegiate Cycling Association schools."

Why cycling is his sport: "It has to do with the dynamic of the sport—the rush of moving

forward and the tactics that go along with winning races. I also like that it is an individual and team sport at the same time."

**Name: Ausrine Rakauskaite** 

Major: Architectural Engineering

Year: 3rd

**Sports Club:** IIT Badminton Club

Good luck ritual: "I re-tie my shoes before every match, which makes me feel safer and more confident. I've sprained both of my ankles and am a bit paranoid about them nowadays."

Athletic Inspiration: "The potential for improvement, not just for points, but also in how well my body can handle increasingly harder matches."

Why badminton is her sport: "A good badminton game requires great speed, agility, and focus, as well as mental concentration and endurance. After playing a good game, I feel balanced and have a better sense of control, both mentally and physically."

Name: Vijay Radhakrishna

**Major:** Electrical Engineering

Year: Master's program

**Sports Club:** IIT Cricket Club

Good luck ritual: "Our team huddles before each game and yells, 'Go Hawks!' After each fall of a wicket, we then yell 'Nine to go, eight to go, seven to go,' and so on, until the other team's batting order collapses."

Cricket deciphered: "Cricket is similar to baseball; however, the field is a circle and the pitch is in the center of the field. A player can score runs anywhere around the field. One home run equals six runs in cricket; if the ball bounces and goes into the crowd, it results in four runs."

**Name:** William Bafia **Major:** Computer Science

Year: 1st

Sports Club: IIT Water Polo Club

**Competitive season:** "Members train the first six weeks and the last six weeks of the academic year. We train two evenings from 9-10 p.m. and add more practice times if needed."

Why water polo is his sport: "I enjoy the team effort and the change of pace from the swim season. Water polo is a lot more fun!"

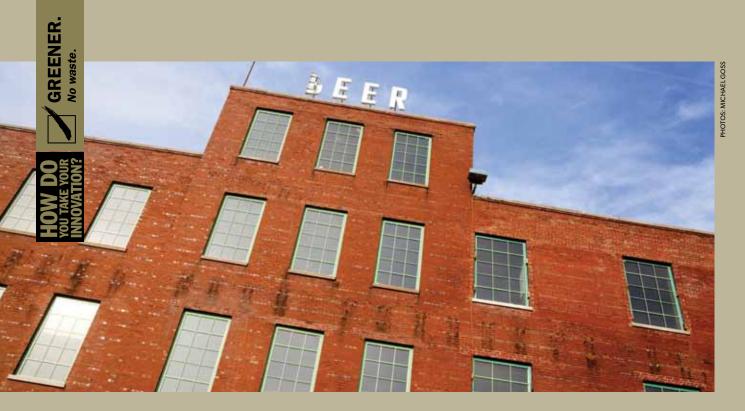




# HOWDO DO YOU TAKE YOUR INNOVATION?

From making loud noise safer for human ears to developing a system that is virtually waste free, IIT alumni, faculty, and students are the **innovators who are making things work**—greener, bolder, better, faster, safer, simpler, stronger, and smarter. **Read on >** 

AFER STRONGER BEENER BOLD it magazine 11



In 2009, IIT Industrial Technology and Management faculty member Blake Davis began an Interprofessional Projects (IPRO) Program course in which students were assigned to plan a vertical farm for the Chicago Sustainable Manufacturing Center, a new endeavor founded by John Edel. The students first tested a few prototype farm beds and then developed a formal plan for the farm after Edel succeeded in securing a 93,000-square-foot former meatpacking plant previously owned by Peer Foods in the Back of the Yards neighborhood. Over the course of several semesters, the IPRO students tested and implemented several components of Edel's project—known simply as The Plant including an aquaponic farm that combines raising tilapia with the cultivation of hydroponic crops, creating complementary systems in which the waste produced by the fish provides fertilizer for the crops, which in turn clean the water in which the fish live.

ore than 100 years after Upton Sinclair The Jungle, wrote production revolution is taking place in the very same neighborhood where the Chicago Stockyards once dominated the landscape. Vertical farming—the cultivation of crops in vertical, typically indoor, spaces such as urban buildings and skyscrapers—is seen by many as a new frontier in food production, allowing the otherwise unused urban spaces to provide fresh-grown produce for the local community and businesses.

This concept of using complementary systems to eliminate waste is writ large throughout The Plant, which is in the process of becoming a fully self-sufficient, zero-waste food-production and educational facility. Each component of The Plant, from the bakery and beer brewery opening in 2012 to the community kitchens planned for 2013, will either reuse organic waste from other components, such as spent grain from the brewery to feed the tilapia, or provide fuel for the anaerobic digester, which converts organic waste into gas used to heat and power the building.

The students continue to expand the farm and test the existing components, adding mushroom farming in fall 2011, experimenting with growing systems, and exploring the possibility of growing algae for medical use in the tilapia farm. Many students have continued to volunteer and work at The Plant well beyond the involvement required for their IPRO projects.



## **HOW IT WORKS:**

### **PROVIDE NET ZERO WASTE**

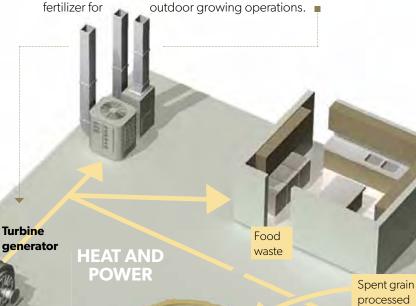
The Plant is a farm like no other, incorporating complementary food-production facilities such as a beer brewery and kombucha tea maker. Every component of the facility uses waste that the other components produce, creating a closed system that provides its own power, uses all of its own waste, and

produces a variety of food and beverages for consumers, restaurants, and markets.

Electricity powers the grow lights. Carbon dioxide from the generator is fed to the plants.

### **POWER**

The anaerobic digester uses bacteria to turn organic waste into gas used to power the turbine generator, which provides power and heat for the building. In addition, hydroponic garden plants will consume carbon dioxide that the generator produces. The digestate byproduct of anaerobic digestion is, in turn, used as high-nitrogen



Biogas fuels generator

**Anaerobic** digester: Bacteria process organic waste

**WASTE** 

waste

Farming

**AIR** 

**Hydroponic** food garden: kale, lettuce, and other crops are grown in water

> Plants consume carbon dioxide produced from tea brewing

Fish waste fills water with nitrates, which fertilize plants

WATER

Plants clean water for fish

Plants produce oxygen used in brewing

> Kombucha tea: a company has leased space to produce the fermented drink

Fish waste

**Tilapia** fish farm

SOURCE: ESRI, TeleAtlas, PlantChicago.com RYAN MARX AND PHIL GEIB/TRIBUNE

### **FOOD/BEVERAGE PRODUCTION**

A beer brewer and kombucha tea maker are currently building facilities at The Plant. The spent grain from the beer brewing process will feed the fish and provide fuel for the anaerobic digester. Oxygen that the garden crops produce will be used in brewing tea, and the gardens will consume carbon dioxide produced during the brewing process. Waste from a commercial kitchen at the facility will also go to the anaerobic digester.







### **FARMING**

The hydroponic gardens produce crops such as kale, lettuce, basil, and watercress, and mushrooms will be grown in spent grain from the brewery. The tilapia fish farm will grow to eventually allow sale of mature fish on the market. Fish waste provides fertilizer for the crops while the garden cleans the water in tanks housing the fish. Additional fish and garden waste provide organic fuel for the anaerobic digester.









In the late 1970s—a period marked by slow economic growth and raging inflation—when Calamos struck out on his own to start an investment firm specializing in the fledgling convertible securities market, colleagues commented, "Why in the world are you starting a business now?"

"I have always been a risk-taker," says Calamos, founder, chairman, chief executive officer, and cochief investment officer of Calamos Investments LLC, a \$34-billion global asset management firm, many of whose funds have been among the top-ranked over the past 30 years. "I guess I don't listen well to other people; if I think something is right to do, it's what I'm going to

service as a major with his pilot's wings, as well as with lessons learned in leadership, camaraderie, and risk management.

"Ensure that you educate yourself about the risk, then try to think about what might go wrong and what you would do," says Calamos, who over time dealt with such incidents as piloting a B-52 with an engine on fire. "Parallel to investing, there are so many factors influencing the outcomes; you try to quantify as many as possible. But there are still those outlier risks. You could know everything about the airplane, but if you end up flying in a thunderstorm—whoosh—it all goes away."

Contemplating a situation and then making an informed and logical decision regarding its outcome seem second nature for Calamos, who frequently poses

thought-provoking, rhetorical questions in the manner of Socrates, known for his ancient inquiry and debate methodology that stimulated critical thinking and ideation. Calamos says his introduction to such philosophers through his undergraduate coursework taught him how to really think.

"Philosophy asks, 'What assumptions did you use here and why did you use them?' To me, [my philosophy education]

was eye-opening," he says, noting that as a young boy growing up in the Greek Orthodox church, his global view was very narrow from a religious point of view. That all changed when he went to college and gained knowledge about the history of philosophy. While his interest in finance was triggered by his teenage discovery of Depression-era stock certificates in the basement of his parents' home, he remains fascinated by the markets—"the pulse of how we feel"—because of their close relationship with the world at large.

An IIT trustee, Calamos, along with his wife, Mae, have committed \$10 million to establish two endowed chairs at the university—to support a professor of philosophy at IIT College of Science and Letters, and to support the dean of IIT Stuart School of Business. He is also on the board of the city's new National Hellenic Museum, which offers a rich slate of school programs acquainting children with Greek history and culture.

"Anything we could do to help motivate kids to become educated is worthwhile," says Calamos. "In four years of college, my whole mindset changed completely." ■

do," he admits, his words measured and spoken with a quiet confidence. "I just went my own way and made my own mistakes. I think about that a lot. If I had taken other people's advice, would I have taken the chances that now have made me a success?"

Calamos has gained wide respect not just for taking risks but also for knowing how to manage them, a skill for which he credits his five years in the Air Force, which included a tour in Vietnam. His service began when he joined the IIT ROTC program, a decision he made because he thought he might like to fly planes. Just one course short of completing his M.B.A., Calamos received his notice to report to active duty.

