

SPRING 2020

ILLINOIS TECH

Magazine



Ankur Jain:
BYOInnovation

Shattering (Conventional) Glass

Letter from the President



PHOTO: DAVID ETTINGER

THIS PAST JANUARY, when the coronavirus began to change our world as we know it, Illinois Institute of Technology found ourselves doing what have done best since 1890—providing our students with a world-class education—only this time with the added challenge of ensuring a heightened level of safety for our community during a global pandemic. Our successes since then have been thanks to the efforts of each dedicated member of our university community working together, whether on campus or remotely. Each of us has shown what it means to be an active, conscientious, and contributing member of something bigger than ourselves.

The graduates as well as the rest of our student body shifted to online learning for the duration of the semester after spring break. Our faculty demonstrated an uncommon commitment in their coursework delivery; the feedback from our students was overwhelmingly positive even though they had to sacrifice their traditional campus experience. On May 16 the Class of 2020 had a virtual Commencement, yet another unprecedented change.

Many of our campus staff regularly train and plan to respond to a range of crises, and in recent years, one of our training exercises focused on a disease outbreak. This planning and training rendered our leadership team better prepared to respond quickly and appropriately to COVID-19. We were able to safely shelter hundreds of students on Mies Campus who

were unable to return home this spring. Many campus facilities and maintenance staff, public safety officers, and food and custodial partners continued to report to work to take care of these students. Their extraordinary care of our students is deeply appreciated.

Many alumni, too, have continued to support Illinois Tech during the pandemic by contributing to the Hawks 4 Hawks Hardship Fund. This program provides direct financial assistance to Illinois Tech students in crisis situations with 100 percent of the funds helping students facing unexpected hardships.

While we cannot predict the future, at Illinois Tech we are ready for the future, no matter what it may bring. Thank you for your support, which provides us a great deal of confidence in the months ahead. While we expect and are planning to welcome students to campus in-person for the start of the 2020 fall semester, what we know for certain is that the Illinois Tech student experience will continue to be rigorous and rewarding. After all, it is in the collective DNA of the Illinois Tech community to contribute to something bigger than itself.

Sincerely,

A handwritten signature in black ink that reads "Alan W. Cramb". The signature is written in a cursive, slightly slanted style.

Alan W. Cramb

Vice President for External Affairs

Jess Goode

Managing Editor

Marcia Faye

Director of Content

Chelsea Kalberloh Jackson

Editorial Contributors

Andrew Connor
Joseph Giovannetti
Steve Hendershot
Linsey Maughan
Casey Moffitt

Art Direction

Scott Benbrook

Design

Scott Benbrook
Joseph Goforth
Travis Rothe

Photography

Olivia Dimmer
David Ettinger
Tim Klein
Scott Murry

Copyeditor/Writer

Andrew Wyder

Web Edition

Peter Beltemacchi
Abbey Vargas

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Send Letters to *Illinois Tech Magazine*

Office of Marketing and Communications
10 West 35th Street, 13th Floor
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or email illinoistechmagazine@iit.edu
Send alumni news to alumni@iit.edu

Illinois Institute of Technology, also known as Illinois Tech, is a private, technology-focused research university. Based in the global metropolis of Chicago, Illinois Tech is the only university of its kind in the city. It offers undergraduate and graduate degrees in engineering, science, architecture, business, design, human sciences, applied technology, and law.

One of 21 institutions that comprise the Association of Independent Technological Universities (AITU), Illinois Tech provides an exceptional education centered on active learning, and its graduates lead the state and much of the nation in economic prosperity. At Illinois Tech students are empowered to discover, create, and solve, and thus uniquely prepared to succeed in professions that require technological sophistication, an innovative mindset, and an entrepreneurial spirit.

Mission Statement

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

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College of Architecture
College of Science

Institute of Design
Lewis College of Human Sciences
School of Applied Technology
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Features

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16 Planned Parenthood of Illinois head **Jennifer Welch** (LAW '94), "a systems-level thinker," leads the organization with compassion and empathy.

22 A success in fields from robots to biomedical startups, **Christopher Jones** (AE '07, Ph.D. BME '14) gets into "cool" projects—especially ones that allow him to be creative and apply his tech know-how.



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On The Cover:
Ankur Jain (CS '03) is founder of India's largest craft brewery, Bira 91. Photo: Courtesy of Ankur Jain



New College of Computing to Anchor Computation and Data Activities



PHOTO: DAVID ETTINGER

A HUB FOR ADDRESSING A variety of interdisciplinary computational research and educational needs. Degree programs in artificial intelligence. Collaborations with experts around the United States on how to develop a faster and more secure internet. These are just some of the projects that will take place under Illinois Institute of Technology's new College of Computing, which opened on June 1. Besides the Department of Computer Science, the College of Computing, headed by current College of Science Dean Lance Fortnow, will house the departments of information technology and management, and applied mathematics, as well as the industrial technology and management program.

"Illinois Tech is already providing students with a very strong foundation in computation and data skills, but now we are going to do it in an integrated way across all academic

disciplines, something we believe has never been accomplished in a comprehensive university with law, architecture, and the full range of disciplines," says Illinois Tech President Alan W. Cramb.

The formation of the college aligns with the university's commitment to invest in the area of computation and data, a designated university research initiative. It also supports the priority to "fully realize our identity as the premier technology-focused university in Chicago," as stated in *Our Students and Their Success Comes First: A Strategic Plan for Illinois Tech, 2020–2025*.

Illinois Tech Trustee Chris Gladwin helped to spearhead the push for a College of Computing to meet the needs of the twenty-first century labor force. Gladwin founded big-data storage company Cleversafe, which was housed at Illinois Tech's University Technology

Park before it was sold to IBM.

"For years, Illinois Tech has been a key driver of the Chicago economy by empowering its graduates with the skills needed to succeed in tomorrow's industries," says Gladwin. "This leading approach to computing education is a key component in Illinois Tech establishing itself as a global top-tier tech university and empowering Chicago to advance to a global top-tier tech city."

ACT Center a Computational Campus Hub

Chris Gladwin was also instrumental in establishing Illinois Tech's Active Computational Thinking (ACT) Center, now under the College of Science umbrella, through a gift he made two years earlier to the Department of Computer Science. Headed by Research Professor Anita Nikolic, a notable cybersecurity expert, the ACT Center will incorporate thematic elements into computational thinking. For example, the center has made artificial intelligence its first theme. Therefore, any department across campus looking to collaborate on projects incorporating computational AI into its research or curriculum can contact the ACT Center, and many have.

"We envision the ACT Center as a new kind of intellectual accelerator here at Illinois Tech," says Shlomo Argamon, interim chair of the Department of Computer Science. "The center's mission is to stimulate and support faculty to develop a wide variety of creative interdisciplinary

initiatives and bring computational thinking to the fore in all disciplines.”

Nikolich says that the center will physically connect the campus to additional scientific research facilities and national scale networks through a robust cyberinfrastructure, and will eventually join larger communities, including the Midwest Big Data Hub, a National Science Foundation-funded regional program. It will also become active in advancing computer science in big data, high-performance computing, and AI.

New AI Degree Programs Now Offered

“AI is the future,” says Aron Culotta, an associate professor of computer science and director of Illinois Tech’s new Bachelor of Science in Artificial Intelligence program, which made its debut last fall along with the Master of Science in Artificial Intelligence program. “We want to train a workforce that can tackle the challenges and opportunities of the future, which includes AI and machine learning.”

Illinois Tech is one of only a handful of universities in the country to offer an AI bachelor’s degree, and the only one in the Midwest to do so. Graduates in the programs will be well prepared to work across the tech, medicine, finance, robotics, business intelligence, law,

and insurance sectors in software development positions as well as in AI engineering careers in drug discovery, autonomous vehicles, and web technologies. Given the university’s long history as an ethics leader through the Center for the Study of Ethics in the Professions, the new AI degree program has integrated ethical thinking into its technical courses, which affords critical training in issues of algorithmic fairness, transparency, and bias.

Devyani Gauri (AI 3rd Year) is happy that the timing of the new program has now worked in her favor.

“Ever since I started studying at Illinois Tech, I wanted to do something that involved AI,” she says. “Even though we didn’t have it as a major, AI has been one of my biggest interests in fields related to computer science. I wanted to dive in as soon as possible.”

Developing a Faster, More Secure Internet with FABRIC

ACT Center head Anita Nikolich has been tapped to co-direct a project, also under the College of Computing, that will enable scientists to explore what a new internet could look like and to determine the internet architecture of the future.

The FABRIC [Adaptive Programmable Research Infrastructure for Computer Science and Science Applications] project, led by the University of North Carolina at Chapel Hill in partnership with Illinois Tech, Clemson University, the University of Kentucky, and the United States Department of Energy’s Energy Sciences Network, will allow experimentation with decentralized, “everywhere programmable” architectures instead of relying on current service providers’ networks. It will test these architectures on a nationwide scale, using dedicated high-speed optical links between



ACT Center head and FABRIC co-director Anita Nikolich

locations. This could potentially enable faster speeds, allow transfers of larger data sets, and provide service to underserved areas lacking networks. The project also includes finding new ways to protect information that is transferred across the network.

The computer networking architectures that form the basis for today’s internet were developed from the 1960s through the 1980s, and haven’t changed much since. In that time, however, public demands have changed drastically. FABRIC is testing new network designs that could overcome current internet traffic bottlenecks and extend the internet’s broad benefits for science and society. —Casey Moffitt, with Marcia Faye

FABRIC is being funded by a \$20 million grant from the National Science Foundation.

MORE ONLINE
FABRIC: fabric-testbed.net



ILLUSTRATION: MAXIM EVSEEV

Illinois Tech Headliners



“There is no oops. We need compensation.”

Chicago-Kent College of Law Professor **Bernadette Atuahene**, in a *Detroit News* article on the continued problems of the city’s over-assessments on homeowners

“That’s a waste of paint, a waste of time, a waste of resources.”

Sammy Tin, Armour College of Engineering professor of materials engineering, in a CBS2 Chicago story about a deteriorating light pole that fell on a woman walking past the James R. Thompson Center in Chicago’s Loop

Enhanced Web Presence



In December 2019 Illinois Institute of Technology launched a redesigned website with the goal of enhancing the site’s appeal to prospective students. By Febru-

ary of this year, prospect requests for information had increased by 150 percent. More visible “Request Info” buttons on each page of the new website make it easier for potential students to navigate and obtain the information they need. The homepage bounce rate, which is the percentage of visitors to a particular website who navigate away from the site after viewing only one page, decreased to 35 percent from 43 percent recorded in January 2019. The recent figure is well below the industry average of 57 percent.

Over 2020 the build-out will continue, with pages highlighting institutes, administrative offices, and research centers and laboratories being added.

View the redesigned website at iit.edu



Keeping Illinois Tech Safe: COVID-19 Update

WEEKS BEFORE THE FIRST CASE of the new respiratory virus 2019-nCoV, now widely known as COVID-19, was reported in the Chicago area on January 24, Illinois Institute of Technology leadership was behind the scenes, monitoring the campuses and coordinating efforts with officials from the Chicago Department of Public Health as well as state and national authorities.

Since that time President Alan W. Cramb, Provost and Senior Vice President for Academic Affairs Peter Kilpatrick, and various other members of the campus leadership team have updated members of the university community about how Illinois Tech is keeping its community safe. In early March both Cramb and Kilpatrick addressed the community via video and the Office of Marketing and Communications launched a coronavirus (COVID-19) website with helpful links ranging from remote work tips to faculty resources for research to available services for students living on campus.

