

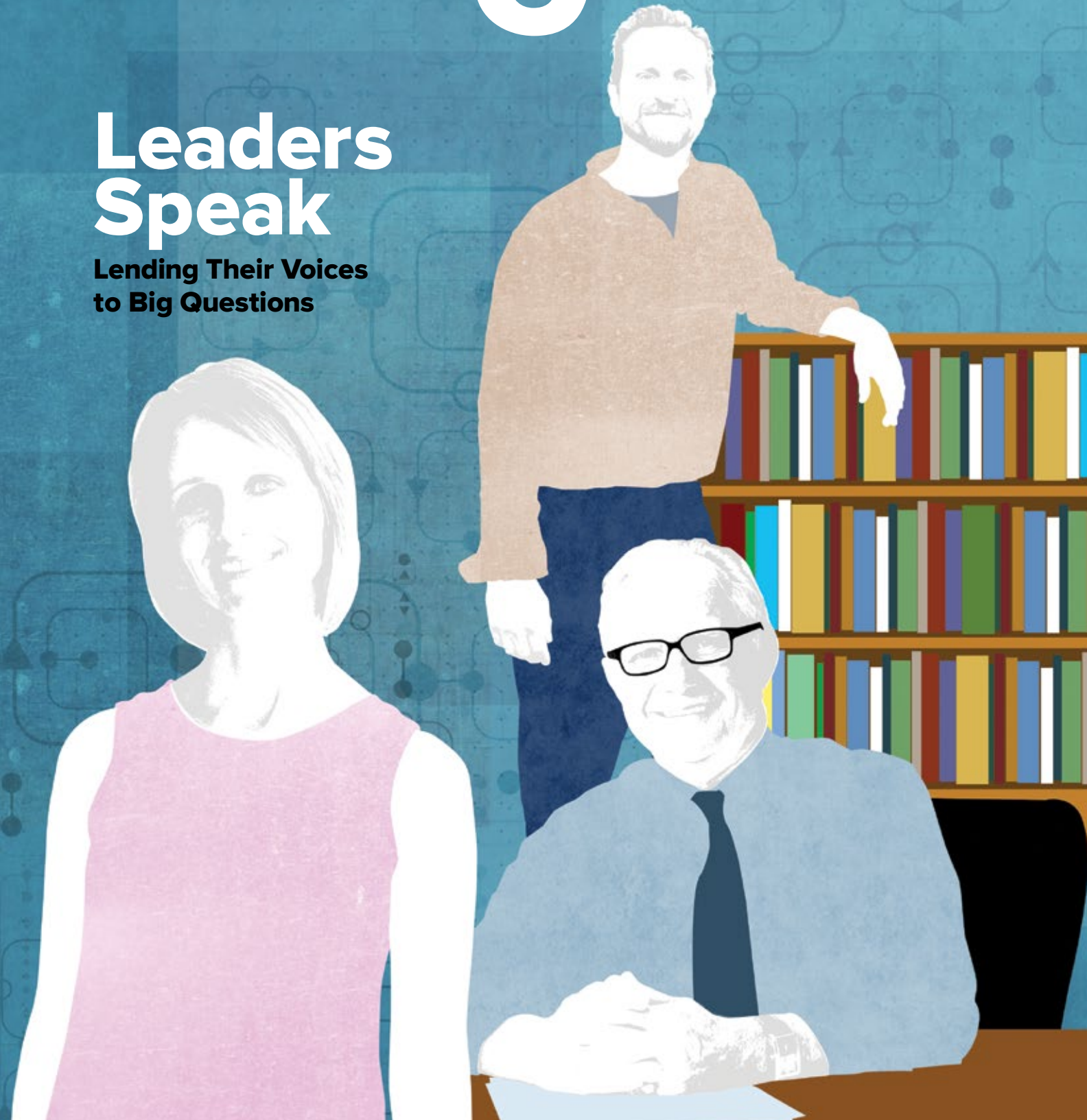
ILLINOIS INSTITUTE OF TECHNOLOGY

iit magazine

Fall 2014

Leaders Speak

Lending Their Voices
to Big Questions



KATHERINE STETZ
Spirit of Self-Giving

RONALD S. LANDIS
Failure as Friend

RUSSELL BETTS
Science Fiction

letter from the President



“No period of my life has been one of such unmixed happiness as the four years which have been spent within college walls.”

—Horatio Alger Jr.

I have been following the recent debate about the value of a college education with great interest—and a bit of dismay. Many argue that the return on investment of time and money to earn a degree must be offset by high career earnings and low student debt. Some insist that value cannot be measured solely in monetary terms but must factor in a person’s capacity to be a global citizen and critical thinker. Still others believe that the ultimate payoff of a college education is in the networking that takes place on campus, in the personal relationships and the professional connections students can establish and upon which they draw throughout their lives and careers. In fact, all of these are valid criteria for return on investment.

As someone who has spent his entire adult life in academia, I would argue that the chance for oneself to build and strengthen intellectual capital is a primary reason why a college education and the overall campus experience are of great value. A student’s undergraduate or graduate years will likely be one of the few opportunities when learning and discovery come first.

For many of us, our own college years may have been one of the last times we stayed up all night debating the future of modern architecture, arguing if leadership can be learned, or discussing how to stop global warming. Engineering students took a humanities course just because it sounded interesting and some of us went to a lacrosse game even though we knew nothing about the sport.

Education is more than a collection of courses. Its full value lies not just in what students learn in the classroom but also what students choose to do in the time they are on campus. If they opt to only go to class and take exams, then the return on their investment will be disappointing.

If our students use this time to think big thoughts, see where their imaginations take them, try something new, seek out challenges, become inspired, argue, wonder, discuss, and ponder, then the value of their college degree will be exactly what it should be—priceless.

John L. Anderson

A handwritten signature in black ink that reads "John L. Anderson". The signature is written in a cursive style.

President

IIT MISSION STATEMENT

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

Armour College of Engineering
Chicago-Kent College of Law
College of Architecture
College of Science
Institute of Design
Lewis College of Human Sciences
School of Applied Technology
Stuart School of Business

ADA STATEMENT

Illinois Institute of Technology provides
qualified individuals with disabilities reasonable
accommodations to participate in university
activities, programs, and services. Such
individuals with disabilities requiring an
accommodation should call the activity, program,
or service director. For further information
about IIT's resources, contact the IIT Center for
Disability Resources at disabilities@iit.edu.

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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 iit.edu/magazine

Remembering Greatness

Thank you for posting the passing of the great educators Robert Bonthron (ME '44, M.S. '52, Ph.D. '62) and Lois Graham (M.S. ME '49, Ph.D. '59) [spring 2014]. They not only communicated the science but also holistically encouraged the student body.

As student president of ASME [founded as the American Society of Mechanical Engineers], I had the privilege to work with them and have had a lifelong appreciation of their efforts.

IIT had numerous outstanding full professors teaching undergraduate technology. It always seemed the most eminent taught the best, in a clear and concise methodology that endures.

Richard Sutis ME '65



Jail Garden Roots

I was pleasantly surprised to find your article about Chicago's jail garden in the recent issue [summer 2014] of *IIT Magazine*. The solar panels and IIT involvement are truly new features, but the jail garden is not a recent idea.

I wrote an article about the jail garden that was published in the June 2014 issue of *Koreny* ("Roots"), the journal of the Czech and Slovak American Genealogy Society of Illinois. Thanks for the update on the garden.

Paul Lawrisuk M.S. SE '68

Editor's Note: Bernard Prasil, the grandfather of Paul Lawrisuk's wife, retired as supervisor of grounds and head gardener at Cook County Jail in 1940 after serving at the facility for 40 years. Prasil is credited for significantly expanding and improving upon the grounds, adding numerous flower beds, a decorative pond, and greenhouses. He also instructed inmates in gardening and floriculture.

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**
 10 West 35th Street, Suite 4D7-1
 Chicago, IL 60616
 Email: iitmagazine@iit.edu

IIT Forever

ALICIA PEREZ (PSYC '12) of Chicago is an ardent fan of her alma mater. Perez so cherished her undergraduate years at IIT that she sent word to the Office of Alumni Relations about how she is able to literally wrap herself in warm memories of her time at the university thanks to her mother and a company called Project Repat:

"The past two years since I graduated from IIT have been full of growth experiences. I was sad not to see my friends as much anymore but have fond memories of them. My mom saw that I had amassed quite a few IIT organization T-shirts. We sat down together and I talked with her about the shirts along with the story behind each one. I couldn't just lock them up in storage or throw them away. So my mom had a quilt made out of my shirts through Project Repat! Looking at the quilt has made my day, time and again, as I remember how much IIT means to me."



fuelinginnovation

THE CAMPAIGN FOR IIT

IIT's six-year fundraising campaign has raised more than \$177 million as of September 15, 2014—70 percent toward its goal of \$250 million.

10 Million Reasons...to Take the Challenge!

The Ed Kaplan Family Institute for Innovation and Tech Entrepreneurship at IIT Main Campus is poised to become that singular place in Chicago's tech ecosystem where a technology-focused, interdisciplinary curriculum meets industry and business head on—producing the innovators and entrepreneurs that today's global economy demands. Alumnus and IIT Board of Trustees member Ed Kaplan (ME '65) and his wife, Carol, have created a \$10 million challenge—the **Kaplan Innovation Challenge**—to inspire support for the institute.

The Kaplan Institute is the capstone project during President John Anderson's tenure at the helm of IIT. We invite you, our alumni and friends, to honor his presidency with an investment in this new initiative. There are many unique funding options available at the institute, including spaces that will foster brainstorming and collaboration, media and prototyping labs, workshops, and more.

Kaplan Innovation Challenge

The challenge presents donors with a unique opportunity to double the impact of their gifts by making a commitment now. The Kaplans will match—dollar for dollar—all eligible gifts to the institute that are made by February 28, 2015, and paid in full by February 28, 2018. Donors who are motivated to **double the impact of their gifts** must take advantage of the Kaplans' generosity now, before the \$10 million limit has been reached.

Campaign Progress Through September 15, 2014

\$177,161,012 Raised

- 15 Endowed Chairs
- Capital Projects:
 - › Ed Kaplan Family Institute for Innovation and Tech Entrepreneurship: \$22 million (includes a \$10 million gift from the Kaplans)
 - › Robert A. Pritzker Research Center: more than \$5 million
 - › John T. Rettaliata Engineering Center: more than \$10 million
- More than \$30 million raised for scholarships
- 6 families have made gifts of \$10 million or more

fuelinginnovation.iit.edu

The Kaplan Institute's impact will extend beyond Chicago, fueling the tech economy of the Midwest and beyond. It will produce not only new technologies and high-tech jobs but also fill the skills gap with graduates who have the education and training required to turn ideas into products and inventions.

Take the challenge! Demonstrate your commitment to investing in our students as well as in the innovations and technologies of tomorrow that will be powered by IIT.

For more details about the Kaplan Innovation Challenge and opportunities to invest, contact Beth Campbell, associate vice president, principal gifts, at campbellb@iit.edu or 312.567.5024.

Visit fuelinginnovation.iit.edu/innovation-center to learn more about the Ed Kaplan Family Institute for Innovation and Tech Entrepreneurship. Be sure to check out the many innovative alumni, students, and faculty featured on the site.