"Within 12 months, I went from being a kid from Chicago's West Side who knew only what an airplane was to flying supersonic jets in formation, at night," he recalls in a conversation from the executive library of the sleek Calamos Investments Building in west suburban Naperville, Ill. As he points out models of various planes he has flown-a private, fun airplane called a Marchetti SF-260, an A-37 fighter jet, the supersonic T-38, Learjet, and a Citation X-that line his library's bookshelves, he recounts that he left the



RICHARD HARTH

uturistic medical treatments may draw on insights gleaned from a pair of dinosaurs that became extinct between 68 and 80 million years ago.

Joseph Orgel, IIT associate professor of biology and biomedical engineering, is leading a research team that is studying how protein sequences persisting in dinosaur bone may offer clues for understanding closely related collagen forms found in humans. Its findings, published in the science and medicine journal PLoS ONE and featured in Nature, could usher in a new era of collagen-based medical applications.

The team examined peptide sequences from two prehistoric creatures, defying long-held assumptions that collagen degrades to non-existence over such extreme time spans. "Even if the collagen samples had survived only thousands of years, it would be profound," Orgel says.

Orgel reasoned that the persistence of these collagen remnants was due to their location within bone, which is naturally mineralized in living tissue. Fossilization of the bone fragments further protected them from bacterial decomposition.



Associate Professor Joseph Orgel with team member Olga Antipova, research assistant professor

But there was more to the story.

The team discovered a consistency in the protein sequences that managed to survive degradation. When compared with collagen sequences observed in humans and rats, it became clear that the dinosaur collagen snippets belonged to regions that were physically sheltered within the ropelike structure of the protein and thus, protected from the ravages of time.

"Parts of the collagen molecule are obscured until the cell cuts into the surface of the fibril or when the fibril is injured, say, in the context of a sports injury," Orgel explains. "When either of those processes occur, these previously sheltered regions actually provide instructions to the cells in tissue about what to do next. So collagen is not just a scaffoldingit's an instruction manual as well."

Wound-healing techniques that employ collagen dressings are already widespread. More exotic therapies may be used eventually to treat collagen-related diseases, including osteoporosis, rheumatoid arthritis, interstitial heart ailments, and other conditions.

Perhaps most exciting is the prospect for producing replacement body parts—including joints, vertebrae, and skin—and the creation of transplantable organs built on a scaffolding of collagen and seeded with the recipient's own stem cells. If successful, the technique could provide a limitless supply of donor organs that are not subject to graft-host rejection. ■

n an average day in cyberspace, 200 million "tweets" on topics ranging from pet behavior to political struggles circle the globe.

This chatter is a virtual treasure trove for advertisers and corporations who would like to harness it to learn more about public attitudes and trends. Making sense of these terabytes, petabytes, or even exabytes of data, however, has been a challenge.

Harsha Krishnareddy (M.S. ITM '11) is on the hunt. As a co-op on the IBM jStart Emerging Technologies team, he is designing components of BigSheets, a new IBM platform created to corral and tame big data sets.

Krishnareddy explains that BigSheets is able to speedily comb through millions or even billions of documents from varied sources on the Web. The Twitter universe is the sort of vast, unstructured data set that BigSheets excels at mining and deciphering. "We're looking for various tools that can crawl the social media, analyze them, and give back insights into data, in a very neat, intuitive manner," he says.

Like a virtual intelligence agency, BigSheets can trawl through the entire planet's online chatter over hours, days, or months, ferreting out pertinent remarks from the enormous haystack of unrelated commentary.

The information that BigSheets gathers is typically outputted as a very large spreadsheet, hence the name. But Krishnareddy has also worked on data-visualization plug-ins that allow huge data sets to be grasped visually, leveraging previous IBM tools, including one named Many Eyes, which allows the data to be configured as a bubble graphic.

Once BigSheets has gathered its gigantic data set of tweets, it goes about interpreting them, using IBM natural language processing technologies. These were demonstrated to uncanny effect when Watson—IBM's "Jeopardy!"-playing phenomenon—trounced its human competitors in 2011.

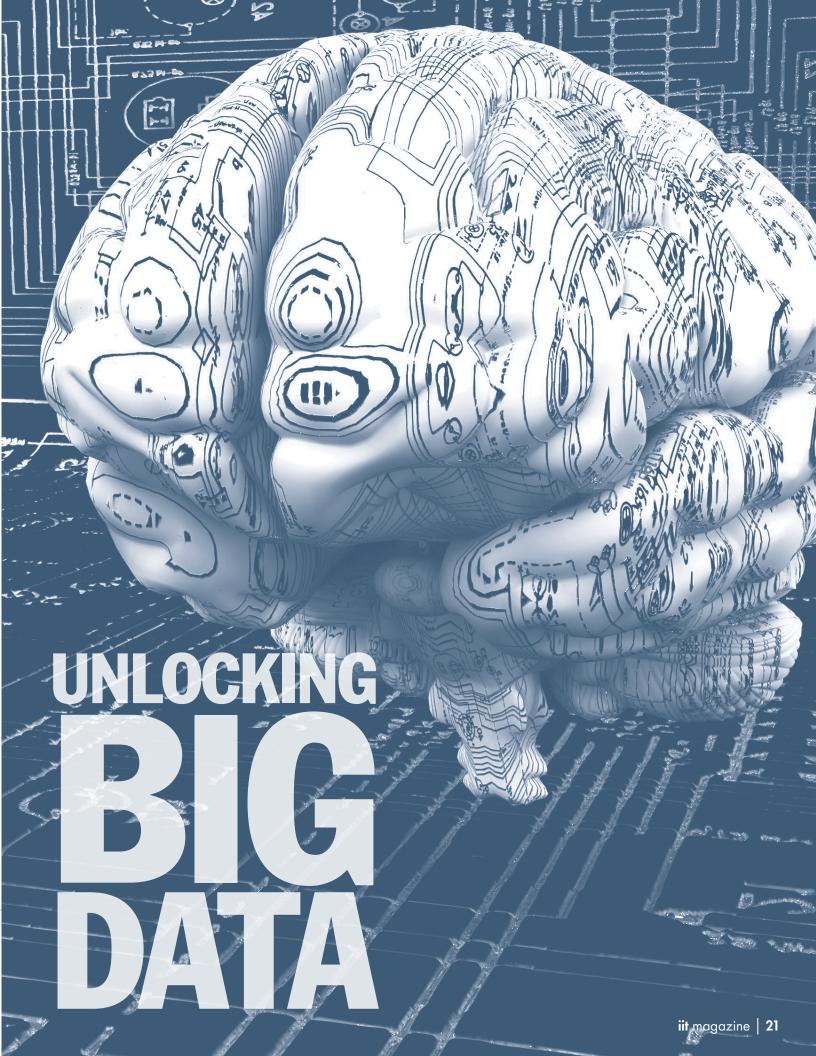
As Krishnareddy explains, BigSheets uses related language software to carry out sentiment analysis of Twitter tweets, zeroing in on how people are reacting to business products and services, upcoming films, and political candidates, to name but a few.

And Twitter is only the beginning. Ultimately, BigSheets will open up the full galaxy of unstructured data, making it useable in unforeseen ways.

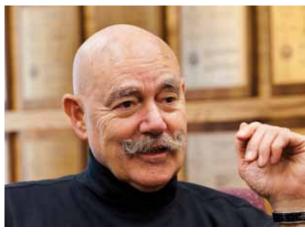
MORE MINE

BigSheets in action: www.youtube.com/watch?v=Ekeyu4x10SI

BigSheets box office analysis: http://latimesblogs.latimes.com/movies/2011/07/usc-launches-a-new-twitter-box-office-predictor.html







n 1984, a gumdrop-sized object developed at Etymotic Research, Inc. turned the world of electroacoustics on its, well, ear. The squat cylinder, doughy like a gumdrop except for a length of thin, flexible tubing at one end, was a foam eartip with a unique distinction: it sealed the ear from outside ambient noise while delivering test tones and speech through the world's first "tubephone" insert earphone. Before then, earphones—also known as headphones—were designed for over-the-ear use. Because of its snug fit in the ear canal, an insert earphone allows for greater accuracy in testing, for example, by reducing ambient noise.

"The best seal you can get for the ear is foam that can be rolled down, put into the ear, and locked into place by expansion," explains Mead Killion (M.S. MATH '70), Etymotic's founder, president, and chief technology officer. At Illinois Institute of Technology as part of Chicago Ideas Week last October, Killion pinched and rolled a gold-foil-wrapped version of the eartip between thumb and forefinger, then watched it re-conform to its original shape.

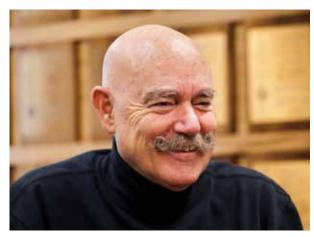
"If you put a tube into the foam, you'll still have noise isolation, but now you could put sound into the ear," he adds. The gold foil wrapping was a later innovation, which made possible a comfortable electrical pickup deep in the ear canal for determining auditory brainstem response (ABR), a standard test that detects electrical signals to measure hearing and neurologic function in infants, children, and adults.

Since that first eartip, Etymotic, which means "true to the ear," has obtained more than 80 patents and has achieved a number of "world's first" titles for its products, which comprise instrumentation for auditory testing; insert earphones for music enhancement, as well as hearing protection; and hearing aid components. Killion's early background in music and mechanics prepared him for perfecting devices that would allow artists to hear such subtleties as a singer's intake of

breath while at the same time protecting their inner ears' hair cells against excessive noise.

In the first grade, Killion began taking piano lessons, soon followed by the violin. As a young adult, he enjoyed rewiring junk jukeboxes and working under the hood of his 1939 Chevy with equal verve. Ham radio came later, as well as machine shop experience at Steel Industries while he was working his way through Wabash College in Crawfordsville, Ind. A fraternity brother knew of Killion's interests and math aptitude, and urged him to interview for a job assisting hearing aid pioneer Elmer Carlson at Knowles Electronics in Itasca, Ill. Killion remained at Knowles for more than 20 years and left to start Etymotic with the rights to three projects he initiated under Carlson—the insert earphone, a high-fidelity hearing aid circuit, and an ABR testing device for infants. He earned his doctorate in audiology at Northwestern University, where he continues to teach a course in hearing aid electroacoustics.

