

ALUMNI

JOURNAL



righteous fidelity

PHIL BAKER '65
HERALDS A NEW SOUND

At WPI, physical fitness begins with the 48-stair climb from WPI's parking garage to the ground floor of the Sports and Recreation Center. At the top of the stairs, Carr Plaza (gift of James L. Carr Jr. '74) offers a shaded spot to rest and reflect.





WPI

Homecoming 2014



October 10 & 11
**FEEL THE PULL –
COME BACK TO THE HILL!**

Parade of Floats, Football, Rope Pull

More events and details at wpi.edu/+homecoming

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Sharing successes, adventures, and a few stellar lifetime moments—we know you're dying to find out what your classmates have been up to.

TOUCH TOMORROW

A FESTIVAL OF SCIENCE, TECHNOLOGY, AND ROBOTS AT WPI

We were thrilled to welcome thousands of guests to WPI's beautiful campus for **TouchTomorrow 2014**. WPI put its best foot forward, and surely, many of the kids who were with us for the day will be members of the classes of **2020-2030!**





The View from Here

Greetings from the Office of the President. Pardon the boxes as I unpack some remembrances of my days at NASA and my recent post as dean of science at Rensselaer. Rest assured I'm reserving plenty of space for the keepsakes I'll accumulate here at WPI, my new home.

Transitions are good times to stop and take stock. As I look forward to the opportunities that lie ahead at WPI, I am also mindful of what drew me to this institution in the first place.

Last fall, as I considered the chance to join WPI, Jon and I made a stealth visit to campus. We arrived on a cold Saturday and wandered the campus, trying to look like perspective parents rather than a job candidate and her husband.

As we studied the campus map across from Goddard Hall, trying to get our bearings, a friendly campus police officer asked if we needed help. Not wanting to attract attention, we quickly declined, but the interaction was the first of many that highlighted the warmth of this place and its staff, faculty, and students. The feeling we had on the campus that chilly Saturday surprised us—we felt truly inspired by the bustle of activity, the friendly faces, and what I have come to call the “human scale” of the place—a beautiful campus, in an accessible, friendly package, full of (excuse the characterization) “nerds” just like us!

Since that visit, I have learned a great deal about the Institute's remarkable and incredibly diverse accomplishments, past and present. I stand in awe of all you have achieved, and I am so excited to join you—

- our faculty, who bring seeds of ideas to life and who educate our students to be leaders in their fields,

- our students, who embrace their experiential learning and challenge us to be our best for them,
- our staff, who enable all of this in the most fundamental manner,
- our trustees, who provide wise oversight and critical financial support of our endeavors,
- and, of course, our alumni, who stay connected and give back with their time, energy, and resources.

This community tackles the global challenges of today and tomorrow through cutting-edge research and education in robotics, computing and data science, bio-inspired products to fight disease, and technology to bolster Earth's environmental resilience, just to name a few. All the compelling questions we seek to address accomplish three critical things: they expand human knowledge, they make the world better, and they spark our imaginations of what's possible—they inspire us! I see my job as enabling these contributions on an even broader scale.

I have seen how science can spark imaginations. My own journey was launched in a small lab under the stairs at Caltech. The work I did there on meteorites from Mars launched my exploration of that planet and ultimately led me to NASA, and a facility called the Goddard Space Flight Center.

More than a century ago, a young physicist at WPI was inspired by his dreams of space travel to begin work that would lead to the world's first liquid-fueled rocket. His imagination would take Americans all the way to the Moon! Given the strong tie between our nation's technological leadership, our prosperity, and the space program—enabled in significant part by WPI's own Robert Goddard, Class of 1908—it is easy to see that WPI has had global impact for a long time. I am so excited to embrace the opportunity to expand and enhance that global impact as a key tenet of my presidency.

I hope you can see that my heart is in places where education, inspiration, creativity, and impact intersect—at great universities like WPI. Truthfully, the thing that drew me here and so impressed me on that first undercover day was the opportunity to be a part of a community that so clearly understands the importance of fusing the technological with the human—an institution that understands that discovery and innovation are, fundamentally, about making a positive difference in the world.

When we next meet in these pages, my office will be unpacked and a chair (or two) will be waiting all those who enter. I hope you'll become a part of my future explorations here at WPI, and join me on our quest to expand upon our tradition of innovation with impact.

Laurie Leshin
President



THANK YOU
MR. FOISIE

Engineer

Innovator

Alumnus

Entrepreneur

Trustee

Philanthropist

There are many ways to change the world.

A first-generation college graduate, Robert Foisie '56 credits Worcester Polytechnic Institute—and the professors who guided his education—with helping him make his mark.

Here, he says, he learned to think and to apply his abilities and knowledge to grow—as a person, and as a businessman. Somewhere along the way, perhaps rooted in his humble beginnings, he also learned to give back.

Already the university's largest single donor (with gifts totaling \$23 million), Mr. Foisie has committed an additional \$40 million so that other talented young men and women of modest means will benefit, as he did, from the intensely personal educational experience that WPI has offered for nearly 150 years.

Bob Foisie considers this gift his personal dream fulfilled. So far, there are 580 outstanding young scientists, engineers, and business leaders who share that dream. Looking forward, there'll be legions more.

Thank you, Mr. Foisie, for paying it forward.



WPI

From the National Campaign Chair

DEAR ALUMNI:

From the appointment of Laurie Leshin as WPI's 16th president to the announcement of the largest individual gift in the university's history, this has been a remarkable and historic year. Working together, we have raised the bar on philanthropy at WPI, with many alumni stepping up to support their alma mater.

It's difficult to find words to adequately express the deep gratitude the entire WPI community feels toward Robert Foisie '56 and his extraordinary \$40 million commitment to support student scholarships. This issue of the *WPI Journal* includes an illuminating piece about Mr. Foisie, his gift, and a few of the more than 580 individuals whose lives have been changed by his generosity (see page 20). Prior to this new commitment, Mr. Foisie already had been WPI's largest individual donor. It is long overdue to recognize his legacy and we are thrilled to be naming the Robert A. Foisie '56 Business School and the Robert A. Foisie '56 Innovation Studio at Alumni Gym in honor of his lifetime giving to WPI. This naming places WPI's business programs alongside the nation's other distinguished named business schools and solidifies the Foisie Business School's place as a vital program at WPI. It also appropriately names Alumni Gym—originally named for the university's first alumni-driven fundraising effort—after WPI's most generous individual alumnus to date.

On the heels of all this excellent news and on the threshold of WPI's Sesquicentennial Celebration, there is no more exciting and dynamic time to get involved with our alma mater. I encourage you to visit campus and be amazed by the new state-of-the-art facilities, as well as the infrastructure and landscape improvements that make WPI so well known for its learning environment. Attend an alumni event, either on campus or around the world, and reconnect with your classmates, professors, and the WPI experience you lived. Share the great things that are happening at WPI with your friends, neighbors, and colleagues. With many Sesquicentennial events—as well as the inauguration of President Laurie Leshin on Nov. 8—the coming year presents even more opportunities to return to campus, display your WPI pride, and re-engage with your alma mater. I have no doubt that you will be astounded by what you discover.

One way many of you have been reconnecting with WPI is through the fundraising effort to renovate Alumni Gym into a



hub for the university's distinctive undergraduate project-based curriculum. I thank those of you who have already contributed to this important project, but we need many more of you to participate if we are to reach the threshold in contributions that will allow construction to begin. The Robert A. Foisie '56 Innovation Studio will play a key role in bringing the WPI educational experience to the next level. I ask you to join me in supporting this project and honoring the tradition of philanthropy that is at the heart of Alumni Gym.

It is my pleasure and honor to participate in the life of WPI, the institution I credit with being the great enabler of my life. My hope is that the fantastic news you've been hearing, and will continue to hear, about WPI inspires you to get involved. Excellence is a shared responsibility, and all great universities have the unyielding support of their alumni. I ask you to join me in making a commitment to WPI. Be a part of history at this remarkable institution. And I'll see you at the Sesquicentennial Celebration on campus in May 2015!

Michael J. Dolan '75
Senior Vice President, Exxon Mobil Corporation
WPI Trustee and National Campaign Chair

Living Legacies

I just read the portion of the article “Living Legacies” [Fall 2013] about Frederick A. Farrar ’31, my dad, who had others following in his footsteps. My son, Joshua L. Howard, graduated in 1992 with his wife, Kaja Cadwell. Jocelyn Pitman, Dad’s great-granddaughter, is a student at WPI. We as a family have always been proud to have Dad as a positive influence in our lives.

DOROTHY FARRAR HOWARD

Sparing the WPI Eyes

As one of the magazine’s biggest fans, I have nothing but high marks for the insightful “critical-thinking” content and production value each piece affords. And while I don’t like negative criticism, I have to just make one minor comment. I am not an Adobe aficionado, nor a layout guru; rather an aging adult whose eyes have seen better days. My only problem, with the magazine is the overall font size selected for your articles. I am in my mid-forties mind you, but sometimes between the light color of the text and the overall (being sarcastic here), 0.014 pica font size, I tend to have difficulty reading the text of the articles. And again—babe in print swaddling—you’ve got plenty of white space (I believe is the term?). So why not exploit that landscape and help out your elders’ enjoyment in the process.

My father received his master’s in materials engineering at WPI; he died in 2009 from pancreatic cancer, and my mom still receives the magazine. He always praised his colleagues and mentors at the school I wanted to attend, but alas, not to be (UNH Class of ’92, CS major). In retrospect, I would have been out the door and at the Worcester bus depot by the middle of the third day of classes from the affectionately termed ‘Woopi.’ Over the years then and hence, the magazine and former high school classmates who attended keep me engaged with the amazement your institution provides (UNH isn’t doing too bad nowadays I might add—and their alumni mag isn’t too shabby either).

Many thanks, and continued rocketing success.

BRETT KELLERMAN, SON OF DAVID KELLERMAN ’86

Rush to Wrestling

The letter to the editor by Philip Grebinar in the Spring 2014 issue of *WPI Journal* brought back memories of wrestling in Alumni Gym. My involvement came about through another well-known WPI tradition.

In 1956, when I was a freshman, the freshman-sophomore rivalry culminated in the Paddle Rush, which took place during halftime at the first home football

game. One hundred wooden paddles were lined up on the 50-yard line. On signal, the two sides rushed forward in a war to see which side could collect the most paddles.

On the cover of the Sept.-Oct. 1956 *Journal* is a picture taken at the moment the first person reached the paddles. The camera shows me about to pick up a paddle. What doesn’t show is the next sequence. I bent over to grab a paddle, but before I could straighten up I was tackled. I went down, breaking my ankle. I was hauled to the bench and later taken to City Hospital in an old hearse that belonged to Sig Ep.

I was given a walking cast and crutches for a few days, but eventually got around OK. A few days later President Bronwell summoned me to his office. I don’t remember the exact conversation, but I tried to convince him this was just an unfortunate accident. Nevertheless, that was the last Paddle Rush.

In those days, gym was mandatory for two years. I couldn’t do much, but I had to show up each session. Since I couldn’t run around and play basketball, a new mathematics instructor, Ray Scott, asked if I like to wrestle. I had never done it, but said, “Sure.” We continued to wrestle once or twice a week for the remainder of the semester. I didn’t stay with wrestling, but I believe Ray was instrumental in forming the wrestling program at WPI.

DICK MEYER ’60



WPI Connections

The moral of my story: “Wear your WPI shirt or cap as often as possible.”

A few weeks ago my wife and I went to dinner at a casual local restaurant, and I just happened to be wearing the WPI golf shirt that my daughter had given me. As we were being seated, a young man at the next table said to me, “You must have gone to WPI.” I was completely surprised because I have never met another WPI graduate in Texas except at a function in Houston hosted by Mike Dolan ’75.

The man I met was Bob Masi ’86. We talked for a few minutes about the school, fraternities (his Lambda Chi Alpha, mine Sigma Phi Epsilon), and how we both had applied to Cornell, RPI, and WPI, and of course, select-ed WPI. Bob lives just a few blocks from my house and works for a company here in The Woodlands. I plan to see him again.

DAVID VAN COVERN ’53



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Community Engagement

Swiss Project Centers offer an exciting environment for WPI students to engage with local organizations and communities on issues of regional and international impact.



Switzerland

A country with robust scientific and technological production, an educational system that mirrors the applied model used at WPI, and a strong international outlook, Switzerland is a natural fit for WPI's global engagement initiatives. Switzerland, too, is seeking world-class collaborations with institutions like WPI to advance its values in research and innovation.

WPI and Switzerland

A hub of global engagement



Building on strong foundations

WPI has productive ties to **Zurich University of Applied Sciences, University of Lucerne, HEG Fribourg School of Engineering, Swiss Federal Institute of Technology, Consulate of Switzerland/Swissnex Boston, Credit Suisse**, and many other companies and alumni in the region.

An exchange of people and ideas

WPI brings our colleagues from Switzerland to campus, committed to broadening their experiences and making connections with the wider WPI community. Overall, WPI hosts nearly 25 students and venture leaders on campus every year.



For information on helping to grow the WPI Switzerland Hub, contact Karen Bean, University Advancement, at kbean@wpi.edu.





PHOTO CREDIT: JOE TRELEVEN

▶TECH PLAY

Jam On

D **O YOU REMEMBER** your first guitar and that dude with the ponytail in your dorm who taught you? You were young, you were bold, you had something to say, and you wanted to set the world on fire.

So where is that guitar now? In the attic, out of tune? Dan Sullivan '77 wants to get you back in action. His Zivix JamStik digital guitar combines the tactile nuance of a real guitar with wireless connectivity. To avoid the latency (delay) of other digital guitars on the market, JamStik uses optical infrared sensors that determine where your fingertip is on the fretboard in microseconds. It comes with game-based learning apps that combine education and entertainment.