A Creative Path By Marcia Faye to Leadership

Christine Himes
Dean of IIT Lewis College
of Human Sciences



PHOTO: BONNIE ROBINSON

Christine Himes's path to dean of IIT Lewis College of Human Sciences was a wild ride—unpredictable, nonlinear, and filled with surprising twists. Over the course of her life, Himes has found one constant: pursuing her fascinations, no matter how circuitous and rudderless her career journey sometimes has seemed. She has taken risks and exemplified other qualities noted in highly creative individuals, seeking out new experiences and connecting the dots in seemingly unrelated situations, as she has followed her interests—and discovered her passions.

“Fear of failure, I think, is the biggest stumbling block to creativity. Sometimes young people can be more creative because they’re less afraid of making a mistake.”

One of eight children, the Chesterton, Ind., native says that she was a good student in high school but did not receive much guidance about how to choose a college or a course of study. She thought she might want to apply to law school or medical school one day and, liking science, chose chemistry as her major. She instead graduated from Purdue University with a B.A. in Russian language and a B.S. in industrial management, the latter because she was interested in economics. After working as a purchasing agent for a cereal toy packager and as a fiscal analyst for the Indiana General Assembly, Himes entered into a graduate mathematics program.

While at Purdue, Himes saw a promotional poster about demography and decided to enroll in one of the few demography doctoral programs in the country at that time, at the University of Pennsylvania, which “turned out to be the perfect fit.” With a second doctorate in sociology, Himes embarked on a 19-year career at Syracuse University, where she served as chair and Maxwell Professor of Sociology as well as director of the Center for Policy Research at the Maxwell School of Citizenship and Public Affairs. At the center, Himes fostered a creative environment through interdisciplinary collaboration and contributed to the establishment of the Aging Studies Institute.

The daughter of a retired electrical engineer and the mother of an aerospace engineer, Himes says that she already “feels very much at home” at IIT. She shares some thoughts about creativity here and

in an *IIT Magazine* Video Extra at iit.edu/magazine discusses how the intersection of humanities and technology can inspire creativity.

What drew you to apply for the dean position at IIT?

I was attracted to apply because this is a new college. I like the fact that it is interdisciplinary almost by nature. Gerontology and demography, my two areas of study, are both interdisciplinary. I like the size of IIT, which allows people to do more creative things. You can go right over and talk to the person because there aren’t as many layers of bureaucracy as found at larger institutions.

I also like the idea of emphasizing the social and the behavioral sciences within a technology environment. We spend a lot of time thinking about how to train people to develop new technology; we have to spend some time thinking about what the implications of that technology are on our lives. How can technology be a useful tool to us?

The combination of identifying what societal problems we want to address and drawing upon technology as a way to solve those problems is our future.

Can creativity be taught?

To be creative, one needs certain tools and skills, which can certainly be taught. People can be taught to think differently; that’s the way to come up with new solutions. But can you teach someone to have a particular way of thinking? I don’t think so. You can’t change people’s underlying

tendencies toward what they’re good at or the way that they think, but you can give them skills that will allow them to tap into the parts of their brain that they may not always use.

What are some creativity landmines?

Fear of failure, I think, is the biggest stumbling block to creativity. Sometimes young people can be more creative because they’re less afraid of making a mistake. Another stumbling block is that people have ideas but don’t know what to do with them. People are much more creative than we know, but they don’t have a good way of communicating those ideas or putting them into practice. Another set of skills is required to make ideas known and meaningful. Establishing environments such as IIT’s new innovation center and business incubators where creativity can flourish is important.

How do we foster creative leadership?

We need to reward people for doing things that are different. Traditionally, academia is very narrow, with people sometimes existing in silos; there isn’t a very good system in place for encouraging people to be interdisciplinary or multidisciplinary. If we’re going to talk about getting our students to be collaborative, we have to be able to do that at our level, too, and show how that works. We need to create an administrative structure that makes it easy for people to do that. We need to set good examples.



Insights Into By Koren Wetmore the Ionosphere

Northern Lights

LOOK SKYWARD ON A WINTER'S NIGHT IN THE Northern Hemisphere and you may glimpse the beauty of the aurora borealis. Come sunrise, the same forces that spur its shimmering bands will likely wreak havoc with communication systems and GPS navigation.

Each time the sun beams a solar flare or lobs a coronal mass ejection (CME) toward our planet, a surge of charged particles strips electrons from gases in our atmosphere, resulting in the familiar glow and also dense plasma masses that refract, or delay, satellite signals.

Predicting where this plasma will travel remains one of the challenges of space weather forecasting. Now, with the help of a National Science Foundation CAREER Award, Seebany Datta-Barua, assistant professor of aerospace engineering, hopes to shift the science closer to becoming as accurate as meteorologists' storm tracking.

"Say there is a CME headed toward Earth. It strikes our magnetosphere and some of the particles get rerouted into Earth's upper atmosphere. Where will those particles go? It would be helpful if we could forecast whether they will be mostly visible over Australia or the U.S., or not affect anyone at all," Datta-Barua says. "It would allow airlines and electric-power suppliers to plan for it and take appropriate action."

Datta-Barua will use mathematical modeling of the plasma densities to detect something called Lagrangian coherent structures (LCS), which can help scientists predict where—and how quickly—particles will move from one location to another.

LCS have been used successfully to model the movement of pollutants in the ocean. If Datta-Barua can detect their presence in the atmosphere, she can use them to model where the plasma will gather over our planet following a solar event.

"The idea is to pretend you're following one particle in the flow through time, and then you follow another particle nearby to see how far they separate over time. Do that for a lot of neighboring points and a pattern emerges where some particles start off close together and then diverge quickly. Yet in another region, they stay close," Datta-Barua says. "An LCS is like a wall that divides the particles that separated most rapidly. It defines a barrier that tells us something like, 'Two particles that start on either side of this barrier will go far apart from each other after five hours.'"

The entire dance plays out in the ionosphere, an ever-shifting layer of charged particles within the thermosphere, which has interested Datta-Barua since her days as an undergraduate studying physics at Stanford University. While doing undergraduate research, she found her interest shifting from fundamental physics to a desire to pursue science that directly affects people's daily lives. So, along with a bachelor's degree in physics, Datta-Barua went on to earn a master's degree and doctorate in aeronautics and astronautics, and participated in the GPS Research Laboratory run by Stanford Professor Per Enge.

"Aerospace engineering and working with the near-space environment—satellites and all the technologies that rely on them like communications, navigation, and remote sensing—was where I thought it all really connects to modern society," she says.

Although Datta-Barua admits it may be years before we can forecast space weather the way meteorologists track winter storms, the quest still shimmers on the horizon, brilliant as the northern lights.



MORE ONLINE ▶

Seebany Datta-Barua's homepage:
engineering.iit.edu/faculty/seebany-datta-barua
 "The Skeleton of Water," on Lagrangian coherent structures:
www.economist.com/node/14843793

Summer of Real Research

by Marcia Faye

Ask Veronica Torres (BME 4th year) to describe two highlights of her summer vacation, and chances are she will tell you about completing brain surgery on mice and observing cells glow when excited by high-energy light. Some 30 other IIT engineering undergraduates might describe similar research experiences thanks to their placement in Armour R&D this summer. Offered through IIT Armour College of Engineering's Distinctive Education program, students gained valuable research experience under the mentorship of IIT Armour College of Engineering faculty members.

Students worked on projects categorized by the IIT Armour College of Engineering themes: water, health, energy, and security. The merit-based summer program gave undergraduates the chance to either gain new research experience under the Program for Undergraduate Research Education (PURE) or to develop technology based on research findings through the Mentored INnovation and Development (MIND) track. As part of their acceptance into the competitive R&D program, students received a stipend, prepared a report on their research results, and participated in the Armour R&D Expo in October.

Veronica Torres

Major/year: Biomedical Engineering/4th year

Project: Dual-Reporter Fluorescence Image-Guided Surgery for Gliomas [brain or central nervous tumors that arise from glial cells]

Mentor: Assistant Professor Kenneth M. Tichauer

Project purpose: To improve neurosurgical guidance techniques and glioma tumor contrast for more successful surgeries

Torres's contributions: She designed and carried out the experiments with the assistance of doctoral student Clover Xu, researched previous similar studies to aid in the design of their experimental protocol, transfected and subcultured cells, labeled proteins, and performed animal experiments alongside Xu.

More work to do: "This fall, we're looking to optimize the procedure and make it viable in a clinical setting by using reporters [genes that serve as markers to help determine the activity of other genes] that are already FDA-approved. Experiments will be conducted with quantification in vivo, whereby imaged tumors will be excised and then validated with immunohistological staining rather than removing the entire [mouse] brain."

Armour R&D benefits: "This opportunity was my first research experience and was very supplemental to my education. It gave me the chance to apply what I've learned in class as well as exposed me to other things that I wouldn't be able to learn in a classroom setting. This project taught me a lot about the proper way to conduct research and helped me develop skills that will be useful in my last year of undergraduate studies."



PHOTO: SCOTT BENBROOK

Georgi Hristov

Major/year: Aerospace Engineering and Mechanical Engineering/5th year

Project: Innovative Control Effectors for Maneuvering of Air Vehicles

Mentor: Professor David R. Williams

Project overview: The research team studied the ability of modern active-flow control actuators to improve the performance and maneuverability of unmanned combat air vehicles (UCAV). The main goal of the project was to evaluate the performance of active-flow control methods (e.g., circulation control) and their potential for replacing conventional control surfaces (e.g., ailerons, elevators). The airframe under investigation was a generic delta wing UCAV that has an extensive set of data available from the German Aerospace Center test facility in Braunschweig, Germany. A model predicting the performance had to be created and compared to the available experimental data to determine if the actuators were able to produce similar results to conventional control surfaces.

Hristov's contributions: He conducted a comprehensive literature review of modern active-flow control actuators that have the potential to improve UCAV performance; and acquired, analyzed, and processed data to determine which active-flow control actuators may be capable of producing the aerodynamic forces and moments required for the UCAV to achieve performance similar to the conventional actuators.

Project high point: "Besides the progress on the research topic, I am really proud of the amount of new information that I learned, which gives me a better perspective in my preparation for graduate school."

Armour R&D benefits: "The project gave me insight into the field of flow control and the current trends in aerospace engineering. This experience was priceless because it let me identify quickly developing areas of research in my major and guided me in my choice of graduate school and a future career."

MORE ONLINE ▶

Read about Sylwia Odrzywolska's and Ryan Cassel's Armour R&D summer projects in an *IIT Magazine* online exclusive at iit.education/magazine.





Success Beyond the Sports Center

By Marcia Faye

THAT ILLINOIS TECH'S director of athletics, Joe Hakes, is qualified to provide athletic vision and lead the university's efforts toward NCAA Division III membership is unquestionable.