As is the case with institutions of higher learning around the world, Illinois Tech moved all academic classroom instruction online, which began on March 23, the first regularly scheduled day of classes following

spring break. Additionally, grading for any courses taken by undergraduates during the spring semester was moved to the pass/fail system. Observing public health guidance and best practices from peer institutions, the decision was made to cancel the in-person, on-campus 2019–2020 commencement ceremonies, both the university-wide Commencement Ceremony and all individual college-level ceremonies. A virtual celebration took place on May 16, when all degrees were conferred by college. Graduates will be invited to attend the May 2021 Commencement Ceremony.

In one of his updates to campus staff, Cramb expressed his pride in the Illinois Tech community.

“I would like to thank each of you for the incredible resolve, diligence, and concern that you have shown during this challenging time. Our university is a special community, dedicated to the idea that we can advance Chicago and the world by making a rigorous and quality education available to all who seek it. This commitment to our students is what unifies and connects us. It makes us unique, even among other universities,”

he said. —**Marcia Faye**

Easing the Burden

Could good design solve Chicago's longstanding problems with unfair ticketing practices?

AN INSTITUTE OF DESIGN STUDENT TEAM LED BY VISITING Industry Professor Mark Jones (M.Des. '95) is proposing new innovations that could provide economic relief to low-income citizens burdened by parking ticket debt.

During the fall 2019 semester, Jones and 18 students worked with Chicago City Clerk Anna Valencia as part of the Fines, Fees & Access Collaborative, a group composed of city departments, community groups, elected officials, and academic institutions. The collaborative was formed in response to a series of news reports in 2018 detailing the extent to which Chicago's parking and city sticker ticketing practices have a disproportionately negative economic effect on low-income residents.

"Having academic partners pushes us to think outside of the box. That's especially from the user end, which I think is really important for the government to look at more," says Valencia.

Jones's students interviewed roughly 60 residents to learn about their interactions with the city in regard to parking tickets. They found many vocal residents who bemoaned a lack of clear and easy-to-access information from the city. The ID team devised a suite of solutions to improve communication between the city and citizens. One example is a "Tailored Ticket Roadmap," an online portal that graphically breaks down how much money an individual owes and important dates—for contesting or when a ticket may double, for example—to offer residents a better sense of how to approach their debt.

"The current ticket system is such that each ticket is its own entity. People with multiple tickets can't get a sense of the bigger picture. This is a response to what we heard from people dealing with the city systems," says Jones. "As good designers, [the students] responded with something easier to navigate and understand."

Similarly, the team proposed a text-alert system, where residents can text the city to receive reminders about when they need to move their cars in certain parking zones, alleviating issues with confusing or unclear signs, or even simple forgetfulness. Meanwhile, a "mobile lawyer" program could provide unfairly ticketed individuals—especially individuals without resources to challenge a ticket—with guidance on how to contest.

For Chicago to completely revise its ticketing practices, it will need to continue on its trajectory of instating policy reforms and ordinances. Still, Jones and Valencia believe clearer and more accessible communications can ease the burden on lower-income citizens and help restore trust between city hall and Chicagoans.

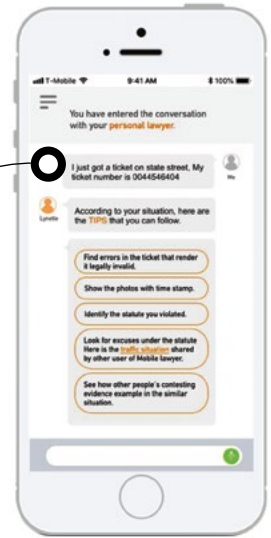
"The solutions the students came up with are a mixture of preventative measures, and those that say, 'if we made a mistake, we want to help fix it,'" says Jones. "I think those are both good approaches that would say that the city is trying the best it can."

—Andrew Connor

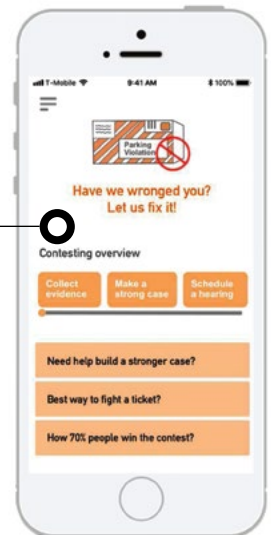
How It Works

ID's Mobile Lawyer in Action

Step 1:
Beginning the contesting conversation with your personal lawyer



Step 2:
Contesting overview



Step 3:
Your evidence





Renderings [above and below] of the soon-to-be-rededicated George J. Kacek Hall

Leading by Gracious Example

The restoration of the former Bailey Hall is focused on student success. Designed by award-winning architect and alumnus Dirk Denison (ARCH, M.B.A. '83), the soon-to-be-rededicated George J. Kacek Hall offers comfort, stunning views, and space for study and sociability in a way that honors the building's distinct, historical qualities—the original building was designed by Ludwig Mies van der Rohe and completed in 1955—while innovating for the way students live, study, work, and socialize in the twenty-first century.

Named for George J. Kacek (EE '54, M.S. '55), Kacek Hall will offer students space to

achieve all of this and more when it opens this fall, with an emphasis on community, spectacular Lake Michigan and Chicago skyline views, and graciously simple design. —**Joseph Giovannetti**



Shared Space

On the north side of each residential floor, a study lounge encourages cooperative learning, accompanied by inspiring views of the Chicago skyline.

On the south side of each residential floor, a social lounge promotes the kinds of chance encounters with neighbors that can lead to lifelong friendships—or the next great startup.

Relax and Restore

A fitness room and laundry facilities are accessible from a large, shared lounge and multipurpose space where all of the building's residents can come together.

A Miesian Lobby

The building's structure is faithful to Mies' original design—including the recessed, transparent glass entryway.

Student Health

Kacek Hall is not just beautiful. It is designed with energy efficiency in mind, incorporating a mechanically assisted fresh-air cooling system, high-performance insulation, and an exhaust heat exchanger, all providing a sustainable and healthy environment for student life.

The Life of George J. Kacek (EE '54, M.S. '55)



Born and raised in Berwyn, Illinois, George Kacek is remembered by his niece, Stacey Kacek, as a "classic geek" whose interest in learning how things work led him to Illinois Institute of Technology, where he earned his master's degree in the same year that Bailey Hall was first completed and opened to the public. Following graduation Kacek designed software systems for aerospace control and navigation with General Electric

for 15 years, followed by more than 20 years at the defense contractor company Raytheon, where he was heavily involved with the Patriot missile program as an engineer, project manager, and team leader. After retiring, Kacek branched into the stock market, leveraging his expertise and investing

in promising technology and aviation companies. The fortune he accumulated was bequeathed to Illinois Tech upon his death.

For Stacey Kacek and the rest of the Kacek family, the dedication of George J. Kacek Hall serves a dual purpose: honoring the Kacek name in Chicago, where the Kaceks settled after immigrating to the United States when George Kacek's father was a boy, and highlighting George Kacek as an example for Illinois Tech students now and in the future.

"I hope that George can be an inspiration to current students, that success doesn't have to look like a million-dollar idea or that big flashy career," says Stacy Kacek. "It's possible to lead a humble, quiet life that is still successful if you're passionate about your work and build strong personal relationships."

Learn by the Sword

IN A PERFECT WORLD,

Megan Burrill (MSE/M.S. 2nd Year) wouldn't mind if her life were a little less busy.

Captain of the Illinois Tech women's swimming and diving team, Burrill leads the Material Advantage and blacksmithing clubs, is involved in research on campus, and is minoring in computer science, among other activities. A clarinet and saxophone player, she would also like to return to playing at VanderCook College of Music—if only she could find the time.

"Long term, I would like to pass off my leadership roles to other people so that I can be involved but not have quite as much commitment, because it is a lot," she admits, and goes on to add, "Since I have really high goals for myself, there's a lot that I want to do."

The California native, who broke Illinois Tech's record in the 200 butterfly her first season—and three times since—and broke the 100 butterfly record her second season, took to college quickly. She became treasurer of the Material Advantage club as a first-year student and assumed the presidency at the start of her fourth semester.

"She leads by example. People fall in line," says Professor of Materials Engineering Sammy Tin, Burrill's academic adviser. "She's very modest, very humble. But looking at her achievements, they've been pretty spectacular."

That includes in the classroom.

"She's incredibly intelligent," Tin continues. "She's definitely one of



Megan Burrill (MSE/M.S. 2nd Year) displays her bladesmithing prowess as she applies hammer to anvil in a Mies Campus workshop.

a kind. You don't see many students who you explain things to once. She just gets it."

That could be attributed to much of what Burrill has done at Illinois Tech.

Take, for example, how she took to bladesmithing when she got to campus, despite knowing nothing about it before a sword on a table at a Welcome Week event caught her attention. Bladesmithing is the art of making blades and swords using heat, a hammer, and an anvil.

"I find it really fascinating because some stuff I never really thought about—when you hit metal and it's really hot, it's a different sound than when you hit it and it's cold," she says.

As a way to expand her continued quest for knowledge, Burrill, a Camras Scholar who is among the fewer than 1 percent of Illinois Tech students qualifying for this honor, says that pursuing an accelerated master's degree while earning her bachelor's degree was a no-brainer.

"There's not much flexibility [in the bachelor's engineering program], whereas with the [accelerated master's] program you have to take 10 courses from an entire list, so you're able to say, 'I'm really interested in diffusion, so I'm going to take a class specifically on that,'" she says. "... I'm excited to get a little more in-depth and variety of knowledge than I would get from just an undergraduate degree." —Andrew Wyder

illinoistechathletics.com

MORE ONLINE

Material Advantage Bladesmithing Project:
iit.edu/news/students-material-advantage-chapter-publish-paper-bladesmithing-project

Best-Laid Plans of MICE and Researchers

PROFESSOR OF PHYSICS

Daniel Kaplan [above] and a group of international collaborators recently had an article published in *Nature* about how their Muon Ionization Cooling Experiment (MICE) could contribute to the development of the next generation of particle accelerators.

The paper outlines how a cloud of muon subatomic particles can be focused into a beam used by particle accelerators. High-energy accelerators are used to advance research in materials science, medicine, and many other fields. In this photo, Kaplan, who is also director of Illinois Tech's Center for Accelerator and Particle Physics, stands behind laser tracking frequency gauges used to measure distances extremely precisely.