Still running half-marathons at 72, Killion is known as much for his longtime advocacy for hearing protection as for his innovative products and handlebar mustache, a caricature of which is engraved on the circuitry of Etymotic's K-AMP high-fidelity hearing aids (along with the initials of all 10 engineers who helped develop the chip). After consulting with



members of the Chicago Symphony Orchestra in 1985, Killion introduced them to custom-molded Musician's Earplugs, developed by his early mentor Carlson, which provide a choice of three levels of sound reduction.

In 1991, Etymotic debuted the ER-4 series—the fourth-generation of Etymotic insert earphones as the world's first noise-isolating, high-fidelity earphones, reproducing sound that is at least 90 percent as accurate as a live performance while protecting artists from 98 percent of noise.

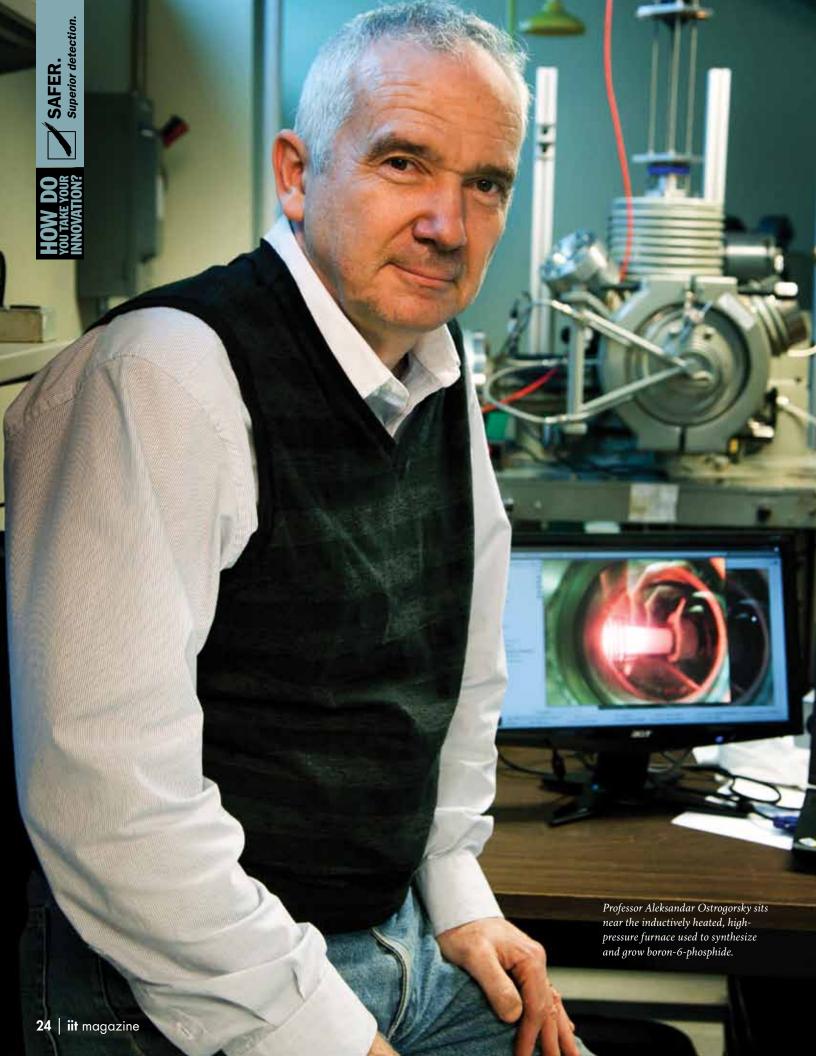
"Over the last few years, I have written and produced nearly 100 songs for 'The Oprah Winfrey Show,' which means thousands of hours are spent monitoring sounds while composing and mixing," says Earl Talbot Jr., drummer with Poi Dog Pondering, music producer, and founder of The Drum School of music instruction. "The ER-4s are now an integral part of the experience, allowing for a true reference at a much lower volume level."

The company introduced the world's first Bluetooth stereo earphones in 2006, reducing ambient noise levels by 30 decibels, followed by an iPhone headset two years later.

More recently, an unexpected encounter on a flight showed Killion that his company's reputation has entered the stratosphere. Upgraded to first class, he saw the co-pilot step out of the cockpit and speak with a flight attendant about the noise filling the small compartment. Killion approached the co-pilot and handed him a pair of Etymotic ER-20s, which reduce most noise to safe levels while maintaining clearly audible speech.

"He looked at the earplugs and the name, then pulled a slip of paper out of his pocket. Turns out the pilot had just told him to buy some!" says Killion. "It's very gratifying to actually see that, rather than know just from your sales that your products are making a difference."





## **FO**

A special type of single-crystal semiconductor, having part-per-billion purity and high-crystalline perfection, could be the answer to a new type of neutron detector, a device used to detect smuggled nuclear materials or enable

"A crystal," says Professor Aleksandar Ostrogorsky, holding up a single crystal of germanium, as an example, at his office in University Technology Park at IIT, "is cut like salami into little wafers, which are used as substrates onto which various electrooptical devices are made." A neutron detector is an example of such a device.

Just as single-crystal silicon revolutionized electronics and computing as the industries' semiconductor of choice, Ostrogorsky and co-principal investigator Adjunct Professor Glen Slack hope that their slices of monocrystalline boron-6-phosphide (B6P) will provide a much-needed alternative to helium-3, a gas that is the critical component of neutron detectors. These detectors can uncover certain nuclear materials that emit neutrons in addition to more commonly emitted radioactive-charged particles such as X-rays and gamma rays.

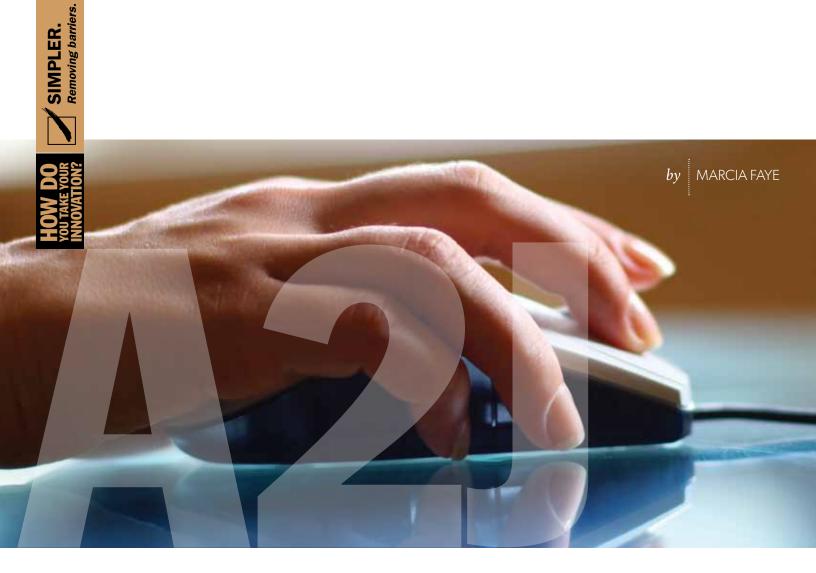
The nontoxic, nonradioactive helium-3 isotope was for many years readily harvested as a decay byproduct of tritium, a material used as a booster in nuclear

weapons. Due to the decline of the nuclear weapons programs in the United States and Russia, as well as safety issues within the reactors that produced the tritium, the U.S. stopped tritium production in 1998; this has resulted in reduced global helium-3 production to a fraction of the previous levels. According to a Congressional Research Service Report from December 2010, helium-3 demand has exceeded production since 2001.

Ostrogorsky and Slack, both on faculty at IIT Armour College of Engineering, have successfully prepared a high-purity powder form of the compound. Research Associate Ken Morgan, with extensive experience in growing wide band-gap semiconductors, joined the pair last September. Currently, he is trying to melt the powder at temperatures above 2,150°C (4,000°F) to produce a single semiconducting crystal through a slow and precise solidification process. The single crystals will then be processed into wafers, polished and annealed, and used to fabricate neutron-detecting devices.

"If we get good results, there will be many opportunities to commercialize our efforts through a startup," says Ostrogorsky. "Boron is a superb neutron absorber and we expect B6P to have good semiconductor properties. The question is-can we make a good enough crystal out of it? A 1/16-inch thickness would be sufficient for a good detector. A penny-sized semiconductor crystal could replace the helium-3 gas-filled neutron detectors."

This project and one at Massachusetts Institute of Technology were the only two university research efforts selected for award under the 2010 Exploratory Research broad agency announcement issued by the U.S. Department of Homeland Security's Domestic Nuclear Detection Office. In addition to the neutron detector contract project, Ostrogorsky is also exploring a handheld device for detecting X-rays and gamma rays in a project funded by the National Nuclear Security Administration of the U.S. Department of Energy.



Being unable to afford legal counsel and therefore assuming the role of self-represented litigant can be a doubly stressful situation for many individuals.

With the development of the A2J Author® software program, IIT Chicago-Kent **College of Law is making justice work** much more smoothly for judges, clerks, and petitioners alike.

ntroduced to the legal community in 2004, A2J assists employees of courts, clerks' offices, and legal services programs without Web programming experience to develop Web-based userfriendly instructions and forms for use by self-represented litigants. Through A2J Guided Interviews®, many different documents can be completed online that are ready for filing with the court.

The software, built by a team headed by John Mayer (M.S. CS '93), executive director of the Center for Computer-Assisted Legal Instruction, is being used in 40 states that have created some 800 different kinds of legal forms. Thus far, self-

represented litigants have used more than 750,000 individual form sets, says Ronald W. Staudt, Chicago-Kent associate vice president of law, business, and technology, who worked with IIT Institute of Design on the original analysis behind A2J.

The program has become so popular that now more individuals need to be trained in document preparation.

