

ILLINOIS INSTITUTE OF TECHNOLOGY
iit magazine

Winter 2009

20

09

A New Year

NEW PEOPLE: Provost, Alumni Association President, Trustee Leadership **NEW INITIATIVES:** Strategic Plan and Alumni Engagement Program to Launch **NEW RESEARCH:** Sustainable Cities, Mercury Remediation, Energy Scavenging

Letter from the President



IIT—Distinctive Education

A strength of the United States system of higher education is the richness of its broad selection of colleges and universities. There is a “good” choice of university for every student wishing to advance her or his education; the challenge is finding the right fit. It is in the best interest of each private university to build on its unique characteristics and publicize its distinctive offerings. We want to find those students whose interests align with the distinctiveness of our university—creating a synergistic relationship for the benefit of the university and the student.

The name of IIT gives it away, but our vision statement emphasizes our niche: “...*focus on professional and technology-oriented education...*” We are not the best choice for all students, but we are a great choice for those students who wish to be educated in these areas. IIT belongs to the Association of Independent Technological Universities (AITU), a group of 22 schools running the gamut from MIT and Caltech to Rose-Hulman and Harvey Mudd, and connected by an emphasis on a technology-relevant curriculum. Such universities have been criticized for being “too narrow” and not providing a “well-rounded” education, opinions never supported by fact. The pendulum is shifting now, and schools like IIT are gaining more positive attention because of the need to educate more technology-savvy young adults. Studies such as *Rising Above the Gathering Storm* (National Academy of Sciences, 2005) and opinion pieces such as Thomas Friedman’s editorial in *The New York Times* (January 11, 2009) emphasize the need for the U.S. to produce more graduates in technology fields. The need to increase IIT graduates of all our areas of study, not just engineering, is clear.

The input to our strategic planning from students, faculty, staff, and members of our Board of Trustees resonates on one particular chord: make the IIT educational experience distinctive even among other schools that also emphasize technology in education. While some areas of our current curriculum are distinctive, our goal is to create distinctiveness as a university. We believe our niche involves experience and education both outside the classroom as well as inside it—in interdisciplinary team projects, entrepreneurship activities, leadership training, communication skills, international awareness, and service to the community. Note that I am not just referring to undergraduate education; innovation in graduate education is also needed. IIT has long been recognized as very strong in its depth of education. Now we must augment this depth with training in experiential learning—the out-of-classroom experiences. By doing so, we will be an innovator in education.

IIT has been a major innovator with its Interprofessional Projects (IPRO) program courses, which were initiated in 1995. As far as I can tell, we are one of the very few research universities to adopt interdisciplinary project courses across the university as a *requirement* for *all* undergraduates. The challenge now, as emphasized by input to our strategic planning process, is to further develop the IPRO education experience, to improve it, and to expand its reach to connect our undergraduate students with our wonderful professional programs. We have a tremendous opportunity to capitalize on our strengths in technology and the professions to do something very special in education.

The university’s strategic plan will be unveiled in May 2009. An important part of that plan is to expand IIT’s distinctive education. We welcome your insight and suggestions.

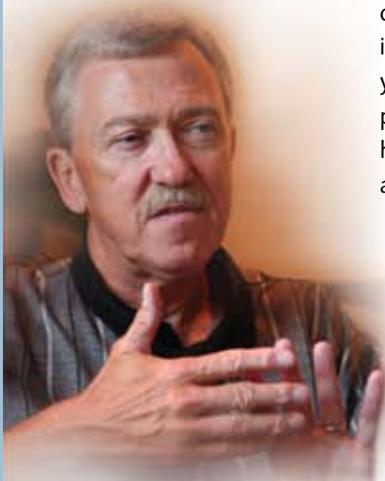
A handwritten signature in black ink that reads "John L. Anderson". The signature is written in a cursive, flowing style.

John L. Anderson
President



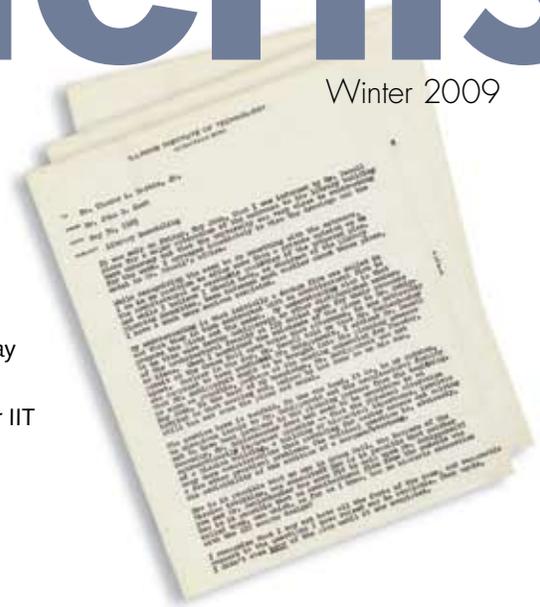
contents

Winter 2009



20 THE NOT-SO-SILENT OBSERVER

The work and writings of John Root—on display in the IIT Archives this year—reveal the former IIT professor as a scholar, humanist, and a bit of a rabble-rouser.



18 THE EDUCATOR

The career of Purdue University President Emeritus Martin Jischke (PHYS '63) spans several states and more than four decades of commitment to education.

16 COMING TO A TOWN NEAR YOU

IIT's new alumni reengagement initiative kicks into high gear as students and new graduates hit the road to connect with IIT's history: its alumni.



DEPARTMENTS

- 2 Letters
- 3 Campus News
- 9 Faculty News
- 12 Research Briefs
- 22 Alumni News
- 32 Rewind



14 BROTHERS FOR LIFE

As IIT roommates in the 1960s, Life Trustees Edward Kaplan (ME '65) and Victor Morgenstern (CHE '64) developed a friendship that has endured, thanks in no small part to their wives.

IIT MAGAZINE ONLINE-ONLY CONTENT!

A new Web-only component has been added to IIT Magazine online. Read extended coverage of stories featured in the print edition as well as special online-only content. Visit www.iit.edu/magazine and find more!



writeback!

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

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Magazine Creates Positive Image for IIT

I have commented on previous editions of *IIT Magazine*, but the fall 2008 issue is absolutely spectacular, in both design and content.

I entered IIT in 1942 but did not graduate until 1949, because of three years' service in the military, so I have been around a while.

My business experiences were in the graphic arts and computer areas, so I have a basis for this positive evaluation.



This publication, as it is now constituted, creates a very positive image for IIT.

Please convey sincere appreciation and kudos to your staff, and your boss, for the wonderful work you all have done. Keep it up!

—Frederick Faulkner (IE '49)

IIT Part of Alumnus' Professional Success

Please permit me to express my gratitude to IIT for the outstanding education and collegial experiences I was privileged to receive while attaining both of my psychology degrees there.

The climate and setting in which my learning took place at IIT were conducive to supporting the efforts I was putting forth to excel as a psychologist. If there were gaps (as exist in any program) in the curriculum, I found it easy to acquire those learnings from individual professionals and organizations that were also exemplary in their psychological specialties. Doing so permitted me to "round out" my professional education in psychology at a level to which I aspired.

To my deep pleasure I happily report that I have maintained warm and close relationships with several classmates who are excellent representatives of their experiences also.

The intimate, safe, encouraging atmosphere in our psychology department facilitated the necessary interactions that augured well for my educational and professional success.

As I approach my 40-year mark in the practice of psychology in Chicago, I think it only fitting that I express to IIT, so my colleagues and others may also know, my appreciation for helping me to become a lucky psychologist indeed. I hope that many people have benefited as a result of a stellar experience like I had at IIT.

—Leon Hoffman (M.S. PSYC '69, Ph.D. '70)

campusnews

Many Voices, One Vision University Strategic Plan to be Unveiled This May

In the increasingly competitive world of higher education, the traditional model of an American university is taking on new forms, as colleges juggle such challenges as the economic downturn and international competition for the best faculty and students.

To determine IIT's strategic path into the coming years, university leaders and members of IIT's Board of Trustees are meeting this February to review a draft plan that aims to position IIT as a leader in distinctive areas of higher education.

The plan, known as Many Voices, One Vision, will be the outcome of more than a year of university-wide research and development. Many Voices effectively began in winter 2007 with the formation of the Office of Institutional Strategy, the IIT department coordinating the effort. A steering committee composed of students, faculty, staff, and trustees was formed shortly thereafter, and President John Anderson crafted a new IIT vision statement to guide the planning process:

IIT will be internationally recognized in distinctive areas of education and research, using as its platform the global city of Chicago, driven by a focus on professional and technology-oriented education, and based on a culture of innovation that embraces bold and transformational ideas.

Last spring the steering committee fielded questions from the IIT community, soliciting input about what individuals believe the university's strengths are and what some of the defining global issues of our time will be. More than 660 people registered to be a part of the Many Voices process and submitted more than 300 suggestions. The steering committee reviewed and researched those comments during summer 2008, and shortly thereafter added the Reading Room to the Many Voices website (<http://manyvoices.iit.edu>), providing an online outlet for sharing ideas and articles related to the planning process.

Also last summer, the deans of IIT's academic units began to meet weekly with new Provost Alan Cramb to develop their recommendations for the university's future.

Anderson then asked the steering committee and the deans to submit their final recommendations in November 2008. These reports, along with a special report from a group of undergraduate students, formed the basis of the draft strategic plan now being prepared by Anderson and Cramb.

Following an initial vetting of a draft this February, IIT trustees will approve a final plan in May 2009. Many Voices marks the university's most significant, widespread planning effort since The National Commission for IIT in 1995, which is credited with launching the successful IIT Challenge Campaign and new academic initiatives such as the Camras Scholarship program and the Interprofessional Projects educational program.

David Baker, vice president of external affairs, who staffed the National Commission process, is also supporting Anderson during the final stages of development of the plan. Baker notes, "This has been the most open and exciting planning process we've seen in a long time. I was very impressed with the quality and originality of the ideas presented to IIT's leadership. There is a great chance for IIT to become truly distinctive in higher education with the implementation of the proposed plans."

To register for notifications about new Reading Room materials and other updates on the Many Voices, One Vision progress, visit <http://manyvoices.iit.edu/readingroom>.

Expanded coverage of Many Voices, One Vision, including an in-depth look at the final plan as approved this spring, will appear in the fall 2009 issue of *IIT Magazine*.

FollowUP

Updates on the people and places previously covered in *IIT Magazine*

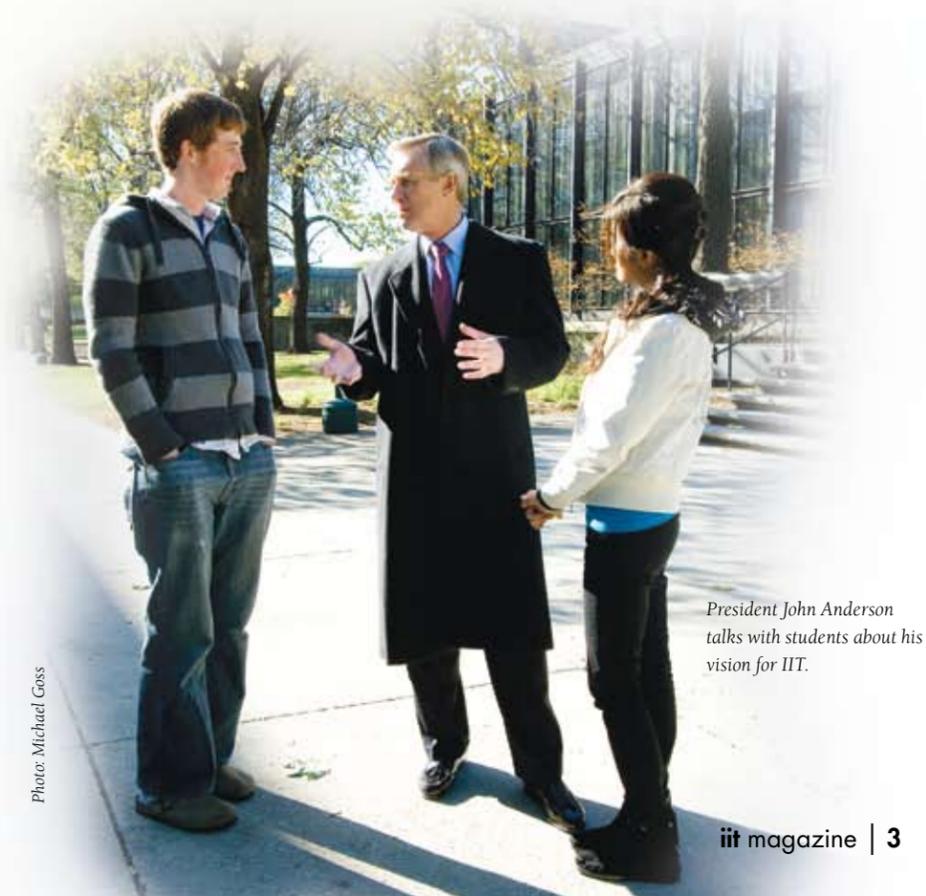
"IIT Launches Public Charter School" Fall 2008

In November 2008, health care/pharmaceutical giant Baxter International announced that it will provide IIT's Department of Mathematics and Science Education with \$500,000 over five years to develop teachers who can teach biotechnology to elementary and high school students. This is part of a larger initiative in which Baxter is donating \$5 million to Chicago Public Schools (CPS) to open new schools and start a district-wide biotechnology instruction program, the first in CPS history.