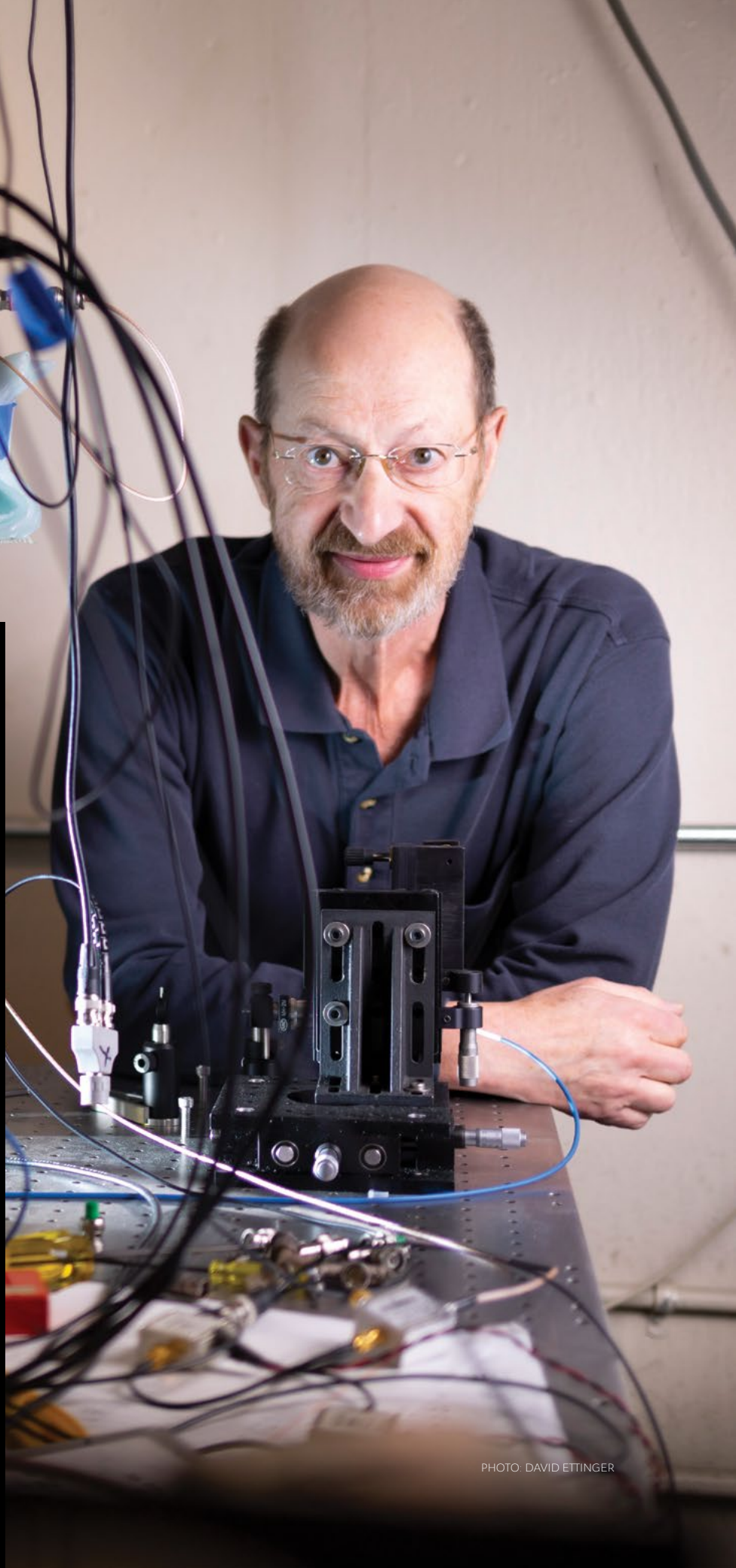


PHOTO: DAVID ETINGER

Biting into Ocean Plastics

THE NATIONAL OCEANIC AND ATMOSPHERIC

Administration estimates that 8 million metric tons of plastic—or the weight of nearly 90 aircraft carriers—enter oceans annually, threatening wildlife and entering the food chain up to human consumption. But what if an organism could be used to break down the plastics? A team of Illinois Institute of Technology students is working to genetically modify algae that could eat away at this growing problem.

“Bacteria that can degrade plastic [were] actually found in nature,” says Elias Kluiszo (BME/M.S. CHE 2nd Year). “Japanese scientists discovered this bacteria in the soil outside of a recycling plant. Our work involves transferring the DNA that allows the bacteria to degrade plastic into an ocean-based organism.”

After isolating the gene from the bacterial DNA, it must be engineered so the organism receiving the gene can translate its instructions to produce the plastic-eating enzyme. The research team is implanting the gene into *E. coli*, which can carry genes independently of its own chromosomes. The DNA is then introduced to the algae through the *E. coli*, which in turn should secrete the enzyme to break down plastics.

The team is working to modify blue-green algae, which uses sunlight to produce its own food. Since the algae does not ingest the plastic, its enzyme-producing gene must be modified to secrete the enzyme at a rate that will break down plastic efficiently. The students have successfully engineered the gene and implanted it into *E. coli* cells.

The research is being conducted under the guidance of Nick Menhart, associate professor of biology, and Abhinav Bhushan, assistant professor of biomedical engineering, as part of Illinois Tech’s signature Interprofessional Projects (IPRO) Program. The team, incorporated as Green Ocean, presented its research and results at the International Genetically Engineered Machine Competition at Massachusetts Institute of Technology last November, receiving positive feedback and tips from faculty judges. —Casey Moffitt



PHOTO: OLIVIA DIMMER

Sadie Meunier (BCHM 4th Year) [red jacket], Samitha Shrestha (BME 4th Year) [center], and Annah Ellingson (BIOL 4th Year) [right] examine testing solutions in their Mies Campus laboratory.

MORE ONLINE

Green Ocean: 2019.igem.org/Team:IIT_Chicago

Brewing Up Something Big

By Steve Hendershot



The first taste of craft beer for Ankur Jain (CS '03) was a swig of Anchor Steam, whose nineteenth-century recipe and California ocean-port pedigree made it a great object lesson in a course he took about the Industrial Revolution at Illinois Institute of Technology.

At the time beer was not on Jain's radar. He had come to Illinois Tech from New Delhi to study computer science and architecture, inspired by his father, who was an architect and a Ludwig Mies van der Rohe admirer. But Jain's cultural exposure—to craft beer, to South Side jazz, and to contemporary art—made an impact.

"The flexibility that Chicago and [Illinois Tech] gave me to color outside the box was very unique," recalls Jain, 39, founder of India's largest craft brewery, Bira 91.

Even after that early taste, Jain did not immediately connect beer with his entrepreneurial instincts. The company he started in New York after graduation wasn't a brewery but a tech firm whose software helped health care practices manage their finances. But the team did make regular happy hour stops at Brooklyn Brewery's taproom, and Jain gradually converted into a full-fledged craft beer fan.

When Jain decided to sell the software company and move back to India in 2006, he found the cultural acclimatization process even more jarring than when he had moved to Chicago for college. One factor was the stark absence of the craft beer culture that was catching fire stateside. It wasn't long after Jain took a job helping a large Indian conglomerate build out its grocery business that he began to sense an opportunity to become India's craft beer revolutionary.


He started Bira 91 (91 is India's country code) in 2008 as an import business specializing in Belgian beers. He spent four years learning which of those seminal brews were received best by Indian consumers ("the most expensive focus group in history," Jain calls it), before deciding to begin producing his own beer.

Bira 91's first original beers arrived in 2015, with a lineup of accessible, traditional styles such as pale and wheat ales. Jain's playful, premium brand targeted millennials—a proven strategy in western markets but one that had not been attempted in India—and was an instant hit. The company now has four brewing facilities and 500 employees, boasts a production capacity that's roughly equivalent to that of Boston Beer Company (maker of Sam Adams), and is likely to surpass \$100 million in revenue this year.

"Our ambition is to become the beer of choice for Indian consumers and in emerging markets in southeast Asia," says Jain, who has also begun exporting Bira 91 to established western markets including the United States.

"We always wanted to create a brand that could sit as easily at a Whole Foods in New York as in Delhi or Mumbai," Jain says.

One of the keys to Bira 91's success came when Jain signed on Ashish Dhawan as an early investor. Dhawan is the retired founder of one of India's largest private-equity firms, and liked Jain's vision as well as his business model.

Jain is "mission-driven, passionate, and an out-of-the-box thinker who wanted to build something distinctive," says Dhawan. "He's done an incredibly good job at being innovative." 



MORE ONLINE
Bira 91: bira91.com

THE SUNRISE KID

BY LINSEY MAUGHAN

At age 24, Brian Gómez (CECD '18) is taking action on climate change with Sunrise Movement, a national nonprofit that has positioned itself among the strongest advocates for a Green New Deal. What is exceptional—aside from the rapid pace at which the organization has grown in just a couple of years—is that the people who are steering the movement are all under the age of 35, with a majority under age 30.



Photo by Tim Klein

“It’s really exciting,”

says Gómez, finance and operations manager for Sunrise Movement. “It definitely has a startup sort of energy in that [so many] of these people are in their 20s and it’s growing really, really quickly.”

Gómez was born in Mexico City and raised in the West Lawn neighborhood of Chicago. Calm and reserved, with an air of maturity beyond his years, he admits that as a child he was not connected to the environment or the climate. This changed when he was a teenager.

“In high school I got involved at Shedd Aquarium and I did a ton of their programs where we would go around the Midwest to a lot of the forest preserves,” he says. “We went up to Minnesota and did kayaking, which was really cool. I think through that I got really connected to the environment.”

He majored in social and economic development policy at Illinois Tech and after graduation, worked as an operations fellow for the Sierra Club, one of the nation’s oldest environmental organizations. It was around that time that he first heard about Sunrise. Its mission: to activate young volunteers across the country around the issue of climate change, training them on how to make their voices heard at the local, state, and national level.

Gómez began volunteering there in 2018 and participated in his first event that December, joining 200 other young activists from across the country on Capitol Hill for a



sit-in at the office of Speaker of the United States House of Representatives Nancy Pelosi. The group’s members—dressed in black and yellow T-shirts and carrying signs with Green New Deal and Sunrise messaging—demanded congressional action on a Green New Deal, an ambitious set of policy proposals they co-authored aimed at addressing climate change.

Among Sunrise’s strongest allies in the fight for a Green New Deal is U.S. Representative Alexandria Ocasio-Cortez of New York, who joined Sunrise members for their Capitol Hill sit-in. Then, on February 7, 2019, she and U.S. Senator Edward J. Markey of Massachusetts announced a congressional resolution for a Green New Deal. The resolution went on to be rejected by the U.S. Senate that year.

“A lot of Sunrise’s tactics are very intense—things like sit-ins and calling out politicians,” Gómez says. “People get arrested at some of these things. Part of it is because we’ve seen generations in the past try to affect change and it’s really

“A lot of Sunrise’s tactics are very intense—things like sit-ins and calling out politicians.” —Brian Gómez

hard. Especially with how politics is set up, it’s hard to get things done. With this newer generation, we’re being very direct and going in.”

News coverage of the sit-in led to an abrupt surge in donations to the organization: its income grew from \$850,000 in 2018 to \$4.6 million in 2019, with a projection of around




Brian Gómez (CECD '18) discusses youth-led activism around climate change at the 2019 Chicago Ideas Week youth kick-off event at the Art Institute of Chicago.

PHOTO: DAVID ETINGER

meeting with him, he's somewhere else in the country...," she says. "He deeply cares and wants to invest in young leaders and communities. He puts in a lot of work to take care of people and build relationships around trust and equity."

Sunrise has only continued to increase its prominence in the national debate on climate change, inspiring CNN to hold a climate-focused town hall event with several democratic presidential candidates last September and endorsing U.S. Senator Bernie Sanders of Vermont for president this past January.

"Climate change will affect everyone and will have lasting impacts," Gómez says. "There's never been a climate organization of young people that has gotten so big and changed the debate on climate. I think it really shows that young people can organize and build something and it can be successful." 

MORE ONLINE
Sunrise Movement: sunrisemovement.org

\$15 million for 2020. In response to the rapid revenue growth, Sunrise has opened additional offices in New York City and Philadelphia, and recently secured a shared space in Chicago's Loop. Its team has expanded from 16 to 104 employees. Gómez was also hired on full-time in his managerial role in August 2019.

"I knew [Sunrise was] growing really fast, and a lot of cool things were happening. But I also knew that there were a lot of operational things that could be done—because it was a new organization and growing so fast," Gómez explains. "I was excited to dive into the work to help them and see how I could make Sunrise more efficient and operationally sound."

Gómez helps Sunrise support its base of more than 300 volunteer-led activist "hubs," or chapters, across

the country. He also helps coordinate regional events. Sunrise Movement co-founder Will Lawrence calls him "a backbone" of the organization.

"The operational work that Brian does—building better systems for us to allocate resources, tracking budgets—isn't the most glamorous or visible work in the movement, but I can attest that Brian makes everything else run smoothly," Lawrence says.

Julia Epstein, an organizing operations manager with Sunrise based in Washington, D.C., works on the same team as Gómez. She describes him as being not only dedicated but also a fun colleague, with his commitment to uncovering Starbucks coffee shops and taquerias in each new city he visits.