"We've developed a course that teaches law students how to do this," says Staudt. "From a pedagogy point of view, they learn very important core competencies that generalize in a lot of different directions and prepare documents that can actually be used."

Mary Neal (LAW '08), executive editor of the A2J Student Editorial Board while at Chicago-Kent, wrote some of the first online training materials. Now, she creates and maintains A2J interviews as the automated documents manager for Illinois Legal Aid

Online. For a 12-month period ending March 2011, 2,486 name-change document sets were completed, along with 1,472 child-support modification sets and 2,214 Cook Country fee-waiver sets.

"The defining strength of A2J is intelligent presentation of information," says Neal. "We can pack an incredible amount of information into an A2J Guided Interview, but the user reads only as much as he or she needs or wants to read."

Mayer is currently working on extending the reach of A2J beyond its Microsoft platform capabilities to include Apple devices such as iPads and iPhones.



A2J Author® Community Website: www.a2jauthor.org Illinois Legal Aid Online: www.illinoislegalaidonline.org

## **ALING WI**



Sport psychologist Eddie O'Connor (Ph.D. PSYC '98) recalls the high school tennis player who sat in his office and cried in front of her father because she felt that if she didn't win on the court, her dad wouldn't love her at home. The astounded father told her that wasn't true.

"Then why don't you ever tell me how proud you are of me?" the sobbing girl asked. "If you could just say that to me, that's all I'd need to hear before a match."

O'Connor, director of the Performance Excellence Center, a division of Mary Free Bed Rehabilitation Hospital in Grand Rapids, Mich., says the biggest problem for athletes is dealing with the pressure of winning. And losing—whether it's in one-on-one play like tennis, or in a team sport such as football—can create negative thinking, which lowers athletes' confidence in their abilities.

"Many people don't know how to rebound from mistakes," O'Connor says. "When educating young athletes, mental training must be an important part of their conditioning."

While O'Connor works predominantly with high school and college athletes, he has also helped Olympic hopefuls, Junior Olympians, and golfers perform better by teaching them how to decrease stress through focus, concentration, confidence, and arousal regulation.

Focus requires intention and goal setting. "If you want to achieve something, you have to give it your all," O'Connor says. "One of my mottoes is, 'Average isn't good enough.""

Concentration involves focused attention toward achieving a goal, while confidence means believing the goal can be achieved. Arousal regulation refers to one's ability to adjust their physical and mental intensity in certain situations.

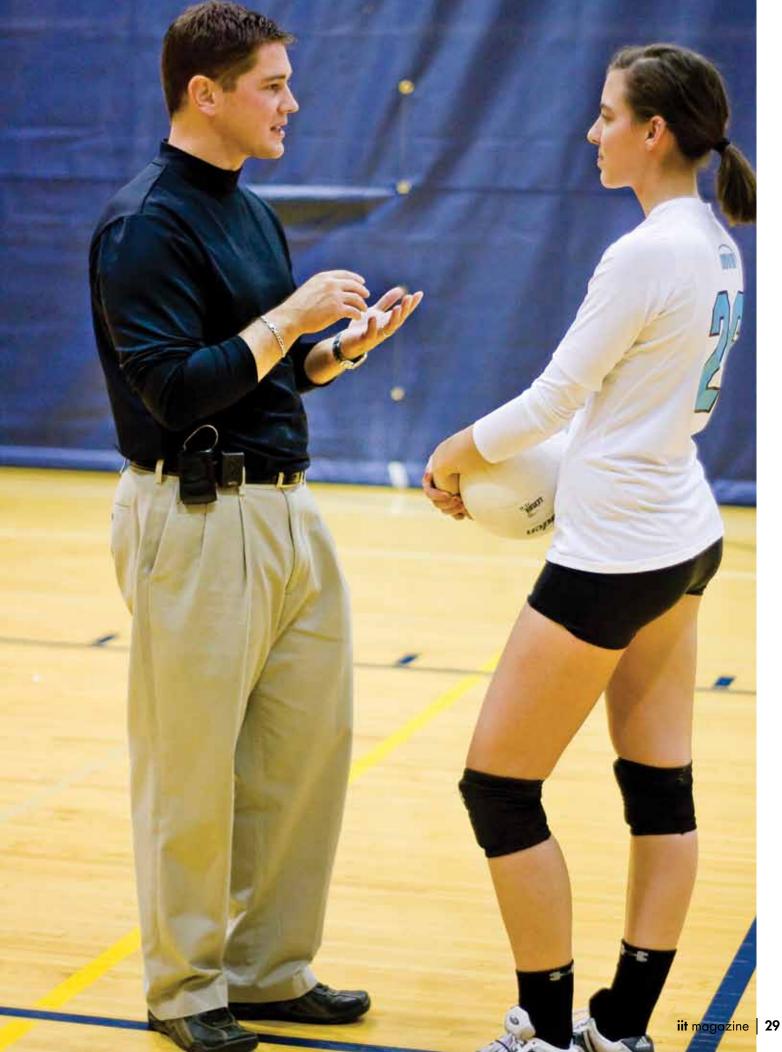
Scott Seifferlein, owner of GrandRapidsGolfLesson.com, a golf instruction school, says O'Connor's program for golfers "teaches people to get over their frustration so they can think clearly on their next shot."

When he counsels student-athletes, O'Connor inquires about family dynamics, injury history, health behaviors (such as sleep and eating habits), stressors, and the role of sports in the individual's life.

"The bottom line is," he asks, "if you're not enjoying sports, why do it? Are you playing for fun, or is your goal to have a career in the NFL?"

Besides helping athletes achieve their goals, O'Connor says the lessons of sport psychology transcend just sports. "I want to put sport psychology on the front page," he says. "If people learn how to deal with winning and losing in all situations, that will improve everyone's quality of life and make the world a better place."







## ROBERT W. GALVIN UNIVERSITY REGENT BARRINGTON HILLS, ILL.

obert W. Galvin's 29 years as chief executive officer of Motorola, Inc. was a golden age for the company, marked by growth and innovation. Galvin inspired efforts that led to the creation of the global cell phone industry and the Six Sigma Quality improvement system. In 1988, the company received the inaugural Malcolm Baldrige National Quality Award for Manufacturing from the United States Department of Commerce.

"Robert Galvin was one of the brightest and most caring individuals I have ever met," says Craig J. Duchossois, chief executive officer of The Duchossois Group and University Regent. "Not only was he a true visionary, but he had the entrepreneurial spirit and implementation skills to build one of the most respected companies in the world."

With a tenure at Motorola that spanned 57 years, Galvin became its president in 1956. He assumed the role of CEO in 1959 after his father, Paul V. Galvin—who founded the company—passed away. Galvin was chairman from 1988–1990 and then served on the board of directors until his retirement in 2001.

Galvin was also dedicated to Illinois Institute of Technology, joining its Board of Trustees in 1953. From 1979–1990, he was board chair and in 2004, was named a University Regent. In the early 1990s, Galvin chaired the National Commission for IIT, a panel formed to charter a new direction for the university. He also served on the IIT Board of Trustees Executive Committee and Policy Committee.

The transformation of IIT beginning in 1996 was made possible with a \$60 million gift from Galvin, along with \$60 million from the late IIT University Regent Robert A. Pritzker (IE '46). Their combined \$120 million pledge was the largest single gift in higher education at the time.

IIT recognized Galvin throughout the years for his generosity to the university. In 1985, Paul V. Galvin Library was dedicated on Main Campus in honor of his family's legacy at IIT. Galvin received an honorary doctorate in 1990 and, in 1996, was given the Henry Heald Award—IIT's highest honor, named after the university's first president. In 2002, Galvin was named to the IIT Hall of Fame and in 2010, the university created the Galvin Award, which is presented at the annual Alumni Awards Ceremony in recognition of friends of the institution whose time, talent, and resources have had a significant impact on the university.

In spring 2011, the Robert W. Galvin Center for Electricity Innovation broke ground on IIT's Main Campus. After his retirement, Galvin devoted much of his time to examining the country's infrastructure problems and established two think tanks, the Galvin Transportation Initiative and the Galvin Electricity Initiative/Perfect Power Institute.

Bob Galvin is survived by Mary Barnes Galvin, his wife of 67 years, two sons, two daughters, and many grandchildren and great-grandchildren.

## iit remembe



### ROBERT A. PRITZKER (IE '46) UNIVERSITY REGENT CHICAGO

hicago native Robert A. Pritzker (IE '46) was one of the city's-and IIT's-most notable benefactors. In addition to the \$60 million matching gift he made in 1996 along with a \$60 million gift from the late Robert W. Galvin to help revitalize the university, Pritzker endowed the IIT Pritzker Institute of Biomedical Science and Engineering as well as the Pritzker Distinguished Lecture, presented as part of the annual meeting of the Biomedical Engineering Society.

Seven years after graduating from IIT Armour College of Engineering, Pritzker co-founded The Marmon Group, an industrial conglomerate of businesses that in 2001 was one of the country's largest private companies. At age 76 and still at the helm of Marmon for nearly five decades, he left the business in 2002 for new challenges and created Colson Associates, Inc., a management firm overseeing an international association of manufacturing and services companies. Pritzker had a reputation for being a fair, honest, and ethical leader.

"Bob's style of management was to trust those who worked for him 100 percent and to let them achieve the goals they needed to make their businesses successful," says Hank West (ME '65), executive vice president of The Marmon Group. "He managed by coaching and using his own experiences to help you make the right decisions. You never wanted to disappoint Bob! Disappointing Bob was like letting down your father or best friend."

Pritzker's decentralized decision-making approach in business—placing reliance upon and giving authority to onsite managers—was considered influential. He conveyed his leadership philosophy and his passion for technology and manufacturing processes in courses he taught at IIT, the University of Chicago, and Oxford University.

Along with his natural ability to lead, Pritzker demonstrated his commitment to education throughout his nearly 50 years of service on IIT's Board of Trustees. He was board chairman from 1990-2006 and during that time, was instrumental in establishing the Camras Scholars Program, awarded to top students at the university. As a member of the National Academy of Engineering and a fellow of the American Institute for Medical and Biological Engineering, Pritzker realized the importance of attracting the most promising students from around the world to IIT.