“Most people give up playing because they don’t think they are good enough or the instruction is tedious, Sullivan says. “People spend hundreds of hours mastering the intricacies of a videogame, but ask gamers if they have read the manual or hired a teacher, and they’ll think you’re crazy. That same effort, applied to music, could change your life.

“This will date me, but one of the amazing technologies at WPI when I was an EE major was something called videotape,” says Sullivan. Back when synthesizers were multi-thousand-dollar novelties, he attempted to launch a home version, but was trumped by Casio. “This was so disappointing to me. I thought I would end up in an alley drinking from a brown paper bag, telling people I designed the first consumer synthesizer,” he laughs.

After founding and selling a digital video technology company, Sullivan started Zivix in 2005. Last year, JamStik was named a Top 10 Invention by *Popular Science*, and it is a 2014 nominee for an Edison Award. It is targeted to go on sale this year.

— David Enders



▶ BEYOND BEANIES AND BIBLES

Through the Eyes of a Student: 100 Years of Student Life at WPI

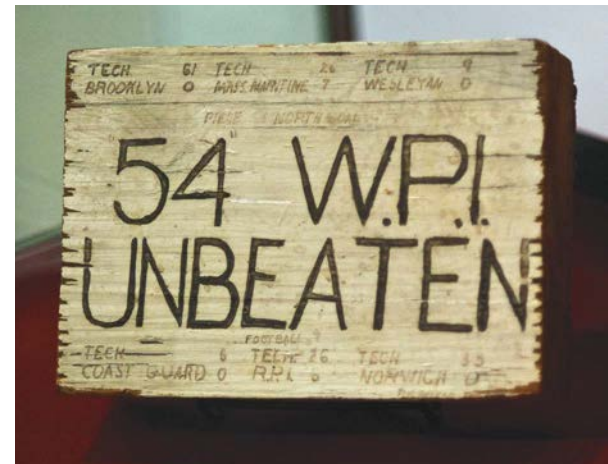
The tabloid headline might have read, “Student Builds Time Machine in College Library Basement.” An MQP by Sarah Conlin '14 examines student life at WPI from 1865 to 1965 and recreates the experience through an exhibit of vintage photos, documents, and artifacts now on display in the Gladwin Gallery in Gordon Library. From diplomas of the first graduating class to the slide rule, Skull cap, and fraternity paddle of Interim President Phil Ryan '65, the exhibit offers a guided tour through WPI's first century of existence.

Conlin, an HUA major with a concentration in American Studies, turned a historian's eye

on the undergraduate experience, tracing the evolution of student culture at WPI. “There's so much more than the beanies and Tech Bibles that we see at Homecoming,” she says. “I discovered traditions that had been lost, and I wanted to give them life again.”

Perhaps her most surprising discovery was the wild ways students used to let off steam. The Class Rivalry of 1908 resulted in the death of a student whose neck was broken during the Cane Rush (a precursor to the now-banned Paddle Rush). In the 1870s, students built a bonfire at Bancroft Tower and burned in effigy the author of a despised mathematics text.

The exhibit includes a “Reflection Corner”



that replicates the Great Room of Sanford Riley Hall (the first residence hall built on campus). Robert Sanford Riley himself keeps watch from a portrait above the fireplace mantel. He and other distinguished alumni came to life for Conlin, as “more than just names on buildings. They are real people who embodied the WPI lifestyle and carried it forward for others.”

Conlin's project won recognition as the best Humanities and Arts MQP for 2014. The exhibit will remain on display through Homecoming and will become part of the Library's digital archives for future generations to study and enjoy. For more information on the exhibit, contact archives@wpi.edu.

▶ CONSTRUCTION



Number of cans of creamed corn, mushrooms, tuna, and beans used by Team Gompei to create a model of Beijing's Galaxy Soho shopping center for Canstruction, an international charitable event at the ASCE Structures Congress in Boston. All cans from WPI's entry were donated to the Merrimack Valley Food Bank after the competition.

▶ QUOTABLE

"Cybersecurity policy is really important, but because it falls between law, policy, and computer science, many academic institutions are not sure what to do about it. As far as I know, WPI is the first educational institution to create a tenure-track position in this area."

Susan Landau, a former senior staff privacy analyst at Google, who joined the WPI faculty July 1 as professor of cybersecurity policy. WPI's Cybersecurity Program offers undergraduate courses, graduate courses, and an MS specialization within computer science.



▶ GENDER GAMES

Sex, Sexism & Gaming

PAX East forum on gender inequality draws a crowd

DECADES OF PLAYING VIDEO GAMES helps Ken Gagne '01 deftly navigate Double Dragon, and his journalism training gives him an advantage in expertly guiding even the most off-track conversation. But when he organized and moderated "Sex, Sexy, and Sexism: Fixing Gender Inequality in Gaming" for the annual PAX East gaming convention in Boston this spring, he worried his qualifications to lead a discussion about feminism were lacking.

When more than 500 people created standing room only conditions at the panel, Gagne knew his intent mattered more than his expertise. "This is a timely and important topic in the industry," he said.

A lifelong gamer, he admits he never gave women's portrayal in games much thought. But when media critic Anita Sarkeesian received death threats for suggesting the industry consider a feminist viewpoint of video games, he took notice.

"I don't think I thought much of it until Anita came along," says Gagne, now an adjunct faculty member at Emerson College, editor and publisher of *Juiced.GS*, and digital content developer at Gamebits, the company he founded. He chose panelists like journalist Susan Arendt and educator and activist Duane de Four with purpose. "I wanted different strengths and discussions," he says. "It would be boring if only feminists were on the panel, but if it was antagonistic, it would dissolve into a shouting match."

Gagne doesn't blame society's ills on video games and says being critical of some games' characteristics doesn't mean you can't have fun playing them. "It's how much you open your eyes," he says, noting a little awareness goes a long way.

A technical communications and humanities double major at WPI, Gagne credits former professor Lisa Lebduska with encouraging him to write about any topic and bring issues, like his PAX panel, into the open.

Encouraged by the successful panel, Gagne hopes it leads to others. "People recognize this is an issue that affects not only women," he says. "This is an issue that affects all of us."

— Julia Quinn-Szcesuil



►PRESIDENTIAL MEDAL

Saudconsult Chairman Builds Cities— and Future Engineers

WPI's Presidential Medal recognizes individuals who exemplify the ideal of the "technological humanist"—people who have built their lives serving the greater public good. This year's recipient, Tarek M. A. Al-Shawaf '55 (third from left in photo), was one of the first Saudi Arabian students sent abroad to study engineering on a government scholarship and—since graduating from WPI with a BS in civil engineering and returning to Saudi Arabia at the precise moment in the country's history when technical knowledge was a vital need—his career and passions have epitomized what the university has stood for since its founding.

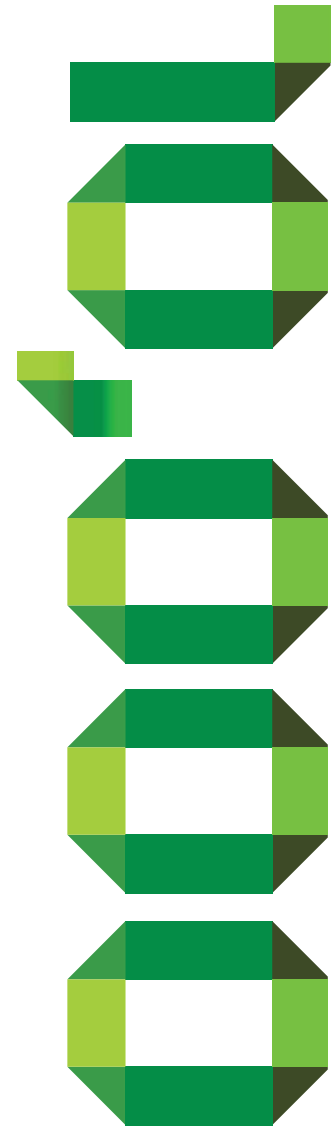
Dr. Tarek (as he prefers to be called) has devoted his career to Saudi Arabia's urban development and infrastructure and today is at the helm of "one of the most important companies in the Kingdom," according to WPI trustee and friend Mike Dolan '75. SaudConsult, the nation's largest private engineering and architectural company, has built everything from hospitals and schools to highways and marine facilities, petrochemical and telecommunication systems, and even entire cities. The firm is now extending its expertise in many developing countries in Africa and the Middle East.

Outside of his professional accomplishments, Dr. Tarek commits much of his personal time to one of his greatest passions: education. "I give much credit to my start at WPI for my successful career," he says. "I am very appreciative for the wonderful education I received." So appreciative, in fact, that he has made it his personal mission to assist more Saudi students in their pursuit of higher education, financially supporting the WPI education for more than 25 students and many of his company's employees.

Dr. Tarek was one of the constructors on King Abdullah University of Science and Technology, a new and prestigious graduate level university in Saudi Arabia. And like WPI, he believes in teamwork, serving on several advisory boards to build educational collaborations between WPI and Saudi universities.

"I am extremely honored to receive the WPI Presidential Medal," he says, "because the award represents my belief and commitment to the importance of higher education, hard work, and helping others."

—Aubrey Valley



**Number of WPI
students who
have benefitted
from off-campus
projects since the
Washington, D.C.,
Project Center
opened in 1974.**



PHOTO CREDIT: JORDON FRIEDMAN '16

►GLEE

Voices Raised on 140th Anniversary

London choral tour hits the high notes

THE WPI CHORAL ASSOCIATION MARKS 140 YEARS OF choral music at WPI in September, and WPI's vocal ensembles have been gearing up for the occasion with concerts and gatherings. In May, 37 undergraduate men and women, along with three alumni, lent their voices to the celebration with a performance tour that set some of London's most amazing choral spaces ringing. Director of choral music John Delorey, working in concert with WPI's London Project Center, reached out to local arts groups to orchestrate opportunities that are not usually available to foreign choirs. The group had the

privilege of performing in some of the world's most prestigious venues, including St. Paul's Cathedral, St. Martin-in-the-Fields, and Worcester Cathedral (shown above). Assistant conductor Joshua Croke '14 says, "People are often surprised at the strength of WPI's choral program, which is ever-growing. It's unique because we allow access to all students, whereas many university choirs are selective to music majors. We brought some fantastic music abroad, and I feel fortunate to have had the opportunity to perform and conduct in such breathtaking venues."

—Susan Shahloub

▶ LESSONS LEARNED

How FPE Caught Fire at WPI

Founder and director emeritus has tales to tell

LAST YEAR DAVE LUCHT received the John L. Bryan Mentoring Award from the Society of Fire Protection Engineers. The David A. Lucht Lamp of Knowledge Award is also presented annually by SFPE, in his honor. Lucht, who built and led WPI's Fire Protection Engineering Department for 25 years, has taken to painting and memoir writing in retirement. Here are a few colorful reflections from his pioneering career.

When he started out in the field, his own parents had no idea what he was up to.

In 1961 Lucht departed his home town in rural Ohio with a free ride to study at the Illinois Institute of Technology. "I was a volunteer firefighter in high school, and I thought the FPE program at IIT (the only one in the country at the time, since disbanded) sounded cool. When relatives asked, my parents would brag, 'Dave's got a big scholarship, he's going to college in Chicago.' But they could never quite explain exactly what it was that Dave was going to do there."

Over the years, Lucht has had to explain it to some parents of prospective WPI students, too. "Parents sometimes think their kids want to be firefighters—not that there's anything wrong with that. They've just never heard of a college degree in fire protection engineering.

"When I started out in the '70s, I tried to get an engineering license in FPE—but none of the states recognized it as a field. Now they all do."

As state fire marshal for Ohio, Lucht literally set the room on fire.

"When I started in my post, the state of Ohio had had more nursing home fire fatalities than the rest of the country combined. The governor turned to me, and I said, 'There's only one thing I can tell you—get sprinkler systems into the nursing homes.' But that's a big political decision, and an expensive requirement for small mom-and-pop operations.



PHOTO CREDIT: STEVEN KING

"I staged a fire, using two identical rooms in an abandoned nursing home—one with sprinklers, one without—with a live "patient" in each bed. We videotaped the whole thing and recorded all the data—temperature, smoke levels, etc. The guy in the room without sprinklers was a firefighter, but he wasn't wearing protective gear—just a T-shirt and jeans. Within two minutes, flames were shooting across the ceiling. He escaped the perilous combustion products just in time, crawling out on his hands and knees. In the room with sprinklers, nothing happened—the guy just got wet. In retrospect, it was a stupid risk to take, but that demonstration was key to getting the nursing home industry to support sprinkler legislation. Ohio hasn't had a multiple loss since."

"My point is that engineers can be a lot more effective in the political world than they think—if they can learn to work within the system."

FPE caught fire at WPI because of the WPI Plan.

"When I came to WPI in 1978 to start the Center for Firesafety Studies, students in existing majors were already taking on IQPs related to fire. The energy of the projects system fueled the formation of the degree program. It's an idea that emerged out of the culture of the university, it's steeped in the tradition of theory and practice, and it's still making a difference today. I can't think of any other school where that could have happened."

"If you'd asked me back in 1978 to write down how far FPE would go at WPI, I would definitely have missed the mark."

▶ SALUTE

Cadet Caps ROTC Career with Top Honor

WPI senior ranked No. 1 by WACVA

Turning out at 0500 hours (5 a.m. to non-military types) for push-ups and jumping jacks paid off for Marlisa Cardoso Overton '14, winner of this year's Pallas Athene Award, presented by the Women's Army Corps Veterans' Association to outstanding women cadets from each of the four ROTC regions. Overton was also ranked first nationally on the U.S. Army Cadet Command's Order of Merit (OML) list for the 2013-14 school year, among 6,000 peers.

The senior from Brimfield, Mass., was commissioned as a U.S. Army second lieutenant at graduation. Her plans include active duty in the medical services corps as a platoon leader with the goal of enrolling in the Army's physician's assistant program.