"Brian lives in Chicago, but it feels like every time I have a phone call or



Proactive Advocate

By Andrew Wyder

Photos by Olivia Dimmer

The genesis of a career that Jennifer Welch (LAW '94) has spent the last three decades cultivating can be traced to the fax machine in a Planned Parenthood clinic in Chicago.

Fresh out of college and working full-time at the organization, Welch vividly recalls that day in 1991 when she went to retrieve a fax—the ruling in *Rust v. Sullivan*, the case in which the United States Supreme Court ruled that the government was able to withhold Title X funds from family planning facilities that counseled patients on abortion. A realization suddenly hit her.

“I’m reading this case that directly impacts Planned Parenthood and all of our patients, page by page as it comes off the curly paper of the fax machine,” she says. “I was like, ‘I’ve got to go to law school. I’ve got to figure

this stuff out.’ I very much went to law school to learn the language, so I could talk the talk and walk the walk.”

That experience set Welch on the path to the roles she holds today: president and chief executive officer of Planned Parenthood of Illinois.

Having Margaret “Peggy” Byrne (LAW '82) as an adjunct professor while Welch was an undergraduate at the University of Illinois at Chicago played a vital role. It was while taking a course with Byrne that Welch recognized that a lawyer didn’t only have to work in the law enforcement realm.

“She was teaching us that the law is a tool,” Welch says, during an early January morning interview at PPIL headquarters in Chicago. “It can be used for good; it can be used for not so good.”

Welch’s bona fides as a feminist and an advocate are evident in her victories over the course of her nearly

30-year career. Yet, as some of her closest friends can attest, the commanding manner in which Welch approaches her work, showcased in compassion and drive, consistently shines through.

“Her persona is a big part of what makes her so successful,” Illinois State Representative Ann Williams says. “Jennifer has a unique way of being a strong leader for a huge, overwhelming issue at a time when it’s under attack but also presenting a common sense, pragmatic approach to dealing with a very challenging and complex issue.”

Welch’s time interning and then working at Planned Parenthood as a young woman drove home the idea that she was, by her own admission, a systems-level thinker who was not cut out for service work. The discovery also allowed her “to connect with people about what they wanted and needed about their health care.” Working with Byrne, an attorney who co-founded the Illinois Clemency Project for Battered Women, while Welch was a student at Chicago-Kent College of Law only served to drive that home. The organization, which Byrne still directs, helps women convicted of crimes against partners who abused them to obtain clemency.

“Jennifer had this compassion and empathy that was quite remarkable,” Byrne says, noting that Welch would meet the women in prison and assist on their clemency petitions.

Those skills were honed over nearly a decade where Welch helped to grow the Chicago Metropolitan Battered Women’s Network locally. Her advocacy earned her a position as a policy adviser on women’s issues for then newly elected Illinois Attorney General Lisa Madigan in 2003. During her seven years in the AG’s office, Welch worked her way up to policy director before joining the City of Chicago in 2010. Similarly, Welch worked her way up

in the city’s Department of Family and Support Services to become the first deputy commissioner.

“Whenever we touched on issues related to women, the domestic violence arena, Jen was really our go-to in the office for all those issues,” says Williams, Madigan’s first legislative director. “Our office really relied on Jen in terms of interaction with other organizations in

“Jennifer had this compassion and empathy that was quite remarkable.”

—Margaret “Peggy” Byrne

Springfield and around the capital dealing with these issues.”

Welch joined PPIL in 2017, in time to guide the organization under attack. It came to a head two years later when the Trump administration began enforcing the Title X gag rule that cut funding to any health care facility that performs or refers patients for abortions. She continues to do what she can to ensure that PPIL’s scope of services does not dwindle. And she advocates.

“I always feel that the reality of Planned Parenthood, when people know that we serve men, that we do HIV prevention and 90,000 [sexually transmitted infections] tests, that 14,000 young people have been educated, the more they know about us and the less they can object to everything that we’re doing in their communities,” Welch says.

Battles remain. Ever proactive, she, along with her organization, played a role in ensuring that Illinois remains a state where safe reproductive health will always be available, advocating for the passage of the Reproductive Health Act in June 2019. For Welch, it is another opportunity to use law as a tool for the good.

“It really does go to show what one lawyer can do,” Byrne says. “The impact that one lawyer can have on the status of women in Chicago and the state of Illinois is profound.”

MORE ONLINE
Planned Parenthood of Illinois:
plannedparenthood.org/planned-parenthood-illinois



According to Jennifer Welch (LAW '94), Planned Parenthood regularly serves men, assists in HIV prevention, and educates thousands of young people.



BUILDING SUSTAI



NABILITY

By Andrew Connor

Just shy of 1,200 feet in height and coming in at 101 stories, the Studio Gang-designed Vista Tower has already become a recognizable part of Chicago's skyline. Its height and three-stem profile set it apart, while its undulating façade and glass gradient evokes the blue-green surface of the river it overlooks. When it opens later this year, it will be the third-tallest building in the city.

Much more than an aesthetic flourish, the glass gradient represents both an achievement in building material advancement and a step forward in energy-efficiency, two areas of architecture that Vista Tower's design principal, Juliane Wolf (ARCH '01), has been pursuing her entire career.

Now a partner at Studio Gang, Wolf grew up in Germany surrounded by architects—her father, grandfather, great aunt, uncle, and currently, her nephew. She says that she came to Illinois Institute of Technology because its Bauhausian and Miesian ties have given the school a good reputation in her home country.

Illinois Tech was also the place where Wolf met Jeanne Gang, Studio Gang founder and a former professor at the College of Architecture. Wolf became an intern at Gang's studio in 1999, just two years after its founding.

"When I started as an intern there were only a handful of people," says Wolf. "It was such an amazing experience. I knew from the moment that I interned there that it was something really special. Jeanne's vision was immediately inspiring."

Wolf returned to Studio Gang after graduating first in her class and helped to bring some of the firm's earliest projects, such as Bengt Sjostrom Starlight Theatre in Rockford, Illinois, to life. She only stayed until 2004,



“

Sometimes sustainable design is very focused on energy performance metrics. But we think of creating spaces that are beautiful and will be used for many years to come as another aspect of sustainability. Beauty is important because that is ultimately what draws people in and creates beloved environments.”

—Juliane Wolf

Juliane Wolf ©Lyndon-French

departing for Berlin to do what many architects do at some point in their careers: leave to pursue independent practice to find her creative voice.

“As much as I admired Studio Gang, I knew that I wanted to do some projects on my own, which is just part of growing as an architect,” says Wolf. “I wanted to know what I would do if I did something by myself.”

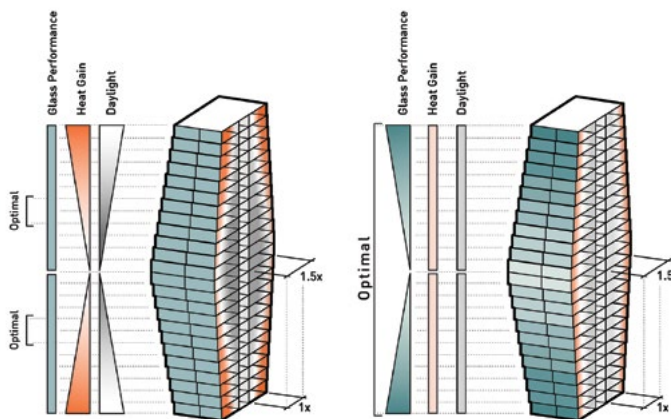
It ended up being a more hands-on experimental study of materials by way of her creative practice with Eva Tuerks (ARCH '98), Büro Blickpunkt, and a rigorous study in sustainable design at the Architectural Association School of Architecture in London. Wolf soon returned to Studio Gang—and just as she had grown as an architect, so, too, had the firm, taking on larger, more impactful projects. One of her first assignments? Chicago’s Vista Tower.

Because the building has an undulating frustum shape (a truncated pyramid), one of Wolf’s first moves was to measure the thermal conditions of the three towers at their widest and narrowest points. What she found was a surprising variance in the performance of the units caused by the changing ratio of window glazing to floor area.

“I shared this with Jeanne, and that started our exploration of how to tune the glass to address that performative issue,” says Wolf. “The skin is the aspect of the building that is the most responsive to the environment.”

From there, the design team developed the solution in the form of the glass gradient, which gets darker at the tower’s narrowest points to tune solar heat gain to the unit size, thus reducing the energy required to keep the interior at a comfortable temperature.

In addition to Vista Tower, Wolf is working on the new O’Hare International Airport Global Terminal, filled with



Vista Tower’s gradient of colored glass allows for unique responses to solar radiation on each floor, improving the building’s overall environmental performance. As floor area decreases, the glass becomes darker, maintaining consistent daylight and heat gain across all floors. Diagram: *CTBUH Journal*, Issue IV (2019)



Photo of Vista Tower under construction by Tom Harris courtesy of Studio Gang

natural materials and lush green spaces, and the Beloit College Powerhouse, a former coal-burning power plant turned student union. The Powerhouse, whose first phase opened in February, features a radiant panel and slab system that uses energy from the water in the adjacent Rock River to heat and cool the building, which is more sustainable than traditional air-conditioning systems. Besides these features being energy-saving measures, Wolf believes these elements create workspaces that are both beautiful and healthy.

“Sometimes sustainable design is very focused on energy performance metrics,” says Wolf. “But we think of creating spaces that are beautiful and will be used for many years to come as another aspect of sustainability. Beauty is important because that is ultimately what draws people in and creates beloved environments.”

MORE ONLINE

Studio Gang: studiogang.com

Vista Tower: vistatowerchicago.com

From 'Bots to Biomedicine

By Steve Hendershot

Christopher Jones's road to biomedical startup success did not quite unfold with machine-like precision. Sure, he was an engineering prodigy and is a natural entrepreneur, and the company that he co-founded, HD LifeSciences, makes implants for spinal fusion surgery.

Innovative, yes. High tech, absolutely—HD LifeSciences' breakthrough implants combine the best aspects of the most common traditionally used materials, plastic and titanium. But they're not robotic, and for Jones, who for the longest time envisioned a future full of mechanical motion, that marks a significant departure.

Jones arrived at Illinois Institute of Technology in 2003 as a robotics wunderkind who had already filed for engineering patents as a Detroit teen and competed for national robotics prizes in front of huge crowds. On campus, he quickly lived up to that reputation, forming a student robotics club that is still in existence. But just before obtaining his undergraduate degree in aerospace engineering in 2007, Jones changed career paths.

"I had always wanted to build robots 'cause I thought they were so cool, but it slowly dawned on me that just building them to put on an assembly line wasn't going to be satisfying," he recalls.

After graduation he and his father moved all of his belongings back to Michigan, where Jones planned to sift through his career prospects. There was an offer from Boeing and even

one from the Central Intelligence Agency, but Jones was not inspired by either option. Instead, he kept coming back to a conversation he'd had on campus with a member of Illinois Tech's biomedical engineering faculty, inviting him to pursue graduate study in that field.

Two months later, Jones and his father moved all of his stuff right back to Chicago.

"I think my dad was a little frustrated," says Jones.

The move paid off as Jones spent nearly seven years working in the lab of Derek Kamper, who was attempting to build a next-generation exoskeleton to improve hand biomechanics rehabilitation following stroke. Jones learned to translate his engineering expertise to the biomedical field, and soon after completing his Ph.D. in 2014 (conferred from both Illinois Tech and the University of Chicago through a joint program), he moved to Boston to work for SpineFrontier, a company that makes implants and instruments for spinal surgery.

There he met his two future HD LifeSciences co-founders. The three of them were technical aces, and each had a specialty: one was a natural salesman and the other was a product developer, while Jones excelled at operations and entrepreneurship—skills he had honed as an undergraduate at Illinois Tech where he founded and ran a wireless company for two years.