"Greening IIT" Fall 2008

The sustainability and greening of IIT continues to be a priority of the university. In November 2008, IIT celebrated the launch of the Perfect Power System, the new, energy-efficient energy-distribution system that will be implemented on Main Campus. An in-depth look at Perfect Power will appear in the next issue of *IIT Magazine*, out this spring.

IIT also launched the expanded IIT Hawk Recycling Program last fall, and in November 2008 the Office of Campus Energy and Sustainability introduced the campus community to a draft of the new Sustainability Vision for IIT. This April the office plans to complete its Sustainability Plan for IIT, which will identify specific opportunities to improve the environmental performance of the university.



President John Anderson talks with students about his vision for IIT.

Photo: Michael Goss

IIT ATHLETICS FALL ROUNDUP

Scarlet Hawks Fly Over the Competition

Progressively colder game-playing temperatures along with rain and a dose of the notorious “Chicago Hawk”—the moniker given to the city’s icy wind—did not stop the IIT Scarlet Hawks men’s soccer team from



Aubrey Vander Heyden, IIT women’s volleyball



Photo: Michael Cross

finishing out an historic season. Although the team did not qualify for the National Association of Intercollegiate Athletics (NAIA) National Tournament, it went undefeated in conference play in the regular season and garnered its first-ever Chicagoland Collegiate Athletic Conference (CCAC) title. For their outstanding achievements, three players were voted to the NAIA All-American teams: Diego Dias Jr. (BA, 3rd year), from Campinas, Brazil, who made the third team; Andrew Lichaj (BA, 3rd year),

from Downers Grove, Ill.; and Rob Ritchie-Smith (BA, 1st year), from Cottingham, England. To round out the honors, Dias was named CCAC Player of the Year; Ritchie-Smith, Freshman of the Year; and Head Coach Lee Hitchen, Coach of the Year. The season was exceptional, especially considering that the team has been in existence for only six years.

“What was different this year was the mindset, chemistry, and cohesion of the team. We have a squad where each player wants to win—and believes each can—as opposed to years past where that number might only have been 50 to 60 percent,” explains Hitchen, who is also director of the Department of Athletics. “Undoubtedly, individual talent plays a role, but getting the entire team on the same page and working in unison is where the real difference comes in. When you put all those things together you have a recipe for success.”

Members of the Lady Scarlet Hawks’ teams also made an impressive showing in soccer and volleyball. Emily Kunkel (CHE, 2nd year), a Scarlet Hawks’ defender who was assigned the sweeper position this season for her defensive prowess, received a CCAC honorable mention for her abilities on the field. The women’s volleyball team, which tied for second place in the regular season, helped IIT to secure the coveted first-place position in the 2008–09 CCAC All-Sports Trophy standings for the fall season.

“I feel the success we have had as a department is success that has been waiting to burst out at any time,” says Hitchen. “The talent of the coaching staff and the quality of the athletes we recruit are the main reasons for our successes.” He also acknowledges another very important factor in making this season a stellar one: the fans.

“At a particularly cold and rainy soccer game, my players on the bench noticed President John Anderson and Provost Alan Cramb at the game, and were very excited,” says Hitchen. “The support they receive from the students and the administration really shows the athletes that what they do is important to the school.”

● www.illinoistechathletics.com

IIT Welcomes New Trustees

At its October 16, 2008 meeting, the IIT Board of Trustees inducted three new members.



Jean Holley (M.S. CS '86) is the executive vice president and chief information officer at Tellabs.



Rosemarie Mitchell is co-founder and chief executive officer of ABS Associates, Inc.



John Tracy is chief technology officer and senior vice president of engineering, operations, and technology at The Boeing Company.



utpwatch

University Technology Park at IIT (UTP) made major headway in the past quarter in building international relationships. In September, UTP Executive Director David Baker visited science parks in Spain, leading to the signing of Memoranda of Understanding with parks in Bilbao, Barcelona, and Granada, all of which focus on biotech. In November, UTP co-hosted a French trade mission in hybrid and electric vehicle technologies with more than 30 French companies and government officials. UTP and the French established a virtual International Hybrid and Electric Vehicle Technology hub as a result, and will host French companies seeking to do business in North America. IIT’s two start-ups—All Cell Technologies, LLC and Hybrid Electric Vehicle Technologies, Inc.—were showcased during the mission.

● www.universitytechnologypark.com

Changing Her Life to Make a Lasting Change

Bonnie Haferkamp is a scientist both by profession and by personality: she identifies problems, studies them, and works to solve them. So when her mother was diagnosed in 2003 with a rare, progressive neurological disorder called corticobasal degeneration, Haferkamp rushed to learn more about the disease. But instead of locating a solution, she learned that the disease has no cure, and not even a treatment to slow its course.

Haferkamp saw that as a challenge. Once, on the ride home from visiting her mother, she asked her teenage son and daughter what they were planning to do to fight the disease. Her son's plan was straightforward: he would go to college and major in molecular biology. Her daughter, though, was less interested in science (she's a double-major in fashion design and English), and asked a question in return: "Why does it have to be us? Why don't you do something?"

Fair enough. So Haferkamp enrolled in graduate molecular biology courses at IIT in 2004. When her mother died in 2007, both children were in college and Haferkamp had finished her master's degree. She hadn't found a cure, but she wasn't done trying, either. She left her job as marketing leader of Rockwell Automation's life sciences division to seek a Ph.D. at IIT.

"I looked at my life and saw that while there's a lot that I love doing, I only have so much time to reach certain goals—to make an impact," she says. "This is something that's really important to me."

Haferkamp conducts cancer research that is applicable to neurodegenerative disease because the study of both diseases attempts to make sense of why certain cells live (cancer) and die (neurodegenerative disease) when they're not supposed to. Her research focuses on signaling pathways and how varying stimuli can cause cells to behave differently.

Her decision to become a full-time Ph.D. student brought on some dramatic lifestyle changes: not only was there a big drop in income, but Haferkamp went from a job that

involved constant traveling to one where she spends all of her time in the lab.

That was a big adjustment. In her previous career, Haferkamp, who calls herself a workaholic, could stay up all night working from home or on the road. As a researcher, most of her work has to be done in the lab.

So Haferkamp arrives at IIT each morning around 5:30 a.m., often staying until after the evening rush hour. The university awarded her a research scholarship in 2007, the only one given to a student in her department.

"Every day, I'm thinking about things that people don't know, problems nobody's figured out. I like this," she says.

Haferkamp suspects that eventually her career will take her away from the laboratory. She'd like to combine her knowledge of molecular and cellular biology with her previous experience in life sciences marketing and product development. Meanwhile, she continues to work toward a better understanding of cancer and neurodegenerative disease.

The next time her kids tell her to practice what she preaches, they'd better be prepared.

—Steve Hendershot



Bonnie Haferkamp

Photo: Michael Gross

More Voices of the Holocaust Will Be Heard Through Grant

"You see, that is why I talk to many. That is why I interview many and have them tell their story. So from the little that I get from everyone, the mosaic, a total picture can be assembled. Now you understand my purpose, why I want to collect 200 spools of these interviews, because nobody can tell the whole story."

These are the words of David Pablo Boder, former faculty member and head of the Department of Psychology and Philosophy at Lewis Institute of Chicago (one of IIT's predecessor colleges), and researcher of displaced persons later known as Holocaust survivors. In 1946, Boder traveled to Eastern Europe, taking with him 200 spools of carbon steel wire on which he recorded 109 interviews with individuals from many backgrounds and nationalities, and all walks of life.

In 1998, M. Ellen Mitchell, dean of IIT Institute of Psychology, and staff members of IIT's Paul V. Galvin Library, uncovered a 16-volume set of Boder typescripts documenting the experiences of survivors living in France, Germany, Italy, and Switzerland. To give Holocaust scholars, as well as the general public, the opportunity to learn more about the historical event through these unique, personal accounts, the library republished the collection online as the Voices of the Holocaust project. Materials from the project also will be on permanent loan to the Illinois Holocaust Museum, scheduled to open in Skokie in 2009.

A recent \$50,000 gift from a foundation that wishes to remain anonymous, along with matching funds donated by colleagues and friends of Psychology Board of Overseers member Ron Bliwas and IIT Trustee Walter Nathan (ME '44), will enable 48 additional interviews to be translated, transcribed, and preserved. This support expands upon a Library Services and Technology Act federal grant obtained in 2007 to improve and augment the audio content of the website.

"I think this project is important to the Institute of Psychology, Galvin Library, IIT, Chicago, and the world," says Mitchell. "First-hand testimony about genocide serves to remind us what can occur if we are not mindful and peace seeking."



David Pablo Boder

MORE ONLINE

Voices of the Holocaust Project: <http://voices.iit.edu>
 United States Holocaust Memorial Museum: www.ushmm.org
 Cybrary of the Holocaust: <http://remember.org>

Photo: Mindy Sherman



President John Anderson with Sande LoCicero and her daughter, Jennifer, at the tree planting ceremony

Scholarship Established in Memory of ECE Professor

Although IIT faculty member Joseph LoCicero passed away unexpectedly on July 19, 2008, his memory will continue to endure at the university, where he served for more than three decades, through a scholarship established in his name. The Joseph LoCicero Camras Undergraduate Scholarship will commemorate the inspiring teacher's dedication to IIT students.

Motorola Chair Professor in the Department of Electrical and Computer Engineering, LoCicero was not only a well-respected faculty member but also an accomplished researcher and inventor who held four patents in the area of high-definition television and one patent in automatic speech recognition. In 1993, LoCicero received the prestigious McLellan Meritorious Service Award from the Institute of Electrical and Electronics Engineers Communications Society.

The scholarship was announced at a memorial service held on August 29, at which time a tree was planted in LoCicero's memory on the east side of Siegel Hall on Main Campus. For more information, contact Steve Brady, senior director of major gifts and planned giving, at 312.567.5018.



Photo: Mindy Sherman

Chicago Celebrates Obama Victory

Last November, Chicago erupted with excitement as Barack Obama was elected the 44th President of the United States. In June 2008, as part of his campaign Obama held a private economic roundtable discussion in IIT's Hermann Hall, where he discussed predatory lending and the credit industry with three local residents. The event was covered in numerous national media outlets, including *The New York Times*, the *Washington Post*, and NBC.

New Provost Aims High for IIT

In December 2007, a committee of faculty, students, and staff led by outgoing IIT College of Science and Letters Dean F. R. "Buck" McMorris began a lengthy, nationwide search for a new IIT provost. From a pool of "exceptionally strong" candidates, according to McMorris, the stand-out was Alan Cramb.

Cramb's background helps explain why. Originally from Scotland, and still with a rich brogue, he came to the United States to attend graduate school at the University of Pennsylvania, from which he received his Ph.D. in 1979. After several years conducting and managing research within the steel industry, he went on to head the Department of Materials Science

and Engineering at Carnegie Mellon University, where he was also a professor and co-director of the Center for Iron and Steelmaking Research.

Most recently, Cramb was dean of the School of Engineering at Rensselaer Polytechnic Institute, responsible for current and future directions in research and education.

During his tenure the university's rankings improved, significant new programs were initiated, research expenditures increased from \$33 million to \$85 million, and both undergraduate and graduate enrollments increased. Cramb has also served as president of two esteemed associations, the Iron and Steel Society and the Association of Mining, Metallurgical, and Petroleum Engineers.

As a transplant from Troy, N.Y., to Chicago's Lincoln Park, how is he spending his non-IIT time? "These days, sleeping," he says, laughing, and as well as helping his family adjust to life in the city. For his wife, Anna, who is from northwest Indiana, moving to Chicago was like coming home. But his daughters, 10-year-old Natalie and 12-year-old Liana, are trying to get used to city noises. "We used to live in the suburbs," he says, "where the loudest night noises were the sounds of cicadas." Also trying to adjust: the family's two Labs, Karma and Luna.

Cramb is thoughtful when discussing both his family and his

new position at IIT. He believes, as does the search committee, that his experiences have broadened his understanding of different organizational cultures. "I have an appreciation of how important culture is, how much it contributes to a university," he says. He also believes in getting input from all areas of the university, and talks frequently to faculty, staff, and students.

Here he provides insight into his own plans and goals for IIT.

What brought you to IIT?

It's a great university with a great future. It was a terrific opportunity for me to join President John Anderson in moving the university forward. And I was very impressed with the initiatives that had been started in engineering and science, and in the other schools.

What are some examples?

The Pritzker Institute of Biomedical Science and Engineering; the level of excellence in the Institute of Design; an important focus on energy and the beginning of the Wanger Institute for Sustainable Energy Research; the development of the architecture program, and the growing enrollment there. We have a very interesting law school, and our business program is growing. When you also see a strong Institute of Psychology, and you understand that everything can work together, it is easy to envision a great future. We are small and agile—we can do some things that others institutes can't.

Have there been any surprises?

I was surprised at how involved the student body is in the university. They're working to make sure IIT is a good experience for all students who come here. They're involved with issues that affect humanity. They're interested in helping others as well as the university. It is a tremendous strength of the university.

What do you see for the university long term?

This is a university that can really define itself in new ways that were not possible in the past. A combination of undergraduate depth with professional-level sophistication can result in a new type of graduate—one that is a technical leader who is culturally and globally sophisticated, and a great communicator with a significant knowledge of a broad spectrum of issues, from law to design. In addition, we will focus on doctoral research and increasing our research profile. We will use this foundation to become the top technology-focused university in Chicago and a leading university in the U.S. I'm a great believer that the team defines what you can achieve. We have a very strong team of faculty, staff, and students. There are, of course, challenges. Financial challenges are tough to handle because of the economy, of course. But we have a clear plan and a road map, and we will weather this economic downturn. And we'll continue to move forward.