Through his membership on the National Commission for IIT in the early 1990s, Pritzker championed the Interprofessional Projects (IPRO) Program. A foundation of the undergraduate curriculum, the program gives students the opportunity to work in multidisciplinary teams that address global issues while learning valuable workplace skills.

For his dedication to the university and its students, Pritzker received an honorary doctorate from IIT in 1984, was named to its Hall of Fame in 2002, elected a University Regent in 2004, and awarded an Alumni Medal in 2009.

Bob Pritzker is survived by his wife, Mayari (Ph.D. PSYC '01), five children, 10 grandchildren, and two great-grandchildren.



### alumninews

### classnotes

### 1940s

### **Charles Porter**

(ME '45), Lake Barrington, Ill., married Ann Evanson in January 2011.

### 1950s

### Thomas G. Katsahnias

(CHE '51), Munster, Ind., received the St. Joseph the Worker Award from the Calumet College of St. Joseph. He was honored for his work as capital campaign chair, which helped put the school on a more solid financial foundation.

### Peter Schutz

(ME '52), Naples, Fla., leadership mentor with Harris & Schutz, Inc. and retired chief executive officer of Porsche AG, recently signed and distributed copies of his autobiography, The Driving Force, at AMIkids Big Cypress, a national nonprofit that provides a promising future to troubled youth who have been adjudicated or have failed in conventional school settings.

### **Hans Sommer**

(ME '54), Novato, Calif., now retired, was a project engineer and nuclear power plant systems designer for 29+ years for Bechtel Power Corporation in San Francisco. He and his artist wife, Ruth Evelyn Sommer, celebrated their 55th wedding anniversary in June 2011.

### Mathew Sikorski

(PHYS '55, M.S. '59), Atlanta, spoke of his childhood experiences in Nazi-occupied Poland and Germany as part of the Bearing Witness speaker series at the Breman Jewish Heritage & Holocaust Museum on September 11.

### Ralph Koeller

(ME '57, M.S. '59, Ph.D. MECH '63), Platteville, Wis., published the paper "On a Theory Relating Creep and Relaxation for Linear Materials with Memory" in the Journal of Applied Mechanics.

### Ronald Pecina

(EE '57), Pittsburgh, worked for Motorola and then Argonne National Laboratory for 32 years and retired as group leader of the Electronics Division, Digital Systems Group. During his time at Argonne, he obtained a patent and produced a number of technical publications on digital instrumentation. He recently coauthored the book Neil David's Hopi World, an informative history of the Hopi Indians, and is now working on a second book on Hopi art.

### Lawrence Greenstein

(EE '58, M.S. '61, Ph.D. '67), Chicago, and colleagues received the 2011 IEEE Donald G. Fink Prize Paper Award for "Propagation Issues for Cognitive Radio." An IEEE Life Fellow and an AT&T Fellow, Greenstein is a research associate with Rutgers University's WINLAB, collaborating on new aspects of wireless communications.

### John De Runtz

(ME '59, M.S. '62, Ph.D. '65), Portland, Ore., was one of 70 classical pianists from 10 countries who were invited to participate in the Van Cliburn Foundation's sixth International Piano Competition for Outstanding Amateurs.

### 1960s

### John Jurcenko

(CHE '60), Chicago, completed all 94 floors of Hustle Up the Hancock, a charitable event for the Respiratory Health Association of Metropolitan Chicago. He has been reelected District 2 president of the First Catholic Slovak Union. Jurcenko and his wife, Dorothy, enjoy spending time with their three children and five grandsons.

### Ronald Olson

(MATH '64, M.S. PSYC '66, Ph.D. PSYC '70). Ranchos de Taos, N.M., retired from academia in 2006 and devotes much of his time to quilting, a hobby he began in 1992 as a memorial to his mother. Olson

has sewn more than 1,140 quilts for his pet project, Quilts of Valor, which provides quilts to service members or veterans whose lives have been touched by combat. He is also secretary of the Taos High Country Quilting and Needlecraft Guild.

### Michael King

(CHEM '66), Washington, D.C., received a 2011 George Washington Award from the George Washington University. Chair of the Department of Chemistry at GW's Columbian College of Arts and Sciences, King received the university's highest honor for his teaching, scholarship, and service to GW.

### Russell Nekorchuk

(MATH '68), Gainesville, Fla., received a Master of Arts in Linguistics and a graduate certificate in modern European studies from the University of Florida this past summer.

### Michael O'Rourke

(CE '68), Clifton Park, N.J., received the 2011 Walter P. Moore Award from the American Society of Civil Engineers for significant and career-long contributions to the development of structural codes and standards that have advanced the science of snow load engineering, both nationally and internationally. O'Rourke is a faculty member in the Department of Civil and Environmental Engineering at Rensselaer Polytechnic Institute.

### Madan Birla

(M.S. IE '69), Collierville, Tenn., is founder and chief executive officer of Balanceandinnovate.com, a portal for practical tips and tools on how to unleash creativity and enjoy a balanced life. His book, FedEx Delivers: How the World's Leading Shipping Company Keeps Innovating and Outperforming the Competition, has been translated into several languages.

### James Darby

(M.S. DSGN '69), Chicago, and Patrick Bova, his partner of 47 years, were among the couples who took part in historic civil union ceremonies at Millennium Park last June. Darby retired in 1992 from Chicago Public Schools, where he taught high school students for 30 years. A longtime activist for military rights for gay individuals, Darby has been secretary of the Mayor's Advisory Council on Veterans Affairs for the past 16 years. Darby is founder and president of the Chicago Chapter of the American Veterans for Equal Rights (formerly Gay, Lesbian, and Bisexual Veterans of America), and has served on its national board in a variety of capacities.

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### Leon Hoffman

(M.S. PSYC '69, Ph.D. '70), Chicago, continues to enjoy his practice of clinical psychology, where he specializes in individual, group, and couples therapy, and organizational consultation. A lifelong chamber music cellist, he is actively involved musically with players around the world. Hoffman has two grandchildren, Abigail and Benjamin.

### Robert Johnson

(CE '69, M.S. '71), Buffalo Grove, III., received an award from Frank Avila, commissioner of the Metropolitan Water Reclamation District of Greater Chicago, for 20-plus years of service providing outreach programs in math, science, and engineering for children in grades K-12. The award was presented to Johnson, a structural engineer, during a taping of a Chicago Access Network Television show that aired in June 2011.

### 1970s

### Ranjana Bhargava

(M.S. SOC '71), Chicago, was profiled in the Lakefront Outlook newspaper (September 7, 2011). The article focused on her skills as an accomplished cooking instructor.

### Jamshyd N. Godrej

(MAE '72), Mumbai, India, is chairman of the board of the Great Lakes Institute of Management, which received the Green Chariot Golden Award from the Rotary Club of Madras for its eco-friendly green campus.

### Raymon Grossman

(LAW '73), Lincolnwood, Ill., received the annual Lincolnwood Human Relations Commission Award for promoting tolerance and helping others. He has been an instructor for the Jewish Council for Urban Affairs Judaism and Urban Poverty program for more than 12 years, helping hundreds of middle school students understand the causes and effects of poverty and Jewish approaches to alleviating it. The award presentation was used as a fundraiser for the Niles Township Food Pantry.

### Victor Lo

(DSGN '73), Kwai Chung, Hong Kong, received an honorary doctorate from Hong Kong Polytechnic University for helping to chart a course for the university and fostering collaborations with society and industry as head of the PolyU Council from 2004-09. Chairman and chief executive officer of Gold Peak Industries (Holdings) Limited, he was also invited to join the board of the M+ Museum, a new art museum in West Kowloon, H.K.

### J. Powers McGuire

(LAW '73, LL.M. '81), Augusta, Me., had an exhibit of his paintings, including several self-portraits, displayed at the Augusta Civic Center in October 2011.

### **Janet Yeomans**

(M.S. MATH '75), St. Paul, Minn., was honored as one of eight Women of Distinction for 2011 by the Girl Scouts of Minnesota and Wisconsin River Valleys. She is vice president and treasurer of 3M.

### Praful Kulkarni

(M.A.S. ARCH '76), Irvine, Calif., received the Ernst & Young Entrepreneur Of The Year 2011 Award in the business services category in recognition of his excellence and success in innovation, financial performance, and personal commitment to his business, clients, and the communities they serve. Kulkarni is chief executive officer of gkkworks, which provides integrated services in planning, architecture, and construction.

### Richard R. Lindsey

(CHE '76), New York, joined the GreenCrest Capital Board of Advisors.

### Jeffrey A. Karp

(CE '79), Crystal Lake, Ill., received the Construction Company of the Year Award from the Coalition for United Community Labor Force.

### Russell Moran

(LAW '79), Islip, N.Y., published his first book, *Justice In America: How It Works—How It Fails.* He was founder and editor-in-chief of the *New York Jury Verdict Reporter*, incorporated as Moran Publishing Company, Inc.

### **Robert Strunck**

(LAW '79), Chicago, retired from the Office of the Cook County Public Defender in 2011, after 22 years with the Murder Task Force.

### **Charles Young**

(ARCH '79), Oak Park, Ill., is the design architect for the re-cladding of the A. J. Celebrezze Federal Building façade in Cleveland, a project that received \$121 million in funding from the American Recovery and Reinvestment Act. He is a partner of Interactive Design, Inc.

### 1980s

### Richard Hayes

(ARCH '81), Chicago, was honored by the Island Goats Sailing Society for having completed 25 Chicago to Mackinac Island sailboat races, an equivalent of 8,325 "Mac" miles. The annual race is the world's longest freshwater sailing event. Hayes is a vice president at Risinger + Associates, Inc. an architecture, design, and consulting firm in Chicago.

### **Robert Larsen**

(ARCH '81), East Moline, Ill., and his team at Interactive Design, Inc. completed a project to re-clad the façade of The Anti-Cruelty Society, an iconic building on Chicago's North Side that had shown signs of aging and deterioration.

### James Schoenberger

(LAW '81), Fircrest, Wash., has been practicing criminal defense in Washington since 2003.

### Max B. Willig

(ARCH '81), Buffalo, N.Y., was appointed to the Canalside Design Committee for the Erie Canal Harbor Development Corp.