Apart from his brief career layover as a residential realtor in the Washington, D.C., area, Hakes has spent his entire life studying, playing (soccer, basketball, and baseball), coaching (soccer, tennis, and basketball), and/or administering sports. Growing up in west suburban Wheaton, Ill., he knew about IIT as far back as the days he listened to Jack Brickhouse provide play-by-play coverage for the Chicago Cubs on WGN Radio. Although Hakes is now on IIT's side of the court, he shot hoops against the Scarlet Hawks at Keating Sports Center as a student at Trinity International University and in later years coached visiting soccer teams from North Park University and Moody Bible Institute that played against IIT.

Hakes, however, has brought something more than professional abilities to IIT in his quest to help student-athletes succeed: a desire to help them become the very best people they can be after they leave the university.

Less than a week after his official IIT start date of August 1, Hakes greets guests in an office largely devoid of décor save for a desk coaster with the characteristic blue and red logo of his beloved Cubbies. There is also a laminated and framed article from *Newsweek* hanging on the wall facing him entitled "A Final Journey With Mom," a 500-word essay penned by Hakes and published in the magazine in 2007. It is a tender account of how he and his family came to scatter his mother's ashes in the waters bordering the coastal town in Maine where Hakes's parents spent their honeymoon in 1941.

"My father was sitting on the side steps of the student union at Wheaton

College when this freshman girl walked by, and he turned to his buddy and said, 'That's the woman who I'm going to marry,'" recalls Hakes, who said his dad had originally intended to spread his wife's ashes at Wheaton. "She went into the hospital on their 62nd wedding anniversary. She had cancer and we thought that it was gone, but it came back."

Hakes's late mother was a nurse and his father was vice president for academic affairs at Trinity, so compassion and higher education permeated the lives of family members. Little wonder that Hakes notes that even with NCAA Division III status in his sites, his aim as athletic director is not necessarily to turn out professional-level athletes.

"What we're trying to produce are graduates of good, solid academic programs who also have the added experience of being involved in a great competition, who have the ability to work with their teammates and understand authority, and who know how to provide authority in leadership roles," he explains.

This was a goal he set at all four of the institutions where he served as athletic director—Moody Bible Institute, King University, Gordon College, and Millikin University. Hakes says he is continually amazed by the number of friend requests he gets on Facebook from former student-athletes thanking him for a character development trait he successfully instilled in them.

"To me, that's a great affirmation that I've done something right along the way. I feel blessed to be a part of something that has positively impacted so many student-athletes," says Hakes. "And I am grateful for the opportunity to take things to the next level at IIT. I've always thought that the university had the potential to be a great [NCAA] Division III school in every sense of the word. I am excited about the future here."


MORE ONLINE ►

"A Final Journey With Mom": www.newsweek.com/final-journey-mom-96759
NCAA Division III: www.ncaa.org/d3

Leaders Speak

In anticipation of the 125th anniversary of Illinois Institute of Technology in 2015, *IIT Magazine* invited seven campus and community leaders to reflect upon some big questions central to the world in which we live. Six of these leaders presented their answers in their own words as essays in this issue. As a special Web feature of this issue, leaders also continue discussing their topics in video segments in the online version of *IIT Magazine*. ♦

Since its founding as Armour Institute in 1890, IIT has risen to its place in higher education in large part because of its leaders—who inspire their students to do more, who see beyond today, and who strive to continue the university’s legacy of excellence.

- 
- A photograph of two men in dark suits and light-colored shirts standing in profile, facing each other and engaged in conversation. The man on the left is gesturing with his right hand. They are positioned in front of a large wall covered with various maps and data visualizations, including a world map and several smaller charts or graphs. The background is a light blue color with a subtle pattern of faint, white, hand-drawn diagrams and text related to business and technology, such as 'PROJECT', '2014 CENTER', 'INFO', 'SUCCESS', and 'BUSINESS'.
- 12 What Can We Learn from Failure? ♦
 - 14 How Does Helping Others Help Us? ♦
 - 16 Is My College Education Worth Having? ♦
 - 18 Small Things + Big Science = Huge Payoff? ♦
 - 20 Is the Textbook Obsolete?
 - 22 What Is America’s Best Pathway to Sustainable Energy? ♦

What Can We Learn *from* Failure?

By **Ronald S. Landis**
Nambury S. Raju
Endowed Chair in Psychology





PHOTO: MICHAEL GOSS

“Failure may not be an option, but it is certainly an opportunity.”

If we ask a basketball player to imagine taking the final shot of a game, that player will almost certainly imagine the ball going through the hoop to win the game. Similarly, if you close your eyes and imagine yourself completing an important school or work assignment, you will likely envision yourself being successful, maybe even wildly successful. Failure is not something we generally desire in our daily pursuits. That doesn't mean, however, that failure cannot provide positive outcomes.

Indeed, there are rather famous examples of individuals who have achieved tremendous success after having failed spectacularly. Stephen King went through 30 rejections before his first novel, *Carrie*, was accepted for publication. Steven Spielberg was rejected from the University of Southern California School of Cinematic Arts more than once. Thomas Edison tried somewhere between 1,000 and 10,000 times before finally creating the light bulb. We could fill the pages of *IIT Magazine* with similar examples from individuals across such diverse walks of life as business (Bill Gates), sports (Michael Jordan), and politics (Winston Churchill).

Whenever we perform an activity, whether for work or for play, we routinely receive feedback, positive or negative, from our environment and adjust our behavior accordingly. We can all recall those times in our own lives when we were the recipients of positive feedback in the form of praise, adulation, or congratulations. Perhaps it was related to landing a big account, scoring the winning touchdown, or solving a particularly challenging problem. We may reflect on those times as *successes*.

We can also likely recall times when we were the recipients of negative feedback such as scolding, receiving a poor grade, or perhaps even getting fired. Although these *failure*

experiences may not elicit a smile, they are nonetheless absolutely critical if we want to learn about our capabilities, understand our strengths and weaknesses, and ultimately improve our performance.

Despite the self-learning that can occur, failing is not a pleasurable experience. In the moment, we likely experience feelings of inadequacy, incompetence, anxiety, or any number of other unpleasant states. What is important about a failure experience is not the particular event, but rather, how the event is perceived and interpreted. If we refuse to see failing as a learning opportunity, we consign ourselves to allowing the failure to define us.

One of the most important—and repetitive—failure experiences in my professional life is the rejection of papers submitted to academic journals. It is quite common to spend months, if not years, working on a research project, developing a manuscript, and submitting it to a top journal, only to have it rejected for publication. I learned very early in my graduate training that such rejection (failure) is to be expected and that my reaction should be to learn from the reviewer's criticisms, then revise the paper and resubmit it. Ultimate success can only be attained by incorporating the negative feedback and learning from past experiences.

We have all failed and will continue to fail. Instead of focusing on the sting that might be associated with these events, we would do well to maintain a focus on how the experience will make us stronger in the future. Failure may not be an option, but it is certainly an opportunity. ●

MORE ONLINE ▶

Visit iit.edu/magazine to hear Ronald S. Landis discuss five ways to turn failure into success in an *IIT Magazine* Video Extra.



How Does Helping Others Help Us?

By **Katherine Stetz**

Vice Provost for Student Affairs
Dean of Students

“Their homes were the size of a large bathroom in the United States and didn’t have mattresses or tile floors, yet the families who lived in them were not downtrodden or bitter.”

The question “How does helping others help us?” caused me to reflect on my experiences serving others from the time I was in grade school through my current positions at Illinois Institute of Technology.

The act of self-giving was a central part of my Catholic education from so many years ago. Faith and love were the cornerstones of my most memorable service experience from those days, a “reversed missionary” trip to Cuernavaca, Mexico. My group’s accommodations had running water, a cafeteria, and flush toilets; the people we came to serve did not. I realized that the true objective of the experience was to meet people who had very few material possessions but had a large love of God and community, and great faith. Their homes were the size of a large bathroom in the United States and didn’t have mattresses or tile floors, yet the families who lived in them were not downtrodden or bitter. This trip not only helped me to grow as a person, but it also inspired my work at IIT with the Alternative Spring Break (ASB) student organization and the Division of Student Affairs.

New to the dean of students position in 2010, I was approached by former ASB participants who had concerns regarding their experiences. Among them was that the event highly depended upon IIT staff for trip planning; consequently, ASB students had limited motivation to raise money and sometimes even attend the trip. I reached into my past for inspiration and with the students made three improvements: creating a constitution and an executive board;



PHOTO: MICHAEL GOSS

moving the ASB selection process to the fall; and establishing rules and expectations that set a tone of service, not of privilege.

As a leader of the Division of Student Affairs, I also wanted to promote teamwork as well as model the lifestyle of service we encourage for our students, and sought feedback from my staff on creating a service opportunity for division members. For our first service day last December at Chicago’s RTW Veteran Center, 20 professional staff members cleaned toilets, scrubbed ovens, organized and sanitized a food pantry, washed dishes, and talked with center visitors for nearly four hours. The event was so successful that this May we served at multiple sites, including Benton House, the St. James Food Pantry, and Eden Place Nature Center.

Accustomed as I am to not only working with students but also being inspired by them, I asked my two sons—Ben, 7, and Conor, 9—for their take on helping others and was amazed by their insight. My younger son said that

helping people makes him happy, which put a smile on my face. Conor, however, basically told me that he helps people because he cares for them, not because doing so helps him. He focused on the person exclusively.

While my experiences and observations over the years have done much to help me realize how the qualities of compassion, love, and sacrifice are important pieces of why service is so meaningful, for me, the best answer is always the simplest—and just so happened to come out of the mouths of babes. Helping others helps me because as a human being I care and want to be a part of that process. And also, because it makes me happy. ●

MORE ONLINE ▶

Visit iit.edu/magazine to hear Katherine Stetz talk about volunteer opportunities for students in an *IIT Magazine* Video Extra.

“ Is My College Education Worth Having? ”

By **Nicole C. Lacey**

Akinade Aderele, a fourth-year architecture student at Illinois Institute of Technology, views a college education as a down payment on a long-term investment in the future of his home country.

A native of Lagos, the most populous city in Nigeria and the largest in Africa, Aderele misses home, but says his decision to leave his homeland to travel nearly 6,000 miles to the United States was a good one. With Chicago being known for its architecture and its connection to some of architecture's most important trailblazers, such as Ludwig Mies van der Rohe, Aderele says it was important that he come here.

“It is one of the biggest and best urban labs in which to study architecture,” says Aderele, president of the IIT Student Government Association.

But for Aderele, his decision to attend Illinois Tech goes much deeper than personal gain. He believes that a college education is the bedrock supporting a nation's economic prosperity, especially in countries like Nigeria that are struggling to gain solid economic footing. For many Nigerians, the decision to travel abroad to gain that education is becoming increasingly popular due to current challenges that exist in the Nigerian higher-education system.

“The major problems are due to public strikes and university strikes, some of which could extend the duration of a student's stay in the university by up to two years,” Aderele explains. “The second reason is that the overall quality of education is not on par with American universities.”

Aderele maintains that society can thrive most effectively through the efforts of its educated citizens.

“Any major advances made by countries are the result of a focus on education. I would like to hope that an investment in education may eventually save countries like my own,” he says. “The cost of a college education is higher than it has ever been before, and this reason among others, such as accessibility to information through the Internet, has caused people to question the relevancy of a college education. In some cases this may be true, but for most people the stepping-stone of a college education in the context of future success is invaluable.”