—Linda Packer



Photo: Michael Goss

Hamid Arastoopour

Hamid Arastoopour (M.S. GE '75, Ph.D. '78), Henry R. Linden Professor of Energy, was named as the first director of the Wanger Institute for Sustainable Energy Research at IIT. Arastoopour will coordinate education and research efforts related to energy and sustainability among a variety of constituents as well as help raise the university's visibility in these two areas.

Felice Batlan

Felice Batlan, assistant professor of law in IIT Chicago-Kent College of Law, was named co-director of Chicago-Kent's Institute for Law and Humanities. A faculty member since 2006, Batlan serves in her new role with Sheldon H. Nahmod, Distinguished Professor of Law and institute founder.

Ralph L. Brill

IIT Chicago-Kent College of Law established an endowed chair honoring Professor Ralph L. Brill, a member of the faculty since 1961, who founded both the law school's groundbreaking legal research and writing program and its award-winning moot court program.

Hyun-Soon "Joy" Chong

Hyun-Soon "Joy" Chong, assistant professor of chemistry in IIT College of Science and Letters, has filed a United States provisional patent application for a series of bimodal synthetic ligands for use in various targeted therapeutic and diagnostic techniques used to treat cancer and neurodegenerative diseases.

Susan Conger-Austin Judith Lederman

The Fulbright Program recognized two IIT faculty members with awards for work done over summer 2008. Susan Conger-Austin, assistant professor of architecture, received a Fulbright Specialist Grant to teach at Mayor University in Santiago, Chile. Judith Lederman, director of teacher education and senior instructor in the IIT College of Science and Letters Department of Mathematics and Science Education, received a 2008 Fulbright Fellowship for research done in South Africa.

Jai Prakash

Jai Prakash, acting chair of the Department of Chemical and Biological Engineering, and professor of chemical engineering, received the 2009 Energy Technology Division Research Award from the Electrochemical Society for his work in alternative energy sources. The award was established in 1992 to encourage excellence in energy-related research.

IIT Makes Roaming Professor Appointment

Werner Sobek has joined IIT College of Architecture as Ludwig Mies van der Rohe Studio Professor.

A renowned architect and engineer, Sobek has been a faculty member at the University of Stuttgart since 1994, and is head of the Institute for Lightweight Structures and Conceptual Design. He founded the consultancies Werner Sobek Stuttgart and also Werner Sobek Design, with offices in Stuttgart, Frankfurt, New York, Moscow, Cairo, and Dubai. Sobek is active in many professional organizations, including the Academic Council of HafenCity University in Hamburg, Germany, where he serves as president.

Sobek is considered a "roaming professor," dividing his academic time between IIT and the University of Stuttgart.



With its roots in sabbaticals and visiting academic appointments, the concept of roaming professorship takes a forward-looking approach to education

that only a few universities worldwide have begun to adopt. Sobek brings to his IIT students a rich background in teaching and research at the international level while strengthening his career through his association with a well-regarded American architecture institution.



Bright Lights, Small City

People are on the move. Humankind is in the midst of the largest migration in history, as every week some 1.25 million rural inhabitants swarm to urban environments around the world. Many of these transplants are streaming into existing metropolises, though others are moving to newly designed cities, generally in search of greater opportunity and the amenities of modern life.

Harry Mallgrave, associate professor of architecture at IIT and director of the International Center for Sustainable New Cities, hopes to address the daunting challenges posed by this new urbanization. Creating new cities that work and retooling older cities whose aging infrastructure is groaning under the weight of exploding population require a new perspective.

As Mallgrave, author of the 2008 book *Architectural Theory: An Anthology from 1871 to 2005*, explains, such efforts have traditionally fallen under the domain of architecture or planning schools, a paradigm he believes no longer works. Instead, he has worked to establish an aggressive, multidisciplinary center—the first of its kind—to attack the problem of citywide sustainability and livability. Landscape design, economic policy, environmental management, sociology, economics, and law all contribute to the vision of tomorrow's cities.

Sustainability is far easier to achieve in a city built from scratch. These new cities tend to be smaller, more manageable centers, where an emphasis is placed on situating the essentials of life—schools, parks, hospitals, shopping—within convenient walking distance in each neighborhood. Removing a single element, such as automobiles, from the urban plan allows for a radically different kind of city. While the fundamental idea, known as the new urbanism, has been kicking around in architecture circles for 20 years, the crisis state of many cities today, coupled with a mounting energy crunch, has brought unprecedented urgency to the issue.

China provides an ideal living laboratory for the new sustainable city. Mallgrave recently assembled a collaborative, multidisciplinary team from Tongji University in Shanghai, the University of Chicago's Harris School of Public Policy, and IIT's Armour College of Engineering and College of Architecture. The project entailed the design of two new cities near Shanghai on Chongming, an island situated at the mouth of the Yangtze River. The two-semester project brought together IIT students with their Chinese counterparts and faculty to design one compact and one linear city. Following the team's field research and initial schematic designs, the studio advanced its work into spring 2008 with a special seminar consisting of five architects, five engineers, and five students from the University of Chicago.

Mallgrave points to the particular challenges facing China in terms of sustainability: "China is still a Communist state with massive bureaucracy. You've got one department pushing green energy, and you've got another pushing for an automobile for every person in China, and they're two diametrically opposed goals."

Compact cities, more heavily reliant on efficient mass transit, reduce inner-city congestion, pollution, and carbon emission. Localizing the food source is another dramatic means of cutting pollution and huge transportation costs. Mallgrave is particularly excited about vertical farming, a new technique in which pesticide- and herbicide-free food is grown in high rise buildings under infrared light: "You can grow crops three or four times a year instead of a single harvest, and you can grow absolutely clean and healthy food."

Europe, meanwhile, is facing its own problems of urban sprawl. Mallgrave is hoping next year to finalize a collaboration with the University of Venice and three to five other universities for a new sustainable city in Italy. He stresses that new global initiatives will require that students be thoroughly prepared for the challenges of rapidly evolving cityscapes: "We continue to teach architecture as it was five years ago. We should be putting a lot more emphasis on how it will be in five years."

— Richard Harth

MORE ONLINE

A definition of sustainable cities: www.rec.org/REC/Programs/Sustainablecities/What.html
 Urbanization and sustainable transportation: http://earthtrends.wri.org/features/view_feature.php?fid=54&theme=4
 IIT International Center for Sustainable New Cities: www.icsnc.iit.edu

Rendering of a Chongming Island city by IIT China Studio students





Photo: Michael Gross

Herek Clack

CLEARING THE AIR

A New Approach to Mercury Remediation

Mercury, often linked in antiquity with alchemical transformations, is used today in such broad-ranging applications as thermometers, liquid-mirror telescopes, and for medical and dental purposes. Herek Clack, IIT associate professor of mechanical and aerospace engineering, however, would like to get rid of the stuff.

While useful, mercury is a highly poisonous substance that can permanently damage the central and peripheral nerves, lungs, kidneys,

skin, and eyes. It is particularly hazardous to developing fetuses.

As Clack explains, mercury enters the environment through certain natural events, including volcanic eruptions and forest fires, which liberate mercury stored in plant matter. The largest anthropogenic source is the burning

of coal, particularly from coal-fired power plants, and it is here that Clack has focused his efforts.

In a power plant, the combustion process produces flue gases that contain gaseous pollutants, including mercury, and incombustible ash. At any given power plant, various processes may be used to remove pollutants that contribute to acid rain and smog, and whose emissions are regulated. In addition, the ash may be captured either by a large set of fabric filters or by electrostatic precipitation, where the ash particles are charged and extracted from the flue gas by an electric field. Clack describes the popular Ionic Breeze type of home air purifiers as miniature versions of industrial electrostatic precipitators (ESPs).

Historically, far fewer fabric filters have been installed on large, coal-fired power plants than ESPs. Currently, the leading strategy for reducing mercury emissions is to inject a powdered adsorbing material into the flue gases, just before they enter the ESP. “My research is looking at how we improve the removal of mercury within these ESPs that are so prevalent around the world,” Clack says.

Tests conducted by the Department of Energy (DOE) at actual power plants have examined the effectiveness of this approach. Clack revisited the DOE’s data and assembled a detailed computer model of mercury capture by suspended particles, with emphasis on the fluid dynamics. “To our knowledge, it’s the first model of its kind,” Clack states.

Reviewing the performance of the model and comparing it with the DOE’s data, Clack found something interesting. While the

model accurately duplicated experimental results under certain conditions, elsewhere it deviated from laboratory results, over-predicting the amount of mercury removal. “Our theory as to why the model was not agreeing with the data under certain conditions was that as you increase the injection of powder you increase the likelihood that those particles stick together—the process is called coagulation or agglomeration,” Clack explains.

Compared to a fine powder, these larger, agglomerated particles are less effective at removing mercury from the flue gas, resulting in lower-than-predicted performance.

Clack was able to verify the process of agglomeration in the lab, comparing the signature of a powder irradiated by laser light before it was fed into a length of tubing and after it emerged at the other end—thereby replicating on a smaller scale the process used to inject activated carbon particles into an ESP.

Beyond the intellectual challenges, Clack emphasizes the increasing value to society of such research, as energy requirements skyrocket and coal use rapidly proliferates, particularly in China, India, and South Africa. In the last year and a half, Clack has begun addressing mercury emissions globally. The United Nations Environment Programme (UNEP) has formed a Global Mercury Partnership, whose objective is to progressively eliminate sources of mercury emission into the environment.

Through UNEP, representatives from governments, industry, academia, and non-governmental organizations around the world have partnered to develop a comprehensive strategy for mercury emissions reduction that addresses the often disparate needs of developed and developing nations. Part of that strategy is to develop, disseminate, and maintain a reference document of established best practices for reducing mercury emissions that is relevant to each source category, with Clack playing a key role in the coal combustion source category. This initiative promises to significantly broaden the scope and reach of Clack’s work, as other sources of mercury emission—including artisanal gold mining, a significant issue in the developing world—are evaluated.

Additionally, Clack stresses the importance of finding mercury alternatives and praises United Nations efforts to buy up existing stores of mercury and remove them from global circulation.

—Richard Harth

MORE ONLINE

EPA overview of controlling emissions: www.epa.gov/hg/control_emissions/index.htm

Basics of mercury emissions: www.mercuryanswers.org

Mercury contamination in North America: www.sciam.com/article.cfm?id=mercury-hot-spots-found-i

HARVESTING THE FUTURE

To fulfill our energy needs, we mine coal from the earth, pump oil out of ever-deepening wells, and even split atoms in atomic reactors. But **Alireza Khaligh** (Ph.D. EE '06), IIT assistant professor and director of the Energy

Harvesting and Renewable Energies Laboratory, is tapping new sources of energy much closer to home.

Khaligh is interested in wellsprings of energy that surround us but are often overlooked. Using innovative techniques in electrical engineering, he examines ways of harnessing these bits of free energy through strategies variously referred to as energy harvesting, power harvesting, or energy scavenging.

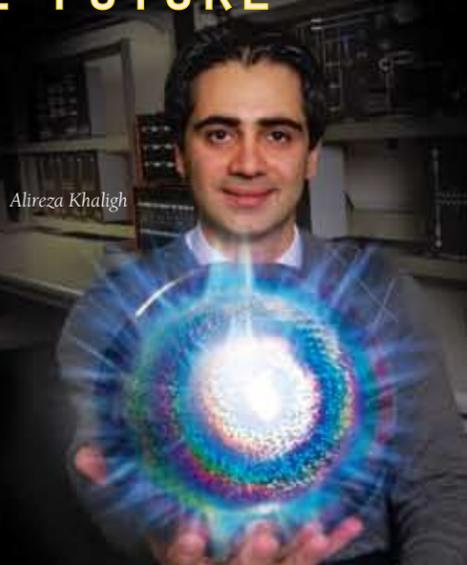
Energy harvesting is at least as old as waterwheels and windmills. Recently, however, the idea has received renewed interest, as squeezing every droplet of available energy from the surrounding environment has become critical. The excitement over energy scavenging is also due to the proliferation of small, mobile devices, many of which can survive on a minute trickle of energy.

Khaligh seeks to scavenge energy from both environmentally friendly sources such as wind, ocean, and solar energy, as well as biomechanical sources. While the latter often generate comparatively small amounts of energy, Khaligh and others are working on ways to mobilize it and put it to use for a variety of applications including hybrid cars, health care devices, and portable electronics like cell phones and MP3 players.

One gadget Khaligh describes is a self-powered, shock-detection device that can scavenge kinetic energy from body movement. “When someone suffers a strong jolt, such as hitting the ground, the device turns on and sends a signal to a wireless receiver to call for help,” he explains. The life-saving potential for such devices has already been established. But scavenging enough kinetic energy to power the critter is tricky.

Khaligh proposes a hybrid energy-harvesting approach using electromechanical and piezoelectric mechanisms. The resulting device falls into the category of a MEMS—MicroElectroMechanical System—small enough to be implanted under the skin.

Alireza Khaligh



Electromechanical energy is produced in devices where a magnet moves through a coil or winding, inducing a current according to Faraday’s Law. In contrast, piezoelectric materials respond to pressure or vibration, inducing a current across a pair of electrodes. Khaligh has mathematically demonstrated that while each of these energy sources may be insufficient for the needs of small devices, a hybrid of electromechanical and piezoelectric energy can do the trick.