Receiving the honor was "unreal," Overton says. "I still can't believe it, to be honest. I've always prided myself on my hard work and academic achievements, but who knew it would pay off so well? I honestly couldn't have done it without support. We had an awesome cadre. I don't think I would have done as well without their expertise."

In addition to maintaining a 4.0 GPA, the biomedical engineering major participated in the Ranger Challenge Team, which she describes as "a var-

sity sport for ROTC." Teams of 10 cadets compete in tasks such as assembling and disassembling weapons, marksmanship, and navigational tests, that challenge their physical and mental toughness, she says, and, above all else, their sense of teamwork. In the military, the ability to work as a unit can literally save lives, she says. "If you can't work as a team, there will be no success for you."

Between B- and C-Terms, Marlisa Cardoso teamed up with 2nd Lt. Greg Overton '13 at the couple's New Year's Eve wedding. Greg, a graduate of the Air Force ROTC program, now works at the Pentagon.

— Sandy Quadros Bowles



▶ ROBOTICS

Alum Aids Search for Malaysian Airplane Wreckage

THE WORLD WATCHED TRANSFIXED last March after Malaysia Flight 370 disappeared and an international hunt for the plane ensued. David Kelly '82, CEO and president of Bluefin Robotics, also watched intently and was ready when the call came asking him to help the U.S. Navy mobilize Bluefin-21, the autonomous underwater vehicle (AUV) his company designed and manufactured. By mid-April, the sleek yellow robotic submersible had become a familiar sight in the media. The Navy sent Bluefin-21 on numerous 16-hour missions to map the floor of the Indian Ocean in the area where pings from the plane's black box had been detected. "Our role in the search was to provide technical data and support to the operators of the AUV," Kelly says. "So we only discussed with the media its technical capabilities and its modes of operation."



A free-flooded modular AUV that operates in deep water, Bluefin-21 carries multiple sensors that create highly detailed data. Its navigation sensors, control electronics, and sensor suite are controlled through software on board the vehicle.

It is launched from a ship, then uses Iridium satellites to fix its position in three dimensions. Using sonar, Bluefin-21 was able to produce clear images of the seabed during its missions but could find no evidence of flight MH370 in that sector of the Indian Ocean.

Kelly says his electrical engineering major was a sound platform for his career in robotics. He went on to earn an MS in computer science from the University of Texas at Dallas and an MBA from Southern Methodist University. A member of WPI's Robotics Engineering Advisory Board, Kelly says, "Volunteering is a way to give back to WPI." He sees an educational evolution and a surge in the school's reputation: "If the advisory board can help guide and foster this evolution, it would be a great accomplishment for all involved."

— Karen Burnett



▶CLEAN FINISH

Grebinar Ends the Count After 42 Years as Coach

PHIL GREBINAR'S 7-year-old grandson summed up the sentiments of decades of WPI wrestlers when he recently asked his "Pop" to attend his wrestling meet.

"I want you in my corner with me," the small voice told Grebinar, WPI's recently retired associate professor of physical education and physical education director who spent 33 years coaching the university's wrestling team to legendary success.

The sport, says Grebinar, is unique. "Wrestling is a real character builder," he says. "And it's very humbling."

As a fresh-faced college grad, Grebinar never envisioned spending 42 years at WPI. And he didn't know he was on the verge of building a powerhouse wrestling program that is still considered WPI's most successful athletic team ever. A three-time Coach of the Year, Grebinar's 414-161-7 career included a 71.7 percent winning record and four NECCWA championships.

"That type of atmosphere doesn't happen by accident," says head wrestling coach Steve Hall '87, who wrestled under Grebinar. "He wanted to win as

much or more than anyone, but that's not what was driving him every day. He cares about everybody."

In an email to employees, Dana Harmon, director of physical education, recreation, and athletics, praised Grebinar. "His love for his work and WPI extends to his WPI wrestling family, a tight-knit group of accomplished alumni around the country and the world, who love their alma mater because of him and what he means to them in their lives to this day," she says.

Retirement brings boating on Lake Winnepesaukee, rounds of golf, and longer trips to his beloved Myrtle Beach, but Grebinar's full schedule of umpiring baseball and refereeing wrestling matches leaves little downtime. And with six sports-loving grandchildren nearby, he and his wife, Dee Anne, are enthusiastic cheerleaders for their brood.

Grebinar appreciates that his teams always gave their best. "I was honest with them," he says. "I prepared them well. I worked them hard, and when we were done, we celebrated."

— Julia Quinn-Szcesuil

▶TALENT

Musical Theatre Steps into the Spotlight

In the spring of 2004, a WPI chamber group staged a single performance of director of choral music John DeLorey's *Witchwife*. A Boston Conservatory undergrad named Kristy Chambrelli came to campus to direct. Ten years later, musical theatre is loud and clear at WPI, with an official student organization, VOX, which collaborates with the Humanities and Arts music division to present a fall and a winter musical, as well as a student-run musical cafe. WPI can also boast an award-winning stage director: This year Chambrelli, who stayed on and now holds the post of adjunct instructor, was named to the 2014 Emerging Artist Symposium: Musicals by the Stage Directors and Choreographers (SDC) Foundation and was also selected to attend the prestigious Directors Lab North this summer in Toronto.

"Musical theatre has grown exponentially over the past decade at WPI," says Chambrelli. "We began with a tiny staged show in Riley Commons, using a bed sheet as a projection surface, and progressed to *Jekyll & Hyde* last fall, using IR technology, four projectors, and a revolve. We did the musical in the round, which from both a technical and an acting perspective was very advanced."

Her actors at WPI range greatly in experience, and some have never stepped on stage before. "We focus a lot on character and acting technique to make their performances as real as possible," she says. "For some students this is easy: for others I try to find out what they do daily and then make connections to their lives. I have made characterization graphs of songs, charts of rising action, and all sorts of idea maps to help students better relate to their characters."

To celebrate the 10th anniversary of the HUA music division and VOX theatre collaboration this fall, the team will present *Les Miserables*. "It's ambitious because of the ideas we're using and the timeframe," Chambrelli says. "We're turning the show around in two-and-a-half weeks, definitely the fastest timetable we have worked on at WPI. We've assembled a fantastic student production team and professional mentors who are already working behind the scenes to make the transitions as smooth as possible."

— Kelsey Keogh



▶ IN RESIDENCE

Entrepreneur-in-Residence brings tactical thinking to innovation

WPI has named Jim Giza, entrepreneur and former vice president of technology at KAYAK, as the university's first Entrepreneur-in-Residence (EIR). In this role, Giza will interact with undergraduates, graduate students, faculty, and alumni to identify early-stage technology start-ups and guide them through WPI's Tech Advisors Network (TAN) to help accelerate company growth.

As he settled into his new role as WPI's new in-house entrepreneurial advisor, Giza took time to share his strategy—in his own words—with *WPI Journal* readers.

How did your journey begin as WPI's first Entrepreneur-in-Residence?

Last year I became involved with the TAN program. Shortly afterwards, the company I worked for was acquired and I found myself with some free time. I was spending a lot of time in Worcester and on campus helping various start-ups and miscellaneous activities at the business school. In January, Mark Rice (vice provost for Innovation and Entrepreneurship at WPI) offered me the EIR role and an office to help the TAN program and also so that I'd have less chance to become stir-crazy working from my home living room.

How do you think you will be of service to WPI undergrads, grads, faculty, and alumni?

I am helping those who have ideas for start-ups, assisting tech discussions, and helping foster ideas about how to best structure a company and protect intellectual property. And I will offer other important business fundamentals, such as staffing, financing concepts, etc.

What did you learn at WPI that helped you become successful in your career?

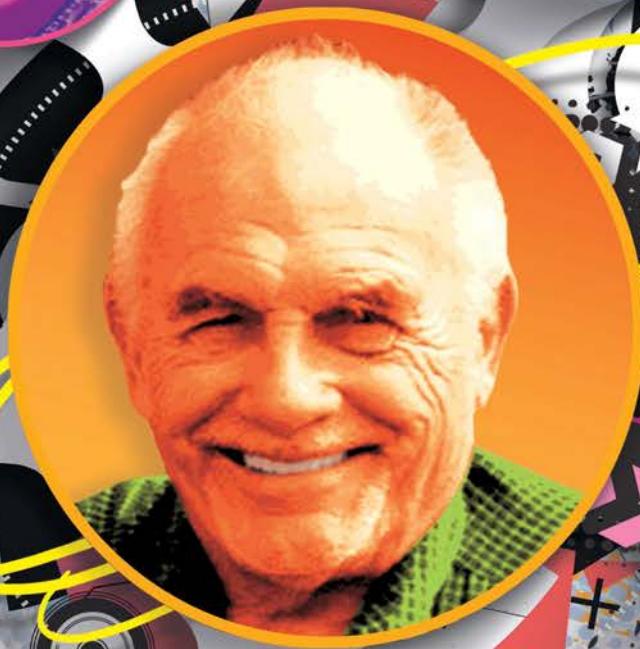
How to work fast and adjust to shifting landscapes.

How do you think the WPI School of Business adds to the overall success of our university?

Immensely— by commercialization of the many great tech advances being developed on or around campus, and by providing a framework and language for would-be entrepreneurs to get a jump-start.



580+



30-SEAT
GREAT PROBLEM-
SEMINEAR B
1200 SF

CONFERENCE
ROOM
375 SF

BUSINESS
DEVELOPMENT
INCUBATOR
SUITE
600 SF

OPEN
OFFICE
450 SF

OFFICE
200 SF

OFFICE
100 SF

OFFICE
140 SF

Middle: Bob Foisie. Clockwise from top: Neeraj (Jay) Khare, Chris Noble, Jody Terranova, Tim O'Neil, Nataša Trkulja.

paying it forward >>

MORE THAN HALF A CENTURY AGO, BOB FOISIE '56 RECEIVED A SCHOLARSHIP TO ATTEND WPI. THIS SPRING, HE DONATED \$40 MILLION TO WPI—THE LARGEST GIFT IN UNIVERSITY HISTORY—TO ENSURE OTHERS CAN DO THE SAME.

BY MICHAEL BLANDING | ILLUSTRATION BY MATT HERRING

FOR MOST OF HER LIFE, college in the United States was a distant dream for Nataša Trkulja '14. Growing up in Banja Luka, the second largest city in Bosnia-Herzegovina, she didn't see much opportunity around her. The average paycheck there today is about \$500 a month. "And whoever gets that is doing really well," says Trkulja, a 22-year-old with straight black bangs and smiling eyes. "There would have been no way for my parents to provide the financial support for me to come to the United States for college."

Even so, she persisted in her studies, dedicating herself to math and computer science. When she heard from another student about the education he received at Worcester Polytechnic Institute, she applied, hoping for a scholarship. Then came the email announcing the impossible—she had not only been awarded financial aid, but she would be a Foisie Scholar, receiving full tuition for four years. Trkulja was ecstatic. "First I started shaking, then I started screaming and jumping up and down on the bed," she says. "I was so happy. I'm not exaggerating to say that if it weren't for that help, I wouldn't be here."

When she arrived in Worcester in August 2010, it was the first time she'd been on her own in a different country. Even shopping at the grocery store or ordering from Dunkin' Donuts was bewildering. But Trkulja had always been an overachiever, and was well aware this was her best shot to make something of herself. She distinguished herself so much in her first year electrical engineering class, the professor asked her to stay on in his lab that summer as a research assistant. "That was my first big achievement," she says, but it was quickly followed by others.

She completed 10 out of the 12 required classes for her electrical engineering major by the end of her sophomore year, and that summer was offered an internship with the prestigious electrical engineering firm Analog Devices. The following year, she won an internship with Sensata Technologies. Her supervisors there were so impressed with her work that they offered her a full-time job, which she accepted this year. "I have grown so much in these four years," she says proudly. "Many of my friends are struggling back home, where it's difficult to find a job even if you do graduate from college. Coming to America was a dream come true for me. And the fact that someone was so generous—that someone was willing to offer me financial support ... I can't even put my feelings into words."

INFLUENTIAL

Most of us can't put a figure on the number of people we've influenced. We can only hope that, in ways large and small, we've helped those around us get closer to their dreams. But Robert Foisie '56 can quantify the lives he's changed: more than 580 and counting. That's the number of students he's supported through 17 endowed scholarships at WPI over the past two decades, offering an opportunity for the recipients to benefit from an education that many would not have otherwise achieved.

Foisie, himself, was a scholarship student at WPI. After graduating in 1956 with a degree in mechanical engineering, he went on to earn a master's at Cornell, and then worked as an engineer at Hamilton Standard Co. and Pratt & Whitney. When he was just starting out in his career, he patented an innovative design for a fuel-control valve for jet engines that was a major improvement over the existing standard. Over the years, he channeled that entrepreneurial spirit into businesses ranging from paper processing and carton manufacturing to real estate and telecommunications.

But he never forgot those responsible for his success. "There were several faculty members who made a lasting impression upon me during my student days through their professional competence and their concern for students," he has said. "Those fond memories have fueled my dream of establishing a scholarship fund to support qualified students with financial need and burning ambition to make a difference in the world."

In the early 1990s, Foisie began establishing partial scholarships in the names of the professors who had inspired him, creating 16 in all through an endowment that ensured that the scholarships

would continue for years. In 2009 he upped the ante by establishing the Robert Foisie Scholars Fund with a contribution of \$9.4 million—giving up to 10 students a year a four-year free ride like the one enjoyed by Nataša Trkulja, along with \$5,000 they could put toward an off-campus academic experience at one of WPI's global project centers.