Influenced by his own childhood in Nigeria and many of the struggles he witnessed firsthand, Aderele plans to use his college education to design and manage urban-renewal projects that focus on developing housing and infrastructure for those living in poverty with little access to electricity, plumbing, and other basic conveniences.

That goal—paired with his parents' gentle encouragement to give back to his country with the education and experience he has gained in the U.S.—is Aderele's daily motivation. He also thinks of his younger sister who is majoring in industrial engineering at Drexel University and who wants to return to Nigeria. The two siblings share the same desire to improve the living conditions there.

“My dream is to use my college education to help Nigeria become a better country,” he says. “Looking at it economically, since my parents and many others have invested so much in my education in the United States, I want to be able to pay those dividends back home. I look at my country and the African continent, and I see the potential that they have. Why not use my education to make improvements and harness that massive potential?” ●

MORE ONLINE ▶

Visit iit.edu/magazine to hear Akinade Aderele talk about Chicago architecture as inspiration in an *IIT Magazine* Video Extra.



PHOTO: MICHAEL GOSS



Small Things + Big Science =
Huge Payoff?

By **Russell Betts**
Dean of IIT College of Science
Professor of Physics

“Paradoxically, this pursuit of the very small has led us to construct ever-larger accelerators and detection devices.”



PHOTO: BONNIE ROBINSON

A driving force in science is the pursuit of understanding the ultimate nature of matter and its interactions. Historically, this has led us on a path to smaller and smaller entities: from the elements of the ancient Greeks and the molecules of John Dalton, to atoms and the nucleus of Niels Bohr and Ernest Rutherford, and now to elementary particles such as quarks and gluons, and—most recently—the Higgs boson.

Paradoxically, this pursuit of the very small has led us to construct ever-larger accelerators and detection devices. To see at ever-smaller distances, we must use particle beams of ever-increasing energy, such as those generated by today’s 27-kilometer-diameter ring of superconducting magnets that compose the European Organization for Nuclear Research (CERN) Large Hadron Collider, arguably the most complex device constructed.

Of course, the discoveries themselves have had tremendous payoffs. Our deep understanding of the quantum world of atoms and atomic systems has enabled the development of the laser, materials for electronic applications, and designer catalysts and pharmaceuticals, for example. For the future, we dream of quantum computers and teleportation. Science fiction becomes reality.

The technologies developed in the evolution of increasingly powerful accelerators and more sophisticated detection systems have found widespread applications outside basic science. The superconducting magnets developed and produced for the first time on an industrial scale for Fermilab’s Tevatron now find common use in magnetic resonance imaging scanners. Novel imaging techniques beyond old-fashioned photographic emulsions are common in medical diagnostics and surgery. The World Wide Web was created at CERN so that scientists in global collaborations could work together more effectively. Thus, the overall goal of scientific discovery has motivated and underwritten the development of new technologies of enormous benefit to us all.

Beyond the “what” of scientific discovery and the “how” of the technologies needed to accomplish the goals, a third and perhaps most important piece of the enterprise is the “who”—the people.

Vannevar Bush, celebrated American engineer and science administrator,

characterized scientific research in his seminal report “Science—the Endless Frontier” and cast the enterprise as one of exploration and discovery, one that can motivate and inspire those individuals who engage in it. They are challenged by the unknown and by problems for which there are no clear solutions. So, in addition to the knowledge gained, this research becomes a kind of gymnasium for the mind where intellectual muscles and problem-solving skill sets are developed.

The participants in this enterprise, particularly students, have shown time and time again how the skills they have developed can be applied in many diverse areas outside science itself. They bring together critical and logical thinking with analytical, communication, and collaborative ability so necessary in the world today. Examples of successes are to be found in the worlds of computers and data science, in energy and climate science, in business and finance, in the arts and music, and even in politics and government. This, I believe, is the biggest payoff of all. ●

MORE ONLINE ▶

Visit iit.edu/magazine to hear Russell Betts further discuss the evolving nature of science in an *IIT Magazine* Video Extra.

Is the Textbook Obsolete?

By Joy Kubarek-Sandor

(Ph.D. MSED Candidate)

Vice President of Learning

John G. Shedd Aquarium

The science-learning landscape is shifting. As information becomes more readily available, learning environments become transformed with the help of technology and individuals take more ownership of their education in and out of the classroom. For example, the Maker Movement has helped the act of doing science and engineering become more accessible and achievable for a wider range of individuals. To make can mean to try and to fail, and to learn from those failures as one continues in the making process. Such lessons are seldom taught in the classroom, but informal science settings such as Maker Faires, museums, and youth-driven media spaces broaden this new perspective of how one learns.

The science-learning landscape is moving from an emphasis on knowledge transfer from experts and textbooks to generating one's own knowledge through firsthand experiences and experimentation. This is not to say that the classroom experience is no longer relevant. Rather, this is a time for informal science settings to rise to the occasion to meet the needs of learners through their unique offerings and resources.

At Shedd Aquarium in Chicago, an array of programs strives to help learners become more confident and competent in engaging with science and the environment. The Asian Carp Exploration Curriculum for seventh through ninth grades allows students to explore the complex issues surrounding such aquatic invasive species as Asian carp in the Great Lakes. Using science, technology, engineering, and math (STEM) principles, students take on multiple stakeholder perspectives and propose plausible solutions to this real-world problem.

The Teen Learning Lab is a dynamic, flexible learning space for teens to explore their interests around science and the environment. Utilizing a connected-learning framework (Ito et al., 2013),

this space fosters peer-supported, interest-powered, and academic-oriented learning activities for teens from across the Chicago area. Teens use an array of technology including Apple MacBooks and iPads, podcasting equipment, scanners, SmartBoards, and Adobe software suites to generate their work. They may also use a 3-D printer to model an addition to an animal habitat or program and Minecraft to create their own online games about marine-protected areas.

Finally, Shedd's Summer Road Trip teaches youth about their local ecosystems by immersing them in that environment and integrating technology to further question and investigate the natural phenomena. For instance, participants use iPads to conduct ethograms on animal behavior so they may better understand the animal's role in the ecosystem and the challenges animals face.

These programs extend the learning that happens in the classroom, bringing the textbook alive and providing rich opportunities for learners to further develop their understanding of science concepts and processes. True to the core of IIT's mathematics and science education department, many of these programs hold up the tenets of the nature of science and science inquiry; they emphasize collaboration and creativity, questioning and investigation, observations and inference, and making informed decisions based on evidence. Informal science-education experiences such as these will be critical as the learning landscape continues to shift and education extends beyond the four walls of the classroom. It is truly the union of informal and formal learning that will best prepare the next generation of global citizens and informed decision-makers. ●

Joy Kubarek-Sandor has worked at John G. Shedd Aquarium since 2006 and oversees the Shedd's Learning Group. Her team provides a range of learning experiences onsite, offsite, and online with the goal of enhancing a learner's scientific literacy, environmental literacy, and twenty-first-century learning skills. Read more about Kubarek-Sandor at www.sheddaquarium.org/Learning-Experiences/Learning-Experts/Joy-Kubarek-Sandor.

PHOTO: MICHAEL GOSS



What Is America's Best Pathway to Sustainable Energy?

By **Hamid Arastoopour** (M.S. GE '75, Ph.D. '78)

Director of the Wanger Institute for Sustainable Energy Research

Henry R. Linden Professor of Energy and

Mohammad Shahidehpour

Director of the Robert W. Galvin Center for Electricity Innovation

Bodine Chair Professor



NATIONAL SECURITY, AND ECONOMIC VITALITY and growth depend upon adequate future supplies of energy and water. IIT's Wanger Institute for Sustainable Energy Research and its Robert W. Galvin Center for Electricity Innovation have developed an approach to the increasingly challenging task of creating a pathway to sustainable energy and water for our nation that is both multifaceted and complex. It aims to improve the reliability, security, and affordability of energy and water by 1) utilizing a least-cost strategy to reduce the negative impact of energy consumption on climate change and water availability; 2) emphasizing the gradual decarbonization of the global energy system; 3) increasing energy efficiency and conservation; and 4) preserving natural resources and the environment.

Our strategy recognizes that an effective national pathway to sustainability must include three plans (short-term, transitional, and long-term) that must be launched simultaneously.

Setting Short-term Strategic Goals

Short-term plans must address our nation's immediate need for energy supplies, materials, and water as well as efficient and smart usage and conservation. The short-term strategy must also include the:

- establishment of significant research and development in microgrid technology, energy security and reliability, and efficient and smart use of electricity in the residential, commercial, industrial, and transportation sectors;
- development of carbon-capture and sequestration technologies, reduction of freshwater

consumption in existing utility plants, and restriction of construction of new coal-based plants to only integrated-gasification combined-cycle plants with carbon-capture facilities; and

- establishment of a national program to launch sustainable built-environment programs, water and materials accountability and recycling, and reduction in energy use for transportation by using innovative local programs such as sustainable urban food production.

Managing the Transition

Transitional plans should address the shift from the present stage to the desired long-term goal of a society powered by sustainable energy using natural gas (with a lower carbon-to-hydrogen ratio) as the main transitional fuel. The plan should incorporate major infrastructural change and investment in



PHOTO: MICHAEL GOSS

[Left to right] Mohammad Shahidehpour and Hamid Arastoopour (M.S. GE' 75, Ph.D. '78) before the nationwide gas and electricity grid-data visualization display at the IIT Robert W. Galvin Center for Electricity Innovation

both electricity and gas grids, which will include large-scale energy-storage facilities to accommodate conditions in which the major component of electricity is being produced using renewable-energy sources.

The plan should also include coordination between critical infrastructures (electricity, telecommunications, natural gas, and water), cybersecurity, and enhancement of infrastructure resilience in adverse conditions. In addition, a continuous increase in research and development activity is needed for production of natural gas (using environmentally acceptable fracturing or other technologies) from gas hydrates and low-permeability reserves such as shale formations. Abundant supplies of natural gas from unconventional reserves currently afford us a unique window of opportunity to invest in comprehensive fundamental and applied research and develop-

ment initiatives in renewable energy, energy storage, water, and infrastructure of the electricity, gas, and water grids that are necessary for the implementation of a successful long-term energy strategy.

Implementing an Effective Long-term Strategy

An effective long-term plan should address major and comprehensive basic and applied research and development initiatives in renewable energy (e.g., solar, wind, and geothermal), large- and small-scale energy-storage facilities, and integration of renewable-energy supplies with the electricity grid. The long-term plan should also demand life-cycle analysis of materials and national water and carbon-based fuels consumption policies.

In addition, educational, outreach, and research programs should be launched to educate the general public

not only about advances in science and engineering but also about applications in urban systems, changes in human behavior, and economic and policy analyses.

Managing our nation's successful transition to sustainable energy will require the development and implementation of a comprehensive and multitiered energy and sustainability policy formulated in collaboration with the key stakeholders including government, industry, and academia. It will also require the education of the general public in sustainable practices as well as in the decision-making process. ●

MORE ONLINE ►

Visit iit.edu/magazine to hear Hamid Arastoopour and Mohammad Shahidehpour further discuss topics in energy and sustainability in an IIT Magazine Video Extra.