One of the most exciting applications will be in battery-free cell phones. As a user walks, his center of gravity moves up and down from 4 to 7 centimeters—enough, Khaligh has demonstrated, to allow the kinetic energy to be scavenged to power the phone.

Khaligh notes that the effect of replacing batteries with biomechanical energy harvesters in the 220 million cell phones in use in the United States would be dramatic. Some 220,000 kilowatts of energy, equivalent to the output of a medium-sized power plant, would be saved.

Recently, Khaligh created the Energy Harvesting and Renewable Energies Lab at IIT, where a broad range of energy-scavenging technologies are being investigated and developed. Such fully renewable and completely clean energy sources will be a vital part of the world’s energy portfolio.

—Richard Harth

MORE ONLINE

Nano-sized machines:

www.sciam.com/article.cfm?id=how-self-powered-nanotech-works

Energy scavenging in China and India:

www.businessweek.com/globalbiz/content/oct2008/gb20081022_212298.htm

Free energy and mobile devices:

www.pcworld.com/article/155063/intel_hopes_to_bring_free_energy_to_mobile_devices.html

THE ULTIMATE

Go-To PEOPLE

Life Trustees Grow Decades-Long Friendship

By Marcia Faye

If it's true that behind every good man there is a good woman, then it's worth considering a parallel inspiration, that behind many a good woman-to-woman friendship there exists a good man-to-man friendship—even a 47-year-long one. Consider the case of Ed and Vic, and Carol and Faye.

Victor Morgenstern (CHE '64) was already a brother in IIT's Alpha Epsilon Pi fraternity when Edward Kaplan (ME '65) pledged. "Ed was a scholar and I was a joint major engaged in plenty of extracurricular activities," says Morgenstern, laughing about himself and his friend, two opposites who decided to become roommates during their junior year. "I remember choosing Ed as the one I wanted to room with for a few reasons," he explains. "Number one, he didn't snore at the time. Number two, he left on the weekends, because he was from Chicago. And number three, he occasionally asked me to come over for dinner."

Morgenstern, who came to IIT from Long Island, N.Y., didn't own a car, so he and a date tagged along with an older, wheels-privileged fraternity brother (Michael Wolf, IE '62) for a night on the town with his date, Faye Katz. Shortly afterward, Morgenstern found himself asking the permission of his fraternity brother to instead date Katz.

Coincidentally, Katz, and Morgenstern's IIT roommate, Ed Kaplan, were already acquainted with each another as they attended Senn High School together along with a classmate by the name of Carol Kozin. "Since Carol was best of friends with Faye," says Kaplan, "it didn't take too long before the four of us were spending time

together." As the two men continued to develop their newly formed friendship—with Katz and Morgenstern becoming closer and Kozin and Kaplan becoming closer—the two couples also discovered the beginnings of a natural and shared camaraderie.

From Engineering to Law to Finance

Ed Kaplan and Carol Kozin married in January 1965; Vic Morgenstern and Faye Katz followed

six months later, tying the knot on July 4. After attending Roosevelt University together and getting married, the two women continued to maintain a long-distance, telephone friendship, with the Kaplans residing in Illinois and the Morgensterns moving to Washington, D.C., where Vic attended law school at American University and worked initially for the United States Patent and Trademark Office and then for



Victor Morgenstern [left] and Edward Kaplan

Photo: Vincent D. Johnson

"I would say that probably the biggest reason for us staying together was because of Faye and Carol."

a legal firm. He knew by his junior year at IIT that his interests were diverging from chemical engineering to law.

"It was interesting in our fraternity that we had a lot of brothers who received engineering or science degrees and either went on to law school or to medical school," notes Morgenstern of the competitive house that had the distinction of attaining the top GPA of all the fraternities on campus. "I started to develop my other interests and they happened to be in student government, the tennis team, and fraternity functions."

"As I look back at the students in their group," says his wife, "each and every one has gone on to do well. They benefited so tremendously from the type of education they got at IIT. Victor went on in a totally different direction, but his education really taught him how to think and how to attack problems."

The senior partner of the law firm where Morgenstern was working encouraged him to take an interest in stock market investing; this led Morgenstern to a stock broker who introduced him to the then esoteric strategy of risk arbitrage investing. The broker sought Morgenstern's advice on the legal implications of company mergers and influenced him to begin investing his own money. Eventually, the broker asked Morgenstern to join him in managing accounts. Thus began Morgenstern's entry into the financial field, one that he ultimately made into a highly successful career.

Returning to Illinois—and to the Kaplans

After managing money for a variety of clients in Washington, D.C., Morgenstern headed back to the Chicago area, spurred on by an offer to help Irving Harris, the cousin of one of his clients, conduct his family's investment business. The decision to return to the Midwest was not difficult. After all, Morgenstern's in-laws still lived on Chicago's North Side and the Kaplans lived in Northbrook, where Ed was busy creating his own success story.

"Vic was very, very active on campus. I had some positions within the fraternity, but I didn't have any campus positions," explains Kaplan, recalling how the traits and interests the roommates discovered and developed at IIT helped to guide them to their respective professions. "I studied hard at IIT; I wanted to do well. I was very intrigued with science and math."

His diligent studying earned him membership in the Tau Beta Pi engineering honor society and the Pi Tau Sigma international mechanical

engineering honor society. He also received several National Science Foundation grants for his undergraduate research.

Kaplan expected to pursue a graduate degree in servo-systems; however, at the last minute, he changed direction. He stayed in Chicago and went to work for the Seeburg Corporation. Shortly thereafter, he was awarded a three-year National Defense Education Act Fellowship to pursue a doctorate in business at Northwestern University. Once in the program, Kaplan decided he didn't want to teach or hold a staff position in industry and instead went on for an M.B.A. at the University of Chicago Graduate School of Business, while working at the Teletype Corporation.

He and Gerhard Cless, a Teletype colleague, shared ideas for their own company and left their positions to start what became known as Zebra Technologies, a manufacturer of on-demand labeling and ticketing systems, including thermal bar code label printers and supplies. As of December 2007, Zebra had sold more than 6 million printers to users in 100 countries and had net sales of a record \$868.3 million. In addition to being a Zebra cofounder, Kaplan served as the company's chair and CEO for 37 years before retiring in September 2007.

Coming Full Circle

Morgenstern continued to develop his financial acumen as a founding principal of the Chicago-based investment advisory firm Harris Associates, which he joined in 1969, the same year that Zebra Technologies' predecessor company, Data Specialties, Inc., was incorporated. Morgenstern served as president and CEO of Harris from 1991–2000 and chairman from 1995 until his retirement from Harris in 2000. He also was president of The Oakmark Funds from its inception in 1991 until 2000 and chairman of its board of trustees until his retirement in 2003, at which time he went on to his current position as chair of Valor Equity Partners, a private equity firm running two funds in Chicago.

Over the nearly 25 years between Kaplan's and Morgenstern's graduation from IIT and the establishment of their careers, their wives kept in touch even though their husbands were oftentimes too busy to do the same. "I would say that probably the biggest reason for us staying together was because of Faye and Carol," says Kaplan.

"Carol and I just had that special, special relationship," explains Faye Morgenstern. "It was a serendipitous friendship with the added coincidence that the significant men in our lives were fraternity brothers." As their children grew up and their professional lives became more settled, the two men embarked on a new phase of their friendship, one that began with Kaplan's invitation to Morgenstern to join the IIT Board of Trustees.

"It was Ed's suggestion to get me more involved with IIT that gave us more opportunities to interact," says Morgenstern, who became a trustee in 1994 and also serves on the IIT Institute of Design Board of Overseers. In 2008, they both made the decision to expand their roles on the IIT board and become vice chairs and life trustees. The Morgensterns' two architect daughters, Jennifer Morgenstern and Robyn Morgenstern Rosenblatt, are members of the IIT College of Architecture Board of Overseers; their son, Judd, is an IIT Institute of Design/IIT Stuart School of Business student. The Kaplans' son Martin is CEO of Mesirow Advanced Strategies, Inc., and son Alan is president of Repak Real Estate Development Corporation.

With their children now making their mark in the world, Ed and Vic and Carol and Faye have more opportunities to get together socially. The four even went on a two-week trip to Spain. "From a friendship point of view, Faye and Vic have been great friends," says Kaplan. "We care about each other's families and what they're doing. We have a very special relationship. I don't think either Vic or I knew where this was going at all at the time that we met, but it turns out today that we really have a lot of common interests and that we cross in many, many different ways. And from a professional point of view, I think he's a superstar."

Morgenstern agrees with his friend that in spite of their differences, the start of something both endearing and enduring was forged during their days at Alpha Epsilon Pi. "Because we went back so long where both of us really had no idea what we wanted or where we were going to go, it's always been a very relaxed relationship," he says. "I can be who I am and he could be who his is. We don't have to worry about anything else because we've known each other before we had our successes, during, and after."

Faye Morgenstern, perhaps, pays two of her oldest and most treasured friends the highest regard of all. "Carol and Ed are the ultimate go-to people in my life," she says. "I would go to either one—for anything—on any level." ■

IIT + ALUMNI = VELOCITY

Have you ever wanted to tell a young person your story?

In the coming years, thousands of IIT alumni will have the opportunity to speak with new IIT graduates and current students about how their experiences at IIT have impacted their lives.

This January, IIT President John Anderson launched the Velocity initiative, a three-year alumni reengagement effort conceived by Betsy Hughes, vice president of Institutional Advancement. Three newly graduated IIT alumni, working as Velocity ambassadors, have already begun to hit roads and airways nationwide, full time, in the university's effort to conduct 45-minute interviews with more than 5,000 alumni. In addition, more than 40 current student ambassadors have begun to hold interviews with Chicago-area alumni. During these sessions, alumni will have the chance to talk about their IIT experiences, professional success, and life's goals. The stories and views of these alumni will help IIT with everything from developing its strategic plan to customizing alumni programming.

"Good engagement of our alumni community will be an important part of the future success of IIT," says Anderson.

Ryan Witthans (CHEM '08), one of the three traveling ambassadors, says that joining Velocity is his own way of thanking—and meeting—the IIT community, which he credits as supporting his education.

"I was able to afford IIT because of the scholarship that I received, and I've been able to start my own medical device company at IIT [medLight] with the community's assistance. I see this job as a way to give back to IIT and a way to increase the size of the IIT community," he says. "It will also allow me to meet and converse with a number of successful people. Hopefully I can learn a thing or two from them."

According to Robbie Deveney, senior director of stewardship and special initiatives for IIT's Office of Institutional Advancement, alumni participation in Velocity will be a great service to the university. At the same time, Velocity will benefit alumni, who will be able to reconnect with their alma mater and learn about the many opportunities IIT offers its alumni.

Photo: Michael Gross

"Through Velocity, alumni will provide IIT valuable perspectives, impacting the university's future strategy," says Deveney. "It will also help IIT to better tailor its communication with alumni based on their personal interests. Velocity will allow us to connect alumni with programs that are meaningful to them, such as mentorship and volunteer opportunities at IIT."

The popularity of social-networking websites has made computers and PDAs the conduit for interpersonal meeting and interaction. Velocity takes a more personal approach, pairing students with alumni—who will enjoy a natural connection through their affiliation with IIT—in meaningful face-to-face discussions about their lives, inspiration, and successes.

"Anytime we connect alumni with students, it's magical," says Marian Quirk, manager of regional alumni programs. "When they meet one-on-one, it makes for a much richer connection."

Deveney says the groundswell of students interested in participating in Velocity—more than 200 applied for the coveted positions—indicates that IIT students are excited about what they can learn from alumni. Student ambassadors represent the diversity of IIT's student body, hailing from throughout the United States and countries such as Nigeria, India, and China.

Nashrah Noor, a third-year architecture student from Bangladesh, says the prospect of hearing inspirational alumni stories inspired her to apply to be an ambassador.

"I currently work as a phonathon caller for IIT's Office of Institutional Advancement. I get the opportunity to talk to many alumni every day. It is great to know some of their stories and share some of my experiences in the process. I look forward to having even more conversations through the Velocity initiative," Noor says.

Kevin Franke (PSYC '08) is another new alumnus who will begin his full-time Velocity road trip this winter. He will begin his journey in Florida and continue his cross-country trek before beginning graduate school this fall.

"I was an oddball at IIT, graduating with two degrees, in psychology and philosophy," he says. "Although I may not meet a lot of alumni in my field, I definitely look forward to meeting some of the talented architects and engineers that have passed through IIT. Also, I am an alumnus of IIT's Greek community and a past president of my fraternity, Phi Kappa Sigma, so I hope to meet a few Greeks and share a few stories of our experiences."

Sandy Marcus (Ph.D. PSYC '69), practice leader for Career and Educational Assessment Services, within IIT Institute of Psychology's Center for Research and Service, and colleague Heather McLinden developed

"Anytime we connect alumni with students, it's magical. When they meet one-on-one, it makes for a much richer connection."

—Marian Quirk, Manager of Regional Alumni Programs

"We have been training students in how to develop relationships and how to very quickly establish good rapport," says Marcus. He says the interviews, which will take place at alumni workplaces, are designed to be semi-structured conversations in order to better facilitate mutual sharing. "We believe that the communication skills that we are sharing with these students will help them throughout their careers," he says. As an alumnus, Marcus believes alumni will look forward to learning about the many changes to IIT over the years.

"The students are really involved and enthusiastic," Marcus says, noting that many of the ambassadors are also participants in IIT's Leadership Academy, a program that builds leadership and teamwork skills of students, as well as IIT Camras scholars. "The training has allowed them to feel empowered with the interpersonal tools to do this job. I think that by talking to alumni, students will gain a much better sense of the history of IIT and how the university really does have a rich and noble history."