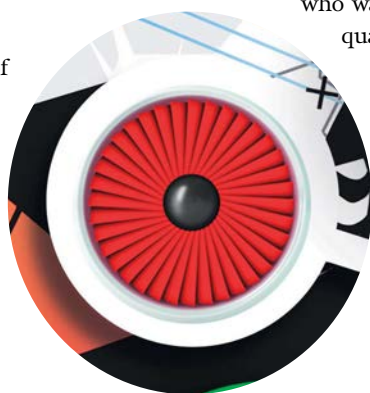
But even that pales in comparison to his latest act of generosity. In May Foisie committed \$40 million—the largest gift ever by an individual to WPI in its 149-year history. And all of that money will be earmarked for student scholarships. "The financial assistance that I received during my time at WPI allowed me to stay in school and realize my potential as an innovator and entrepreneur," says Foisie, who was determined to pay that forward to help other qualified students realize their potential.

"It has really inspired students to take full advantage of all that WPI has to offer," says interim president Phil Ryan '65. "They don't need to worry about taking on extra part-time jobs—they can focus strictly on academics and other pursuits." For some, the scholarship has made the difference between attending WPI or giving up their dream.

"It was go with a scholarship or not go," says Neeraj Khare '96. "It was that simple. I didn't come from a high-income family, and I had three younger brothers. It's not an exaggeration to say that Robert Foisie is single-handedly responsible for my education." Khare had chosen WPI over larger public schools because of its small class sizes and close student-faculty relationships. Several of his WPI professors were instrumental in his decision to go on to pursue graduate studies in chemical engineering at Virginia Tech.

Since then, he has earned his PhD with a focus on simulation of polymerization processes. He has authored

several journal articles and has become a leader in his field in understanding various polymerization technologies and techniques for modeling them. He currently works as a lead process engineer at Honeywell International, evaluating emergency relief systems, which are essential safety installations for industrial equipment. But the experience that has really stuck with Khare is one unrelated to his major—his IQP, which investigated the link between radon exposure and lung cancer in Worcester County. "It's something I'll never forget—even two weeks ago I was talking about it," he says. "It's really taught me to think outside the box and become much more versatile than if I had simply studied chemical engineering."



“Those fond memories [of WPI] have fueled my dream of establishing a scholarship fund to support qualified students with financial need and burning ambition to make a difference in the world.”

FOUNDATIONS

The diversity of the offerings at WPI also helped shape the life and career of Jody Terranova '98, who enrolled at WPI as a biochemistry major with the goal of becoming a pediatrician. "My family certainly didn't have enough money to afford college straight out," says Terranova, whose father was a postal worker and whose mother was a paraprofessional in an elementary school. "Even with loans, we weren't going to cut it." When she received notice of the Foisie scholarship, she says, it was a big relief, freeing her up not only to concentrate on her studies, but to focus on extracurriculars.

Terranova threw herself into college life, joining the Environmental Club and the Pre-med Club, which she served as treasurer; running on the track and cross-country teams; and working for the Social Science and Policy Studies Department, where she got a behind-the-scenes look at the life of a professor. Now she's a pediatrician with a practice in an underserved community in Hartford, Conn.—but she's also a professor of medicine at the University of Connecticut, and volunteers as deputy mayor of her town, Windsor, Conn. "I always loved science, but I didn't realize at the time how much I also loved working with people and teaching people," she says. "Now I get to do a little bit of that every day."

Project experiences outside the classroom were important in a different way for Chris Noble '11, who studied electrical engineering at WPI and now is designing for the next generation of nuclear submarines at Electric Boat Corporation. He had first been introduced to WPI through high school robotics competitions held at the university. "Right then I said, 'This is where I want to go to college,'" he recalls. While he was at WPI, he interned as an engineer at Draper Labs in Cambridge, where he got a firsthand look at cutting-edge research for the Defense Department. Despite excelling at school, he almost didn't finish college because his father's camera shop began to struggle in the wake of the advent of digital cameras.

"My senior year was the worst for my family; money started running out very quickly," he says. "Dropping out definitely crossed my mind." He was spared that extreme measure by receiving a Foisie Scholarship for his last year—which turned out to be crucial to his later career. Draper Labs sponsored his senior project, which involved shrinking voltage boost converters to a size that could fit on a microchip—a complex project that helped him learn how to work with a team to achieve important goals. "Nobody teaches you how to build submarines in college," he says. "The project-based curriculum helped me dive a little deeper into solving hands-on problems and learning how to adapt to changing situations."

For Tim O'Neil '14, the experience that changed his life came overseas. In addition to providing four years of tuition, his Foisie scholarship provided support for an off-campus project experience, and O'Neil used his \$5,000 to travel to Namibia. A biomedical engineering student, he helped assess and improve a solar energy system used to power an ecological research center, working along with a team to help make it more efficient. After the project, the center hired a new employee specifically to implement the project

team's recommendations.

"Getting out of the country and having that different cultural experience was absolutely vital for me," he says. "I feel like I am much better prepared for the working world having had that experience." O'Neil will further deepen his business experience as a master's student in management at WPI—a university he probably wouldn't have attended had it not been for the assistance of Bob Foisie. "I think it's really cool that instead of donating to a specific building or department, he decided to give directly to students," says O'Neil. "I think it says a lot about his character that he just wanted to help give people the WPI experience."

LONG LASTING

While Foisie may not have been motivated by a desire to see his name carved into the side of a building, his legacy of supporting students will be nevertheless permanently enshrined on campus. Along with the new gift, WPI has announced that the university will be renaming the WPI School of Business in honor of Foisie's lifetime giving to the university. In addition, WPI will name a new center for its project-based curriculum in the Alumni Gym also in recognition of Foisie's extraordinary lifetime generosity to WPI (which now totals \$63 million)—a fitting tribute to someone who has helped so many students take advantage of WPI's unique approach to engineering and scientific studies.

"Bob has been very clear and consistent that his financial support be used for scholarships," says Phil Ryan. "However, we felt it would be appropriate to talk to him about a naming legacy as a way to honor his lifelong commitment, his legacy of giving to WPI over a number of decades."

Foisie's generosity has inspired others to help continue his legacy. The president of the Alumni Association, Myles Walton '97, attended WPI with the help of a scholarship that Foisie had established in the name of professor and dean emeritus Bill Grogan '46, before going on to a successful career as a senior aerospace defense analyst at Deutsche Bank.

Recently, Walton established his own scholarship to help new WPI students. At a recent annual dinner celebrating scholarship donors and recipients, Heidi Wyman '14, the recipient of the Walton scholarship, expressed her own desire to "pay it forward" and to establish her own scholarship some day. "WPI was her dream school, but there was no way she could afford to attend without financial aid," says Ryan. "She was quite emotional as she described what it meant for her to be the recipient of an endowed scholarship. It was a wonderful story of transforming and impacting lives of students spanning 70 years."

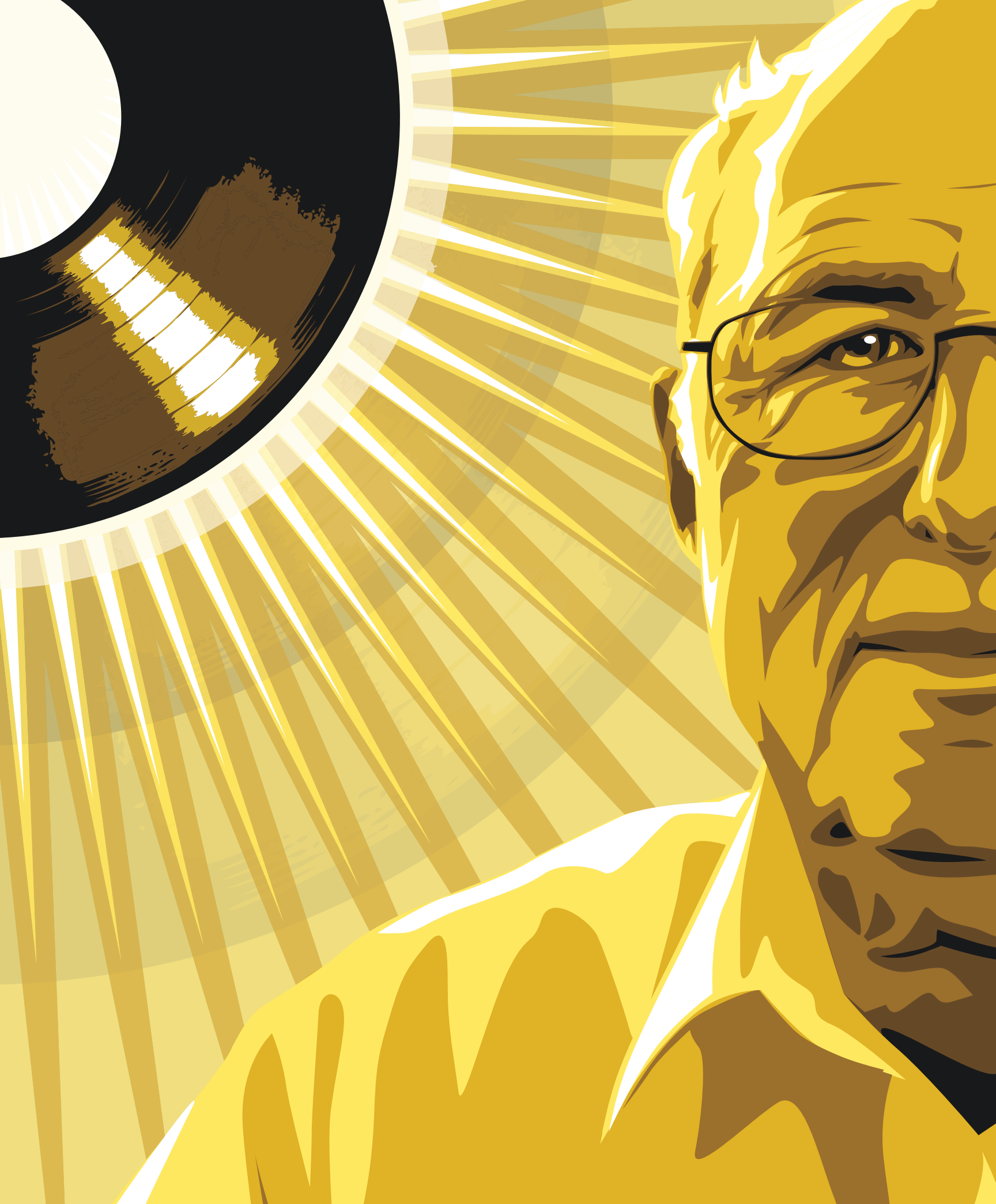
That legacy starts with the scholarship that Foisie himself received, which enabled him to attend WPI and inspired him to establish his own scholarships that have helped so many students over the past few decades. Some day, the recipients of those scholarships may also be able to count the number of people they've helped achieve their dreams. ■

RIGHTEOUS

PHIL BAKER '65 HOPES TO CHANGE THE WAY WE LISTEN TO MUSIC

FIDELITY

BY KATE SILVER // ILLUSTRATION BY DANIEL HERTZBERG



IN 2012 PHIL BAKER ANSWERED THE PHONE AT HIS HOME IN SAN DIEGO AND HEARD THE VOICE OF A MAN HE'D NEVER MET BUT HAD SPENT COUNTLESS HOURS LISTENING TO: **NEIL YOUNG.**

The musician had read Baker's book about product development, *From Concept to Consumer: How to Turn Ideas into Money*, which was given to him by a mutual friend, Craig Kallman, chairman/CEO of Atlantic Records. Knowing Young was looking for a product development expert to help him on a project called Pono, Kallman thought Baker's extensive experience in overseeing tech projects was a great match.

That call was the start of what would become the most revolutionary project in Baker's career. It was a project that would take him back to his days in Olin Hall, where he learned about acoustics, and to the streets of Worcester, where he shopped for records, during a time when music was more pure, and less digitally altered. To build Pono, a music player that will allow listeners to hear songs with the fullness with which they were recorded, Baker's job was to go back to basics. And that meant back to his physics lessons at WPI.

BIG AUDIO DYNAMITE

The spiral-bound notebook is blue, filled with neat, hand-written notes, in different colors. It accompanied Baker to his acoustics class in 1963, where he studied the physics of music. Back then, he was spending his spare cash at a record store in downtown Worcester, while attending class at WPI and playing in the ROTC band. "I was into the clarinet and a lot of folk music at the time—plus Harry Belafonte and the Beatles—and I remember buying the expensive audio fidelity albums that were very sound effective," he recalls.

Flash forward to 2012. Baker hadn't turned his stereo on in nearly 10 years, because he no longer liked the way music sounded. So much content had gone digital and, to him, that took the enjoyment out of listening. As Baker saw it, technology had done music a disservice, stripping away quality so that listeners could pack more tracks into their iPods and MP3 players.

That's when Neil Young came calling. It was time to brush up on acoustics, music recordings, audio electronics, and the ways that standards had changed over the years. Time to dig out that old blue notebook—decades after he'd majored in physics at WPI and gone on to earn his master's in engineering at Yale and his MBA at Northeastern. He would rely on that early music foundation to fulfill Young's vision, and return the rich highs and lows that music had back in his college days.

"In the world of high tech, as we've become more digital and products have gotten better, music has actually been the exception and has gotten much worse," says Baker. "Photography has improved as images moved from film to digital. Television has delivered images to our living room that are sharper, much more vibrant and much more realistic, on displays that are 50 times larger. But music has gone backwards. It's been compressed to much smaller files, just for the sake of convenience. An MP3 file, what most people listen to today, contains 5 percent of the original data recorded in the studio. A CD typically is 25 percent."

By relying on smaller files, a company that sells music players can advertise a product that holds 10,000 tunes in our pocket. The

problem, though, is that audio quality has been sacrificed to make room for quantity. An entire generation has been raised on low-quality, compressed music, and many music fans in their teens, twenties, and beyond have never experienced high-quality audio. That's where Pono comes in.