Visit iit.edu/magazine to read about

- Student **Luis Larco**, who spent his summer working on projects for the Chicago Police Department, GE Healthcare, and UFarmIIT
- IIT Cricket Club
- “Summer of Real Research” students **Ryan Cassel** and **Sylwia Odrzywolska**
- **Christine Freisinger** (ARCE '02) and **James Lewan** (ARCE '06, M.A.S. STE '08), mentors to the IIT chapter of Engineers Without Borders
- **Dion Manly** and the IIT Office of Campus Energy and Sustainability

PHOTOS BY: SCOTT BENBROOK



Luis Larco



PHOTO: SACHIN RAJ

IIT Cricket Club



Ryan Cassel



Sylwia Odrzywolska



Christine Freisinger and James Lewan



Dion Manly [top row, center] and the IIT Office of Campus Energy and Sustainability

IIT Worldwide Alumni Chapters, Clubs, and Networks



China Chapter offers a variety of programs

Since its establishment in 2012, the Illinois Institute of Technology China Alumni Chapter has been working to engage alumni in a multitude of ways. With strong representation from IIT Chicago-Kent College of Law and IIT Stuart School of Business, the chapter offers presentations, symposiums, and networking.

The group also knows how to have fun, hosting celebrations on New Year's Eve, a spring festival, and family-friendly activities such as camping. A quarterly newsletter keeps alumni up to date on gatherings and conferences, and helps to share opportunities such as jobs, internships, and chances to network. Chapter leaders are also giving back to a new generation of Illinois Tech students, reaching out to incoming students to help prepare them for life in the United States.

On September 20, more than 150 alumni gathered in Hangzhou for an event sponsored by Mary Kay China. Three artists were featured: Paul Mak (CHE '81), Chenglong Jin (M.P.A. '05), and Peimin Xia, father of Jennifer Meng Xia (M.P.A. '07), chapter general secretary.

Alumni in China are encouraged to update their contact information with the IIT China Office at chinaoffice@iit.edu or with Meng Xia at gyxiameng@hotmail.com.



[Left to right] IIT President John Anderson joins Parth Amin (BA '85), Satish Vasant Ghatge (ME '79), and IIT Bangalore office staff member A. R. Bhujang at the January 11 Commencement ceremony.

Korea Chapter celebrates Kim's appointment

The IIT Korea Alumni Chapter shared news of the inauguration of Nakhon Kim (M.S. CS '85, Ph.D. '89) as president of Dongduk Women's University this September. Considered a prestigious university in Korea, Dongduk has a 100-year history. Kim has a long legacy of service with the IIT Korea Chapter, serving as vice president and as the seventh president of the group.

Korean alumni are encouraged to learn more about the chapter's activities by contacting Hyungjin Kim (LAW '96) at intercle@gmail.com or the IIT Korea Office at seoul@iit.edu.

Alumnus featured in Korean art exhibit

Jong Soung Kimm (ARCH '61, M.S. ARCH '64), president of SAC International, Ltd., had his exhibit *Harmony Between Technology and Art* featured at the National Museum of Modern and Contemporary Art in Seoul beginning on September 23. He also served as chair of the Organizing Committee for the 13th International Docomomo Conference in Seoul September 24.

India Chapter celebrates Commencement ceremony and hosts presentation

The India Alumni Chapter welcomed IIT President John Anderson at the university's Commencement ceremony in Mathikere, Bangalore, in January. Anderson also used the trip to connect with members of the IIT Alumni Association throughout Asia with stops in Hong Kong, Thailand, and Mumbai, India.



Nakhoon Kim (M.S. CS '85, Ph.D. '89) addresses his guests as the new president of Dongduk Women's University. He was inaugurated on August 23.

Other prominent leaders at Commencement included Anil Menon, president, Smart+ Connected Communities and deputy chief globalization officer for Cisco; Mudaliar Muthukumar, vice president of engineering for Juniper Networks; Satish Vasant Ghatge (ME '79), managing director of Ghatge Patil Transports; and Parth Amin (BA '85), founder and chairman of the SLK Group, and chief executive officer and managing director of SLK Software.

On June 8, alumni gathered at the IIT Bangalore campus. Shashi Bhushan (M.A.S. TSEC '00) provided an interactive presentation on the health care market related to diagnostics, and Manjula Sridhar (CERM CPSC '03, M.A.S. ITM '03) followed with a presentation on iSPIRT (Indian Software Product Industry Roundtable), a group seeking to transform the software industry in India. Chapter Chairman Thiruvengadam Ashok (M.S. CS '01) shared his experiences on long-distance endurance cycling and how it has transformed him.

As a result of Ashok's presentation, the Indian chapter will hold a bicycle ride outside Bangalore in conjunction with their next meeting.

Alumni in India should contact the IIT Bangalore campus at bangalore@iit.edu or Ashok at ash@stagsoftware.com to update their contact information and learn more about the India Chapter.

Chapters in the United States

Volunteers who enjoy connecting IIT graduates to their alma mater manage each IIT chapter. Domestic chapters and their leaders are:

Bay Area: **Heidi Rank** (ARCH '81)
heidirank@sbcglobal.net

Chicago: **Steve Nargang** (ME '96)
SNargang@hawk.iit.edu

Los Angeles/Orange County:
Benny Jones (MATH '94)
bennyjones.iit@gmail.com

New York City: **Michael Siem**
(CHE '96) siem.michael@gmail.com

Phoenix: **Peter Koliopoulos**
(ARCH '86) peter@circlewest.net

San Diego: **Crystal Sargent**
(M.S. MCOM '02)
CSargent@torreypinesbank.com

Seattle: **Mike Wayte** (ME '61)
mikejwsr@hotmail.com

Washington, D.C.: **Randy Sullivan**
(ES '74) R.sullivan@rslsullivan.us

Alumni networks and activities are underway in Austin, Texas, headed by Arun Prakash (AE '99, prakaru@gmail.com) and in Minneapolis by Harley Feldman (CHEM '69, Harleyfeldman@gmail.com). The IIT alumni community is expanding to include chapters in Houston and Dallas, and is coordinating annual activities in Atlanta, Boston, and Denver.

If you live in any of these areas and want to get involved, contact the chapter chair or email the Office of Alumni Relations at alumni@iit.edu.

Chapters in Asia

China: General Secretary
Jennifer Meng Xia (M.P.A. '07)
gyxiameng@hotmail.com

Hong Kong: **Victor Lo** (DSGN '73)
victor_lo@goldpeak.com

India: **Thiruvengadam Ashok**
(M.S. CS '01) ash@stagsoftware.com

South Korea: **Hyungjin Kim**
(LAW '96) intercle@gmail.com

Taiwan: **Steve Chun Pan**
(M.S. IE '77, Ph.D. MSC '88)
chun@uch.edu.tw

Thailand: **Paiboon Pongchairerks**
(M.S. IE '75) paiboopo@gmail.com



Michael Robinson (ARCH '81), Corona del Mar, Calif., recently met with former IIT roommates [left to right] Stan Schachne (ARCH '83) and Larry Berne (ARCH '80) for a fun South Beach weekend.

1940s

Louis Sopkin

(EE '47), Aventura, Fla., sends word that he continues to excel at the game of bridge but misses his friend and bridge partner of 65 years, David Schwarz (CHE '49), who passed away in August 2012.

1950s

Thomas Katsahnias

(CHE '51), Munster, Ind., was inducted into the Northwest Indiana Business and Industry Hall of Fame in April. The Hall of Fame recognizes accomplished business people for their leadership, community involvement, and determination.

James Stice

(M.S. CHE '52, Ph.D. '63), Austin, Texas, Bob R. Dorsey Professor Emeritus in the Cockrell School of Engineering at the University of Texas at Austin, was presented with a Lifetime Achievement Award from the American Society for Engineering Education.

Richard Snow

(Ph.D. CHE '56), Chicago, is co-founder of and chief scientist at PyroPhase, Inc., an intellectual property company engaged in the production of energy from unconventional resources. Snow served as director of the National Institute for Petroleum and Energy Research, and had a long career at IIT Research Institute.

Donald Mikulecky

(BIOL '57), Mathews, Va., co-authored the book *Global Insanity: How Homo sapiens Lost Touch with Reality While Transforming the World*.

1960s

Arthur Fine

(M.S. MATH '60), Port Townsend, Wash., professor emeritus at the University of Washington, has been elected to the American Academy of Arts and Sciences.

John Vinci

(ARCH '60), Chicago, has been honored with the 2014 Lifetime Achievement Award from AIA Chicago. Vinci is a longtime architect, preservationist, and activist as well as co-author of the book *The Complete Architecture of Adler & Sullivan*.

Thomas Wajnert

(BE '66), Calistoga, Calif., is senior managing director of client relations for The Alta Group, United States region. He works primarily on projects involving merger, acquisition and funding management, strategy development and execution, captive and vendor finance, competitive analysis, market entry, and global portfolio management.

Thomas Hirsch

(ARCH '68), Madison, Wis., is the recipient of the 2014 Golden Award from AIA Wisconsin, the state society of the American Institute of Architects. The Golden Award is the highest honor the society bestows upon a member architect. Hirsch has a distinguished record of more than 30 years of service in advancing the profession of architecture and advocating for community revitalization, affordable housing, energy efficiency, and accessibility.

Frank Madsen

(DSGN '68), Delavan, Wis., participated in the IIT Institute of

Design In the Loop Lecture Series in February. His lecture, "Stories in Space," included selected highlights from more than 100 exhibition planning and research projects for museums and the private sector completed by his firm, Teller Madsen, of Evanston, Ill.

John Dalton

(M.B.A. '69), Manasquan, N.J., received the 2013 Stevens Institute of Technology Alumni Award. He completed his undergraduate degree at Stevens in 1960.

Leon Hoffman

(M.S. PSYC '69, Ph.D. '70), Chicago, continues to enjoy his private practice of clinical psychology. He values his involvement as a lifelong chamber music cellist and maintains an active writing schedule on disparate topics for lay, scientific, and professional publications.

1970s

Manu Vora



(M.S. CHE '70, Ph.D. '75), Naperville, Ill., has been selected to receive the 2014 Harrington/Ishikawa Medal from the Asia Pacific Quality Organization, given annually to an individual who has made outstanding contributions to the advancement of quality in the Asia Pacific region. Vora is currently serving as an Advisor of Eminence, Business Excellence, at ASQ India. He has taught quality management and operations management courses globally and is affiliated with 33 educational institutions worldwide.

Stanley Eng

(CE '72), Bellevue, Wash., joined Seattle City Light as a supervisor in construction management. He also completed the 118th running of the Boston Marathon.

Peter Matic

(ME '77), Alexandria, Va., is the superintendent of a United States Naval Research Laboratory team that uses synthetic "GelMan" surrogates to test helmets and armor for the military. The team's

results contribute to the design as well as the selection of the best protective equipment.

1980s

Godfrey Ofem

(IE '80), Chicago, is the author of *We Don't Own Our Memories Anymore*, a techno-romance novel. He featured his project on the website Kickstarter to help bring his book to the marketplace.

Richard Schroeder

(ARCH '81), Oshkosh, Wis., joined Becher Hoppe Associates, Inc., a multidisciplinary architecture/engineering firm, as manager of architectural services.