Part of the training process involved pairing Velocity ambassadors with alumni interview subjects who agreed to offer feedback on their performances during practice sessions. Franke says the comments he received were helpful. In telling his own story, the alumnus Franke interviewed provided the type of information that IIT is looking to obtain from its alumni.

"My practice interviewee expressed his hope that IIT continues to strive for a reputation as a global institution that equips talented people with the skills and resources to do great things with their talent," Franke says. "During our conversation, he mentioned that there were some good indications that IIT is going down that road."

On his nationwide tour to meet alumni following his inauguration in early 2008, President Anderson said he had the opportunity to hear from many alumni about their relationship with IIT and their opinions about how the university can move forward.

"Velocity is an exciting initiative that will provide alumni more outlets for sharing their insights," Anderson says. "In turn, IIT will be able to adapt and grow in a way that sustains our relationship with our alumni into the future." ■

Velocity
initiative

Velocity ambassadors [left to right] Ryan Witthans, Daniel Hutchinson, and Kevin Franke hit the road this year with the launch of the Velocity initiative. The information they gather will help IIT better enhance its alumni programming.

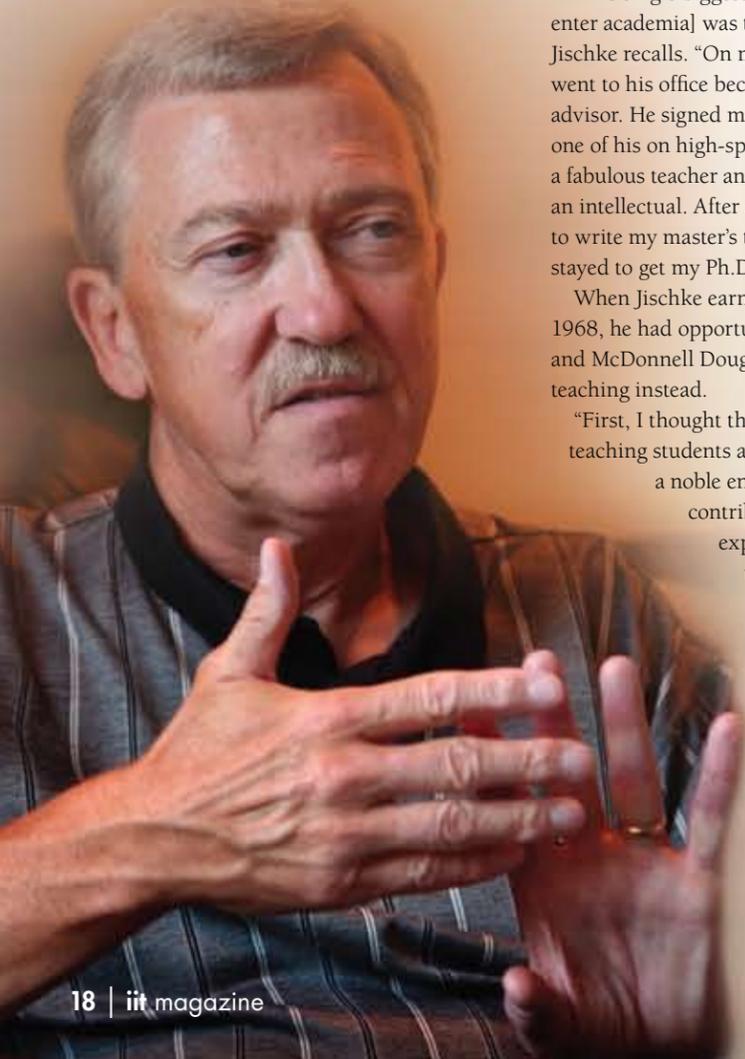
MORE ONLINE

IIT's Velocity initiative: www.iit.edu/giving/velocity

“I Knew I Wanted to be a University President”

Alumnus Recalls His Rise to Purdue Presidency

BY JEFF BORDEN



Purdue News Service photo/Dave Umberger

If not for the influence of an extraordinary educator, IIT alumnus and trustee Martin C. Jischke (PHYS '63) might never have embarked on the path that led him to an outstanding career in academia, culminating in the presidency of Purdue University.

As a specialist in fluid dynamics with extensive knowledge in heat transfer, fluid mechanics, aerodynamics, and other technical areas critical to aircraft and spacecraft design, the doors to high-paying research jobs at private aerospace companies would have been flung wide open for him.

Instead, he met Judson Baron, a decorated World War II veteran who was a professor and researcher at Massachusetts Institute of Technology, where Jischke was pursuing his master's degree.

“The single biggest factor in my decision [to enter academia] was this remarkable teacher,” Jischke recalls. “On my first day on campus, I went to his office because he was my graduate advisor. He signed me up for classes, including one of his on high-speed gas dynamics. He was a fabulous teacher and role model, and was quite an intellectual. After a few months, I decided to write my master's thesis under him and then stayed to get my Ph.D.”

When Jischke earned his doctorate in 1968, he had opportunities to join Boeing and McDonnell Douglas. He decided to try teaching instead.

“First, I thought that being a professor, teaching students and doing research, was a noble enterprise and a way of contributing to society,” he explains. “Second, I enjoyed the freedom to pursue research interests in quite a few areas. Third,

I thought it would be easier to go from a low-paying job to a high-paying job if I didn't like being a professor. It turned out to be a great decision.”

Jischke graduated from Proviso High School (now Proviso East) in near west suburban Chicago and became the first member of his family to attend college when he entered IIT in 1959. En route to earning his degree in physics, Jischke was something of a big man on campus. He was president of his class, ran the Union Board, worked as a radio announcer at sporting events, and even organized IIT's first homecoming event. His affection for the university would lead Jischke to return as a trustee more than 40 years after graduating.

“The fact that I've been the president of four institutions gives me a background of knowledge and experience that is helpful to the rest of the board,” he says. “I hope I can help the board better understand the issues facing IIT and how we might address them.”

Gerald L. Bepko (LAW '65), a graduate of IIT Chicago-Kent College of Law and himself a former interim president of Indiana University, believes Jischke would be an asset on any board.

“If you put him into almost any leadership role, he would figure out how to lead the people and the organization,” Bepko says. “He'd introduce the right values; help develop the mission, vision, goals, and objectives; and then execute on them. He's a very formidable leader.”

After leaving MIT, Jischke spent six years teaching at the University of Oklahoma and becoming a tenured professor. In 1974, he was eligible for a sabbatical, where he could either attend Harvard University, Oxford University, or Imperial College, or accept a White House fellowship. He chose the latter, working for a year as a special assistant to William T. Coleman, the secretary of transportation.

The White House experience was a critical juncture in his evolution.

“I learned a lot about myself and government and what I might do with my life,” Jischke says. “I spent a lot of time thinking about the next 30 years or so. I decided after that to get on the track to more leadership and administrative roles. I knew I wanted to be a university president.”

He returned to Oklahoma, where he became a department head and began the arduous task of schooling himself in areas critical to being an effective university president. He studied public speaking and fundraising. He read heavily about the broader issues affecting higher education and scanned the Harvard annual report. He followed the writings and careers of several presidents, including those at Oklahoma, the University of Michigan, and Princeton University.

“They had a broader view of the role of higher education in the world,” Jischke explains. “It wasn't narrowly the teaching of young people and doing research. They saw higher education as tools by which better societies were developed.”

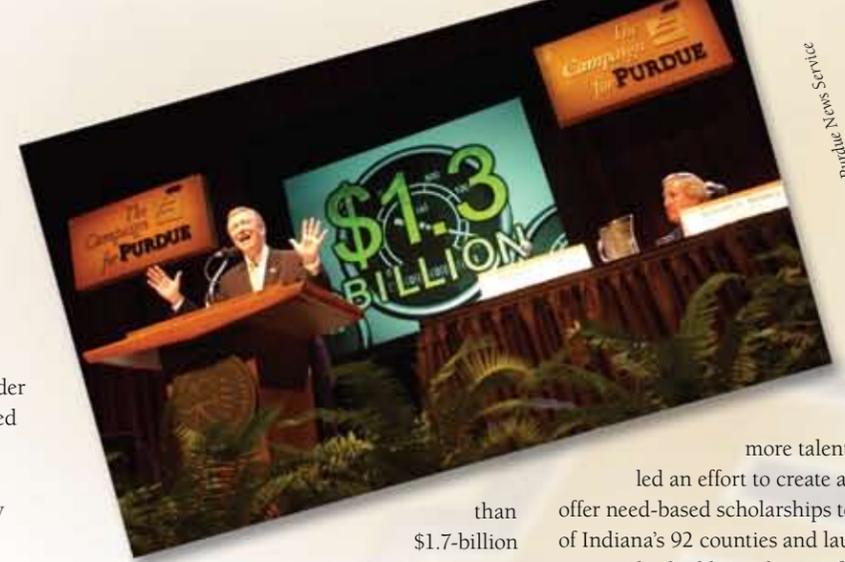
Other common traits were the ability to communicate clearly and passionately, whether through public speaking or position papers, and an understanding of finances and fundraising.

“Financial resources are inevitably a factor in achieving the broader mission,” he explains. “When it's all said and done, the best universities tend to be the best-financed universities.”

After a total of 17 years at Oklahoma—including five years as dean of the College of Engineering—he became the university's interim president in 1985. In 1986, he was named chancellor of the University of Missouri–Rolla, and in 1991 became president of Iowa State University. At both schools, Jischke beefed up scholarship programs and set new records for fundraising.

His successes at those colleges led to his high-profile presidency at Purdue. Arriving in 2000 as the school's 10th president, he set an ambitious agenda from the start, aiming to transform Purdue from a great university into a preeminent university while strengthening its ties to the larger economy in Indiana.

Jischke launched a five-year plan including a capital campaign that raised more



Purdue News Service

than \$1.7-billion and more than 50 capital projects. The centerpiece of the building initiative was Discovery Park, a \$400 million interdisciplinary hub focusing on everything from biosciences to manufacturing to health-care engineering. He also added 300 new faculty members with a strong emphasis on science and engineering.

A passionate advocate for attracting more American students to engineering, he was chosen by President George W. Bush for a seat on the President's Council of Advisors on Science and Technology in February 2006.

“Science and technology affect our country in so many ways, from its economic competitiveness to national security to the strength of its educational systems,” Jischke says. “It's a very, very important area for national policy and national investments.”

The council has devoted much of its time toward energy issues including the need to transition away from traditional fossil fuels, he explains. It also has studied the American research and development system, and science and technology issues affecting personalized medicine.

“These are all issues of great importance to the country,” he adds. “It's been a great honor to work with these very distinguished Americans to provide the president with carefully considered advice.”

Jischke backed his passion for science with initiatives that put a Purdue education within reach for more talented students. He

led an effort to create a new program to offer need-based scholarships to Purdue in each of Indiana's 92 counties and launched an effort to provide eligible graduates of the Indianapolis school system with four-year scholarships if they pursued a science-related major.

“Top-notch research facilities attract good faculty. Faculty, in turn, attract good students,” says J. Timothy McGinley, chair of the Purdue Board of Trustees, who notes the university recently named a biomedical engineering building for Jischke. “Martin was very successful at raising so much money, but it was all raised in service of a strategic plan on where to invest. A good part of the funds have gone into scholarships.”

At IIT, Jischke chairs the board's Academic Committee. Friends and colleagues say he brings more than an educator's background to the board.

“Martin understands we have a crisis in this country getting men and women into engineering,” says Peter Magrath, president of West Virginia University. “He knows we must get students energized and excited about math and science. They must be inspired, so they go to a great engineering college like IIT.”

Since leaving Purdue, Jischke has barely slowed down. In addition to the IIT board, he serves on the board of Wabash National Corporation, a manufacturing firm in Lafayette, Ind.; Duke Realty Corporation, a real-estate investment trust based in Indianapolis; and Vectren Corporation, a utility firm based in Evansville, Ind.

Additionally, he's involved in charitable work and has been consulting on higher-education issues in Ireland, Saudi Arabia, and Taiwan.

“Education is as important and powerful a tool for societal progress as it has ever been,” Jischke says. “Our ability to solve problems, to create opportunities, and to understand the world around us all hinge on education.” ■

IIT Alumni Presidents

Other IIT alumni who have risen to become college presidents include:

Gerald L. Bepko (LAW '65)
Former Interim President, Indiana University, Indianapolis
Chancellor Emeritus, Indiana University Purdue University Indianapolis (IUPUI)

Milton A. Gordon (Ph.D. MATH '68)
President, California State University, Fullerton, Calif.

Charles P. Guengerich (Ph.D. CHEM '76)
President, Wilbur Wright College, Chicago

Maryann Jones (LAW '82)
President/Dean, Western State University College of Law, Fullerton, Calif.

JOHN D. ROOT

HUMANIST AND HISTORIAN

By Ralph Pugh

IIT Archives is processing the papers of John D. Root (1940–2004), a professor of history who spent his entire academic career at IIT (1969–2001). This collection—which includes many photocopies of documents and publications on English Catholic Modernism that can be found in original form only in European archives—will be made available to the public in early 2009.

It's perhaps not surprising that a humanities professor would posit that "every military man should be a humanist." For John Root these words were more than a philosophical statement and borne of experience as a platoon leader in the Vietnam War. He lived and taught as a humanist, advocating for all IIT faculty and students, and lending his voice to campus issues that he viewed as a challenge to the integrity of the university.