IMPATIENT ENGINEER

Baker majored in physics at WPI because it covered a wide range of technologies that provided a good foundation for a career in science and engineering. "I liked physical sciences that I could easily visualize," he says. "I enjoyed studying audio and acoustics, and particularly optics."

He says he thinks back to WPI and still admires the way his professors brought real-world applications into the classroom. That, he said, was a unique facet of his education that began and ended in Worcester. "As I went on to grad school at Yale, I found my instructors were less qualified and had poorer abilities to teach. Most were graduate assistants. At WPI, I loved the practicality, the experience of the professors. They were knowledgeable about their subject matter, but also great instructors. It was more practical and less theoretical and abstract."

That practical knowledge helped Baker grow into his role as a respected product design engineer, with a focus on high-volume consumer electronics. He holds 30 patents and has led product development teams for companies such as Apple, Seiko, Polaroid, Atari, Polycom, and Proxima. Over the years, Baker has been involved in the development of more than 80 tech products, in-

FACTS ON PONOPLAYER

The PonoPlayer is a portable music device that is capable of playing music that hasn't been compressed or stripped of its original depth. You can listen to Pono wearing headphones or by plugging into an audio system. The first 12,000 PonoPlayers will roll out in October. Here's a look at the device, at a glance:

The \$399 PonoPlayer will come with 128 GB of memory. That's enough space to hold about 5,000 CD-quality tracks or 800 ultra-high resolution recordings.

It can play music bought and downloaded from the PonoMusic store, and can also play most other audio formats, from CD-quality recordings to ultra high resolution recordings.

The high-resolution albums from PonoMusic will cost between \$14.99 and \$24.99. Singles will also be available.

Files from PonoMusic have between six and 30 times the amount of data as a regular CD or MP3.

The PonoMusic player is available at ponomusic.com.

cluding the Apple Newton, the first Barnes & Noble Nook, and PowerBook laptops. He also co-founded a company that created the Stowaway keyboard, a full-size keyboard that fits into a shirt pocket. It was sold under the Palm, Nokia, and Sony labels, and was used with PDAs and smartphones.

Early on, Baker learned that he was an impatient engineer. During his first job, at Polaroid, he became frustrated when he saw how long it took to manufacture a product when the designs were done. Always a problem solver, he went to Asia to find compa-

nies that could accelerate the process. That was in the late 1970s, before overseas manufacturing was a common solution. Baker developed a reputation as an expert in having products made quickly and cost effectively in Japan, Taiwan, and China.

It was that history, says Kallman, that made Baker the ideal fit for the Pono project. "He's got incredible relationships in Asia, he really understands manufacturing and building projects from the ground up—inception, industrial design, delivery, and everything that goes into a product

from start to finish. He was the perfect person to really execute that."

MONA LISA OF MUSIC

The first step in Baker's role as a consultant with Pono (he would later become vice president of product development and operations) was to assemble a small team that could bring the idea of delivering music bursting with fullness to fruition. Pono, which means "righteous" in Hawaiian, would become more than just a music player. It would be both a music device and a music store. As a device, it would take the form of a hand-held music delivery system (through headphones or by plugging into an audio system), while the store would sell audio tracks that were close in quality to the musician's original recording.

Relying on a combination of high-resolution files and electronics, Baker and his team worked to build a piece of hardware that doesn't degrade or compromise the quality of the best audio file. While smartphones and computers take shortcuts, reducing the quality of the sound, Pono would be as true as possible to the original. Each music file would have six to 30 times the amount of data found in an MP3 or CD. Those larger files meant that the player wouldn't be able to store as many songs—no more 10,000 in your pocket—but the PonoMusic songs it held would be brimming with vibrancy. By using a larger file—specifically, 192 kHz, 24-bit recordings—the engineers would be able to transfer, to the listeners' ears, a sound similar to the original recording, as it would have come across in the studio.

"By preserving the quality of the source all the way through the player, the result would be an experience that feels three-dimensional, with a spaciousness that is easily recognizable when compared to the flat, one-dimensional sound of an MP3 recording," says Baker. "A PonoMusic song is to an MP3 as the Mona Lisa is to a photocopy of it."

As Baker and a team of engineers worked

on the product, Young worked on raising the capital needed to complete the first phase of the design and to build a few dozen PonoPlayer prototypes. It was a challenge. “While we wanted to raise more, venture capital firms just really weren’t interested in putting a lot of money into this,” says Baker. The firms were convinced that that consumers didn’t care about high-quality audio, and were content with low-res MP3 music.

With limited resources, the project slowed down. Baker, however, was hooked. He’d taken one of the early models home, and he and his wife, Jane, sat down to listen. Fittingly, the first song they listened to—“Harvest Moon”—was a Neil Young classic. Next, they played “Old Man,” also by Young. Then, Roberta Flack’s “Killing Me Softly.” Baker and Jane (a singer with the San Diego Master Chorale, who also often sings with the San Diego Symphony Orchestra) were floored. He recalls her saying to him, “Of all the projects you’ve worked on in your career, this is the best. The world needs this. I need this!”

Jane explained to him what she was hearing, and why she loved it: “You can actually ‘see’ the placement of the instruments, the voices; they’re much more like a 3D stage, the depth,” she said. She added that it was the closest thing she’d heard to standing, physically, alongside the San Diego Symphony Orchestra.

KICK-STARTED

Last March, all of the hard work was about to be validated. Young decided to try a new tack to raise capital: Kickstarter. He continued to believe there was a huge opportunity for Pono, and thought the investors were underestimating the public’s perception of quality. He wanted to see how the people responded. Kickstarter would provide not only a source of funding, but a real market test: Would people pay for the chance to become part of this cause?



“A PONOMUSIC SONG IS TO AN MP3 AS THE MONA LISA IS TO A PHOTOCOPY OF IT.”

Young launched the campaign at South by Southwest in Austin on March 14, 2014. What followed was a shock to everyone involved.

“I didn’t know how much we would raise,” says Baker. “We were hoping for \$1.5 million. That would allow us to keep going.” Instead, over 34 days, 18,220 followers contributed \$6,225,334—the third highest-funded project in Kickstarter history.

It was exactly what the team needed to hear. There isn’t just a market for Pono, there’s a true thirst for it. With that funding in place, Baker and the team of four are now working to fulfill the promise they made on Kickstarter: to ship 12,000 PonoPlayers in October 2014.

Kallman says that when that happens, he expects the music landscape to change. “I think people need to hear high-resolution audio. I think it’s really important that people get to hear music the way it was created, studio master quality sound. I feel like the

time is now, technology is now, and we’ve got a real opportunity to introduce people to music the way it was meant to be heard.”

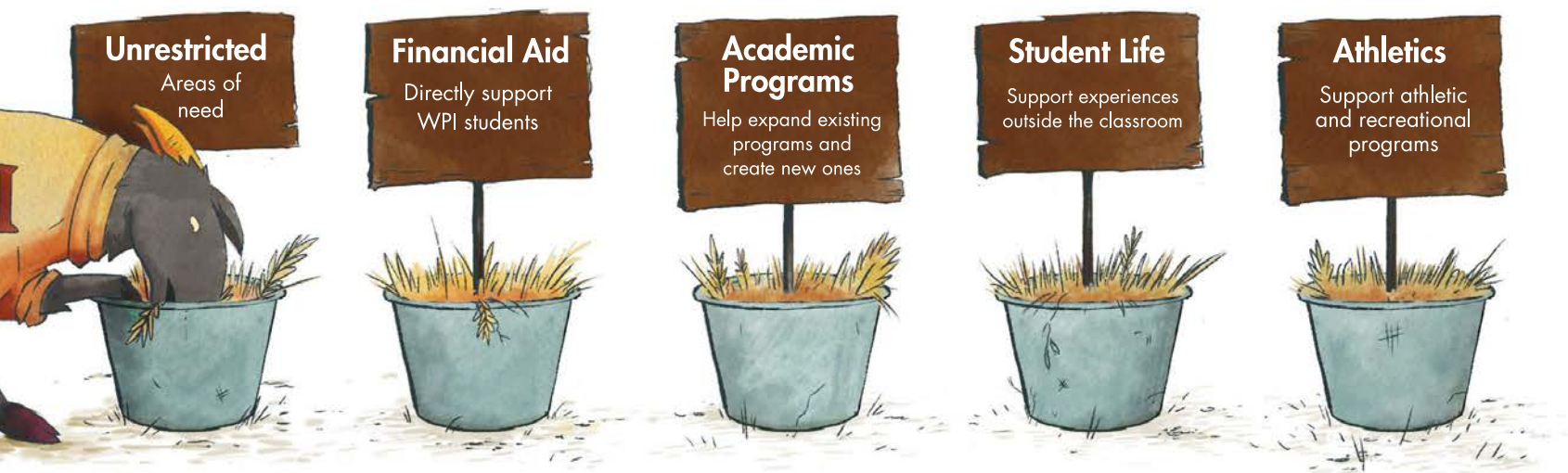
While the record store that Baker used to visit in Worcester in the ‘60s is long gone, he smiles at the memory, and knows there’s still a piece of it—and WPI—in every Pono song he hears.

“I think it’s going to touch more people than most of the things I’ve worked on,” he says. “And I think if we can accomplish what we’ve set out to, it can really change how music is received.” ■

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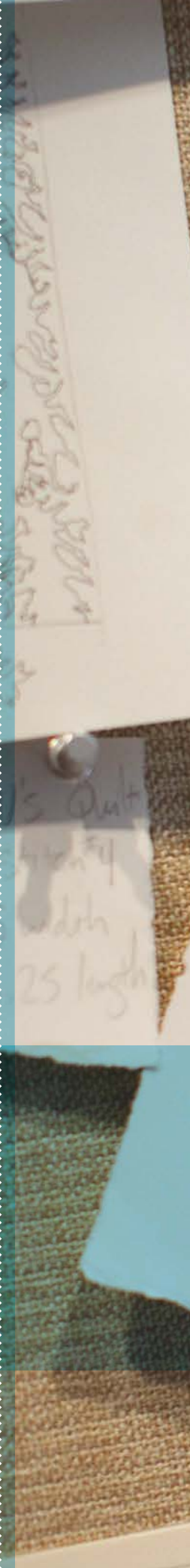


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ERICA (CURRAN) MASON '96
BRINGS AN ARTIST'S FOCUS TO
THE WORLD AROUND US

BY JOAN KILLOUGH-MILLER
PHOTOGRAPHY BY KATHLEEN DOOHER



Nothing to Sneeze At

Plant pollen on the rise as temperatures warm



matters of perspective

ERICA MASON LOVES CELLS.

In their intricate structures, she finds miniature worlds of great beauty and order.

As a biology student, Mason used to pore over the cell drawings in her textbooks. “They had a scientific purpose, but they were also just beautiful, in and of themselves, as works of art,” she says. As an artist, she’s delved deeply into the possibilities of their patterns. She doesn’t strive to create accurate renderings of actual cells, but to experiment with novel arrangements of color and form.

Pen-and-ink drawings from Mason’s “Cellscape” series premiered at WPI in 2009. Her exhibit title was “OCD.”

Mason laughs at the obvious question raised by the title. “I get asked that all the time! The obsessive-compulsive label does speak to my nature of needing to be very precise. Structure is key for me. It’s also what I learned as a scientist – to be careful and specific.”

When she took up oil painting in 2010, her teacher gave her exercises to force her to break out of that fussiness. “One of the challenges for me as an artist is to not get too obsessed with rules. I have rules for every drawing I do that stipulate the placement of shapes and colors, for example. I take comfort in having rules that I set for myself. The mark making in my drawings is very small-scale and time consuming, but I find it meditative and calming.

“It wasn’t until I started painting, and had someone pushing me to step outside of that comfort zone of rules and precision,

that I could work toward letting myself be a little more free and expressive. When I pick up the brush to start a new painting, I don’t have any idea of what’s going to happen.”

Mason’s abstract paintings are sparked by photographs she takes in her travels with her husband, Bob Mason ’94, whom she met in her first weeks at WPI. As

with her cell drawings, Erica zooms in on details, such as the interplay of color and texture she observed on the black sand beaches of Iceland, and the green tones of lichen and moss that cover the glaciers where the couple hiked. Again, she is not out to create a literal depiction of reality. “I don’t want people to look at them and say – ‘Oh, you were in Iceland.’ What I want is to recreate a memory, to inspire the feeling I had standing in that place.”

Although they look quite different, there is a common thread between Mason’s paintings and her drawings. “I’m starting with something from real life and putting it through a filter, working to transform it into something fantastical.” In her work, all sense of scale disappears. The view might be from miles above, through an airplane window – or close up, at the highest magnification of a microscope. She takes a mathematical, fractal view of this: “What’s true at the macro level is also true at the micro level.”

A Different Path

Although her path has not been straight and deliberate, Mason finds purpose in every step. “The most valuable thing I learned at WPI is how to think, and how to work through problems. You do that as an artist, too. My work is very experimental; there’s a lot of trial and error, and figuring out the right materials to make it work. It translates.”

It took some time for Mason to claim her new identity. “I didn’t have a degree or a certificate, the way you do in engineering. It took a long time before I could confidently say, ‘I am an artist.’”

At WPI, as a double major in biology and social science and policy studies, Mason put in a lot of late nights at Gordon Library. Laden with textbooks, monographs, and lab reports, she would climb to the third floor and emerge from the drab stairwell into the Class of ’41 Gallery, where she always took time to appreciate what was on display there. Never would she have guessed that her journey, from WPI to doctoral studies in biology, to night courses in architecture and design, would lead her back to that same gallery to display her own work. “What a great way of coming full circle,” she exclaims. “It was such a nice homecoming. And who knows what someone might take from seeing my work there.”