The word "launched" may be a startup cliché, but HD LifeSciences genuinely shot out of the gate after

its founding in 2016, especially given the regulatory hurdles facing med-tech companies: its first prototype quickly earned the trio some seed capital, and less than a year later, one of its implants was used successfully in a surgery. The company now has a dozen employees and its products have been used in thousands of surgeries.

Jones's Illinois Tech mentor isn't surprised.

"He's always had an extraordinary entrepreneurial bent that's enabled him to see the big picture and attack problems from different directions. It is fantastic but not surprising that he helped found a successful startup venture," says Kamper, who now works under a joint appointment at the University of North Carolina at Chapel Hill and North Carolina State University.

For Jones, the real breakthrough was finding a career that enabled him to exercise his love of engineering while also feeding his urge to do something with tangible human benefit. It's on his mind again now, as he ponders his next chapter.

"I continue to be sad that there are fewer robots in my life than there could be," he says. "But I've discovered that whenever I'm in an environment where I'm able to think and be creative and apply technical aptitude of some kind, it's been pretty rewarding." 

MORE ONLINE
HD LifeSciences: hdlifesciences.com



“

I had always wanted to build robots 'cause I thought they were so cool, but it slowly dawned on me that just building them to put on an assembly line wasn't going to be satisfying.”

—Christopher Jones

Class Notes

1940s

Jurgen Schmidt

(BE '48), Huntington Beach, Calif., was inducted into the International Swimming Hall of Fame (master's level) in September 2018.

1960s

Francis Kulacki

(ME '63, M.S. GE '66), Wayzata, Minn., received the 2019 Donald Q. Kern Award from the American Institute of Chemical Engineers. Kulacki is a professor of mechanical engineering at the University of Minnesota Twin Cities and serves on Illinois Tech's Department of Mechanical, Materials, and Aerospace Engineering Board of Advisors.

Victor Yipp

(MATH '66), Oak Park, Ill., retired from a career in IT and law. He is working on a novel about Asian immigrant soldiers in the American Civil War.

Lewis Thigpen

(M.S. MECH '67, Ph.D. '70), Alexandria, Va., had his autobiography, *Born and Raised in Sawdust: My Journey Around the World in Eighty Years*, published in 2019. The book covers his life in the Jim Crow South in the '30s, '40s, and '50s; his time in the United States Army; his travels on six continents; and memories of family, along with strong friendships built across countries and cultures.

Charles Fox

(BIOL '69), Wilmette, Ill., and his wife, who have three children and six grandchildren, recently celebrated their 50th wedding anniversary.

Robert Johnson

(CE '69, M.S. '71), Buffalo Grove, Ill., was a key exhibitor of hands-on structural engineering activities at the Palatine Public Library's STEAM Fair last November. Johnson also celebrated 30 years of participation

in the annual DuPage Area STEM Expo, held this year on February 22.

1970s

James Clarage

(M.S. CRP '70), Paxton, Ill., became a municipal consultant after graduation, establishing his own firm. He is currently the assessor of Loda Township in Iroquois County, Illinois.

John Grillos

(MATH '70), Sonoma, Calif., has developed a virtual chief executive officer coaching business to leverage his decades of management and investment experience. This is Grillos's fourth company.

Harry Heifetz

(BE '71), Chicago, married Shar Sherman in January and purchased a home in suburban Northbrook.

Susan Leeb (née Resnick)

(M.S. DSGN '72), Lake Oswego, Ore., has retired after 45 years as an art instructor, whose students ranged from kindergarteners through senior adults.

Guy Martino

(ECON '72), West Chicago, Ill., retired in 2017 after 45 years of selling and managing sales teams and sales channels in the managed IT space. He is now in the business of importing foods and flavors, primarily from Europe, and is working to bring the products into retail and restaurant distribution channels.

Stephan Bellinger

(PSYC '73), Chicago, released his second novel, *Edge of Perception*, last August. His

first novel, *The Chronocar: An Urban Adventure in Time*, which features an Illinois Tech student as one of the main characters, won the 2019 Independent Authors Outstanding Science Fiction Award, the 2018 Best Indie Book Award for science fiction, and the 2019 Readers' Favorite Gold Medal Award for Young Adult Science Fiction. The audiobook version was published in February.

Dana Broach

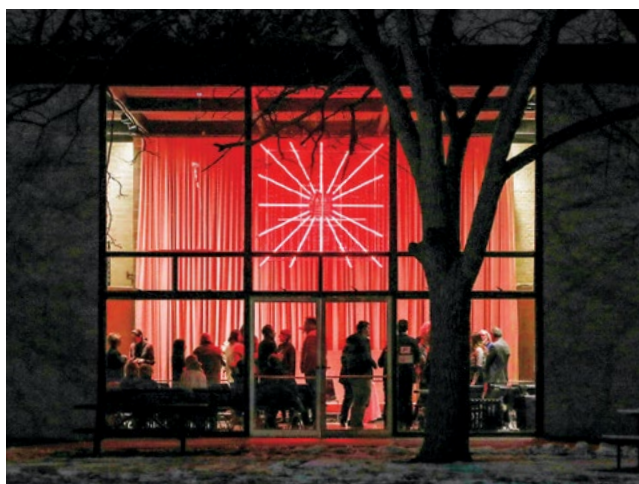
(PSYC '74), Norman, Okla., retired from the Federal Aviation Administration Civil Aerospace Medical Institute in May 2019 with 30 years of service in the FAA and 35 years total federal service. Broach has more than 120 publications and presentations to his credit on topics in aviation such as pilot and air traffic controller age and job performance, air traffic controller aptitude testing and job performance, and job analysis. He and his wife, Sue, continue to reside in Norman, and look forward to traveling and other post-retirement opportunities.

Keith-Michael Self

(PHYS '75), Hillsboro, Ore., produces piano and electronic blend compositions. He has four albums and is a gentleman farmer of blueberries and Christmas trees.

Karla Von Huben

(ENGL '76), Vancouver, Wash., wrote and published *Henry, the Bookstore Cat*, a book about a magical kitten and his adventures in a bookstore. The work is in the middle-grade/young adult category.



In December 2019 members of the Mies van der Rohe Society and their guests gathered for Hilb's Day, an annual tradition recognizing the winter solstice.

Gary Smith

(ARCH '77), Southern Pines, N.C., and his wife, Mary, celebrated their 50th wedding anniversary last June in Paris and then traveled to Normandy, France.

Richard Bumstead

(CRP '78), Albuquerque, N.M., retired from a 35-year career at the University of Chicago and moved back to the high mountain deserts of New Mexico.

Richard Shreve

(Ph.D. BE '78), Boynton Beach, Fla., retired last May after nearly 70 years of employment. He taught at the university level for 43 years in Illinois, Indiana, Wisconsin, and Florida. Shreve's career also includes 26 years of industrial employment with companies such as Emerson Electric, Monsanto, Goodyear, and Continental Can. He splits his time between Florida and Michigan, and practices cross-country skiing with his spouse, Victoria.

1980s**Michael Crowley**

(FPSE '80), Spring, Texas, was named president of the Society of Fire Protection Engineers. The society has more than 4,600 members and 102 chapters including 21 student chapters worldwide.

Nancy Paridy

(LAW '83), Evanston, Ill., has been named chair of the Loyola Academy Board of Trustees. She is Loyola's first female chair and will serve for a three-year term.

Michael Sullivan

(EE '83), Chicago, was named partner in the Wireless and Telecommunications practice group at Porter Wright Morris & Arthur.

John Swierk

(ARCH '84), Prairie Grove, Ill., founder and president of Direct Design Ltd. Architects (now DDCA Architects) since 1989, celebrated 30 years with his company. Direct Design has expanded to include Carroll Associates Architects and provides full architectural services across the country. Swierk is licensed to practice architecture in 31 states.

Vincent Imhoff

(LAW '89), Los Angeles, managing director of Imhoff & Associates, was selected for a Best of Los Angeles Award as one of its Fascinating 100. Imhoff is a member of the state bars of California, Illinois, and Pennsylvania.

Peter Roskam

(LAW '89), Wheaton, Ill., joined the law firm Sidley Austin as a partner in its Government Strategies practice group. Prior to joining the firm, Roskam served for more than 25 years in the United States House of Representatives, and the Illinois House of Representatives and the Illinois Senate.

1990s**Troy Leaf**

(AE '90), Birmingham, Ala., recently retired from Exelon after 29 years and began a second career with Southern Nuclear. In his career at Exelon, Leaf served 17 years as a licensed senior reactor operator at Byron Generating Station and retired as the operations director at the Braidwood Generating Station.

Enrique Gracia

(M.P.A. '91), Boynton Beach,

Fla., retired as the chief information security officer and deputy department director for information technology at the South Florida Water Management District, where he had worked since 2004.

Robert Klaszky

(AE '92), Chesapeake, Va., assumed duties as commodore of Coastal Riverine Group Two in April 2019. He was also selected to be a professor of naval science at the NROTC Chicago Area Consortium in summer 2020.

George Schutter

(ACCT '92), Washington, D.C., was selected as the president-elect of the National Association of State Procurement Officials. He is chief procurement officer for the District of Columbia, appointed by Mayor Muriel Bowser, and is charged with the overall



The design and construction team behind the Ed Kaplan Family Institute for Innovation and Tech Entrepreneurship discussed innovation in the construction industry during a special alumni event in October 2019. [Left to right] Aaron Moe (ARCH '01) and Chris Newcomb, Power Construction; Bruce Watts, vice president for facilities and public safety at Illinois Institute of Technology; Sachin Anand, dbHMS; and John Ronan, the John and Jeanne Rowe Endowed Professor in Architecture, Illinois Tech's College of Architecture, and the building's architect.

Gina Iliopoulos (BIOL '91) [right] and Ed Caplan enjoy the view of Keeler Gardens from the front steps of their home.

PHOTO: OLIVIA DIMMER

Showcasing Nature's Intrinsic Benefits

Gina Iliopoulos (BIOL '91)

For residents of the Old Irving Park neighborhood on Chicago's Northwest Side, Keeler Gardens is an oasis of natural beauty. What began as a blog about a home garden in 2012 blossomed into a showcase built on the principles of biophilia (the human tendency to be associated with other forms of life in nature) featuring a Pollinator Habitat, a space dedicated to hummingbirds, and a sun garden.

Gina Iliopoulos (BIOL '91) began a blog about the gardens in 2012 and then established Keeler Gardens, which comprise the front and back yards of the home she shares with her husband, Ed Caplan, as a nonprofit in 2016. The pair model ways that nature can be introduced into an urban setting. At Illinois Tech Iliopoulos focused on genetics and after graduating, studied horticulture for two years. Her green-thumb expertise grew and she became a recognized gardening and green industry consultant, and even appeared as the "Midwest Gardeniere" in a commercial series for HGTV.

What is the purpose of Keeler Gardens?

Our focus is to show that connecting with nature isn't a luxury, but rather, a necessity for everyone. Nature gives you a sense of well-being; it affects health improvements. People don't want to be out on the concrete. If there's a large tree canopy on their street, they'll go out in the shade and talk. Even if you live in an apartment, you can make a

little railing garden with some nice potted plants. It isn't too difficult to find something that will work for you.

Describe some of the educational activities that you and Ed have offered to the community.

We offer experiences that connect with nature beyond gardening—photography classes, a variety of creative art programs, and weekly community gathering events to help us connect with our neighbors and take time to focus on personal strength and health. We also have an internship program to support and educate students, giving them valuable knowledge and work experience.

What's next for Keeler Gardens?