Root received his B.A. from the University of Notre Dame in 1962 and his M.A. from Indiana University in 1964. From 1966–68 he served with the United States Army in Vietnam, attaining the rank of captain and receiving two Bronze Star Medals. Root's strong interest in modern history was given sharper focus by his wartime experiences.

In 1969, Root became an instructor of history at IIT and worked his way up to full professor in 1987. He was chair of the IIT Department of Humanities from 1983–1998, fighting for the retention of humanities programs and staffing in an era of cost cutting at a technology-focused university that would naturally seek to protect its basic posture in the sciences above all else. Yet, Root succeeded in saving the humanities agenda.

His academic specialty was Roman Catholic Modernism in the period 1885–1925, and on its face one would be hard pressed to find a subject more removed from the IIT curriculum. Root spoke to IIT audiences that were appreciative of his insights into the relationship between scientific and religious/spiritual truths. Although he suffered from multiple sclerosis, which prematurely aged and physically limited him in a university context—where being, or at least acting, young is almost a core requirement—his own physical disability made him a strong and convincing advocate for improved physical access at IIT for all who work and study at the university.

Finally, Root's service in Vietnam engaged his already sensitive and observant qualities and created a strong scholar of the American experience. Student-authored evaluation forms in the Root Papers testify to the powerful messages that Root delivered in his classes on the Vietnam War about the roles of power, history, culture, and personal responsibility in the implementation of policy. His publications included dozens of articles, book reviews, and conference papers.



Root was also deeply involved in university affairs beyond the humanities department. He was an officer of the Faculty Council, a pre-law advisor, and served on numerous university committees. He headed the committee that guided the creation of Paul V. Galvin Library in 1985. Root retained an office at IIT following retirement in 2001, and not long after his sudden death in 2004, his papers were transferred directly from his office to the IIT Archives, without being culled either by himself or any family members.

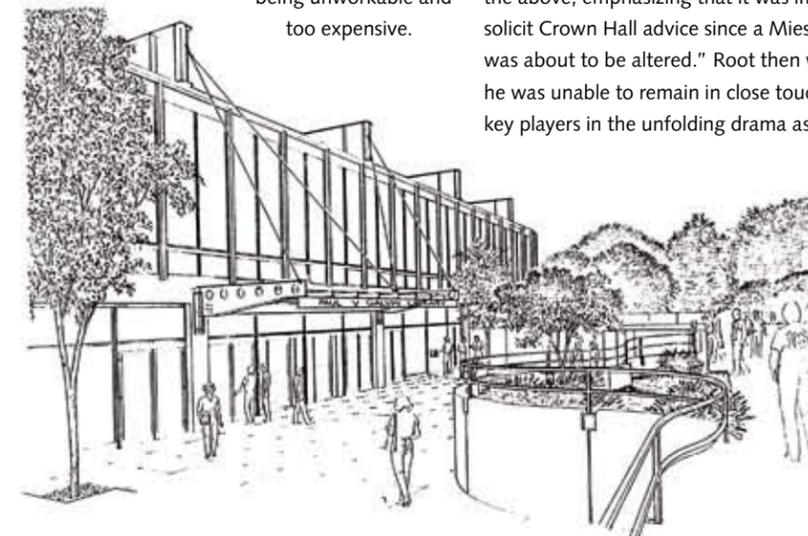
Root's papers provide a comprehensive overview of his entire career and demonstrate his care in documenting his various activities and communications, both within the IIT community and outside (with fellow scholars, particularly in the field of Catholic Modernism studies). The collection will serve as an important primary source for research into IIT's academic and administrative culture in the 1980s and 1990s, as well as for English Catholic Modernism. ■

Ralph Pugh is the assistant archivist and a history instructor at IIT.

THE "LIBRARY FIASCO"

A good example of Root's activism, observant nature, and history acumen is found in a file among his papers titled "Library Fiasco." Inside is a neatly typed, single-spaced, three-page "Chronology of the Library Canopy Saga, May–September 1985," in which he recounts the literal rise and fall of a post-Modernist canopy that was briefly installed above the entrance of Galvin Library in September 1985; it was removed within 48 hours after it went up, following protests that the canopy was incompatible with the strictly modern lines and angles of the Walter Netsch-designed building (1962). At that time, IIT had decided to sever its agreement with the John Crerar Library, which was a private library housed in what is now Galvin Library. Root's committee was charged with negotiating the termination of Crerar's tenancy and also discussing "the possibility of structural modifications to allow entrance directly to the main floor of the library" (Root Papers).

This idea was dismissed as being unworkable and too expensive.



By the beginning of 1985, Root had learned from campus authorities that the entrance to the library would remain on the ground floor but that a canopy would be erected over it. Under the date "17 May (Friday)," Root wrote, "By chance, I saw drawings in office of David Dowell [library director]. Upset that I and the Planning Committee had no previous knowledge. David told me that the final plan would be complete and contracts let by the following Tuesday. He told me that no one from Crown Hall [IIT College of Architecture] was involved."

Root immediately saw the possible political and aesthetic dangers in modifying one of the university's key Modernist buildings without involving the various stakeholders. "I also expressed amazement that the firm that had actually built the library (I believe Skidmore) had not been consulted," he wrote.

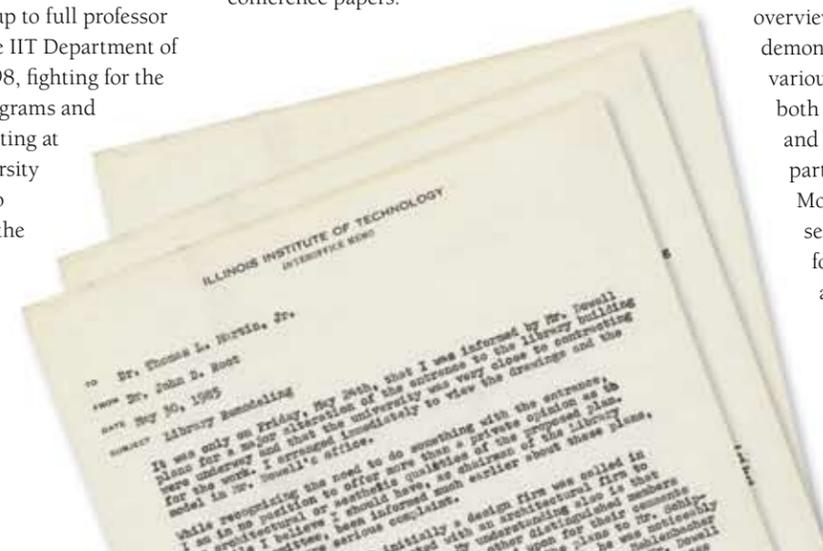
"30 May. I wrote to President Martin about the above, emphasizing that it was imperative to solicit Crown Hall advice since a Miesian building was about to be altered." Root then writes that he was unable to remain in close touch with the key players in the unfolding drama as he and

they had "conflicting travel schedules" over the summer months. "The library was out of my mind until 29 August, when Martin asked me to speak at the September 13th dedication."

"3 September (Tuesday). The day after Labor Day, the steelworkers began installing the canopy, and everyone on campus was shocked to see the very un-Miesian yellow, blue, and white beams, suspended by red cable.... That afternoon, Martin holds a meeting of his administrative staff, all of whom express general opposition to the canopy."

A decision to remove the canopy was taken on September 6, Root recorded, and on September 10 it was "removed by nightfall." "11 September (Wednesday): *Tribune* front page story with color photo. Also in *N.Y. Times* with photo. Other reporters flock to campus; all disappointed that the canopy was gone. I was interviewed by the *Washington Post* and the *Wall Street Journal*.

"Coda. In all this, my heart went out to the Galvin family. We all played it as straight as possible. As the canopy was coming down, the last pain [sic] was being applied to the interior. Black paint was applied to marred outside steel surfaces and the last letter of Paul V. Galvin's name was placed over the entrance at 4:15 p.m. on September 13th. At 5:00 p.m. the open house and touring of the 'new' library began. The black-tied and gowned guests sipped cocktails in the Faculty Club at 6:00 p.m., and the formal dinner in the ballroom began at 7:00 p.m. It was a splendid event, classy and carried off with class. No jokes, only praise for the good we had done for the past two and a half years."



ADRIAN NEMCEK

NEW PRESIDENT, IIT ALUMNI ASSOCIATION BOARD OF DIRECTORS



IIT is counting on the efforts of its newly re-established Alumni Association Board of Directors to strengthen its alumni network, so it makes sense that the university tapped a networks expert to lead this board. Okay, so the data and communications networks that Adrian Nemcek (EE '70) focused on during his career as president of Motorola Networks business were a little more technical than the peer community he's building at IIT. But Nemcek, now retired from Motorola, is excited about what the alumni board can do to draw IIT graduates together.

"In all great institutions, alumni have a strong sense of community and contact with each other and with the school from the time when they're a student to their professional experience and beyond," says Nemcek, who is a university trustee in addition to his roles as president of the Alumni Association and chair of the new board. "We're putting in place an alumni program that will help facilitate that community."

Step one is assembling a board that includes alumni from every school within IIT, every geographic region, and every era. As the school increases contact with more of its graduates and discovers more alumni success stories, Nemcek says the network will grow both stronger and broader.

"There's a vital connection between the alumni of an institution and the institution's strength, because alumni are a university's main output."



"There's a vital connection between the alumni of an institution and the institution's strength, because alumni are a university's main output," says Nemcek. "Many of our alums are very accomplished people, and it's so meaningful when they share their experience, insight, and knowledge."

As Nemcek connects with IIT alumni, he experiences more campus life than he did as a student in the late 1960s. He put himself through school, working nights at an area hospital and living with his parents to keep his expenses down. He praises the experience, but he is envious of the vibrant campus he sees at IIT now. So it's no coincidence that many of the programs and events he wants to emphasize through the Alumni Association, such as Homecoming (where he was grand marshal last year), and student mentoring programs, involve participating in campus life.

He's also working on attracting speakers for a lecture series that he hopes will draw an alumni audience. The university is excited and on board.

"Adrian understands that we have a unique and very interesting alumni population that is excited by intellectually stimulating programs," says Tara Singer, senior director of IIT's Office of Alumni Relations. With his help, "we're developing an alumni program that will represent their interests, concerns, and values, and we're figuring out the programs and services they want."

At Homecoming, for example, an alumni breakfast featured presentations from IIT research teams on their progress in emerging fields such as sustainability and hybrid-vehicle technology.

After a long career at Motorola, Nemcek is mastering a new kind of networking. "At Motorola, it was the technology side. This [IIT] is all about touching people—sharing information and letting them share back," he says. As IIT's alumni are responding to his efforts to strengthen their bonds with the university, the school and its graduates are reaping the benefits.

—Steve Hendershot

classnotes

1940s

Robert Lichtmann (CHE '45), Surprise, Ariz., is the founder of Covercraft Industries, Inc., a car cover manufacturing company.

Herbert S. Levinson (CE '49), New Haven, Conn., presented the IIT Armour College of Engineering Distinguished Lecture "Managing Success: Broadening the Perspective" on May 7, 2008.

1960s



▲ **Edward Linsenmeyer** (PHYS '66), Panama City, Fla., has been recognized with the Harold Metcalf Award for significant service to the Federal Laboratory Consortium, a nationwide network of federal laboratories that links innovative technologies with the American marketplace. Linsenmeyer is the technology transfer manager at Naval Surface Warfare Center Panama City Division.

Edward L. Erickson (MATH '68, M.S. '70), Pipersville, Pa., is the CEO of Y-Carbon, Inc., a nanotechnology startup company that produces nanostructured carbon materials with applications in various systems.

1970s

Carlton Dampier (BIOL '70), Chester Springs, Pa., has been named medical director for the Office for Clinical Research at Emory University School of Medicine. Dampier is a national expert in the study and treatment of sickle cell disease.

T. Jordan Gallagher (LAW '72), Sycamore, Ill., has been selected as an associate judge for the 16th Circuit Court of Illinois.

Robert J. Zagar (M.S. PSYC '75), Chicago, has been appointed to a special task force on violent youth by Chicago Mayor Richard M. Daley. Zagar's appointment is the result of his work with youth, to be published in a 14-article monograph in *Psychological Reports* entitled "Violent Youth: How to Find Them, What Works, and What It Costs."

Susan Solomon (CHEM '77), Boulder, Colo., has been honored with the Grande Medaille from the Institute of France's Academy of Sciences for her scientific achievements, including her pioneering work on the ozone hole and her leadership as co-chair of Working Group 1 for the recent Intergovernmental Panel on Climate Change assessment report. The medal is awarded annually to a French or foreign scholar who has made transformative contributions to science through personal research and international presence.

1980s

William H. Hooks (LAW '81), Chicago, was sworn in as a Circuit Court of Cook County judge on August 4, 2008.

Renee Kozimor (M.S. CHE '83), Hawthorn Woods, Ill., has been named director of software and user services for Oakton Community College.

John Swierk (B.A.C. ARCH '84), Prairie Grove, Ill., president and founder of Direct Design, Ltd., is celebrating the architecture firm's 20th anniversary. Swierk is also president and founder of Direct Steel, LLC and Direct Design Construction Management, Ltd.

MAJOR KEY

For a complete list of abbreviations for IIT's academic majors, visit www.iit.edu/magazine.

Felicia Williams (BA '84), Lakewood, Colo., has been named vice president of human resources for Endicott Interconnect Technologies, Inc., a supplier of electro/mechanical equipment and electronic interconnect solutions.

Share Your News!