### Albert Young Jr.

(M.B.A. '81), Montclair,
N.J., heads the Workout and
Restructuring Practice for the
Americas at the New York
office of BNP Paribas. He is also
managing director and head of
the Value Preservation Group.

### Cynde Munzer

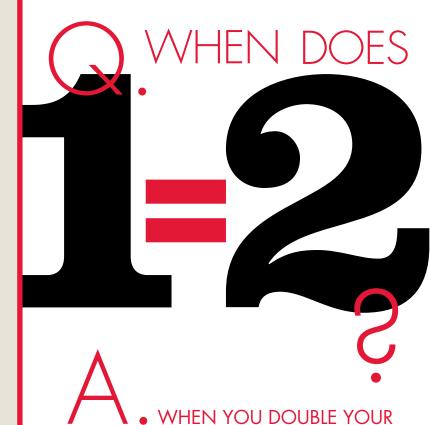
(LAW '83), Highland Park, Ill., has joined the firm of Aronberg Goldgehn Davis & Garmisa, serving as a legal advisor to several of Chicago's major publicly held corporations and financial institutions, as well as numerous mid-sized and smaller businesses. Munzer is co-chair of the Chicago Host Committee of the Vision 2020 initiative, a bi-partisan national project.

### Steven Bierig

(LAW '84), Highland Park, Ill., was named a fellow of the College of Labor and Employment Lawyers.

### James T. Frederick

(M.S. PSYC '85, Ph.D. '86), Weston, Fla., has joined the corporate advisory board of Fuse Science, Inc. He is director of human resources for Covidien Latin America, a global health care products company.



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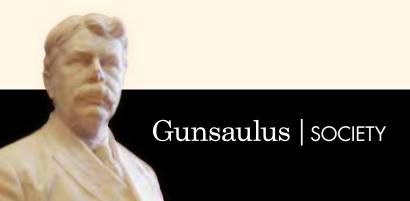
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### Perry Smith

(LAW '85), Waukegan, Ill., is the president of the Lake County Bar Association for 2011–12. A partner in the law firm of Wysocki & Smith, he began his legal practice as an assistant Lake County state's attorney before entering private practice in 1990. Smith's practice focuses on a variety of civil law practice areas and some criminal law.

### **Ahmed Dweib**

(Ph.D. ME '86), Chicago, has lived and worked outside the United States since graduation. He is working as a stress and vibration consultant for WorleyParsons, Ltd. and has extensive experience in ASME design codes.

### **Robert Schultz**

(M.S. CS '86), Los Altos, Calif., is group vice president and general manager for Enterprise Desktops and Applications at Citrix Systems. He came to Citrix from HP, where he spent nine years in a variety of senior leadership roles, most recently as vice president of operations, planning, and strategy.

### Isaac Gamwo

(M.A.S. CHE '87, Ph.D. '92), Bethel Park, Penn., has been awarded a 2010 Gold Award for Excellence in the Outstanding Professional Employee category from the Pittsburgh Federal Executive Board for leading a modeling project that examined drilling for oil and gas hidden four to five miles beneath the earth under extreme conditions. He is a senior research engineer at the United States Department of Energy's National Energy Technology Laboratory.

### Paul Cakanic

(ME '88), Las Vegas, is a program manager in the construction of nuclear power plants with Shaw Power in Charlotte, N.C.

### **Thomas Carroll**

(LAW '88), Chicago, was appointed circuit court judge, effective September 2011.

### Steve Beck

(ARCH '89), River Forest, Ill., an architecture principal with CODA, LLC, and the company were named as a winner of the Green GOOD DESIGN Award for 2010 and 2011. The 2011 project was completed in collaboration with IIT's Interprofessional Projects (IPRO) Program for The Community Collaborative,

which challenged student teams to develop realistic high-performance housing communities.

### David Bishop

(Ph.D. PSYC '89), Decorah, lowa, was recognized by Luther College, where he is professor of psychology, for 25 years of teaching. He was also department chair from 1996–2001.

### 1990s

### **Todd Kuhlman**

(ARCH '90), San Diego, has launched methodology360, a vertically integrated architectural and development firm focusing on modern architecture, sustainability, and affordable green living.

### John Roche

(LAW '90), Western Springs, Ill., was named as a fellow of the College of Labor and Employment Lawyers.

### Stephen Burks

(DSGN '92), Brooklyn, N.Y., is one of 10 designers commissioned by The Nature Conservancy to participate in the exhibit Design for a Living World. Each designer developed a new use for sustainably grown and harvested materials from a specific place where the conservancy works. The exhibit opened at the Smithsonian's Cooper-Hewitt, National Design Museum in New York and traveled to other locations, including Chicago's Field Museum.

### Huiyou Zhu

(M.S. CS '92), Fremont, Calif., was named chief technical officer of smart products company Attune I RTD. Before being named to this position, Zhu, a solutions specialist with more than 18 years of product development and multidisciplinary experience, was a consultant with Attune.

### Eric Walberg

(LAW '93), Scottsdale, Ariz., joined Nussbaum Gillis & Dinner, P.C. as counsel. He has 18 years of experience practicing in transactional, corporate, real estate, and general business law.

### Ronald Gould

(LAW '94), Northbrook, Ill., joined the Chicago office of DLA Piper as partner. He previously served as deputy general counsel at Grant Thornton LLP.

### alumninews

### Thomas Herbert

(LAW '94), Hanover, N.H., was promoted to vice president for development at Dartmouth College in 2011. He previously was Dartmouth's associate vice president for development and has also worked in the fundraising offices of Drake University, Indiana University, and the University of Michigan.

### **Donald Commare**

(M.B.A. '95, M.S. MCOM '00), La Crescent, Minn., is director of product management for the Inovonics Wireless Corporation.

(LAW '95), Red Bank, N.J., founded LifeMoxie, a consulting company, and is writing the book What You Love About Your Work, which includes interviews she conducted during a 2011 cross-country bicycle trip from San Francisco to the Jersey shore.

### **Edward Cramp**

(LAW '96), San Diego, was appointed managing partner of the San Diego office of Duane Morris LLP. He also serves as general counsel to the American Association of Cosmetology Schools.

### Catherine McCarthy

(Ph.D. PSYC '96), Atlanta, is a managing principal in the Atlanta office of the executive search firm Korn/Ferry International. She has more than 15 years of experience working with senior executives of global Fortune 500 companies, focusing on design and development of world-class leadership development programs.

### Stacey Bromberg

(LAW '97), Chicago, was recently elevated to principal with Chicagobased Chuhak & Tecson, P.C. Bromberg specializes in probate, guardianship, and estate planning.

### Richard Rodriguez

(LAW '97), Chicago, was named to the post of commissioner of the Chicago Department of Environment by Mayor Rahm Emanuel. The department develops environmental policies, initiatives, and programs; enforces the city's

environmental code and regulations; and works with other groups to protect and conserve natural resources, prevent pollution, foster energy efficiency, and engage Chicagoans in adopting environmentally friendly behaviors.

### Daniel Kirschner

(LAW '98), Chicago, is a partner in the law firm of Corboy & Demetrio. He has been an associate at the firm since 1998.

### 2000s

### Jorge Abeid

(Ph.D. CE '00), London, Ontario, is president of Remontech, Inc., a company focused on remote monitoring technologies. Remontech was founded upon PHOTO-NET, a software program dedicated to the construction management industry, first developed at IIT as part of Abeid's doctoral thesis.

### Alexander Edrington

(METM '00), Norfolk, Va., is co-founder and president of ParasitX, a company that specializes in mobile sensing and actuation. Prior to ParasitX, Edrington was vice president for engineering at AdaptivEnergy, a micro-energy harvesting incubator.

### Kai Liu

(M.S. CS '01), Houston, is an investment team member with Bridgeway Capital Management, where he is responsible for conducting statistical research to develop future investment models. He was most recently director of quantitative research at Chicago Equity Partners, LLC.

### Gina Arquilla DeBoni

(LAW '02), Northbrook, Ill., was selected as a 2011 Illinois Rising Star for the third time by Super Lawyers magazine. She is managing attorney at Romanucci & Blandin, LLC, co-chair of the American Bar Association's Illinois membership committee, and a member of the board of governors of the Illinois State Bar Association.

### Erica L. Hartman

(M.S. PSYC '02, Ph.D. '04), Chicago, married Brad Spencer at the 9th Street Abbey in St. Louis in September 2011.

### Deborah Cernauskas

(Ph.D. MGT '03), Downers Grove, Ill., joined the faculty of Benedictine University in fall 2011. She most recently was program chair for business management and health care services administration for Colorado Technical University.

### **Bradford LeHew**

(LAW '03), Chicago, is an associate with the Chicago office of Fisher & Phillips LLP, a national labor and employment law firm. He is listed as a 2011 Illinois Rising Star for labor and employment law in Super Lawyers magazine.

### **Bryan Symes**

(LAW '04), Eau Claire, Wis., is an associate in the employment, labor and benefits, and litigation and dispute resolution practice groups at Ruder Ware, LLSC.

### Melissa Zabel

(M.S. TCID '04), Indianapolis, is a documentation and training specialist at ExactTarget, an email marketing and interactive marketing provider.

### Steven Lezell Woodrow

(LAW '05), Denver, is manager of the Denver office of Edelson McGuire, LLC. He is also chair of the firm's banking and financial services practice group.

### Amanda Kastern

(M.P.A. '06), Dunellen, N.J., is associate vice president for student development at Harford Community College in Bel Air, Md. She and Steven Beitzel (CS '01, M.S. '02, Ph.D. '06) welcomed the birth of their first child, Abigail Alice Kastern Beitzel, in October 2010.

### Francisco Castro

(LAW '07), Reston, Va., was named to the advisory board of Nanotechnology Law & Business, a peer-reviewed journal devoted to the legal, business, and policy aspects of small-scale technologies. He concentrates his practice at McAndrews, Held & Malloy, Ltd. on patent prosecution.

### **Brad Schneiderman**

(LAW '07), Chicago, practices in medical malpractice defense and health care liability at the Chicago office of Querrey & Harrow.