We are building Keeler Gardens into a remarkable, sound ecosystem, with a message that nutrient-dense soil provides the foundation for healthy plants, healthy green spaces, and healthy communities. We are working to be considered a pilot for communities everywhere. We hope to grow our sustainable practices with bolder resource management, including solar power and petitioning to have our city sidewalks replaced with permeable surfaces. And expanded programming would allow us to create seasonal internships, maybe even for course credit, and support those in need of a place to take a break from their very demanding services—for example, first responders and caregivers. —Casey Moffitt, with Marcia Faye



Participants engage in networking opportunities at Illinois Institute of Technology's Global Alumni Gathering held last November in Bengaluru, India.

leadership, implementation, and coordination of procurement activities in accordance with the laws and regulations of the district.

Junjian Tang

(M.ARCH. '93), Lisle, Ill., was featured in the July/August 2019 issue of *Chicago Architect* magazine. His essay focused on his life and successes from the time he emigrated from China to the United States 30 years ago.

Charles Lenzini

(ME '95), Imperial Beach, Calif., and his son, Anthony, enjoyed the 2019 Arlington (Va.) Turkey Trot (while wearing Illinois Tech gear). Lenzini is co-chair of Illinois Tech's San Diego alumni group and is also an admission ambassador.

Orrin Schmidt

(M.S. FMT '96), Great Neck, N.Y., is vice president at Bank of America in New York. He is also a project manager and business analyst within the comprehensive capital analysis and the review and stress testing programs.

Krista Schwartz

(LAW '96), Lafayette, Calif., joined the San Francisco office of Hogan Lovells as a partner in the firm's Intellectual Property, Media, and Technology practice group. Prior to her new role, she was a partner at Jones Day.

Joel Wiegert

(ME '96), Oakland, Mich., is chief executive officer of Dayco, a global leader in the automotive parts manufacturing industry. He was also named as a member of the Dayco Board of Managers.

Carly Coulson

(ARCH '97), Duluth, Minn., is a winner in the 2019 New York State Energy Research and Development Authority Buildings of Excellence (Round One) competition for her zero-energy, zero-water, multifamily design, the Seventy-Six, located in Albany, New York.

Razat Gaurav

(CE '97), Ann Arbor, Mich., chief executive officer of LLamasoft, participated in a panel discussion on the use of drones as a part of logistics networks in developing and industrial-

ized nations at the World Economic Forum's Centre for the Fourth Industrial Revolution's Annual Meeting of the New Champions in Dalian, China, last year.

Rodneyse Bichotte

(M.S. EE '98), Brooklyn, N.Y., member of the New York State Assembly, was elected chair of the Brooklyn Democratic Party, becoming the first woman and first African-American woman to lead a county party in the city of New York.

Robert Brevelle

(CS '98, M.S. '98), Rowlett, Texas, was named as one of the Top Angel Investors in Dallas for 2019 by the National Venture Capital Association and PeopleMaven. This is the second time Brevelle has been recognized as a top angel investor.

Mohammad Reza

Mostofi Ashtiani (M.A.S. CHE '98, Ph.D. '02), Naperville, Ill., won a 2019 Shining Star Award from the American Institute of Chemical Engineers for his significant contributions, continuous dedication, and personal commitment as a volunteer.

His AIChE activities include leadership roles in the Chicago Section and the Particle Technology Forum.

Courtney Rosen

(LAW '98), Chicago, joined Jackson National Life Insurance as vice president and deputy general counsel in Investigations, Regulatory Enforcement, and Litigation. She leads litigation in arbitration defense, regulatory enforcement defense, investigations, information governance, and employment law functions.

Edward Curley

(ARCH '99), Chicago, is the director of architecture at Epstein, where he had worked for 10 years as the associate vice president of client strategies. Curley serves as the principal-in-charge for the company's architecturally led projects.

2000s

Jerry Hanttula

(ENVE '00, M.S. EM '01), Des Plaines, Ill., after a career in the United States Navy, co-founded Shaved Ice Distributors in 2012.



Illinois Institute of Technology alumni and other guests check in at the Global Alumni Gathering held last November in Bengaluru, India.

ALUMNI NEWS

In 2019 he began Jerry Hanttula Consulting, which focuses on process improvements in small- to medium-sized companies.

Ryan Keane

(CE '01), Tinley Park, Ill., was promoted to vice president of McHugh Construction in Nashville, where he established a McHugh office in 2014. He has led construction of significant developments while growing the local team from three professionals to more than 25.

Youngsoo Kim

(M.S. EE '01), is a senior electrical and communications engineer at Jacobs, ranked the 2019 Most Admired Company in the World in the engineering and construction category by *Fortune* magazine.

Myetie Hamilton

(M.P.A. '03), Chicago, was named executive director of City Year Chicago, an education nonprofit devoted to developing young leaders and reducing the high

school drop-out rate. She has more than 20 years of experience leading innovative change in K-12 education. Her former roles include serving as executive director of EPIC Academy and deputy chief of schools for Network 9 with Chicago Public Schools, where she managed transformation efforts for 28 schools in Chicago's Woodlawn, Bronzeville, and Hyde Park communities.

Bryan Trtan

(ARCE '03), Naples, Fla., was promoted to director of preconstruction at DeAngelis Diamond, an *Engineering News-Record* Top 400 national construction management firm specializing in commercial, multifamily, and health care construction.

Jennifer (née Susnjara) Watt

(LAW '03), Indianapolis, was appointed and promoted to chief legal officer, secretary, and vice president of Thermwood Corporation, with oversight of all legal aspects of the company and its corpo-

rate governance. Thermwood is a United States-based, multinational, diversified CNC machinery manufacturer that markets its products and services through offices in 11 countries.

James Ciston

(AE '04, ME '04), Oakland, Calif., a staff scientist with the United States Department of Energy's Lawrence Berkeley National Laboratory, received a Presidential Early Career Award for Scientists and Engineers. As the lead scientist for the flagship TEAM I instrument at the National Center for Electron Microscopy facility of the lab's Molecular Foundry, Ciston studies the role that atomic-scale defects play in the unique emergent properties of nanoscale materials.

Yesenia (née Rodriguez) Villasenor

(LAW '05, M.S. EM '06), Fremont, Calif., was promoted to associate general counsel for the Environmental Health and Safety team at Tesla.

Reuben "William" McCrory

(ARCH '06), Tempe, Ariz., was promoted from senior designer to principal at SmithGroup's Phoenix office.

Courtney Fong

(LAW '07, M.B.A. '07), Northbrook, Ill., was named a 2019 Notable General Counsel by *Crain's Chicago Business*. He is the chief legal officer and chief privacy officer at CompTIA, a trade association dedicated to advancing the global technology industry.

Adam Garber

(LAW '07), Chicago, was named to the *Chicago Daily Law Bulletin's* 40 Under Forty for 2019. He is a partner in the Trusts and Estates practice group at Levenfeld Pearlstein.

Juan Morado

(LAW '07), Chicago, president of the Hispanic Lawyers Association of Illinois and partner at Benesch, was selected to the *Chicago Daily Law Bulletin's* 40 Under Forty for 2019. He is also one of the



Illinois Institute of Technology President Alan W. Cramb [left] shares a pleasant moment with friends, family, and colleagues at a memorial tree planting in honor of the late Charles R. Bauer, professor emeritus of computer science.

leading Certificate of Need attorneys in Illinois, successfully working with clients to establish new hospitals, surgery centers, and nursing homes, and to obtain regulatory approval for complex multimillion-dollar facility changes of ownership.

Joseph Silvia

(FNS '07, LAW '07), Chicago, is a partner at Howard & Howard, where he advises financial institutions and corporate clients on general corporate matters, mergers, acquisitions, strategic transactions, private equity and venture capital, and banking and financial services regulation.

Daniel Stringfield

(LAW '07), Oak Park, Ill., was named to the *Chicago Daily Law Bulletin's* 40 Under Forty for 2019. He is a partner at Steptoe & Johnson, where he is an advocate and adviser for companies facing intellectual property and technology issues.

Harini Haran

(M.A.S. CS '08), Cupertino, Calif., is president and chief revenue officer at Xoriant, a leading Silicon Valley-headquartered product engineering, software development, and technology services company. Haran brings 30 years of experience in IT products, software, digital transformation, networking, communications, wireless, and product engineering services.

Peter Wojtowicz

(M.A.R. ARCH '08), Chicago, was promoted to associate at Valerio Dewalt Train Associates.

Judd Fineberg

(LAW '09), Chicago, was named to the *Chicago Daily Law Bulletin's* 40 Under Forty for 2019. He is a partner at Dussias Wittenberg Koenigsberger, where he specializes in the litigation and settlement of complex financial matters and custody disputes.

Immerse Yourself in Illinois Tech

Stay in touch with Illinois Institute of Technology through the Illinois Tech Alumni Association or by volunteering your time, making a contribution, or networking in the following ways:

Volunteer with Advancement

The Office of Advancement hosts alumni events throughout the year. You can sign up to volunteer for the annual STEM Expo, Family Day at Morton Arboretum, the Pi Day Party, Homecoming, Giving Day, and many other events. To see the full listing, visit alumni.iit.edu/events.

Host a Virtual Event

You can help Illinois Tech lead the way by hosting a virtual event for donors, potential students, or alumni. Support the admissions staff by leading a workshop or panel, or support the Office of Advancement by organizing special networking opportunities.

Serve on a Board or Committee

The Alumni Board is actively seeking new members who are committed to advancing Illinois Tech's mission and vision. You can become involved by serving on committees in several areas of interest from admissions and career opportunities to nominations.

Connect and Mentor

Join The Bridge, Illinois Tech's online networking and mentorship platform. Connect with current students and fellow alumni, offer job advice, or find a mentee. Register for The Bridge at iit.wisr.io.

Volunteer with Admission or Career Services

Greet students and alumni, offer your expertise, or volunteer at events ranging from advice panels to career fairs through the admission or career services offices.

To sign up, visit alumni.iit.edu/volunteer-signup



John P. Calamos Sr. (ECON '63, M.B.A. '70) [front, left] lends his expertise to Stuart School of Business students and recent alumni during an afternoon of networking and presentations.



[Left to right] Nanci Agostini, Andrew Agostini, Polly Alpert, and Illinois Institute of Technology President Alan W. Cramb at the dedication of the Edward (ME 1943) and Renee Ross Terrace at the Ed Kaplan Family Institute for Innovation and Tech Entrepreneurship.

Visit bit.ly/alumni-event-photos to see more event photos from the Alumni Association.

2010s

Courtney (née Bollman) Nichols

(LAW '11), Clarkston, Mich., was named one of *Super Lawyers Magazine's* 2019 Rising Stars in Michigan. She is a partner at Plunkett Cooney and serves as co-leader of the firm's Labor and Employment Law practice group. She focuses her litigation practice on employment law.

Lindsay Sheehan

(M.S. REHB '11, Ph.D. PSYC '16), Chicago, senior research associate in the Department of Psychology at Illinois Tech, was one of the honorees of the 2019 Halo Awards, which recognize 40 Chicago scientists under the age of 40. She was featured in the online

publication *Translation* and at the award ceremony last fall at the Museum of Science and Industry. Halo is a digital platform that supports young investigators making strides in translational research.

Jingyu Lee

(ARCE '13, ARCH '13, CE '13), Seattle, participated in The Forge Prize, a national design competition established by the American Institute of Steel Construction, and was selected as a Phase I winner.

Timothy Wong

(ARCH '13) and **Dolly Sehr** (ARCH '14), Vancouver, B.C., held their August 2019 wedding in Chicago at the Herbarium followed by a move to Vancouver, where they are advancing their

careers in the built environment. Sehr is a master's candidate for advanced studies in architecture at the University of British Columbia, and Wong joined the structural and envelope engineering firm Entuitive.

Kelly Burgess

(AMAT '14), Phoenix, received an Oracle Certified Programmer certificate. She is also busy planning her 2020 wedding.