We want to hear from you! Send us your class note at alumni@iit.edu.



▲ **Richard A. Pollock Jr.** (M.A.S. BA '86), Chicago, has a financial advisory practice associated with Ameriprise Financial. Pollock has been elected to the Union League Club of Chicago's board of directors and serves as chair of the club's technology committee.

Elizabeth M. Cummings (M.A.S. BA '88), Geneva, Ill., has joined PrivateBancorp, Inc. as chief operations officer.

1990s



▲ **Jason Gray** (B.A.C. ARCH '91, M.S. CE '93), Shiloh, Ill., has joined the Clayton, Mo., office of First Bank as a senior vice president and director of corporate real estate.

Catherine (Bertucci) Tojaga (ME '91), Itasca, Ill., is president of CT Mechanical, LLC, a mechanical contracting company that she began in February 2008.



▲ **Dawn Peterson** (B.A.C. ARCH, CRP '93), Rochester Hills, Mich., joined Neumann/Smith Architecture as a specifications writer. Peterson is a member of the American Institute of Architects and the Construction Specifications Institute.

Michael Lisak (LAW '95), Oak Park, Ill., has joined the Chicago office of Sidley Austin, LLP, where he continues to practice primarily in the area of pharmaceutical and medical device litigation.

Saurabh Verma (ME '95, M.S. MAE '99), Fayetteville, Ga., and his wife, Poonam, were married on March 4, 2002, in India.

Phillip Hatzopoulos (M.S. FMT '96), Park Ridge, Ill., has been named director of Equity Products—OTC for the Chicago Mercantile Exchange Group.

Paul Sorkin (LAW '96), Chicago, has been named president, CEO, and chair of Invicta Group, Inc., an Internet media company.

Rita M. Filiaggi (LAW '97), Chicago, has returned to the Chicago office of SmithAmundsen and serves as the co-chair of the Commercial Transportation Practice Group. Filiaggi had spent more than two years in Geneva, Switzerland, with the International Air Transport Association.

Craig Poulson (LAW '98), Silver Spring, Md., was on deployment to Iraq with the United States Navy and has since returned to the Washington, D.C. area.

Scott Settlemeyer (M.S. FMT '98), Peoria, Ill., is the co-founder and managing director of TerraCarbon, LLC, a company that facilitates carbon trading.

Nihad A. Kaiseruddin (CHE '99), North Wales, Pa., and her husband are avid triathletes and have two children, ages 5 and 3.

Christopher J. Walsh (Ph.D. CHEM '99), South San Francisco, Calif., has joined Genentech, Inc. as a patent counsel, protecting drugs through patents and assisting in startup partnerships.

2000s

Elias Soupos (ME '00), Bensenville, Ill., has joined the Chicago office of Leydig Voit & Mayer, Ltd., an intellectual property law firm, as an associate.

Arvid Johnson (Ph.D. MSC '01), Frankfort, Ill., has been named dean of the Brennan School of Business at Dominican University.

Mark Meeker (M.S. CS '04), Aurora, Ill., is the leader of the User Interface Engineering team at Orbitz Worldwide, which is responsible for building the presentation tier of the online travel platform for Orbitz and CheapTickets in the Americas and eBookers in Europe.

Kevin R. Miller (M.P.A. '07), Naperville, Ill., is the chief financial officer of Guerin College Preparatory High School.

Charity Morgan (LAW '08), Chicago, has received the Fleischman Family Award for Excellence in Criminal Clinic, established at IIT Chicago-Kent College of Law through Jack A. (LAW '87) and Sidney Z. Fleischman (LAW '87).

Meghan J. Paulas (LAW '08), Chicago, has received the Fleischman Family Award for Excellence in Criminal Clinic, established at IIT Chicago-Kent College of Law through Jack A. (LAW '87) and Sidney Z. Fleischman (LAW '87).

GUNSAULUS SOCIETY SUDOKU

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Charitable Gift Annuity

Age:	---
Rate:	---%
Amount:	\$ ---,000
Annually:	\$ ---
Quarterly:	\$ ---

Puzzled about estate planning?

If you're puzzled about estate planning, consider making a lasting impact at IIT through a charitable gift annuity. A charitable gift annuity provides the security of fixed payments for life to you or you and your spouse, and you gain additionally through immediate tax advantages. Regardless of age, you can create a plan to donate a portion of your estate to the programs at IIT that matter most to you. Whether you choose a gift annuity or other planned gift arrangement, you will be enriching IIT for generations to come.

IIT established the Frank Wakely Gunsaulus Society to recognize all those who have provided an estate commitment to the university regardless of type or amount—those who envision a bright future for a university dedicated to preparing students from all backgrounds to fill meaningful roles in an ever-changing society.

For more information about becoming a member of the Gunsaulus Society, contact **Catherine Marquis**, director of planned giving, at 312.567.5080 or cmarquis@iit.edu.



The first year of law school has a reputation: you study. You don't sleep; you don't see your friends. You study.

Unless you're **Billy Dec** (LAW '99). Then you study and open a nightclub. You're there every night until who knows when, and every morning you stumble into class on almost no sleep. When a professor asks you a question, you can't even talk around it like all the other aspiring lawyers who don't know. You just have to say it: "I don't know."

All the other students gasp.

But what are you going to do? The club is a hit. You try telling a professor you're sick, and he holds up a copy of the newspaper. There you are in a photo, cracking open a bottle of Cristal champagne with Michael Jordan. What are you going to say?

But soon the other students stop gasping and start asking questions. They're supporting you, helping you study—and you're doing well.

"They weren't really threatened by me," says Dec, who opened that first club, Solo, in 1995. "I don't think they thought I was going to become this dream-level attorney. But they seemed to live vicariously through me, asking me what happened the night before."

The movie *Forrest Gump* was still newish then, and Forrest became Dec's nickname at IIT Chicago-Kent College of Law, thanks to his growing collection of unlikely experiences.

There he was, appearing on an episode of "Friends." Then suddenly he was at Wrigley Field, throwing out the first pitch at a Cubs game.

As it became clear that Dec was becoming a bona fide nightlife superstar, the question became, "What are you still doing in law school?" But Dec had never seen the clubs as a profession and was drawn to the security and stability he thought a legal career would provide.

He completed his coursework in December 1998, graduated, and then passed the bar on his first try. Not surprisingly, right after that he was hospitalized for exhaustion.

He even tried law for a bit before he decided to concentrate on Chicago's entertainment industry. Now he's president of Rokit Ranch Productions, which operates a restaurant, the Rokit Bar & Grill, as well as the club Underground, which *Nightclub & Bar* magazine called "Best in the U.S." Another Rokit Ranch restaurant, Sunda, will open in 2009. Dec also moonlights as the host of "24/7," a nightlife show on WMAQ, Chicago's NBC affiliate; the show has been nominated for a Chicago Emmy.

Even as his star continues to rise, Dec finally has some free time. He goes to the zoo at least once a week. He travels; he's spent six weeks overseas this year in Japan, Cambodia, Vietnam, China, Hong Kong, Singapore, and Thailand. Ostensibly he was there to do research for Sunda, the restaurant, but there was also time to see the Great Wall, attend the Beijing Olympics with his friend David Schwimmer—Dec is on Chicago's 2016 Olympic committee—and indulge his passion for martial arts. (His introduction to the club scene came when his martial arts skills earned him a job as a bouncer at age 19.)

There was even room for a trip to Washington, D.C., last fall, where he was admitted to the Bar of the Supreme Court along with 36 other distinguished Chicago-Kent alumni.

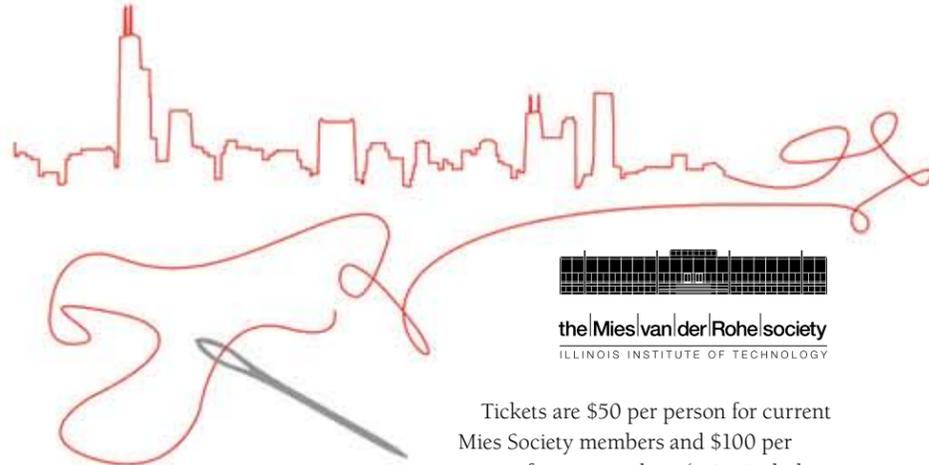
Finally, something to show for all that studying.

—Steve Hendershot

Life OF THE PARTY

It's Mies' Birthday!

Celebrate with the Mies van der Rohe Society at the annual birthday party for IIT's most influential architect. This year's party will be held on Wednesday, March 25 from 6–9 p.m. in S. R. Crown Hall. Local clothing designers will be paired with Chicago architects, including some alumni, to create new clothing inspired by signature buildings around town. At the party, models will show off the creations next to images of the featured buildings and other works by the participating architecture firms. The clothing will be sold via silent auction at the event. All proceeds will benefit the Mies Society.



Tickets are \$50 per person for current Mies Society members and \$100 per person for nonmembers (price includes a \$50 membership in the Mies Society). For more information, contact Kelly Hyman at 312.567.5025 or khyman@iit.edu.



IIT Alumni Awards

Join with other members of the Alumni Association to celebrate the accomplishments of 22 distinguished alumni at the 2009 IIT Alumni Awards ceremony on Friday, May 1, 2009. This year's award winners include noted philanthropists, distinguished scholars, and civic leaders. The awards ceremony will begin with a reception at 11 a.m. and will continue with a formal luncheon at noon in Hermann Hall. For more information or tickets, contact Cameron Watkins at 312.567.5040 or watkins@iit.edu.

Upcoming Alumni Events

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

Spring Career Fair Thursday, February 12, 2009

noon–4 p.m.
Hermann Hall, IIT Main Campus
For more information, contact the Career Management Center at 312.567.6800 or cmc@iit.edu.

Thirsty Thursday at Jimmy Fig's Thursday, February 12, 2009

4–7 p.m.
160 N. Franklin Street, Chicago

Rice Campus Speakers Forum Thursday, February 19, 2009

For more information, contact Barb Kozi at 630.682.6040 or kozi@iit.edu.

Rice Engineers Week Open House Saturday, February 21, 2009

For more information, contact Barb Kozi at 630.682.6040 or kozi@iit.edu.

IIT at the Pentagon

Tour, reception, and program featuring President John Anderson
Tuesday, February 24, 2009
Washington, D.C.

Thirsty Thursday at Jimmy Fig's Thursday, March 12, 2009

4–7 p.m.
160 N. Franklin Street, Chicago

Mies' Birthday Party Wednesday, March 25, 2009

6–9 p.m.
S. R. Crown Hall, IIT Main Campus
For more information, contact Kelly Hyman at 312.567.5025 or khyman@iit.edu.

Thirsty Thursday at Jimmy Fig's Thursday, April 9, 2009

4–7 p.m.
160 N. Franklin Street, Chicago

Third Annual Karl Menger Lecture and Award

Featuring Richard Durrett from Cornell University
Monday, April 20, 2009
For more information, contact Patty Cronin at 312.567.3132 or cronin@iit.edu.

American Institute of Architects Convention

IIT Alumni Reception
Thursday, April 30, 2009
San Francisco

Alumni Awards Luncheon and IPRO Day Friday, May 1, 2009

Reception at 11 a.m., lunch at noon
Hermann Hall, IIT Main Campus

Start of Alumni Holiday International Alumni Campus Abroad Program Sunday, May 3, 2009

Chianti region of Italy
www.iit.edu/alumni

Thirsty Thursday at Jimmy Fig's Thursday, May 14, 2009

4–7 p.m.
160 N. Franklin Street, Chicago

IIT Commencement Saturday, May 16, 2009

Gunsaulus Society Sudoku Answers:
Age: 65; Rate: 57; Amount: 25; Annually: 1,425; Quarterly: 356

Golden Alumni Society Reunion



Members of the Class of 1958 pose for a photograph at the Golden Alumni Society Reunion and Induction Ceremony, held September 19, 2008. The event recognized members' 50th anniversary of their graduation from IIT.



Inra and Ivars Antens (PSYC '58, M.S. '62) show off his Golden Alumni Society Medallion.

Inaugural Darsh T. Wasan Lecture



[Left to right] Darsh T. Wasan, vice president of international affairs, shakes hands with David Edwards (Ph.D. CHE '87) and visits with IIT President John Anderson after Edwards gave the inaugural lecture in the Darsh T. Wasan Lectureship Series, held September 19–20, 2008.

Homecoming 2008



Many students, faculty, staff members, and their families participated in the 2008 Homecoming carnival and golf cart parade.



Career Services for Alumni

If this uncertain economy has placed you in the position to explore new career options, keep in mind that IIT's Career Management Center (www.cmc.iit.edu) is committed to serving as a lifelong career resource to all IIT graduates. Alumni may use the eRecruiting online job database, attend career fairs, and participate in career services workshops. The next IIT Career Fair is scheduled for February 12, 2009, from noon–4 p.m. in Hermann Hall. The fall 2008 career fair had more than 150 employers represented, and a similar number of employers are expected to attend the spring fair. For more information, contact the Career Management Center at 312.567.6800 or cmc@iit.edu.