### Michael Holden

(LAW '08), Chicago, is an attorney at Romanucci & Blandin, LLC, and was selected as a 2011 Illinois Rising Star by Super Lawyers magazine.

### Ryan Osgood

(LAW '08), Greenfield, N.H., works at BNP Paribas in Paris as a member of the Global Inspection Team.

### **Andrew Russell**

(LAW '08), Princeton, III., joined Russell, English, Scoma & Beneke, PC, making him the fourth generation of Russell family attorneys to practice law in Princeton.

### **Nathaniel Woods**

(ARCH '08), Fort Wayne, Ind., joined Design Collaborative as a graduate architect.

### Javier Fernandez Escribano

(Mas. ITM '09), Madrid, Spain, is co-founder of touristeye.com, a powerful social mobile travel guide for iPhone and Android users.

### **Larry Potter**

(CERT NST '09), Manlius, N.Y., and his wife, Erica, welcomed the birth of Clara Faith Potter in February 2011, who joins siblings Julie, Melody, and Joseph. Potter works as a member of an information assurance engineering team with iSYS, LLC, a Department of Defense contractor for the Defense Supply Center Columbus (Ohio).

### Elisa Rodriguez

(LAW '09, M.P.A. '10), Chicago, has been appointed to the Chicago Police Board by Mayor Rahm Emanuel. She is an attorney at Carrey Services, LLC, in Cicero, Ill., and volunteers at the Legal Assistance Foundation of Metropolitan Chicago, providing legal assistance to Spanish-speaking clients.

### Chakkrid Sattayatewa

(Ph.D. ENVE '09), Chicago, received the 2011 Eddy Wastewater Principles and Processes Medal for his contribution as one of four coauthors, including IIT Professor of Environmental Engineering Krishna Pagilla, in a paper recognized by the Water Environment Federation.

### Eduardo Fernandez

(Mas. ITM '10), New York, is the founder of ShuttleCloud, a fast-growing startup that specializes in data migration products for the Internet.

### **Christopher Gass**

(LAW '10), Chicago, joined the Rockford, Ill., office of Reinhart Boerner Van Deuren s.c., in May 2011. A former electrical engineer with Motorola, he also provides counsel on technology issues.

### Melanie Hoekstra

(LAW '10, M.S. EMS '11), Chicago, is operations manager of The Plant, a project working to create Chicago's first vertical farm.

### Carolyn Sorock

(LAW '10), Chicago, joined the Legal and Compliance Division of the Chicago office of the Illinois Bankers Association. Previously, she was an associate at Lynam & Associates.

### William Lopez

(LAW '11), Chicago, was honored by Windy City Times as one of its "Thirty Under 30," recognizing individuals who have made significant contributions to Chicago's LGBT community and beyond. Lopez is an associate at Hinshaw & Culbertson LLP and also serves on the board of the Lesbian and Gay Bar Association of Chicago.

### Steve Nero

(M.P.A. '11), Westmont, Ill., has been elected as a Westmont village trustee.

### Kyle Pinsonneault

(INTM '11), Vancouver, B.C., former National Association of Intercollegiate Athletics All-American athlete, is head coach of the Chatham-Kent YMCA Pool Sharks swimming club.

### Felicia Shallow Davis

(M.P.A. '11), Chicago, is vice president of administration at Kendall College. She is a former Chicago police officer and has more than 18 years of professional experience in the public service, culinary, and hospitality fields.

### **alumni**news





















- 1) L.A. Alumni John Genovese (ARCH '83) [left] hosted Los Angeles-area alumni at his Marina del Rey home for a Sunday afternoon with great food and new friends. Photo: Jenna Albright
- 2) AEPi Reunion [Left to right] Bob Goldman (IE '61), Jerry Geren (MET '61), Arnold Coleman (CHEM '62), President John Anderson, Burt Harris (CE '61), Larry Kane (MET '62), and Richard Ghetzler (ME '64) attended the Alpha Epsilon Pi reunion on campus this past August. Photo: Evan Venie
- 3) Gift Dedication Members of the 2011 Student Gift Committee, Stacy Economy (ARCH '11) and Goldey Khanna (CHE '11), attended a dedication ceremony held during Homecoming.
- 4) Exelon Summer Institute John Rowe, chairman of the IIT Board of Trustees, and his wife, Jeanne, participated in a question-and-

answer session with students at the Exelon Summer Institute, held on Main Campus. Photo: Michael Goss

- 5) Big 5-0 for 1961 As part of Homecoming, the Class of 1961 celebrated its 50th reunion on Main Campus. Photo: Michael Goss
- 6) Catch the Fever It's easy to show Scarlet Fever pride at Homecoming! Photo: Cristina Rutter Photography
- 7) Carts on Parade John Olin (ME '61), chair of the Class of 1961 Committee, and Senior Director of Alumni Relations Jamie Acton rode in the golf cart parade at Homecoming. Photo: Cristina Rutter Photography
- 8) Homecoming Fun Alumni shared a laugh in The Bog during Homecoming festivities.

- 9) Wasan Lecture President John Anderson and Darsh Wasan, vice president for international affairs, joined Lehigh University President Alice Gast, keynote speaker at the fourth annual Darsh T. Wasan Lecture. Photo: Michael Goss
- 10) Pritzker Chair Investiture Vincent Turitto was invested as the first Robert A. Pritzker Endowed Chair in Engineering in August 2011. The chair was one of two established by Karen Pritzker Vlock, Pritzker's daughter. Vincent Turitto, the late University Regent Robert Pritzker (IE '46), and Mayari Pritzker [seated] were joined by [standing] Chairman of the IIT Board of Trustees John Rowe, Nikki Enriquez, Chris Turitto, Armour College of Engineering Dean Natacha DePaola, Provost Alan Cramb, and President John Anderson. Photo: Bonnie Robinson

### alumninews

### ALUMNI **EVENTS**

For information about the upcoming alumni events listed here and other alumni activities, please contact the Office of Alumni Relations at 312.567.5040, alumni@iit.edu, or alumni.iit.edu.

### **CHICAGO ALUMNI GATHERING**

Thursday, February 23, 2012

6-9 p.m. Calamos Investments Naperville, Ill.

Alumni are invited to join IIT President John Anderson for a networking reception at Calamos Investments.

### **ENGINEERS WEEK ALUMNI BREAKFAST**

Saturday, February 25, 2012

9:30-11 a.m.

IIT Daniel F. and Ada L. Rice Campus Wheaton, III.

Join the Alumni Association for breakfast as part of the 28th Annual DuPage Area Engineers Week Expo. A complimentary breakfast will be served while alumni network and mingle with IIT faculty, staff, and alumni. At the conclusion of the breakfast, alumni are invited to participate in one of three exclusive presentations that will be available to this group.

### D.C. ALUMNI GATHERING

Tuesday, March 20, 2012

6-9 p.m.

National Press Club Washington, D.C.

Meet fellow alumni for a cocktail reception in our nation's capital to reconnect with friends and learn what's new at IIT.

### **MIES' BIRTHDAY CELEBRATION**

Tuesday, March 27, 2012

6-8 p.m.

S. R. Crown Hall, IIT Main Campus Chicago

Celebrate with the Mies van der Rohe Society at the annual birthday party for the esteemed architect. Tickets are \$50 per person or \$126 per person including a one-year membership in the Mies van der Rohe Society. For more information, contact Justine Jentes at 312.567.7146 or miesmembership@iit.edu.

### **BOSTON ALUMNI GATHERING**

Thursday, March 29, 2012

6-8 p.m.

Home of Grace Colby

**Boston** 

Alumni are invited to the Boston home of Grace Colby (DSGN '85) for a cocktail reception and to hear the talk "Fueling Innovation: the Contribution of Design."

### AUSTIN ALUMNI GATHERING

Thursday, April 19, 2012

6-9 p.m.

McCormick & Schmick's Seafood Restaurant Austin, Texas

Alumni are invited to join IIT President John Anderson for a networking reception at McCormick & Schmick's Seafood Restaurant.

### COMMENCEMENT

Saturday, May 12, 2012 **IIT Main Campus** Chicago

### Join the Alumni Association for an IIT reception at these upcoming conventions:

- 38th Annual Convention of the National Society of Black Engineers in Pittsburgh, March 28–April 1, 2012
- American Institute of Architects 2012 National Convention and Design Exposition in Washington, D.C., May 17-19, 2012



**ALUMNI AWARDS** 

Friday, April 13, 2012

11 a.m.-2 p.m. Hermann Hall, IIT Main Campus

Chicago

Join fellow IIT Alumni Association members to celebrate the accomplishments of our distinguished alumni. The day will begin with a reception, followed by a formal luncheon and presentation of awards at noon.

### obituaries

### Peter Beltemacchi

CRP '63, M.S. '64 **IIT College of Architecture** 

Peter Beltemacchi joined the faculty of IIT College of Architecture in 1967 and for nearly 50 years helped to shape the institution in his dual roles as academic and administrator. As an associate professor, he inspired many students and in 1976 received an IIT Excellence in Teaching Award. Beltemacchi served on numerous IIT committees and was the IIT representative to the American Collegiate Schools of Planning. In 1980, he was named chair of the Department of City and Regional Planning and had served as associate dean of the college since 1994. Over his career, Beltemacchi was also professionally active outside of IIT, working on projects with Northwestern University, the Office of the Governor of Hawaii, and the Nigerian Government, among others.

Beltemacchi is survived by his wife, Ann "Nan" Barry, a son, three daughters, three siblings, and two grandchildren.

### Daniel D. Joseph

ME '59, M.S. MECH '60, Ph.D. ME '63 Minneapolis

After a brief time as an assistant professor of mechanical engineering at Illinois Institute of Technology, Daniel D. Joseph joined the faculty of the University of Minnesota, where he remained until his retirement in 2009. He was a member of the American Academy of Arts and Sciences, the National Academy of Engineering, and the National Academy of Sciences. Joseph had many patents and more than 300 articles published in professional journals. He was also the recipient of many awards, including the IIT Professional Achievement Award, presented to Joseph in 1997.

Joseph is survived by his wife, Kathleen Jaglo Joseph, two sons, a daughter, and numerous grandchildren.