Rebecca Wilson-Wernette

(ME '14), Charlestown, Mass., was promoted from senior mechanical engineer to systems engineering manager at the Flex product innovation company.

Ceola Oware

(M.P.A. '16), Chicago, is the recipient of the 2019

American Society for Public Administration Alumna of the Year (Illinois Institute of Technology) for her work with community organizations in Africa, specifically in Ghana and Egypt.

Omar Alhaj Ibrahim

(BME '17), Dallas, was promoted to consultant at Microsoft, working in the areas of data, artificial intelligence, and cloud computing.

Margaret Herrmann

(LAW '17), Palatine, Ill., is an associate at Irwin IP. She is a registered patent attorney whose intellectual property law experience includes IP litigation, patent post-issuance proceedings, patent preparation and prosecution, and clearance and legal opinions.



Gunsaulus | SOCIETY

The Gunsaulus Society is named after Frank Gunsaulus, first president of Armour Institute of Technology and orator of the famed “million dollar sermon,” which led to Armour’s founding, and eventually, the establishment of Illinois Institute of Technology. The guiding principles set forth by Frank Gunsaulus continue to resonate: belief in the advancement of knowledge, the cultivation of invention, and the importance of preparing students for a life of achievement, service, and fulfillment.

An estate gift to Illinois Tech demonstrates your commitment to the values that were instilled at our founding, which is why we recognize your gift with induction into the Gunsaulus Society, a highly respected group of individuals who, like Frank Gunsaulus, put their beliefs into action for a better future.

**Joining the
Gunsaulus Society
is easy**

Let us know of your intentions to leave Illinois Institute of Technology in your will or if you have named the university as a beneficiary of an asset including your IRA. Did you know that the IRS regards any remaining balance left in your IRA to be untaxed income? There are significant tax advantages to making charitable gifts with your IRA.

If you intend to name Illinois Institute of Technology as a beneficiary of your IRA, notify us and we will share wire transfer or mail instructions for your plan administrator.



The SECURE Act changes the required age that you begin to take your required minimum distribution to 72. If you leave your IRA to most non-spousal heirs, they are required to receive the funds over 10 years and to pay income tax.

If you are age 70½ or older, you may transfer up to \$100,000 annually from your IRAs directly to Illinois Institute of Technology without being subject to income taxes on the distribution. When you reach age 72, it will count toward your RMD.



PHOTOS: COURTESY OF MITCHELL GOLBUS

Women and Children First

Mitchell Golbus (PSYC '60)

For Mitchell Golbus (PSYC '60), timing, preparation, and opportunity all seem to have comprised the fabric of his life in equal measure. Or perhaps being a reproductive medicine innovator in his career and a medical humanitarian after his “work obligations” ended was his destiny. In the late 1990s, Golbus and his wife, a nurse, were asked to join a nonprofit group going to Antigua, Guatemala, to provide surgical services. Their one-week medical mission led the Golbuses to return again and again to lead various surgical teams. Golbus also co-founded the Casa de Ángeles Foundation to help orphaned and abandoned Guatemalan children. In 2019 he received the Illinois Institute of Technology International Award of Merit for his work in Guatemala, which includes helping to raise more than \$2.5 million for the foundation.

What was your path to becoming a pioneer in prenatal diagnosis and intervention, fetal therapy, and reproductive genetics? I decided late in my IIT matriculation to go to medical school and then late in medical school to pursue obstetrics and gynecology. In the early 1970s I did a post-doctoral fellowship in medical genetics at the University of California San Francisco, where I was to stay my entire career. I had always been interested in laboratory research—my first publication was of work done during my last year at IIT—and an academic career was the natural outlet for my interests. Genetics and medical genetic knowledge were beginning to blossom, and UCSF was where much of the basic work was being done. The luck of having chosen genetics and UCSF was to be the making of my career.

Before you helped the children in Guatemala, you helped children in the womb as a researcher and physician. Please share some of your medical innovations. I established the reproductive genetics unit at UCSF and started providing amniocentesis for prenatal diagnostic purposes. This was to expand to fetoscopy, fetal blood sampling, fetal liver and muscle biopsy for specific diagnoses, and then chorionic villus sampling as an earlier way to determine the genetics of the fetus. In an effort to explore the possibilities of both medical and surgical fetal therapy for the affected fetuses, we organized the UCSF fetal therapy program. Over time, we were able to provide medical in utero therapy for a handful of fetal conditions, and were able to start exploring in utero surgical correction of some defects that would have led to a fetal or neonatal demise.

You were also involved in a project to decrease the amount of *E. coli* and parasites in Guatemalan drinking water. What is that about? With another couple, my wife and I started a potable water project. The system consists of progressively smaller filters and ultraviolet light to kill any remaining organisms in the water. It can purify 15 gallons per minute and was installed in orphanages, hospitals, schools, and communities. After 12 successful installations, this project was put mainly in the hands of local engineers with us simply supplying the filters and UV bulbs. —**Marcia Faye**

Upcoming Alumni Events

Marissa Ashner

(AMAT '18), Chapel Hill, N.C., enrolled at the University of North Carolina at Chapel Hill, where she is working toward a Ph.D. in biostatistics.

Jingyuan He

(M.A.S. AMAT '18), Chicago, will begin a new position with the Bank of China in Shenzhen.

Mete Morris

(CPE '18), San Francisco, received a master's degree from Johns Hopkins University and began a new job at Google.

Jacquelyn Newberry

(AMAT '18), Seneca, Ill., is a commissioned United States Navy officer assigned to USS *The Sullivans* (DDG-68), based out of Mayport, Florida.

Dane Wilburne

(Ph.D. AMAT '18), Lewistown, Pa., received a postdoctoral degree from Brown University.

Hiva Nasiri

(Ph.D. EE '19), Chicago, joined the consulting firm Quanta Technology.

Felicia Thomas

(LAW '19), Kew Gardens, N.Y., is a criminal law associate with the Queens County District Attorney's Office in New York. She served as an officer at the United States Coast Guard Academy for three years before completing her degree.

Nora Warens

(M.A.S. ITM '19), Des Plaines, Ill., is a data quality specialist at the American Hospital Association.

For information about upcoming Illinois Institute of Technology events and alumni activities, please visit alumni.iit.edu/events.

If you are interested in planning a reunion event for your class or sorority, fraternity, or affinity group, contact alumni@iit.edu or 312.567.5000.

Homecoming & Reunion Weekend and Alumni Awards Ceremony

Friday, September 25 and Saturday, September 26, 2020

This fall, reconnect with your former classmates, share in the energy of what students are up to today, and introduce your family to Illinois Tech. Stay in touch on social media, and check alumni.iit.edu for updates as they become available.

In Case You Missed It...

Illinois Institute of Technology alumni from around the world met in India late last year for a symposium on the global effects of climate change. Taking place in a different international location every two years, Illinois Tech's Global Alumni Gathering, held November 1–3, 2019, at the Shangri-La Hotel in Bengaluru, India, kicked off with networking and a keynote discussion between Illinois Tech President Alan W. Cramb and B9 Beverages/Bira 91 founder Ankur Jain (CS '03).



Illinois Tech President Alan W. Cramb [left] with B9 Beverages/Bira 91 founder Ankur Jain (CS '03)

Thank you to the sponsors of the Illinois Institute of Technology 2019 Global Alumni Gathering

Parth Amin (BA '85)



Sanjay Kirloskar (ME '78)



Madhavan Nayar (M.S. IE '68)

Pinakin Patel (M.S. CHE '77)



Brian Ippolito (AE '92)



Manu Vora (M.S. CHE '70, Ph.D. '75)

Obituaries

John Ason

MATH '68, Westfield, N.J., was a professional angel investor for nearly 20 years. One of his first investments in the early days of the internet was *diapers.com*. In 2010 Amazon.com acquired its parent company Quidsi for \$545 million. Prior to becoming an angel investor, Ason worked at AT&T Bell Labs for 25 years, retiring in 1996. At AT&T he began in software and technology development, then moved into the marketing and business management of large software projects sold by AT&T to overseas-based phone companies. A popular conference speaker, Ason traveled extensively to meet with entrepreneurs and help develop angel investing ecosystems.

William C. "Bill" Bartholomay

Chicago, was a successful and decades-long insurance executive who, in 1962, purchased the Milwaukee Braves Major League Baseball team with a group of partners. Four years later the group moved the Braves to Atlanta; the team became the first major league sport of any kind to be located in the south-eastern United States. Bartholomay, an Illinois Institute of Technology Board of Trustees member, and legacy vice chairman and senior consultant of Willis Group Holdings at the time of his death, received numerous baseball honors, including the Atlanta 400 Baseball Fan Club Ivan Allen, Jr. "Mr. Baseball" Award in 1994 and induction into the Braves Hall of Fame in 2002.

Lawrence Jay Broutman

Chicago, served on the Illinois Institute of Technology faculty from 1962–1982, serving as professor of mechanics and materials engineering and research professor of materials engineering. Additionally, he supervised dozens of doctoral students during his tenure. He went on to found L. J. Broutman and Associates laboratory and consultancy. Anchored by Broutman's expertise in plastics, his research helped in the development of products such as body armor, household appliances, wind turbines, and piping. A pioneer in scanning electron microscopy, impact testing, and cold-forming, Broutman was named to the Society of Plastics Engineers Plastics Hall of Fame in 2012.

Jack M. Daly

CE '78, Winnetka, Ill., upon graduating from Armour College of Engineering, joined the power-generation and power-transmission service firm Sargent & Lundy as a structural engineer, spending the next 40 years there. He retired from the company as executive vice president and director of the fossil power business group, where he was responsible for the overall management of the firm's new-build and retrofit projects for coal, oil, and gas power plants as well as renewable energy projects in the United States and abroad.

Elaine (née Saphier) Fox

LAW '75, Skokie, Ill., most recently of counsel at Seyfarth Shaw, practiced labor law for more than 35 years. She represented management in labor and management negotiations as well as in disputes involving employment and industrial relations before a variety of administrative agencies and courts nationwide. Fox served on the boards of the American Jewish Congress and the Jewish Vocational Service, among others. She also was the editor of *Out of Chaos: Hidden Children Remember the Holocaust*, a collection of survivors' memories and reactions to their experiences in settings around the world.

John Kincaid

LL.B. '63, Wheaton, Ill., and Joseph F. Mirabella (LAW '64), Wheaton, Ill., were longtime partners in the law firm Mirabella, Kincaid, Frederick & Mirabella. Kincaid was named a 2011 Illinois State Bar Association's Academy of Illinois Lawyers Laureate, one of seven individuals selected for the honor that year. In 2019 the firm was recognized by *U.S. News & World Report* in its Best Law Firms ranking for 2020.

Robert Negele

ME '45, Greenwich, Conn., began his career as an instructor in the ROTC program at the University of Oklahoma. In 1947 Negele and his wife, Martha, moved to Chicago, where the couple started a family and he took a position as an engineer. Eight years later, Negele became general manager of Star Metal Products, before advancing to vice president for Chicago Magnet Wire. Negele and his family moved to Maine,

where he became president of Philips Elmet, a manufacturer of molybdenum and tungsten products. He retired as president of Kulka Electric in 1982 and ended his career as a consultant.

Charles Owen

M.S. DSGN '65, Chicago, Distinguished Professor Emeritus at the Institute of Design, began teaching at the university in 1965 and retired in 2010. A pioneer in systems design, his holistic approach to influencing systemic transformations have impacted designers the world over. He was the driving force of ID's Ph.D. program, the first of its kind in the country. Owen also directed the product design program for more than 20 years and founded the Design Process Laboratory. Outside of the university, he collaborated with prominent industry companies, including Steelcase, Doblin, and Kohler, and organizations such as the United States Air Force.