Kevin Gross

(CHEM '83), Jackson, Mo., is a senior litigation attorney in the Chicago staff counsel department of GEICO (Government Employee Insurance Company). He and his wife, Michelle, became the parents of Gianna Lily on January 21.

John Sheerin

(CE '83, M.S. ENVE '86, LAW '94), Oak Lawn, Ill., is environmental director at Bridgestone Retail Operations, LLC. He is responsible for representing the association on issues involving scrap-tire generation, processing, and end uses in the United States. He also promotes environmentally and economically sound uses for scrap tires; educates stakeholders, government officials, and the public about proper scrap-tire management; participates in industry coalitions; and conducts research, collects data and publishes reports about scrap-tire management and end uses.

John Kerin

(EE '84, M.B.A. '90), Park Ridge, Ill., president of the Chicago Stock Exchange, was promoted from chief operating officer to chief executive officer in April. He has been with the exchange for the past 25 years.

Ronald Bugar

(ME '85), Chicago, is a product development senior project engineer with United Conveyor Corporation. He was recently awarded United States Patent 8,561,785, which is related to power plant submerged flight conveyor equipment.

Nakhoon Kim

(M.S. CS '85, Ph.D. '89), Seoul, South Korea, has been elected president of Dongduk Women's University, where he has served as a faculty member since his graduation from IIT. Kim is past president of the IIT Korea Alumni Association.

Dania Ghantous

(CHE '88, M.S. '91), Walnut Creek, Calif., is co-founder of and vice president of technology at Qnovo. The company recently developed a product for quickly charging cell phones while greatly enhancing battery life.

Kirankumar V. Topudurti

(Ph.D. ENVE '88), Champaign, Ill., deputy director of the United States Army Construction Engineering Research Laboratory, has been named a Distinguished Member of the American Society of Civil Engineers. He is recognized for his contributions in advancing the engineering, science, and field implementation of innovative hazardous waste remediation, sampling, and characterization technologies as well as for his national and international leadership.

James Wiley

(SOC '88), Oak Harbor, Wash., is founder of Obsidian Solutions Group, a diversified consulting and technology company. Obsidian was named a finalist in the \$6-12 million revenue category for Government Contractor of the Year by the Small and Emerging Contractors Advisory Forum.

1990s**Vernon Francissen**

(M.S. EE '91), Seattle, joined Lane Powell as a shareholder and as counsel in the firm's fast-growing Intellectual Property and Technology Practice Group. The guide *IAM Patent 1000 2014—The World's Leading Patent Professionals* recently recognized Lane Powell as one of the top patent law firms in Oregon and Washington, and Francissen as a top individual in intellectual asset management.

Yuuki Kitada

(M.ARCH '93), Brooklyn, N.Y., designed his own apartment, which was featured in the summer 2014 issue of *New York Magazine*.

Jonathan Atwood

(CHE '96), Chandler, Ariz., has been promoted to vice president

and general manager of L-3 Communications Infrared Products. The company is a leading designer and manufacturer of the world's smallest and lightest focal plane arrays and thermal-imaging core modules that are used by ground forces, unmanned aerial vehicles, urban tactical teams, fire fighters, and commercial interests.

Michael Jansma

(ME '97, M.A.S. MAE '00), Eureka, Mo., is co-founder of Enlogic Systems, a global startup focused on intelligent energy management for information technology data centers. In May, Enlogic was awarded top honors in the category of Datacenter Power and Cooling Product of the Year at the DCS Awards in London.

Rodneyse Bichotte

(M.S. EE '98), Brooklyn, N.Y., district leader and state committee woman of the 42nd Assembly District, announced her candidacy for the New York State Assembly in April.

Robert Parkhurst

(M.S. EM '99), Belmont, Calif., is director of Agriculture Greenhouse Gas Markets for the Environmental Defense Fund. He leads efforts in protocol, policy, and pilot development of greenhouse gas mitigation projects for working landowners that can be used in voluntary and compliance markets, including the California Global Warming Solutions Act. Parkhurst is responsible for helping farmers, ranchers, and forestland owners generate quantifiable climate benefits so that they are financially rewarded in the marketplace.

Jeana Reinbold

(M.S. FMT '99, LAW '00), Springfield, Ill., has been appointed as a Chapter 7 bankruptcy trustee in the Central District of Illinois. She also opened a law practice in Springfield in 2012.

2000s**Mark Mahoney**

(M.S. CS '02, Ph.D. '08), Spring Grove, Ill., is chair of the Computer Science Department at Carthage College in Kenosha, Wis., and was recently awarded tenure.

Stephany Filimon Wilkes

(M.S. IARC '04, Ph.D. TCOM '10), San Francisco, is program manager of the user-experience team for Firefox OS at Mozilla. Firefox OS is a new open-source operating system for mobile

devices. Filimon works with Jaime Chen (M.D.S. '05), senior user-experience strategist.

Anthony Malizzio

(BAAS '07, CS '07), São Paulo, is principal consultant at Murex America Latina, where he focuses on fixed-income and risk-technology solutions.

Amanda Stenson

(ME '10), Olympia Fields, Ill., spoke with students at the 2014 Exelon Summer Institute on IIT Main Campus. Stenson is a nuclear steam supply system engineer at Exelon Corporation. She and her husband, Luke Grabowski (ME '10), celebrated their one-year wedding anniversary in September with a Hawaiian vacation.

Jeremy Burr

(M.S. FIN '11), Chicago, married the former Stephanie Beadle, an economist.

Oscar Rivera

(LWBA '11, M.B.A. '12), Chicago, is a contract attorney for Synergy Legal Staffing. He married Valerie Jennings Rivera in a ceremony at the Art Institute of Chicago.

Dmitriy Vysotskiy

(CPE '11, EE '11), Chicago, and former IIT attendee Matt Campbell co-founded Southside Hackerspace, a shared hands-on workspace in Chicago's Pilsen neighborhood.

Arathi Jayaraman

(PSYC '12), Darien, Ill., served as a research intern at the University of Illinois at Chicago College of Medicine and worked on an ongoing project to find a cure for multiple sclerosis. She was also a research writing instructor for the summer Latino Health Science Enrichment Program.

Benjamin Kiel

(LAW '12, M.B.A. '12), Chicago, is counsel and director of privacy compliance at Conversant, Inc. He is also a Certified Information Privacy Professional and is involved in local and national policy initiatives on data privacy, online advertising, and Internet innovation.

Alicia Perez

(PSYC '12), Chicago, captured her fondness for IIT, her experiences at the university, and the many friends she met in a quilt made by members of Project Repat, a company that crafts T-shirt quilts. Perez's mother surprised her with the quilt pieced together out of shirts from the Union Board, LIFE, and SHPE, among other organizations and IIT special events. (See page 2 for more on this class note.)

Robert Saunders

(BIOL '12), Greensboro, N.C., was recently honored with the Center for Dental Research Basic Science Award for being at the top of his class at the Loma Linda University School of Dentistry. He is in his second year of the dental program.

Geoffrey Mitchell

(AMAT '13), Utica, Ohio, has been named a 2014 Woodrow Wilson Ohio Teaching Fellow by the Woodrow Wilson National Fellowship Foundation. In addition to receiving a \$30,000 stipend, fellows complete a master's program at one of seven participating universities while gaining practical experience in a local classroom setting. Fellows commit to teaching for three years in Ohio's high-need schools while providing students with ongoing mentorship and support.

Yang "Roy" Luo

(M.Des. '14), Chicago, is a senior interaction designer at Motorola Solutions, Inc.

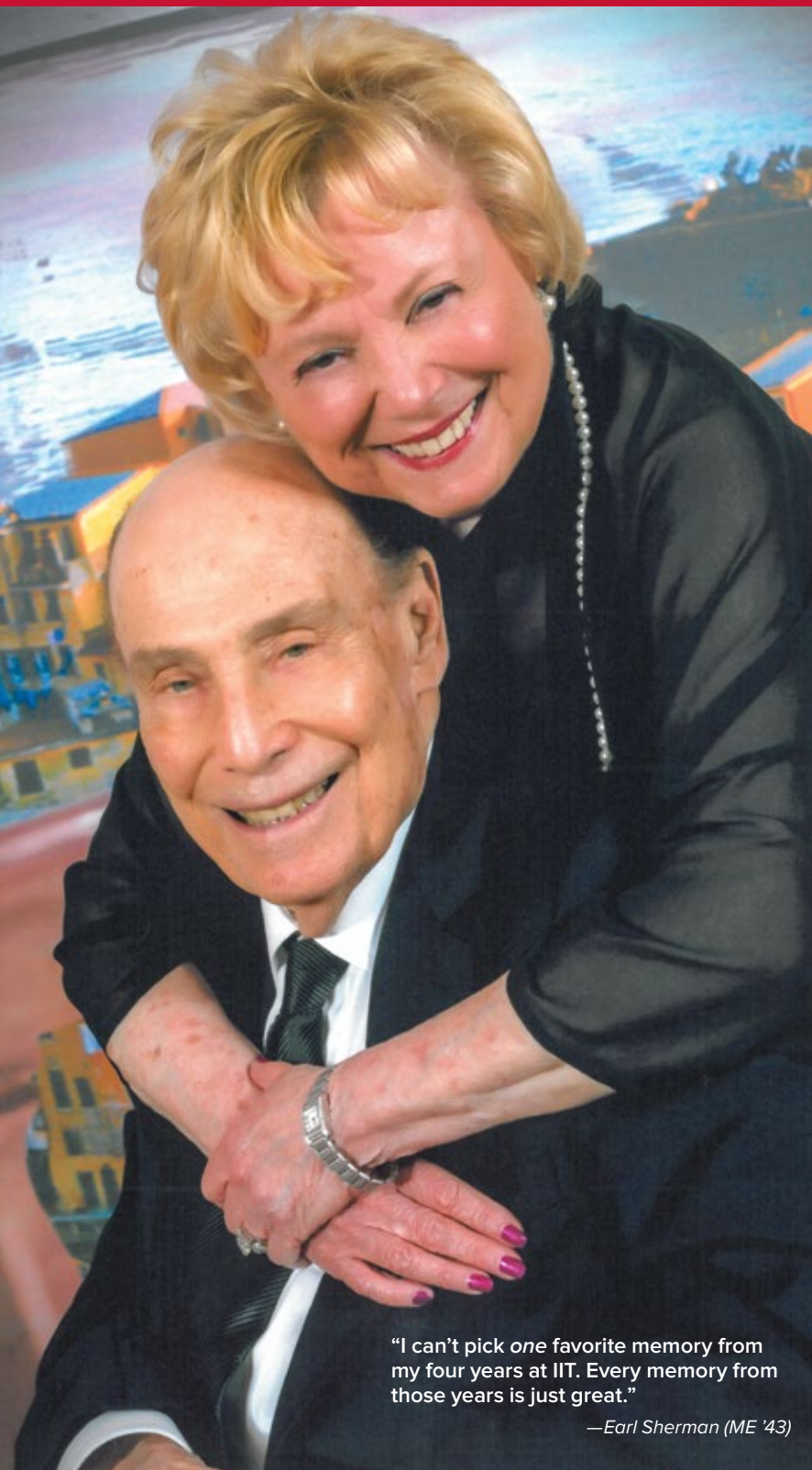
John Van Zwieten

(AE '14), Wheaton, Ill., has been commissioned in the United States Army and branched as an armor officer. He will report for duty with the Pennsylvania National Guard next April.