If you are instead considering a return to school for additional training or studies in a new field, know that IIT provides select tuition discounts for graduates. Alumni registering as part-time undergraduate students are permitted to register for one course offered by IIT each semester at a cost of one-half the current tuition rate. Alumni registering as part-time graduate students receive a one-third reduction of the tuition charges for one course. Please note that alumni registering as full-time students or in an IIT Chicago-Kent College of Law degree program are not eligible. This benefit does not apply to short courses, special programs, research and thesis hours, and noncredit courses. For more information about this program, please contact the Office of the Bursar at bursar@iit.edu or visit <http://bursar.iit.edu>.

obituaries

William Wilson Parks CE '44, Glenview, Ill. IIT Life Trustee



An avid sailor for all his life, William “Bill” Parks continued to participate in his longtime passion—Star Class boat sailing—into his 80s. His involvement in the sport was extensive. Parks won a bronze medal for Star Class sailing in the 1960 Olympics in Rome and judged the event at the 1984 Olympics in Los Angeles. Among the positions he held were president of the International Star Class Yacht Racing Association (ISCYRA), commodore of the Chicago Yacht Club, certified international judge and president of the International Yacht Racing Union (now the International Sailing Federation), and certified judge of the United States Sailing Association. Besides his Olympic medal, Parks received many other sailing awards over his lifetime.

According to the ISCYRA, Parks used his engineering know-how to make valuable contributions to the Star boat sport as chair of the association's technical committee for the first five years of its existence. In addition to a civil engineering degree from IIT, Parks obtained an M.B.A. from the University of Chicago. After two years as a United States Navy lieutenant serving in the construction battalion (1944–46), Parks joined Swift & Company for one year, then entered into his career with Vapor Corporation, a manufacturer of transportation specialties and systems, from which he retired as president in 1987. Parks was very active at IIT, serving on many committees, and in 1985, received an Award of Merit. He was elected an IIT trustee in 1973 and a life trustee in 1991.

Parks is survived by his wife, Joan Simpson Parks; his daughter, Julia Parks-Soxman (with his first wife, Mary Patricia “Pat” Harden Parks, who preceded Parks in death); and his brother, Richard R. Parks (ME '47).

R. Ogden Hannaford ARCH '47, Oberlin, Ohio

A few years after graduating from IIT College of Architecture, R. Ogden Hannaford began working in the Chicago office of Ludwig Mies van der Rohe and served as his representative on the construction site of 860–880 Lake Shore Drive. After working four years with Mies, Hannaford set up an independent architecture practice and formed a three-year partnership with Chicago architect Y. C. Wong. Hannaford returned to the college in 1960 and served as a faculty member until his retirement in 1986. He was exchange professor at Robert Gordons Institute of Technology in Aberdeen, Scotland, in 1981, and held the same position in 1985 at Huazong University of Science and Technology in Wuhan, China. His collaboration with Werner Blaser and Monica Stuckey in 1983 resulted in the book *Drawings of Great Buildings/Zeichnungen grosser Bauten*, which featured drawings by Hannaford's students. For many years, Hannaford was active in the Quaker community and held a variety of roles with Chicago, regional, and national Friends' organizations.

Hannaford is survived by his wife of 55 years, Mary; a son, Blake (Cynthia), of Seattle; a daughter, Katharine, of Chicago; a sister; two grandchildren; and numerous nieces and nephews.

Richard A. Valentin ME '59, Western Springs, Ill.

Richard A. Valentin was employed at Argonne National Laboratory for 38 years, where he served as senior engineer and associate division director, before retiring in 2003. After graduating from IIT, Valentin went on to obtain master's and doctoral degrees in applied mathematics from Brown University and an M.B.A. through the Executive Program at the University of Chicago. Valentin was a member of the Tau Beta Pi engineering honor society and the Pi Tau Sigma international mechanical engineering honor society at IIT, and remained active at the university through his membership on the Rice Campus Board of Overseers. He was also active in his religious community at All Saints Episcopal Church.

Valentin is survived by his wife of 44 years, Anne (Youngdahl) Valentin (LING '60), two sons, and a grandson.

Michael T. McNamara CS '72, Baden, Pa.

Michael T. McNamara had more than 33 years of experience in managing technical centers, 25 of which were in executive management for One Call Systems, Inc. (OCS), a company he began in 1984. OCS provides one-call operation services, hardware, software, and system integration to assist utility companies in preventing damage while digging underground. McNamara was instrumental in expanding OCS centers in Iowa, New Jersey, Pennsylvania, and Wyoming. Besides his work with OCS, McNamara served as vice president of Eastern Operations for United Information Services (now Sprint), director of the Chicago Data Center for United Computing Systems, and center manager for ITEL Utility Data Services. He was also a committee member of the Common Ground Alliance of the United States Department of Transportation.

McNamara's wife, Karla Witt McNamara (Ph.D. PSYC '75), recalls that her husband was a winning handball and tennis player while at IIT, and enjoyed chess, which he played at the tournament level. “He was a brilliant mathematician with a sense of humor a mile long, and last, but not least, he was known for his integrity and compassion,” she says. In addition to his wife, McNamara is survived by his daughter, Marissa, sons John and Michael, and three brothers.

Timothy James Smith ME '85, M.B.A. '94, Plainfield, Ill.

As an IIT student, Tim Smith was a member of an elite group of undergraduate athletes: the 1984–85 championship Illinois Tech Hockey Team. Smith continued playing hockey recreationally with the Duffers Hockey League and in March 2008, shared his sports leadership skills in an IIT alumni charity hockey game against Chicago Blackhawks alumni, with proceeds benefiting the Illinois American Diabetic Association. Besides hockey, Smith enjoyed watching “Seinfeld” and “Doctor Who,” was a Chicago Bears and Chicago Cubs fan, and had the opportunity to do some comedy writing for The Second City. Smith formerly served in the rank of lieutenant as a pilot in the United States Navy and was a midshipman advisor and instructor for the IIT Naval Reserve Officer Training Corps from 1991–94.

Smith is survived by numerous family members, including his wife, Gabrielle; their children, Alexandra, Catherine, James, and Nevin; his mother, Kathleen; his brother, Daniel; and his sister, Lynne.

in memoriam

Joseph D. Fernbach
EE '33
Melbourne Beach, Fla.

Roscoe L. Barrow
ARSC '36
Roseville, Calif.

Fred L. Leason Jr.
ME '37, M.S. BEA '55

Louis Ceithaml
ME '44
Harleysville, Pa.

Edward M. Landa
CHE '44
Los Angeles

By Marcia Faye



THE RIDE OF A LIFETIME



[Left to right] Then IIT graduate student Thomas Morel, along with T. Paul Torda, Krishna Pandey (M.S. ME '69), and Sarunas C. Uzgiris with a model of the Blue Flame in a photo taken by Joseph Sterling

In 1965, Dick Keller, a former Institute of Gas Technology (IGT) employee, Ray Dausman, and Pete Farnsworth formed Reaction Dynamics, Inc., a three-person partnership with one purpose: to design a rocket-propelled car that would break the land speed record—the fastest speed attained by a wheeled vehicle on land, as opposed to on water, in the air, or on rails. The trio eventually developed a rocket-propelled dragster called the X-1, which gained a formidable reputation on the drag strip circuit. With this achievement, the men approached Keller's former employer and IIT affiliate IGT in the hopes that the natural gas industry would sponsor the creation of a vehicle capable of breaking the land speed record.

IGT was interested in the group's idea and solicited enthusiastic support from industry leaders. With this vote of confidence, Reaction Dynamics asked T. Paul Torda, a professor in IIT Armour College of Engineering's Department of Mechanical, Materials, and Aerospace Engineering (MMAE), to serve as consultant on the car, named the Blue Flame in homage to its

natural gas roots and liquefied fuel component. Torda agreed and enlisted the help of Sarunas C. Uzgiris (M.S. ME '63, Ph.D. MAE '66), assistant professor, along with a team of eight graduate students and four senior undergraduate design classes. Thomas Morel (M.S. ME '69, Ph.D. '72), president and founder of the engine software firm Gamma Technologies, Inc., was among the group of graduate students, and he was tasked with the aerodynamic design.

"I came to IIT from Czechoslovakia in January 1968 with almost no money in my pocket," says Morel, not realizing the rich adventure that awaited him only two months down the road, or more literally, the salt flats. "Professor Andrew A. Fejer, then chair of the MMAE department, was kind enough to help me get support for my studies." Fejer introduced the talented student to Torda, who assigned Morel the task of determining the shape of the Blue Flame. With much encouragement from his mentor and information on declassified rocket designs obtained from National Advisory Committee for Aeronautics reports, Morel embraced his role

in the project, which formed the basis of his master's thesis.

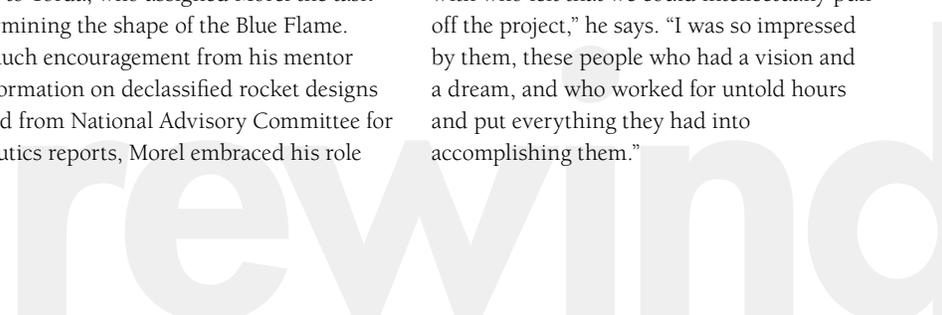
The IIT team knew that the Blue Flame had to have a low drag to attain the high speed needed to beat the 600.601 mph record, set in 1965 by Craig Breedlove. "While we knew that we had to achieve the lowest possible air resistance, we were also concerned about the generation of lift," explains Morel. "The lift had to be minimized, and in fact we wanted it to be slightly negative. That was one of our worries—that at high speeds the car would lift off and when it came down, could hurt the driver." This led to a design with a specially designed nose for low drag, triangular body shape, and slight nose-down body inclination.

Finally, the day arrived when the team knew it had a winner on its hands. "Once the shape was designed, we tested a model in an aeronautical wind tunnel at Wichita State University and determined that we should have low enough drag to be able to break the world record. We then took a smaller-scale model to a supersonic wind tunnel at Ohio State University and confirmed the drag and lift characteristics at speeds up to Mach one," says Morel.

Longtime speed racer Gary Gabelich jumped at the opportunity to drive the Blue Flame. A former test astronaut for North American Aviation, Gabelich had been racing vehicles since high school and was no stranger to Bonneville Salt Flats, where the 38-foot Blue Flame would be put to the test. On October 23, 1970, within only a small window of time before the weather would make racing impossible, Gabelich took the Blue Flame through its two mandatory runs and surpassed Breedlove's land speed record by 21.8 mph.

Though Morel was not present on that momentous day at Bonneville, the Blue Flame—on permanent exhibit at the Auto & Technik Museum in Sinsheim, Germany—will always occupy a special place in his memories of IIT. While the Blue Flame served as a testament to the versatility of natural gas and received wide media coverage, Morel says that there is something more he will remember than the excitement of helping to design an elite machine.

"I enjoyed all of the people I was working with who felt that we could intellectually pull off the project," he says. "I was so impressed by them, these people who had a vision and a dream, and who worked for untold hours and put everything they had into accomplishing them."



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If you know of others who share your passion for innovation and technology, we invite you to refer them to us. Please contact Gerald P. Doyle, vice provost, undergraduate admission and financial aid, at 312.567.5203 or doyle@iit.edu.

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Going Places

with the IIT Alumni Association



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Take You There in 2009!*



Alumni Travel Programs

Visit Tuscany in May

Travel with the IIT Alumni Association and Alumni Holidays International to experience warm Tuscan hospitality and breathtaking views at a villa in the heart of the Chianti region. Learn about making wine, visit the hill town of Castellina, and absorb the incomparable ambience in Florence. The tour lasts for eight days and begins on May 3, 2009. Tour prices begin at \$2,490 per person.

Tour the Yangtze in October

Alumni Holidays International and the IIT Alumni Association are offering a tour of China and the Yangtze River. This is a great chance to marvel at Beijing's Imperial Palace and Great Wall, as well as to cruise the scenic Yangtze River. The tour will begin on October 7, 2009, with prices beginning at \$2,950 per person.

More information about the Alumni Travel Program may be found at www.iit.edu/alumni.

Service Trips

Join IIT students on overseas service trips.

Work in Haiti This March

Alumni can join Engineers Without Borders and IIT Haiti Outreach on their spring break trip (week of March 16) to install solar panels on a school, all under the direction of an engineer-expert, and to survey new projects for future trips. The approximate per person cost is \$1,500, which includes transportation, housing, and food for one week.

Visit Colombia with an IPRO Team This May

Join Professor Kevin Meade (MAE '74, M.S. MATH '78) and his IPRO team as they travel to Colombia to perform volunteer work at a scoliosis clinic. The clinic is modeled after the Mayo Clinic, and the team is dedicated to alleviating symptoms of scoliosis without surgery. Participants are responsible for their own travel and expenses.

For more information about alumni service trips, contact Marian Quirk at 1.800.448.2586 or quirk@iit.edu.