Thomas Gayle Pennel

FPE '68, Wheeling, Ill., graduated from Armour Institute's Fire Protection Engineering program, which served as a model for other programs across the country. He was an industry leader for some 50 years, designing fire protection plans for what is now Jeddah Tower in Saudi Arabia, Chicago's Willis Tower, and Miami International Airport. In addition to designing systems, Pennel assessed failures as well as surveyed and inspected installations. He also wrote a substantial amount of the handbook used by the National Fire Protection Association, and in 2014 received the NFPA Special Achievement Award.

Charles Porter

ARCH '79, Chicago, worked for more than 40 years in the design and construction industries. He began his career with Turner Construction Company and then Urban Retail Properties, before co-founding Development Management Associates, a commercial real estate management company. Porter worked on notable national and international projects as well as such local projects as the highrise building at 333 Wacker Drive and the skyscraper at 900 North Michigan Avenue.

Franz Schulze

Lincolnshire, Ill., was considered a leading authority on Ludwig Mies van der Rohe. Schulze was a longtime member of Illinois Tech's Mies Society, joining the board in 2003. He also authored *The Campus Guide: Illinois Institute of Technology*, published in 2005. Over the course of his life, Schulze was chief art critic for the *Chicago Daily News* and the *Chicago Sun-Times*; an editor for the magazines *ARTNews* and *Art in America*; and an art historian and author, co-author, or editor of books, including *Mies van der Rohe: A Critical Biography* and *Philip Johnson: Life and Works*. The Betty Jane Hollander Professor of Art Emeritus at Lake Forest College, Schulze served on the faculty from 1952 until his retirement in 1991.

In Memoriam

James Dunne CHE '38
Robert Collopy CHE '40
Edward Sidney ME '40
Sylvan Tanner ARSC '41
Alan Grant EE '46, M.S. '48
Robert Czeropski CHE '47
William Jenkins EE '48
George Brooks EE '49
George O'Brien ME '49
Charles Bremigan ME '50
Marvin Cohn EE '50, M.S. '53
Richard Fuhrer ME '50
John Furlong CE '50
Donald Goldsmith BE '50
George Harris CHE '50
Richard Hegberg ME '50
Donald McConachie CE '50
Saul Needleman CHEM '50,
M.S. BCHM '55
Tetsuo Takayanagi DSGN '50
Milton Handler IE '51
Daisy Igel DSGN '51
Raymond Kofoed CHEM '51
Richard Ryan EE '51
Harold Vanderlee ME '51
Joseph Egan CE '52
John Enyart IE '52
Donald Kolseth DSGN '52
Frederick Krumsieg ARCH '52
Terry Zielinsky EE '52
Joan Andress BIOL '53
Harry Heersema ME '53

Theresa Fulbright HE '54
Robert Mathewson MET '54
Anthony Schwan CE '54
Robert Smith ARCH '54
Hans Sommer ME '54
George Fencl EE '55
Donald Glossop ME '55
John Staehle ME '55
Jean Copeland HE '56
John Oliver UNK '56
Edward Tamas FPE '56
Callis Niquette ME '57
David Worcester ME '57
Gerald Fisher ME '58
Bernard Juskie M.S. MECH '58
Thomas Sulzbach CHE '58
Paul Christoffersen FPE '59
Edward Downs EE '59
Harold Gruen M.S. EE '59
William Madziarczyk EE '59
Harold Nelson BE '59
Michael Aloisio PHYS '60
Larry Goss DSGN '60
George O'Connell LAW '61
A. Hayes Barclay LAW '62
John Bowler EE '62
Sam Burnes LAW '62
Mary Firszt M.S. HE '62
Chester Lis ME '62
Lynn Roloff BE '62
William Sigle EE '62
James Soller ARCH '62
James Elliott M.S. ME '63
John Foreman LAW '63
R. Gilman Johnson LAW '63
Reynold King EE '63
Virginia Jach LAW '64
Anthony Sadowski M.S.
CHEM '64, Ph.D. '67
Joseph Marcus LAW '65
John Marshall LAW '65
William Null LAW '65
Burton Urbanick BE '65
Albert Wieteska CE '65
Richard Eicksteadt LAW '66
Peter Marchese ME '66
Matthew Rodina BE '66, M.S. '68
Thomas Rydell LAW '66
Barry Gordon LAW '67
Thomas Hoepfner BE '67
Anne Keller M.S. DSGN '67
Ling So M.S. EE '67
Andrew Szady M.S. MAE '67
Edward Chouinard Ph.D. ENVE '68
James Gardner MAE '68
Joseph Martorelli BE '68

Dennis Nelson BE '68
Maurice Stunkel MATH '68
John Jemilo M.P.A. '69
Andrew Weiner M.S. DSGN '69
Kenneth Yost DSGN '69
Arnold Bernstein LAW '70
Louis Kiefor LAW '70
Joseph Perez PHIL '71
Evans Angelos CHE '72
Larry Divine EE '72
Michael Monnelly M.S. CS '72
Lamont Perington LAW '72
James DeBelina MATH '74
John Leonard ECON '74,
M.B.A. '77, LAW '81
David Priestman CHEM '75
Timothy White M.S. DSGN '75
Sheila Reilly LAW '78
Barbara Smith LAW '79
Ronald Smolka MAE '79
Ashok Kush M.S. CHE '80
Alan Schuster LAW '80
James Scull LAW '80
Anthony Bartkus EE '81
Stephen Hurst LAW '81
Robert Linzmeier LAW '81
Penny Blake LAW '83
Susan Vanek M.S. BIOL '84
John Lapinski LAW '87
Patricia Nix M.S. CS '87
Sterling Baldwin CHE '90
Josephine Judy Shanthi (née
Robert) Catlin Ph.D. CS '91
Kathleen (née Downey)
Ambrosio LAW '93
R. Phillips LAW '95
Devin Williams LAW '99
Priya Jayaraman M.A.S. CM '00

Attendee/Non-Degreed

Richard H. Gallagher
Elsa Kula
Paul Matushek
Cyrus Tang
Harvey Wayne

Faculty

Wilbur Applebaum
Lawrence Broutman
Domingo Carreira M.S. CE '74, Ph.D. '83
William Tueting
Sammy Watkins

Understanding Society

Last November *Illinois Tech Magazine* received an email from Roger L. Henry (M.S. [for Teachers] SOCT '70), Tallahassee, Florida, about a special graduate-level, professional program in which he was enrolled from 1969–1970. Henry was on the faculty of DeLaura Junior High School in Satellite Beach, Florida, and was looking for graduate school opportunities when he learned about the Academic Year Institute in Sociology at Illinois Institute of Technology.

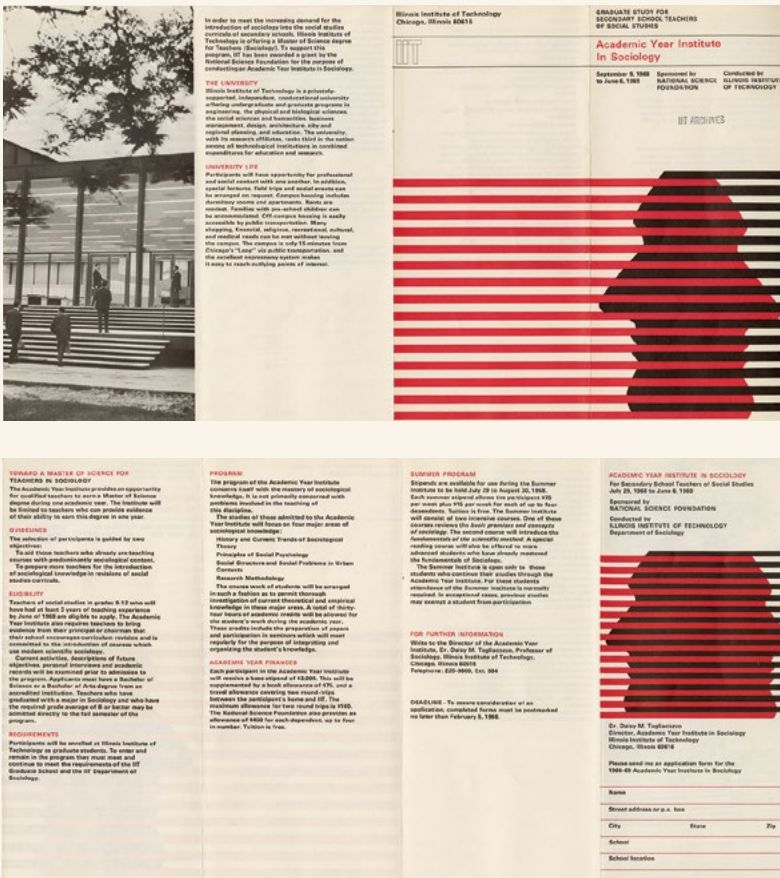
The year-long, all-expenses-paid program, sponsored by the National Science Foundation, trained teachers who taught social studies to children in grade 9–12 in the latest theory, principles, problems, and methodologies in the field of sociology, and how to bring fresh instruction into their classrooms. Henry recalls that the late Daisy M. Tagliacozzo, an Illinois Tech professor of sociology, was instrumental in bringing the program to the university. According to records in the University Archives and Special Collections at Paul V. Galvin Library, the Academic Year Institute in Sociology ran for three separate academic years from 1968–1971.

Henry, one of 20 teachers from the United States to be accepted at Illinois Tech for the 1969–1970 academic year, shares more of his memories and how the program impacted his career in pedagogy:

Upon completion of the program and a return to DeLaura Junior High School, I infused my ninth-grade social studies with such elements of sociology as the importance of studying groups, recognizing the influence of groups on beliefs, and [learning about different] types of organizations. This teaching lasted only one school year before the school district moved me to an Elementary and Secondary Education Act Title III project to coordinate the development of learning materials about the environment.

During the first three years of the project, the teachers developed eight separate resource units for the classroom. Representatives from the federal government tested each of the resource units under regular classroom conditions and concluded that the resource units had actually made a change in the students' attitudes. The project was funded for three more years. The resource units were bought by school districts or individual teachers throughout the country.

I am convinced that the concepts of sociology presented to me at IIT were passed on from a single classroom to a nationwide audience. —Marcia Faye



A human profile in red and black highlights this “Academic Year Institute in Sociology” brochure inviting applicants to participate in the September 9, 1968–June 6, 1969, program session.

IMAGES: UNIVERSITY ARCHIVES AND SPECIAL COLLECTIONS, PAUL V. GALVIN LIBRARY, IIT

Before You Go

FARSHOGAR UMRIGAR (EE, M.S. EE '17), product manager for Veriown Inc., recently visited the CSMART laboratory at the Robert W. Galvin Center for Electricity Innovation, part of the Wanger Institute for Sustainable Energy Research at Illinois Institute of Technology. Using OSISOFT computer technology, Umrigar is looking at graphs on his laptop depicting all of the renewable resources attached to Stuart Building on Mies Campus:

“The graphs I am looking at show me the total solar generation, wind generations, battery levels, and the overall building load. On the TV you see another design that shows the same information but for many buildings on campus. The glowing tower in the picture is a RTDS (real-time digital simulator). This is used by the Ph.D. students to run simulations of the [Illinois Tech] microgrid.”

PHOTO: DAVID ETTINGER



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Learn about what's happening with
alumni, students, and friends:

- Read the monthly alumni e-newsletter, emailed the second week of each month
- Check us out on social media:
 - 📷 @Illinoistechalumni
 - 📘 Illinois Institute of Technology Alumni Association
- Connect with students and fellow alumni on The Bridge (<https://iit.wisr.io>)

We can't wait to see you virtually and on campus!
In the meantime, go to alumni.iit.edu regularly for updates.



ILLINOIS TECH