Abigail "Abbey" Vargas

(EMGT '14), Chicago, Ill., is Web associate for the IIT Office of Marketing and Communications.

A Legacy Gift for Future Students



"I can't pick *one* favorite memory from my four years at IIT. Every memory from those years is just great."

—Earl Sherman (ME '43)

EARL SHERMAN (ME '43) made the most of his four years at IIT. The second-highest scholar in his class, Sherman ran for senior class president, and was captain of the tennis team and active in intramural sports. He says that the list goes on and on.

"I had a great time but more importantly, I had a great education," says Sherman, who came to IIT on a scholarship, following in the footsteps of his father, Milton, a 1914 alumnus.

The rigorous discipline of IIT's curriculum coupled with his engineering degree helped Sherman build a rewarding career in construction and development, and later with his wife, Jody, start a successful business in home health care.

The Shermans decided to give back to the university by establishing the Earl and Jody Sherman Endowed Engineering Scholarship at IIT through their bequest. The gift, Sherman hopes, will give generations of students a chance at education, just as his scholarship opened doors for him.

Benefits of a Bequest:

- Help to ensure IIT's future
- Leave a legacy of giving back
- Give without affecting your current cash flow
- Retain control of your assets during your lifetime (direct your gift to a particular purpose—check with us to make sure the gift can be used as intended)

Visit iit.edu/giftplanning to begin learning how you can benefit from these giving methods and more. Contact Stuart Gold, director of gift planning, at sgold@iit.edu or 312.567.5020.

If you have named IIT as a beneficiary of your planned gift such as a bequest, please let us know so that we may acknowledge your generosity and include you as a member of our esteemed Gunsaulus Society.

Gunsaulus | SOCIETY

ALUMNI EVENTS

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



Join us for a series of unique events across the country. IIT President John Anderson and Bud Wendorf (ME '71), chairman of the IIT Board of Trustees, will share exciting new plans about the university and its future. Reconnect with your alma mater and network with fellow alumni!

**Washington, D.C.,
Alumni Gathering**

Thursday, November 20, 2014
National Academy of Engineering
Headquarters
Washington, D.C.

Bay Area Alumni Gathering

Tuesday, December 2, 2014
Bistro Boudin
San Francisco

Arizona Alumni Gathering

Thursday, December 4, 2014
Omni Scottsdale Resort & Spa
at Montelucia
Paradise Valley, Ariz.

Presidential Lecture

Monday, November 10, 2014
"The Birth and Death
of the Cell Phone"
Chicago

IIT Board of Trustees member Martin Cooper (EE '50, M.S. '57) will speak about his role in "The Birth and Death of the Cell Phone" and how the course of personal-communications history was revolutionized.

Chicago Alumni Gathering

Wednesday, December 3, 2014
CityGate Grille, Naperville, Ill.

Join us for an evening of networking at an event hosted by IIT Board of Trustees member John P. Calamos Sr. (ECON '63, M.B.A. '70)

125TH ALUMNI GATHERINGS!

IIT is celebrating its 125th anniversary in 2015, and we're coming to a city near you. Join President John Anderson in his final year at the helm of the university for a celebration of IIT's past accomplishments and learn about our exciting plans for IIT's future.

PI DAY GATHERING

SATURDAY, MARCH 14, 2015
Chicago

Join alumni to network and celebrate Pi Day (3.14)!

**DuPage Area Engineers Week
Alumni Breakfast**

Saturday, February 28, 2015
Daniel F. and Ada L. Rice Campus
Wheaton, Ill.

You're invited to a special alumni breakfast and early access to select exhibits at IIT's Daniel F. and Ada L. Rice Campus as part of the annual DuPage Area Engineers Week Expo. Visit dupageweek.iit.edu for more information about Engineers Week.







9



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1. CALAMOS INVESTITURE John P. Calamos Sr. (ECON '63, M.B.A. '70) and his wife, Mae, with IIT Stuart School of Business Dean Harvey Kahalas [center] following the John and Mae Calamos Stuart School of Business Dean Endowed Chair investiture ceremony on May 7. *Photo: Michael Goss*

2. IIT BOARD OF TRUSTEES DINNER Endowed chairs and distinguished faculty joined members of the IIT Board of Trustees at the May trustees dinner celebrating the many accomplishments of IIT faculty. *Photo: Bonnie Robinson*

3. GUNSUALUS SOCIETY LUNCHEON

IIT President John Anderson conducted a question and answer session at the Gunsaulus Society luncheon held in Chicago on May 6. *Photo: Bonnie Robinson*

4. GADSBY'S GATHERING Alumni took part in a luncheon and tour at historic Gadsby's Tavern in Alexandria, Va.

5. OZZIE T. COUGAR AND COMPANY Kane County Cougars mascot "Ozzie T. Cougar" paid a surprise visit to alumni at Fifth Third Bank Ballpark in Geneva, Ill., at a July 13 game.

6. SUMMER DAY AT MORTON Alumni and their families explored Morton Arboretum on a beautiful summer day. *Photo: Michael Goss*

7. ARCHITECTURE ALUMNI RECEPTION Along with other architecture alumni, [left to right] Dawn Schuette (ARCH '92, CRP '92, M.A.S. CRP '93), Sheila Miranda (ARCH '92), and Anita Thomas (ARCH '94) gathered at an alumni reception at The McCormick Tribune Campus Center after the AIA National Convention. *Photo: Bonnie Robinson*

8. LEGO CITY ASSEMBLERS Alumni and their families came back to Main Campus on July 12 for a morning of fun at the Help Build LEGO City alumni breakfast. *Photo: Michael Goss*

9. SCARLET HAWK SEND-OFF

Former student phonathon managers [left to right] Lama Abu-Amara (CE '14) and Carla Kundert (PSYC '14) enjoyed pre-graduation drinks at The Bog during the Scarlet Hawk Send Off networking event.

10. LOS ANGELES GATHERING IIT President John Anderson spoke with Southern California alumni who gathered at the home of Tom Korzenecki (FPE '69, CHE '70). *Photo: South Bay Studio*

11. BOSTON GATHERING Alumni learned about the impact of innovative design at an event held at Design Museum Boston.

12. CHICAGO TEAM SPIRIT Alumni chatted over food and drinks at The Bog before the Chicago White Sox vs. Texas Rangers game on August 5.

13. SOCCER ALUMNI REUNION Scarlet Hawks soccer alumnae returned to IIT's Stuart Field on April 26 for the inaugural spring 7v7 tournament. More than a dozen alumnae, some of whom traveled from across the country, participated in the event.

OBITUARIES

Joseph Erwin

IIT College of Science (1967–2001)

Professor Emeritus of Biology

Joseph Erwin contributed to the understanding of the biochemistry of lipids—crucial to pain management and the treatment of heart disease. As a postdoctoral fellow at Harvard University, he worked with 1964 Nobel Prize winner Konrad Bloch and was published in *Science* and *The Journal of Biological Chemistry*. Erwin also edited and contributed a chapter to the book *Lipids and Biomembranes of Eukaryotic Microorganisms*.

Erwin is survived by his daughter Christina; daughter Kim, an assistant professor at IIT Institute of Design, and her family; former wife, Ulrike; brother Edward, a professor of philosophy at the University of Miami; and sisters Alice and Jean.

Walter Sobel

(ARCH '35)

IIT College of Architecture

Distinguished Research Professor

Notable architect Walter Sobel lived to be a centenarian and spent the last 57 years of his life in a Frank Lloyd Wright home in Wilmette, Ill., that also served as his office and studio. For nearly his entire career, he worked out of the Chicago area designing homes, schools, commercial buildings, and stores but is best known for specializing in courthouses, working on hundreds across the United States, in Canada, and in the Virgin Islands.

Upon graduation from Armour Institute, Sobel worked for different Chicago architects and one from Detroit, then opened his own Chicago practice before entering into the United States Navy, which awarded him a Purple Heart and seven other medals for campaign participation on the USS *New Mexico* during World War II. After his service, Sobel returned to Chicago to open a practice and taught as an adjunct faculty member at IIT College of Architecture for many years. A fellow of the American Institute of Architects and a past president of AIA Chicago, Sobel was awarded the 1999 Alumni Medal from IIT, the highest honor given to a living alumnus.

Sobel's wife, Betty, preceded him in death. He is survived by two daughters, three sons, six grandchildren, and two great-grandchildren.

INMEMORIAM

George Hallen

EE '33

Sarasota, Fla.

Robert Mather

ME '41

Woodstock, Ill.

William Bobco

ME '42

Mountain Home, Ark.

Bernet Swanson

CHE '42, M.S. '44, Ph.D. '50

Oak Park, Ill.

Nathan Iglitzen

ARSC '43

Glencoe, Ill.

Milton Burkart

CHE '44, M.S. MET '48

Pittsburgh

Norman Cohan

CHE '44

Aventura, Fla.

Paul Kahan

CHE '44

Palos Verdes Estates, Calif.

Evert Wern

ME '44

Tucson, Ariz.

Edmund Darson

ME '45

Troy, Mich.

James Ransom

EE '45

Beaverton, Ore.

Virginia Levy

CHEM '46, M.S. BCHM '48

Lenexa, Kan.

Robert Richard Brian Backlund

ME '47

Morton, Ill.

Norman Swanson

CHE '47

Suffolk, Va.

Roger Veatch

CHEM '47, M.S. BCHM '53

Thomasville, N.C.

Dale Willman

FPE '47

Indianapolis

Charles Klivans

ME '48

Bend, Ore.