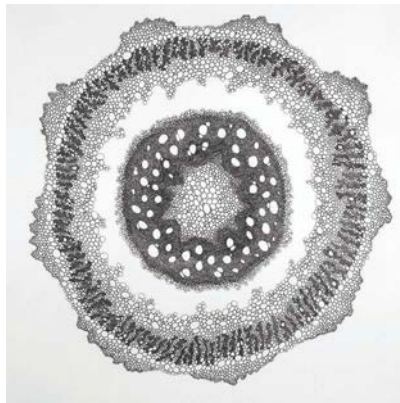
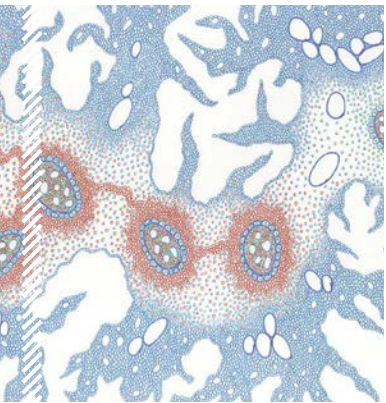
A keen observer who appreciates the nuances of perspective, Mason has had the opportunity to view WPI from a different angle, as a trustee and donor. “Both Bob and I had a lot of financial aid when we were students – we wouldn’t have been able to come here without it. WPI really stepped up when it was needed.” To



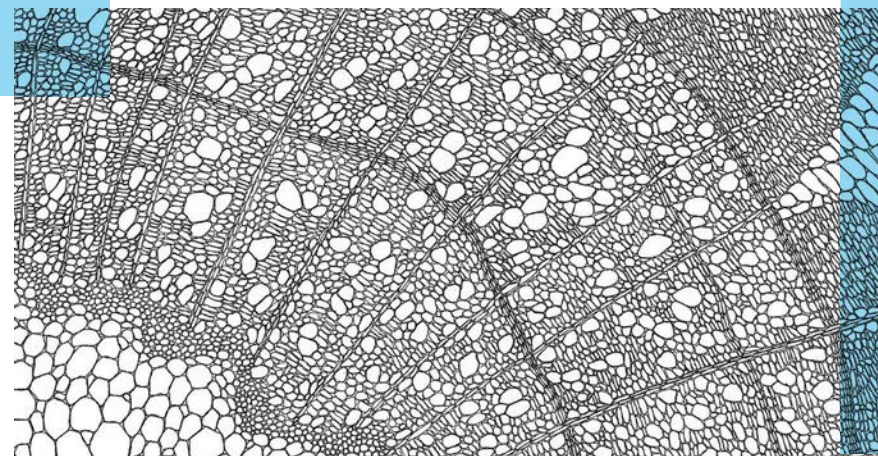
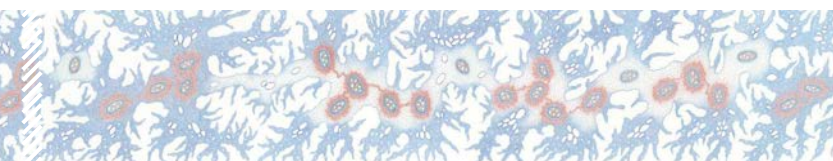


reciprocate, Erica and Bob established the Mason-Curran Scholarship and have provided support through the Mason Family Foundation. “It’s been really interesting, learning what goes on behind the scenes,” she says. “As a student, I was completely unaware of all that needs to happen to offer this great education.”

Wherever she goes, Mason always stops to notice and photograph details that intrigue her, from the varied patterns of manhole covers in Japan, to the texture of brick in ancient European buildings. On a recent visit to campus, she turned her lens on the gargoyles that decorate the façade of Alumni Gym. “I must have walked by that building every day as a student, but I don’t recall noticing them. You stop seeing sometimes, when you’re looking at something really familiar. I like to take the time to look at things in different ways. Maybe it’s a curiosity inspired by my scientific training, where I was taught to put things under the microscope and make close observations. You can find such beauty in everyday life that way.” ■



“Structure is key for me. It’s also what I learned as a scientist—to be careful and specific.”



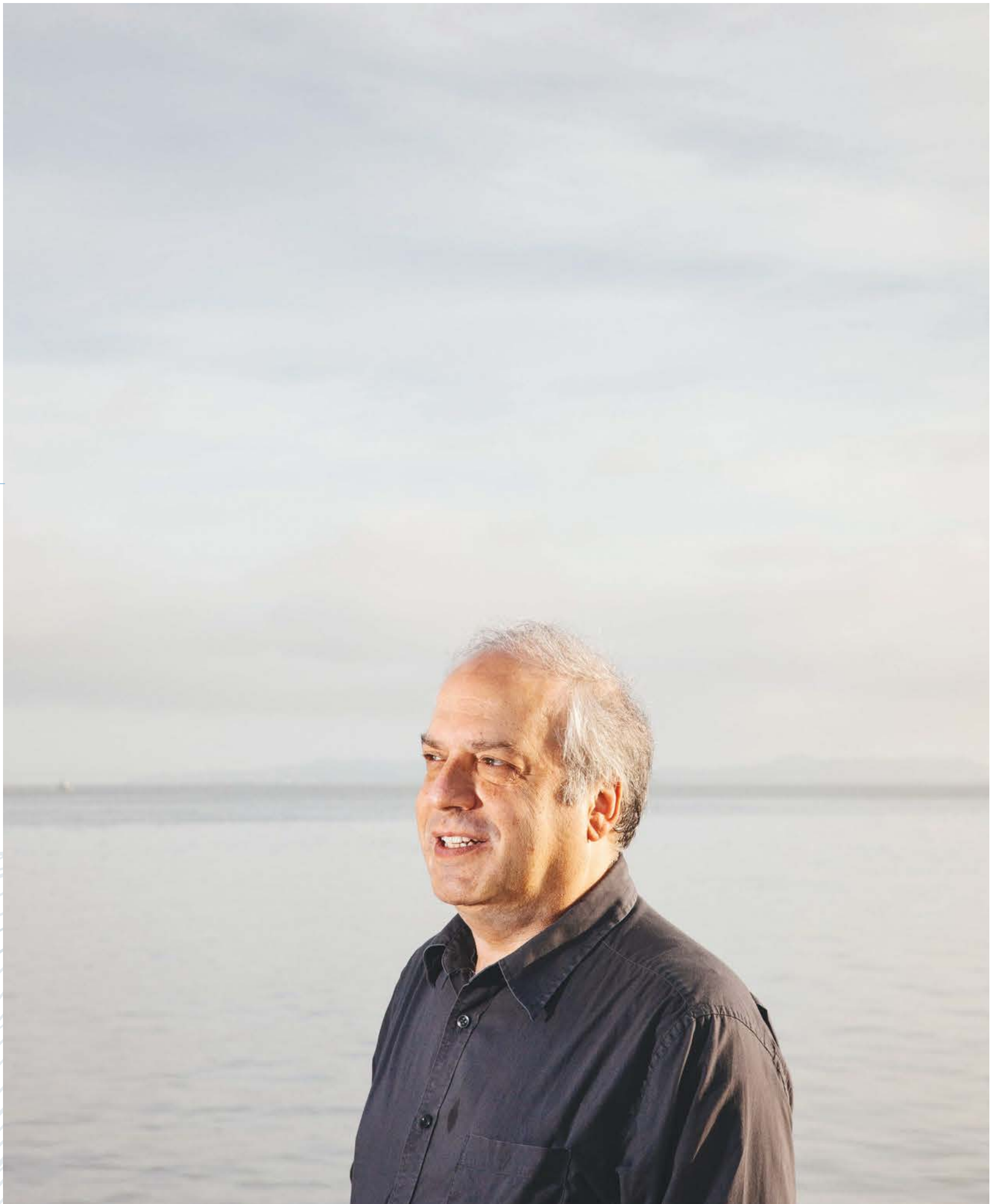
currents *of* change

MICHAEL KIRSCHNER '82 HAS EMERGED AS AN EXPERT
IN THE FIELD OF ENVIRONMENTAL COMPLIANCE

by joshua zaffos | photography by leah fasten

Michael Kirschner was 12 years old when he dismantled his first television set in his parents' basement, curious but otherwise oblivious to the inner workings of electronics. "I knew enough to unplug the set before I started tearing it apart," he jokes, "but that doesn't mean I didn't get a number of shocks over the years."

Kirschner hasn't stopped tinkering since: A San Francisco-based electrical engineer, he has made a career out of arranging and understanding how computers, medical equipment, and all sorts of electronics run, from the configuration of components to the supply chain of materials. And while Kirschner says enduring jolts of current is a rite of passage for electrical engineers, he now specializes in helping companies adapt to the economic and regulatory shocks that are shaping high-tech and manufacturing industries around the world.



the guide

In the last few decades, scientists have raised concerns over the effects of chemicals and toxic substances used in electronics, medical devices, cars, and countless other consumer and high-tech products. Studies have shown that even low-dose and chronic exposure to chemicals may be linked to cancers and endocrine disruption that can lead to a long list of health risks, from lowered fertility and developmental delays, to deaths—in addition to environmental damages.

While researchers work to further understand these connections, the United States has deferred on instituting regulations to control exposure to and disposal of potentially toxic substances. But Europe and Asia have approved groundbreaking new regulations that are reverberating around the world, giving rise to the emerging fields of green chemistry and manufacturing, and forcing companies to reconsider how they assemble, distribute, and recover products.

Amid this developing regulatory landscape, Kirschner, a principal consultant with environmental safety and health consulting company ENVIRON, has emerged as an expert. He advises manufacturers, industry associations, governments, environmental groups, and others on how to meet and comply with environmental regulations that limit the use of toxic chemicals and mandate recycling and reclamation of discarded materials and goods. The new rules are unfamiliar territory, even for engineers, who thrive on understanding pathways, and Kirschner has stepped up as a capable guide.

“You have to step back and take a system perspective. This is a big, complex system and a real challenging problem,” Kirschner says. “But I’m an engineer, and when I see a problem I want to solve it.”

a charged future

Kirschner grew up in Connecticut, where his father worked in the insurance industry and his mother was an artist. He claims, “I should have zero mathematical ability,” based on their professions.

But stoked by his basement workshop sessions and an interest in science, Kirschner came to WPI in the fall of 1977, planning to study physics. Courses in mechanics proved a struggle, however, and after his sophomore year, he took time off from school to rethink his future. He spent a year as an engineering assistant for United Technologies, working on and learning about processors, such as the Intel MCS-8048, one of the company’s early microcontrollers, used to run industrial and commercial tools and systems. Then he returned to WPI to study electrical engineering. For his MQP, Kirschner and his project partners built an Ethernet controller, the processing device that enables and handles computer network communications.

“Ultimately, I learned about the architecture of Ethernet, and this was 1981 and 1982, well before the Internet and widespread networking,” Kirschner says.

In fact, Ethernet was commercially introduced in 1980 and not standardized until 1983, and local area networks—now mostly wireless and ubiquitous in offices and on campuses—were still in the early stages of development. “When my kids complain about the Internet going out, I tell them, ‘We had 300-baud modems back

then.’ A tiny fraction of the speed of modern connections,” he says.

With a desire to head West, Kirschner scored a dream job at Intel in Santa Clara, Calif., where lead engineers were on the cutting edge in developing faster and more powerful processors. “It was a really interesting time to be in that world,” he says, “and what I did at WPI set the stage for me to be able to do what I wanted to do.”

As a reliability engineer, Kirschner mastered microchips, the basis for the digital appliances and gadgets that dominate our lives. He later brought his experience with integrated circuits to Tandem Computers, formerly the major producer of high-availability, fault-tolerant computer systems for stock exchanges, banks, and hospitals that cannot afford to lose data or suffer operations failures. That was his introduction to component engineering, figuring out the parts and supplies needed for any particular product, and “how to make things properly and what can go wrong in that environment.”

When Compaq bought out Tandem and another company in the late 1990s, Kirschner and two colleagues took on the task of integrating the firms’ equipment, materials, and supply chains—evaluating how to leverage high product volumes while also reducing costs.

Fascinated with the work, Kirschner founded Design Chain Associates in San Francisco in 2001, then brought on his two colleagues. As a product-lifecycle consulting firm, the business helped client companies establish and consider supplier management systems and component selection. Kirschner had found a specialty and a niche—one that was about to become critical in the electronics and manufacturing industries.

shift in currents

In 2003 the European Union adopted the Restriction of Hazardous Substances (RoHS) Directive, prohibiting the use of six heavy metals and chemicals in electrical and electronic equipment. The list includes lead, mercury, cadmium, hexavalent chromium used in circuits, soldering, casings and components, and two types of polybrominated flame retardants used in plastics. The regulation, which took effect in 2006, was part of a larger initiative to address the massive amounts of toxic electronic waste piling up in landfills as people used and discarded more and more devices. Toxins were leaching



marion emmert: the catalyst on campus

Marion Emmert might be considered a chemistry laboratory matchmaker; she likes to make things happen that might not occur naturally. From her lab in the WPI Life Sciences and Bioengineering Institute at Gateway Park, Emmert studies organometallic catalysis—new processes for increasing the rate of chemical reactions—and their applications for manufacturing chemicals and fuels more efficiently.

At a time when scientists recognize a need to conserve critical materials and limited resources and to reduce harmful pollution or byproducts, Emmert's research aims to identify and devise new catalysts and reactions that can use cheap, available, and nontoxic materials and also generate less waste. "Catalysts tell the original chemicals what to do and then determine what comes out in the end," says Emmert, an assistant professor in the Department of Chemistry and Biochemistry, originally from Germany. "We come up with ways to understand what small and large changes do to the reactivity at a catalyst's metal center. It's designing a catalyst and making it do what we want it to do."

For example, proteins in our bodies serve as agents that synthesize molecules to grow tissue and perform all sorts of vital functions. In the pharmaceutical and materials industries, catalysts transform gases into plastics, typically using petroleum-based molecules and, often, metal-based oxidants, such as chromium, that can leave behind toxic compounds with severe environmental impacts.