### Richard A. Lenon

**IIT Life Trustee** 

The son of a Michigan farmer, Richard A. Lenon went on to become a leader in the crop nutrition and animal supplement industries. He was chairman of the Executive Committee of IMC Global, Inc., which was one of the world's leading producers of fertilizer, and before that, chairman and president of International Minerals Chemical Corporation, IMC Global's predecessor. While at IMC, Lenon employed many IIT alumni.

Lenon served as an officer in the United States Navy from 1942-47 and again, during the Korean

Conflict, as a lieutenant commander. He joined the IIT Board of Trustees in 1979, becoming a Life Trustee in 1992. Lenon's service to IIT included being inaugural chairman of the Advisory Board of the Center for the Study of Ethics in the Professions and membership in the IIT Corporate Relations Council. He also established the Richard and Helen Lenon Endowed Scholarship Fund.

Lenon is survived by a son, two daughters, a sister, and several grandchildren.

### John A. "Jack" Wing

Former IIT Trustee

IIT Chicago-Kent College of Law

John A. "Jack" Wing embarked upon a longtime career in the financial services industry in Washington, D.C., before assuming leadership roles in Chicago and other cities. He served first as a financial analyst at the Securities and Exchange Commission and upon completing a juris doctor from George Washington University, moved into a role as trial lawyer. In Chicago, he had senior-level positions at A. G. Becker & Co. and The Chicago Corporation, which later merged with ABN AMRO, Inc., where Wing was chairman of the board and chief executive officer for the latter.

Wing left ABN AMRO to found and head the Stuart School of Business Center for Financial Markets and Trading (now Center for Financial Markets). He later served as chair of the IIT Center for Law and Financial Markets and was the Frank Wakely Gunsaulus Professor of Law and Finance. Wing served on many industry boards, including the Chicago Stock Exchange and the Chicago Board Options Exchange. He was a member of the IIT Board of Trustees from 1990-98 and 2002-07, and also served as chair of the Stuart Board of Overseers, and as a member of the boards of overseers of Financial Markets and Trading and the Library of International Relations, a member of the Advisory Board of the Center for the Study of Ethics in the Professions, and a member of the Trusteeship and Investment Committees of the IIT Board of Trustees.

Wing is survived by his wife of 47 years, Joan C. Wing (LAW '74), a son, two daughters, three siblings, and nine grandchildren.

### inmemoriam

Eugene Kreml ES '37 Pompano Beach, Fla.

Edward Erickson ARCH '39 Malibu, Calif.

Herman Nelson CHE '45, M.S. '47 Bonita Springs, Fla.

Harrison Fischer EE '47 Ventura, Calif.

John Gerald ME '47 Northbrook, Ill.

Mathias Viebrock ME '47 Western Springs, Ill.

William Larson ME '48 Batavia, III.

Addis Osborne ARCH '48 Springfield, Mass.

Fred Mamett State College, Penn.

Douglas, Ariz. John Tyner

EE '50

FPSE '51

Annadale, Va.

PHYS '51 St. Petersburg, Fla.

LAW '52 Cicero, III.

Pitan Gupta Ph.D. ME '52

Salvatore Gentile

Alan Grossberg

Robert Stollstorff MET '54 Longmeadow, Mass.

**Ernest Kettelson** LAW '55 Minooka, III.

Benjamin Okner BE '57 Washington, D.C.

Norma Krcmaric M.S. DSGN '63 Orland Park, Ill.

Wesley Lind M.S. ŚE '66

LL.B. '67 East Dubuque, III.

M.S. MT '68 Santa Rosa, Calif.

FF '69

Edward Slepicka EE '50

DeKalb, III. Harold Nelson

Sidney Schiff CHEM '51 Bartlesville, Okla.

Richard Wagenblast

**Christy Berkos** 

New Delhi, India

Escondido, Calif.

**CHEM '54** Racine, Wis.

Sawyer, Mich. Robert Bush

**Charles Stenger** 

**Anthony Miskinis** Vernon Hills, III.

Gerald Tlapa Ph.D. MATH '69 Corrales, N.M.

Adam Fikso Ph.D. PSYC '70 Glenview, Ill.

Thomas Gallagher LAW '72 St. Charles, Ill.

Steven Bielaga ME '79 Naperville, III.

Cynthia Lyons LAW '80 Naperville, III.

Mark Greben LAW '87 Chicago

Norma Wilkins LAW '89 Glenwood, Ill.

Ken Zlatoper M.S. PHRD '00 Chicago

Adam Blanchard LAW '10 Austin, Texas

### rewind

by Marcia Faye

### Sounds Like School Spirit

SINCE THE DAYS OF IIT'S FOUNDING COLLEGES, students and faculty have worked to promote school spirit in song, with rousing sentiments reflective of the period and changing status of the university.

Allen Cleveland Lewis was seen as the "father" of Lewis Institute and was honored as such in the school song "Estudiantina Lewisiana" with the words "Allen Pater/Alma Mater/. . . L E W I S/Lewis. Here we are."

As early as 1906, Armour Institute of Technology commissioned rhythmic "yells" for sports events: "Arch-Mech-Civ-Elec, Rah-Rah, Armour Tech."

In the 1940s, William C. Laube Jr. (EE '49) penned the "Illinois Tech Fight Song," which was imbued with the lingering spirit of World War II: "We'll fight for you, IIT/We'll bring the honors back to thee/Across the land, across the sea/We'll carry with us thy victory . . ."

By 1950, students were singing the "IIT Hawk Cheer." It opened the 1950 basketball season with the debut of a new cheerleading squad outfitted in red skirts and white sweaters. The cheer was sung at events through the early 2000s. The late William "Bill" Parks (CE '44), IIT Life Trustee, sang it at the 2007 inauguration of IIT President John Anderson, and members of the Class of 1961 raised their voices to it at the 2011 Golden Society Reunion Luncheon.

Armour faculty member Francisco Ruiz, associate professor of mechanical and aerospace engineering, won a contest for a new IIT alma mater song in 1999.

"The song came to me one day when I was in church. Was it divine inspiration?" muses Ruiz, who says he enjoys music but doesn't play an instrument. "It took me a few more days to come up with a four-part harmony. The song was performed with a computer." (Listen to the clip at http://mypages.iit.edu/~ruiz/almamater.html)

The most recent commission of IIT music was "IIT Loyalty," the university's current fight song. Performed at the 2002 Commencement, it was written and arranged by VanderCook College of Music alumna Julie McCord, choir director at Newman Central Catholic High School in Sterling, Ill., for an arranging class to fulfill her master's degree requirement.

"Our instructor told us we would have a contest to write and arrange an original fight song for IIT," says McCord. "There were judges from both IIT and VanderCook. I tell everybody that it was my 15 minutes of fame!"



McCord says the only stipulation was that the "IIT Hawk Cheer" should be easily inserted within the composition:

### IIT LOYALTY

Hail to the scarlet and grey We will always honor thee

Faithful we'll stand as one And pledge our loyalty

Forever we'll cheer you all the way Lead us on to victory

Hawks fight with all your might And win for IIT

### IIT HAWK CHEER

E to the XD, XDY.

Secant, tangent, cosine, sine, 3 point one four one five nine. I pi, cubed root three, Rock 'em, sock 'em, IIT!

Go! Fight! Go! Fight! Win! Gooooooo Hawks!

Editor's Note: Much of the information for this article was obtained from the IIT Archives. Could you add your voice to the chorus by sharing your IIT musical recollections? Email us at iitmagazine@iit.edu.



More can be done with Mies' approach to "less."

In the mid-twentieth century,
Ludwig Mies van der Rohe changed
architecture when he designed
buildings for structure and simplicity.
Little did he know his functional
approach would inspire Vidal
Sassoon's iconic haircuts—proving
more can be done with Mies'
approach to "less."

Their innovative styles endure, and the world looks better for it.



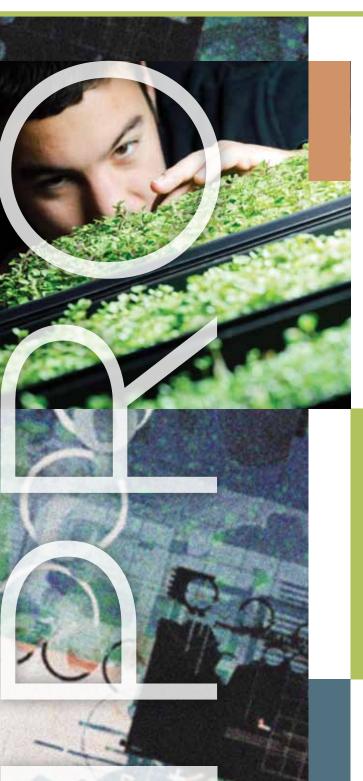
Join us on March 27, 2012, in S. R. Crown Hall to celebrate Mies' birthday and his influence on hair—for the shear fun of it.

Admission: \$50

Admission + Mies Society membership: \$126

Register at: www.miessociety.org/happenings

3300 South Federal Street, Suite 503 Chicago, IL 60616-3793



## At IIT, It's All About the I—As in IPRO

Interprofessional Projects (IPROs) are more than class projects. They are an opportunity for IIT students to work with others outside their field to make something really happen, develop an elegant solution to a real-world problem, or dream bigger than they've ever dreamed before—like the IPRO team that is helping develop Chicago's first vertical farm.

At IIT, we believe in teamwork, collaboration, and partnerships. An IPRO may be the start of a new company or the beginning of something that will change the world.

Imagination has no limits—only possibilities.

### Just a few ways IIT alumni can, and do, connect to IIT through IPRO:

- You or your employer can sponsor an IPRO Project
- Make a contribution to the IPRO Program at http://tinyurl.com/3dk68ul
- Serve on the IPRO Advisory Board
- Attend an IPRO Day as a guest or a judge—2012 IPRO Days: April 20, July 27, and November 30
- Offer your professional knowledge and expertise to an IPRO team as a quest lecturer
- Join our IPRO email list by sending an email to IPRO@iit.edu for updates
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### Learn more: ipro.iit.edu

Get involved: Contact Kelly Murrell, director of sponsorships, at kmurrell@iit.edu, 312.567.3941