James Kordig CHE '48, M.S. '53 Salt Lake City	Joseph Radich ME '50 Pittsburgh	Arthur Mooradian LL.B. '53 Las Vegas	Hiroshi Ono ME '58 Des Plaines, Ill.	Ted Belytschko ES '65, Ph.D. MECH '69 Winnetka, Ill.	Byron Wear MET '74, M.A.S. '79 Bloomington, Ill.
John Mumm ME '48, M.S. '54 Charlotte, N.C.	Paul Tietz ME '50 Arlington Heights, Ill.	Alexander Nicoloff VDGN '53 Berkeley, Calif.	Harold Dusek EE '59 Cedar, Minn.	Robert Hart Ph.D. PHYS '65 Maynard, Mass.	Glen Crick LAW '78 Chicago
Hope Scrivens Taylor DSGN '48 Santa Barbara, Calif.	Gregory Bauer CHE '51 Grayslake, Ill.	O. Alfred Siede MET '53, M.S. '59 Beech Mountain, N.C.	Jacob Farber EE '59 Cherry Hill, N.J.	Norman Van Koughnett M.S. DSGN '65 Plainfield, Ill.	Mary McNichols LAW '81 Downers Grove, Ill.
Conrad Wan Ph.D. APHY '48 Santa Ana, Calif.	Bruce Bourne BE '51 Lebanon, Ind.	Robert Wandrey ME '53 Scotia, N.Y.	Farouk Barakat ME '60 Minocqua, Wis.	Dale Besterfield M.S. EG '66 Fairview Heights, Ill.	Robert Martini CHE '83, M.S. '85 Midland, Mich.
Louis Baker CHE '49, M.S. CHEM '51, Ph.D. CHEM '55 Romeoville, Ill.	William Christian CHE '51, M.S. '53, Ph.D. '57 Bartlett, Ill.	Donald Larson BE '54 Vero Beach, Fla.	Selwyn Dubin MATH '60 Santa Monica, Calif.	Roger Falk EE '67 Mount Prospect, Ill.	Diann Symonds M.S. SOC '83 Lake Forest, Ill.
Arthur Dampst CHE '49 Wilmette, Ill.	John Fitzmaurice PHYS '51 Arlington, Mass.	Henry Musal EE '54, M.S. '57, Ph.D. '65 Saratoga, Calif.	Stanley Englund PSYC '60 Pewaukee, Wis.	Daniel Cole EE '68 Two Rivers, Wis.	Wayne Zahlit B.S. '84 Newbury Park, Calif.
John Gerngross M.S. EE '49, Ph.D. '55 Lexington, Mass.	Alfred Flowers EE '51 Phoenix	William Stinson PS '54 Elk City, Okla.	Eugene Shultz Ph.D. CHE '60 Jerseyville, Ill.	Jensen Watts M.S. DSGN '69 Tallahassee, Fla.	James Frederick M.S. PSYC '85, Ph.D. '86 Weston, Fla.
Kenneth Hepler ME '49 Cameron Park, Calif.	Richard Kuniyuki EE '51 Montebello, Calif.	Eugene Dillon CHE '55 Naperville, Ill.	James Helm CE '61 Mattoon, Ill.	Roger Hawkins Ph.D. PSYC '70 Ormond Beach, Fla.	Kristine Lanier EE '88 Pingree Grove, Ill.
John Holacomb ARCH '49 Highland Park, Ill.	Leonidas Marinakos EE '51 Chicago	Jim Essex ME '55 Centennial, Colo.	C. George Mates PHYS '61, M.A. EMGT '74, M.S. OR '78 Philadelphia	Phillip Marti BE '70 Clarksburg, Md.	Robert Oshefsky M.B.A. '89 Chicago
Donald Jutzi CHE '49 Bradenton, Fla.	Henry Nerwin EE '51 Mount Prospect, Ill.	James Poland BE '55 Virginia Beach, Va.	James Frink ME '62 Schwenksville, Pa.	Anne Clark M.S. DSGN '71 Evanston, Ill.	Shaheen Talib M.ARCH '89 Western Springs, Ill.
David Lieberman EE '49 Evanston, Ill.	Paul Olsen EE '51 Oak Lawn, Ill.	Colin "Tom" Thomas ME '55 Austin, Texas	Ronald Holzwarth EE '62 Goleta, Calif.	Martin Essigmann CHEM '72 Sunnyvale, Calif.	Richard Landsberg LL.M. '94 Delaware, Ohio
Vroman Riley EE '49 Redondo Beach, Calif.	Harold Zenisek Sr. CHEM '51 Rockford, Ill.	Planet Chiu EE '56 Skokie, Ill.	Richard Potampa EE '62 Palos Verdes Estates, Calif.	Stanley Gaconis EE '72 Palatine, Ill.	Eric Brown LL.M. '95 Fox Lake, Ill.
David Schwarz CHE '49 Skokie, Ill.	Henry Brooks CE '52 Winnetka, Ill.	Paul Shannon CHE '56, Ph.D. '59 West Lebanon, N.H.	James Stockner EE '62 Naperville, Ill.	Manohar Naga M.S. ME '72 Beavercreek, Ohio	
Abdon Bray ME '50 Wilmette, Ill.	John Gregg ME '52 Des Moines, Iowa	John Beranck ME '57 Harwood Heights, Ill.	Lewis Craft LAW '64 Villa Park, Ill.	John Champagne LAW '73 Chicago	
Arnold Brown IE '50 Milwaukee	Robert McCue ME '52 Clarksville, Tenn.	Donald Hoeg Ph.D. CHEM '57 Genoa City, Wis.	Philip Trotter CHE '64 Alexandria, Va.	Kurt Leinweber PS '73 Shorewood, Ill.	
Dan Brusslan LAW '50 Highland Park, Ill.	Edward Russell IE '52 Spotsylvania, Va.	Gordon Kuenster EE '57 Bellevue, Wash.	Valdis Zvaigzne EE '64 Keshena, Wis.	Robert Gorman PSYC '74 Fraser, Colo.	
Harold Esten DSGN '50 Los Angeles	John Bugler EE '53 Frederick, Md.	John Busch EE '58 Phoenix		George Hesik LAW '74 Oak Brook, Ill.	

SOURCE: IIT ARCHIVES (CHICAGO)



A Chapel for All

By Marcia Faye

ON THE NORTHEAST SIDE OF IIT MAIN CAMPUS, blocks away from the ornate red brick and arched façade of Machinery Hall, is a more modest, single-story building—the Robert F. Carr Memorial Chapel of Saint Savior. Unassuming as it may appear, the structure is significant for two primary reasons.

“Ludwig Mies van der Rohe scholars and architectural historians understand that Carr Chapel is Mies’ only ecclesiastical building and therefore of extreme interest because of his treatment of the religious nature of the building,” explains Ted Haffner, chair of the Mies van der Rohe Society. “Historian Kevin Harrington has related it to a Greek temple, while the building is known to IIT students on campus as the ‘God Box.’ Carr Chapel’s simple, direct style of architecture makes it endlessly approachable yet decidedly spiritual.”

According to the Mies Society website, the idea for Carr Chapel was proposed in the late 1940s by then Bishop Wallace E. Conkling of the Episcopal Diocese of Chicago. The gap between science and religion seemed wider than ever in the years following World War II; Conkling thought that a chapel within the technology-oriented environment of IIT could be the “great educational project of the atomic age.” University administrators, however, mandated that the chapel be open to students of all religious and spiritual beliefs.

“The importance of the building also lies in its connection to the student body,” Haffner notes. “The universal nature of the building makes it equally appealing to students of all faiths as well as student organizations and other groups. To my knowledge, it is one of the most difficult spaces on

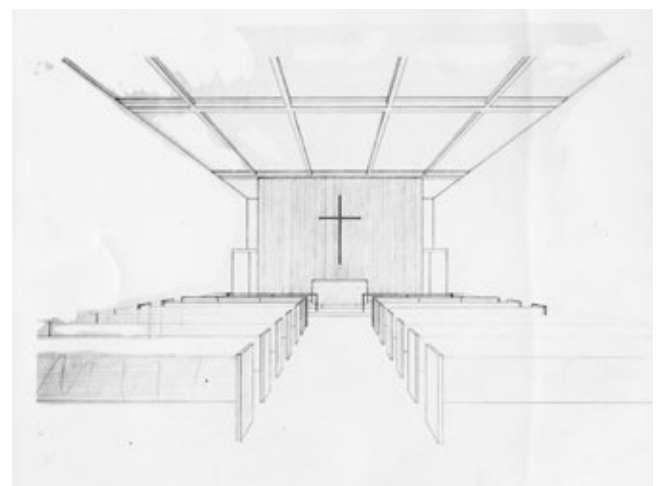
campus for which to schedule an event due to its popularity.”

The Mies Society raised \$1 million for a Carr Chapel restoration project that began in 2008 and included improvements to the roof, the terrazzo floor, and the exterior blonde brickwork. A renovation to make an ADA-compliant restroom will be completed in spring 2015. Many of the project’s donors came back to Carr this year on October 1 for a re-dedication of the chapel hosted by the Mies Society.

“This isn’t a side of IIT’s story that most people typically think about nor is it the type of story generally told about Mies,” says Lynne Meyer, director of IIT’s Office of Spiritual Life and Service Learning. “But it’s an important story, especially as we as a campus are doing more interfaith work and gaining national attention for it.” Meyer, who served as an invited panelist at the Fourth Annual President’s Interfaith and Community Service Campus Challenge National Gathering held September 22–23 in Washington, D.C., hopes to continue the story of Carr Chapel as IIT prepares for its 125th anniversary. To do that Meyer says she needs the assistance of individuals who know the chapel intimately.

“We are relying on our alumni to tell their stories of Carr Chapel,” says Meyer, who officiated at a chapel wedding a few years ago. “Their recollections and photos of weddings, baptisms, and other events will help us further understand the changing social, religious, and cultural landscape of IIT, the U.S., and the world from the perspective of our simple chapel.” ●

Please contact Lynne Meyer at alumni.iit.edu/carr-memories to share your recollections of Robert F. Carr Memorial Chapel. IIT Magazine will feature stories and photos in its 2015 issues.



SOURCE: IIT ARCHIVES (CHICAGO)

It Is Time

- **It is time** to add fuel to the Midwest's emerging tech ecosystem.
- **It is time** to make Chicago the center of that ecosystem, competing with Boston, Seattle, and Silicon Valley for STEM talent.
- **It is time** for Illinois Tech to take its place alongside Stanford and MIT—by transforming its undergraduate curriculum, accelerating innovative thinking in the heartland, and moving big ideas to commercialization.

The **Ed Kaplan Family Institute for Innovation and Tech Entrepreneurship**—the capstone project of *Fueling Innovation: the Campaign for IIT*—is one of the most exciting new concepts in Chicago's growing tech ecosystem.

It is the place where IIT's "Generation Innovation" will get tomorrow's answers to the "What If?" and "Why Not?" questions we are asking today.

The time is now. The place is here.
Powered by IIT.

See page 3 for details about the Kaplan Innovation Challenge—a \$10 million challenge gift from Ed Kaplan (ME '65) and his wife, Carol, to establish the Kaplan Institute.

Take the Challenge.

Visit fuelinginnovation.iit.edu for more on how the Kaplan Institute and the Fueling Innovation campaign will redefine how IIT educates the next generation of innovators.

fuelinginnovation
THE CAMPAIGN FOR IIT

IIT's Quasquicentennial

Alumni and Friends: It's time to celebrate. IIT is turning 125!

Join us for a gala to commemorate this milestone anniversary and honor President John Anderson's impact on the university.

Friday, June 12, 2015

6 p.m.

**S. R. Crown Hall
IIT Main Campus**

January

Campus-wide launch of the 125th yearlong celebration

April

Annual Alumni Awards luncheon on April 24, 2015

May

Commencement ceremony for IIT's 125th class on May 16, 2015

June

Gala honoring President John Anderson on June 12, 2015

September

IIT Spirit Day, Homecoming, and reunions on September 18–19, 2015

October

Presidential inauguration and Hall of Fame induction ceremony on October 22, 2015



ILLINOIS TECH

SINCE 1890

Plan to visit Main Campus in 2015 to participate in a series of events recognizing IIT's rich heritage while looking forward to another 125 years of accomplishments.

In addition to these on-campus events, alumni across the globe will be hosting celebrations throughout the year. Be sure to look for one in your community.

**We are going retro! Send a photo of your favorite vintage IIT T-shirt to alumni@iit.edu.
A few select designs will be reprinted. See you on campus in 2015!**