Emmert and her team of undergraduate, graduate, and postdoctoral students are studying more efficient and cleaner alternatives. In order to make reactions more sustainable, Emmert strives to use oxygen and hydrogen for oxidation and reduction reactions, instead of reagents based on chromium or other metals. The researchers then observe what happens when ligands—the molecules that bond to and surround a metal atom—are replaced with new molecules. The work could point the pharmaceutical and chemical industries toward greener practices and products.

Emmert and her group also study the synthesis of hydrocarbons using hydrogen and carbon dioxide. "The question is, can we come up with a process that gives us a sustainable substitute for oil from completely renewable resources?" she says.

In the last year, Emmert and students in her lab have taken uncharted steps toward generating a system that starts with carbon dioxide and hydrogen to ultimately make molecules identical to those found in oil. "We identified this one crucial step where there's not much in the literature and we're basically starting from scratch," Emmert says. "I still sometimes can't believe it's working."

This past April, a U.S. Navy research group used heterogeneous catalysis to produce renewable fuels for the first time. Emmert, who uses homogeneous catalysis that functions at lower temperatures and uses less energy, hopes her lab will one day produce a similar outcome.

"It's exciting to see how a project goes from an idea in my head to reality," Emmert says, "and then it turns out to work and might be important in solving actual problems. It's pretty crazy."

— JZ

into the ground and water, and studies in both the United States and Europe suggested links between exposure to the metals and chemicals with an increase in cancers and endocrine disruption.

In the U.S., most electronics companies overlooked RoHS—considering it to be a manufacturing and not an engineering problem. But Kirschner and his partners soon realized a major shift was afoot. Following a 2003 industry meeting and a panel discussion on the directive, “I was a believer,” he says.

“The vast majority of the electronics firms had no clue or awareness about environmental performance,” he adds. “But we had an epiphany that this is really an important event that is going to change everything. It’s the first time the electronics industry and the supply chain has ever been under this sort of regulatory requirement.”

Even without equivalent rules in the U.S., the directive was going to impact the electronics industries around the globe. After all, Europe accounts for roughly one-third of the \$500 billion in annual sales of electronics and high-tech devices, and companies complying with RoHS would do so for their products worldwide.

Having initially focused on advising clients on how to efficiently and cost-effectively achieve their desired form, fit, and function for products, Kirschner and Design Chain Associates expanded their services to address the new regulations. The EU’s subsequent Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation—which controls and limits substances based on studies and risk assessments—further influences companies to consider the life-cycle effects of products and their materials. Other countries, including China and Korea, have also followed Europe’s lead.

The new rules have meant learning about chemistry, toxicology, and environmental science—disciplines outside the wheelhouse of most electrical engineers. It’s also forced Kirschner and others to consider alternate materials, sources, and processes for manufacturing and recycling electronics. Equally important—and challenging—has been developing and identifying standards and metrics to define environmental performance and improvement among the chemical, electronics, and manufacturing industries.

“We are used to technical requirements, but we don’t think about toxic substances,” Kirschner says. “With RoHS, now we do.” That has also meant identifying standards and metrics to define environmental performance and improvement. “We’re very good at doing alternatives analysis on functional aspects and costs of materials and options for where we want to build something,” he says, “but we’re not very good at selecting materials for their environmental impacts.”

Those knowledge gaps led Kirschner to join ENVIRON in 2012. At the international firm, he works with specialists in complementary fields

to provide clients with technical and management guidance on compliance with the growing pool of regulations and customer demands.

Kirschner has emerged as an expert in the field of environmental compliance. He frequently speaks with industry leaders and guest lectures at universities about the future directions of electronics engineering and sustainable manufacturing. He has contributed chapters to a book on compliance and risk, and regularly comments to media about the strides and obstacles in the field. Investigative writer Mark Schapiro featured Kirschner and his experiences and insights in his 2007 book, *Exposed: The Toxic Chemistry of Everyday Products and What’s at Stake for American Power*.

Kirschner’s expertise led to his appointment as a member of the California Department of Toxic Substances Control’s Green Ribbon Science Panel to develop the state’s Safer Consumer Products regulations from 2009 to 2013. The initiative demonstrates the monumental task for engineers, chemists, manufacturers, and others who are figuring out what makes a substance safe or sustainable and analyzing the environmental and health tradeoffs between different substances and potential substitutes.

“The [California] regulation recognizes that when governments tell manufacturers they cannot use a chemical anymore, you don’t have any control over what they replace it with,” Kirschner says. Through the California panel, he and other members realized that decisions should be made during the design phase to head off repercussions.

Building off those lessons, Kirschner was appointed to the American Chemistry Society Green Chemistry Institute

Governing Board in 2014, and he is also lead moderator of the American National Standards Institute Chemical Network.

“From his experience in engineering and computer design, Mike brought a new perspective,” says Nina McClelland, provost of the University of Toledo, who also serves on the Green Chemistry Institute board and recruited Kirschner to the group. “His need to know about the science and technology of green chemistry is clear and compelling.”

The initiatives acknowledge the complex challenge in front of Kirschner and others working on the frontiers of sustainable manufacturing and green chemistry—and for the next generation of electrical engineers, chemists, and universities—including WPI (see sidebar).

“I think there are huge opportunities in this space for engineers and chemists within the next few decades,” Kirschner says. “This is a multigenerational problem to solve. We have an enormous infrastructure with huge inertia, and changing that is difficult to justify for cost reasons and because people don’t like change. It will take a long time.” ■

“I think there are huge opportunities in this space for engineers and chemists within the next few decades.”

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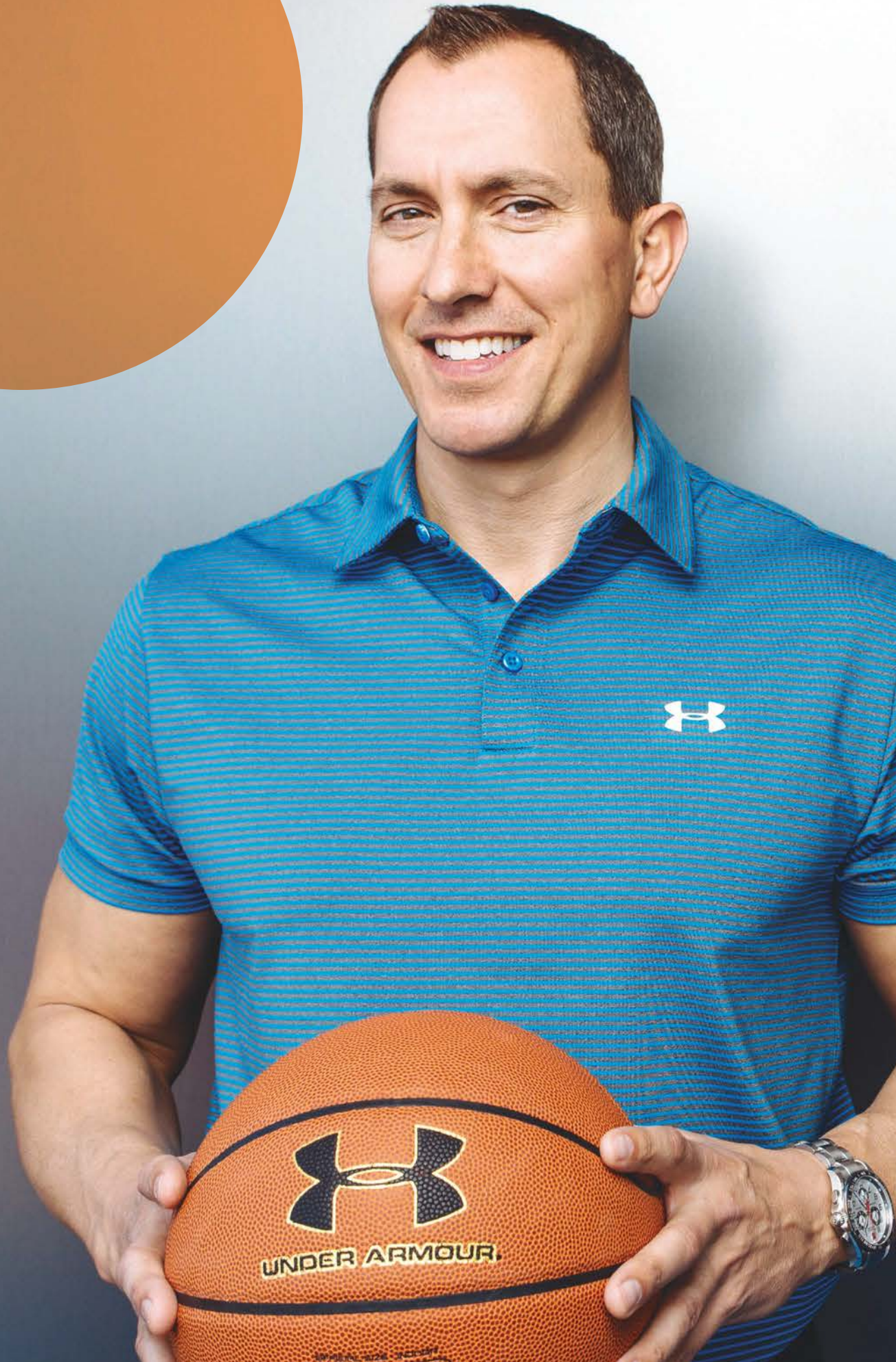


WPI

U.S. Census Bureau reports that a person holding a master's degree makes 19% more annually than a person holding a bachelor's degree.

Day and Newburger report that master's degree holders make 13% more over their lifetimes than those with a bachelor's degree.

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UNDER ARMOUR.

Nick Carparelli '90

scores
a
slam
dunk
career

BY JOHN SHAW

PHOTOGRAPHY BY MATT FURMAN

In 1989 Nick Carparelli Jr. was a WPI junior in search of an IQP.

A self-described sports nut and member of the men's basketball team, Carparelli teamed up with his roundball teammate Gerry Burns '91 on a real-world topic close to their hearts: a study of the National Basketball Association. More specifically, the NBA's spectacular turnaround from teetering on the brink of bankruptcy in 1979 to international success in just a decade.

"I went with something I was passionate about," Carparelli recalls. "I guess it was an early sign of where my career path was going to lead."

Today Carparelli is senior director of college sports for sports apparel company Under Armour. He's worked his way up through athletic circles in a series of career plays that took him from the football programs at Syracuse and Notre Dame to the New England Patriots, with more than a decade as associate commissioner of the Big East and American Athletic conferences.

"Not everyone has the opportunity to do something they love," he says. "I've been very, very fortunate."

Early Training

When Carparelli set out on Route I-84 to Worcester from his childhood home in Cheshire, Conn., his direction was less clear. His story was not that unusual: high school kid with aptitude for math and science, doesn't really know what he wants to do, figures he might as well play to his strengths, takes a shot on engineering. At the time, he had no idea of how the future might play.

Captain of his high school basketball team, where he played all four years on the team coached by his father, Nick Sr., Carparelli chose WPI in large part because longtime men's coach Ken Kaufman expressed interest in the 6'4" forward.

"Such a small percentage of people play college athletics, even at the Division III level, so it is something I'm proud of," says Carparelli, who captained the Engineers during his senior year in addition to playing golf and baseball.

Life-changing Call

With his BS in mechanical engineering, Carparelli joined the team at Pratt & Whitney. A year later came the phone call that would prove to be life-changing. It was early January 1992: on the line was Syracuse head football coach Paul Pasqualoni, an old friend of his father's whom Carparelli had known since he was 5 years old. A position on the Orangemen's coaching staff for a graduate assistant had just opened up. There would be no pay, only free tuition for a master's degree. Would he be interested? "Oh, and by the way," Pasqualoni went on, "you'll have to be on campus tomorrow because classes are starting and you need to be enrolled to be eligible."

Carparelli was in upstate New York the next day.

He spent that first season doing a little of everything for a team that compiled a 10-2 record and beat Colorado in the Fiesta Bowl

on New Year's Day. But keeping up with classes and working for a Division I football powerhouse was way more demanding than Carparelli's undergraduate days at WPI. "If I wasn't in class, I was in the office," he says. "People who watch games on television can't understand all the work it takes to get a team ready to play. It's really a 365-day process, and it's extremely competitive. Working at Syracuse really opened my eyes about what a big business college athletics is."

As assistant director of football operations for the next two years, his duties ranged from organizing daily staff and team meeting agendas to helping recruit players. But the job ended when Carparelli completed his MBA in 1994. At the time, he figured he'd had his shot in sports, and now it was time to get on with a "real" career.

Instead of returning to mechanical engineering, Carparelli joined a pharmaceutical company, where he excelled in sales and moved up to supervise several people. It was a long way from the 24/7 excitement of college football, but the money was good, and it allowed him to serve on his father's staff for several years as coach of the Cheshire High freshman basketball team.

"I was very fortunate to have a dad who was my coach and, more important, my biggest role model," says Carparelli. "He was tough on me, but I needed it. He pushed me to compete harder and be better than I ever could have been on my own. I owe much of what I have achieved in my life to him."

Strategic Plays

Six years after Carparelli thought his college athletics career was over, he received a call from Steve Addazio, with whom he worked briefly at Syracuse. Addazio now was an assistant coach at Notre Dame and was looking for a recruiting coordinator.

"I wanted someone who would get things done right, and I knew Nick could do that," recalls Addazio, who became head coach at Boston College in 2012. "He's well organized and disciplined, and when you gave something to him you didn't have to worry about it again. That's very valuable in this business."

Carparelli was at Notre Dame for just nine months when New England Patriots Head Coach Bill Belichick called. He had heard a lot of good things about the younger man's organizational skills, his drive, his work ethic—and he thought Carparelli was just the guy to become director of operations. These were flattering words, coming from someone who knew a little something about coaching.

However, there was a small personal issue Carparelli had to work through. He had grown up a die-hard New York Giants fan, like many people in Connecticut who follow New York rather than Boston teams. Given those roots, working for the Patriots would be like going over to the dark side. Plus, in contrast to Notre Dame's rich legacy of success, the Patriots had a dismal history and had just been saved from being moved from New England by new owner Robert Kraft. The positives were that Nick and his family could

"NOT EVERYONE HAS THE OPPORTUNITY TO DO SOMETHING THEY LOVE. I'VE BEEN VERY, VERY FORTUNATE."



move closer to home, and the promotion brought him to the highest level of football.

"It was a unique experience," says Carparelli of his stint with the Patriots. As primary liaison between the team and the organization, he was involved in every detail of the franchise—from negotiating airline and hotel reservations, to sitting in on coaches meetings, to managing the scores of rookie hopefuls during pre-season summer training camp. "It was very challenging, because there's no room for error at that level."

What about working under Belichick, who has a notorious reputation for not suffering fools? "He's a very bright guy who's a lot more flexible than people might believe. If there's an idea that can benefit the team, he's open to listening, no matter who it's from."

"And I have a lot of respect for Mr. Kraft," Carparelli continues (12 years later, he still uses the formal title when referring to the Patriots owner). "He brought the entire organization to the point where it's now a model for teams in all sports."

The Patriots had a breakout season in 2001 that ended with a surprise victory over the juggernaut St. Louis Rams in Super Bowl XXXVI for its first championship. Things were looking up in Foxboro, with an emerging star in quarterback Tom Brady and a core of returning veterans poised to make another deep playoff run.

College Ranks

That's when the third call in as many years presented Carparelli with amazing opportunity: a return to the Big East as its associate commissioner of football.

"A number of people kept bringing up his name, and I really wanted to speak with Nick before making a final decision, recalls then-Big East commissioner Mike Tranghese. So I waited until the Monday after the Super Bowl to call him,"

"A lot of people thought I was crazy to be thinking about leaving the Patriots, especially right after they had won," Carparelli says with a laugh. "But Coach Belichick really listened to me. He asked a lot of questions about what I would be doing. In the end, he said I should take the job and I did because it was the best opportunity for me."

During the next seven years at the Big East, Carparelli was involved in every aspect of one of the country's premiere college sports conferences. He built and managed a \$40-million operating budget, worked to develop the regular season TV schedule with the ESPN/ABC network, and was responsible for every team's game day activities and decisions.

Tranghese raves about the seven years Carparelli worked for him. "I needed a self-starter who could stand up to coaches and athletic directors but at the same time command their respect because he had to work with them regularly," Tranghese says. "And he really made his mark with scheduling, which wasn't easy in a league with 16 teams."

Much of those efforts were aimed at securing prime television slots. With older conferences such as the Big 12, the ACC, and the SEC having long-established network relationships, it took the competitiveness and the sales skills Carparelli had developed ear-

lier in his career to ensure that Big East games were in prime time, especially late in the season when viewership increased as teams jockeyed to be invited to the big bowl games.

The pinnacle might have been in 2006, when the University of Louisville played back-to-back Thursday night games against West Virginia and Rutgers—all of whom were ranked in the Top 10. The games pulled the second- and third-highest college football ratings in ESPN history at that time, helping the conference rebound a year after it experienced the first of two realignments that put its future in jeopardy.

By 2009 Carparelli had been promoted to senior associate commissioner for all of the conference's sports, which included his beloved basketball. He continued to make improvements on the football side, which included creating the Pinstripe Bowl in Yankee Stadium and the Miami Beach Bowl with guaranteed slots for Big East teams. But in 2012, the league's Catholic universities with basketball as their primary sport broke away. The football-focused members formed the American Athletic Conference and Carparelli went with them. It was a sad time for a man who had grown up a Big East fan.

"One of my biggest accomplishments was to help the Big East remain successful despite the difficulties with having to frequently add teams to replace ones that left," he notes. "I think it was a great league that deserved a better fate."

The AAC had just completed its first year when Carparelli was recruited by Under Armour, the sports apparel company that had recently emerged as a major player in the lucrative uniform business. They wanted him as lead liaison to the dozen athletic departments whose teams wear its uniforms.

"It was a hard decision for me, because I thought if I stayed with the conference I might become an athletic director or a league commissioner some day," Carparelli says. "But this is a great opportunity to see the college sports world from the other side, to build a brand, and to learn how to manage the bottom line."

He arrived this past February, shortly after the company landed a 10-year contract with Notre Dame to make uniforms for all of the school's varsity teams. That prestige and brand recognition promises to be a springboard for the company to take a run at industry leader Nike.

"Notre Dame is a real game-changer for the company because it will allow us to go after any school when their contract is up," says Carparelli, who notes the company is expected to grow from \$3 billion in revenue in 2014 to \$10 billion by 2020. The skills he's developed over the past two decades will no doubt be called into play.

It's an amazing career path—especially since Carparelli did not apply for any of the jobs he's had. He credits his WPI education for much of his success. "Having an engineering degree taught me how to be very efficient with my time, and how to analyze, strategize, and make decisions based on research and data," says Carparelli, who, at press time, was in the process of relocating, with his wife and two children, near Under Armour's Baltimore headquarters. "I feel very lucky that I've had these opportunities, and I was smart enough to take them when they came up." ■

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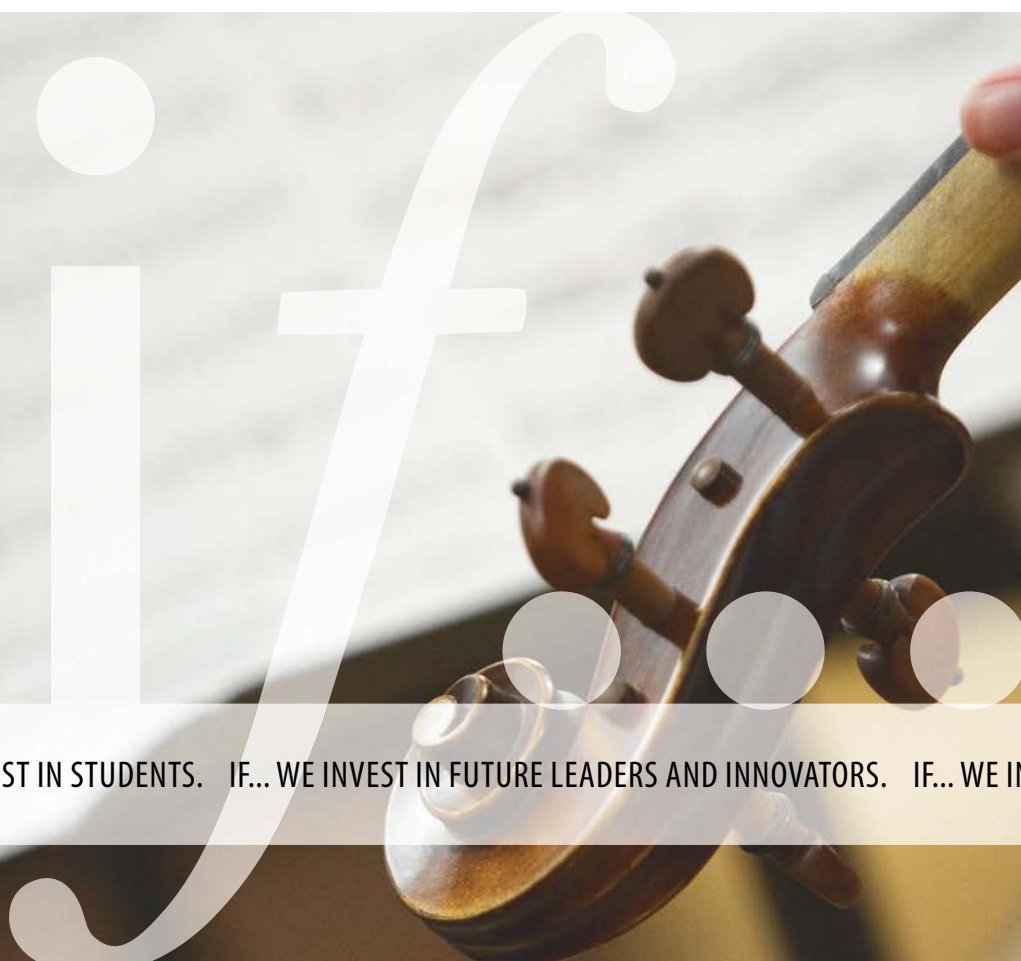


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“It takes tenacity to study a string instrument and stick with it, and one needs imagination to perform and interpret music well. A scientist also needs those characteristics to be successful, but in reverse order—imagination to develop an idea and tenacity to see it through.”

Herman Medwin as quoted in his WPI Honorary Degree citation



HERMAN “HANK” MEDWIN ‘41

A Legacy of Music and Learning

World-renowned acoustical oceanographer and music enthusiast Hank Medwin and his wife, Eileen, established the Medwin String Ensemble Endowed Fund and the Medwin Chamber Music Scholarship for the members of the Medwin Honors Quartet in the 1980s. A final bequest of \$1 million from Medwin solidifies his legacy, ensuring that WPI students and the campus community will continue to be enriched by these string ensembles for generations to come.

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This Lightpainting – the first artwork of its kind on any Massachusetts campus – on the front of Gordon Library was created and installed by Stephen Knapp, a Worcester native and son of Walter Knapp '38, using specially treated glass that acts as a selective prism, transmitting one color and reflecting its complement. This installation was championed by WPI trustee emeritus and Phi Gamma Delta member Steve Rubin '74 and made possible by an anonymous donor, a gift from Phi Gamma Delta to honor longtime former advisor Walter Knapp, and from Stephen Knapp who donated a significant portion of the commissioning to honor his father.

THE VIEW FROM THE HILL

From the Alumni Association President

DEAR ALUMNI AND FRIENDS,

The sesquicentennial year of WPI begins soon. The 16th president of the Institute has taken office. An outstanding Class of 2018 is gearing up to arrive on campus next month. WPI has received the largest individual gift in the university's history, thanks to Bob Foisie '56. The plans for repurposing Alumni Gym and further invigorating the Quadrangle is generating deserved buzz. It's a great time to be a graduate of WPI.

At a very successful Alumni Weekend—where I got to see many of you (and hope to see many more next year)—the design plans for the reshaping of Alumni Gym were unveiled. When finished, the facility will build upon the collaborative project-based education at WPI to the point where future students will wonder how we got by in the “old days” of the Plan. As alumni—the original benefactors of the structure—our current 34,000-strong community again has a chance to make a difference in a meaningful way. The campaign for Alumni Gym is unique in its targeted use of proceeds, but also unique in the crowd-funding approach that will allow collective contributions from affinity groups to be recognized with particular emphasis on participation.

The renovated gym will be named the Robert A. Foisie '56 Innovation Studio at Alumni Gym, in honor of his extraordinary lifetime giving. Over the years, Mr. Foisie has supported more than 580 WPI students—myself included—through his generous scholarship contributions. His latest gift of \$40 million is also directed to scholarships. While Alumni Gym will rightfully be named for WPI's most generous alumnus thus far, the project components still need our support. Please consider participating in this historic project.

The WPI School of Business is also being named in honor of Bob Foisie and his remarkable support of WPI. Having a named School of Business



Alumni Gym needs our support. Please consider participating in this project.

solidifies the importance of our undergraduate and graduate business programs, while raising the stature of the Foisie Business School to that of other named business schools around the country.

Many of you returned to campus on June 14 for TouchTomorrow, a powerful collaboration with NASA that puts WPI at the forefront of the megatrend in robotics. This event has become one of WPI's largest outreach endeavors, with more than 10,000 visitors to campus each summer since 2012, and is another point of pride for alumni. With President Leshin, a former NASA administrator, now leading WPI, the stage is set for continuing collaborations between the university and NASA.

Finally, I want to express my personal appreciation—and that of the Alumni Association Board—to Phil Ryan '65 for his exceptional leadership this past year. Phil's unbridled energy, business sense, approachability, and optimism were only matched by his managerial organization

and communication skills in guiding WPI through the transition. If you'd like to extend your personal comments, email Phil at pbryan@wpi.edu.

Although we are enjoying these summer days, I'll ask you to please mark your calendar for Homecoming, Oct. 10–11. Stay tuned for more details online at wpi.edu/+homecoming. As always, you may reach out to me (mwalton@alum.wpi.edu) or any of the Alumni Association Board members with feedback on what we're doing and how we might improve our engagement with you.

Best regards,

Myles Walton '97

Alumni Weekend 2014

Nearly 600 alumni and friends returned to the Hill May 29 through June 1 for a weekend of festivities. It was a wonderful welcome for Laurie Leshin, WPI's 16th president.





A. Phil Ryan '65, who served as interim president this past year, gives President Laurie Leshin the key to the campus. **B.** Many alumni took pictures with WARNER, the humanoid robot. **C.** The Alden Society Luncheon, for those who have made planned gifts to WPI. **D.** The Class of 1964 was inducted into the 50 Year Associates. **E.** Reliving WPI memories. **F.** Vice Provost Mark Rice congratulates Tom Newman '64 on his Herbert F. Taylor Award. **G.** John Busada '39 with the Reunion Attendance Cup (winning class 1964) and the Reunion Challenge Cup for largest class gift and highest level of participation--both won by the Class of 1939. **H.** Having fun at Roc the Rec. **I.** Steve Rubin '74, WPI Trustee Emeritus, at the Alumni Awards Luncheon. **J.** Myles Walton '97, president of the WPI Alumni Association, and Phil Ryan '65 accept a check for reunion giving.

2014 Alumni Award Recipients

The WPI Alumni Association honored 10 graduates during Alumni Weekend, May 29–June 1. These accomplished alumni bring pride to the WPI community through their professional achievements and service to the university.

Robert H. Goddard Award for Outstanding Professional Achievement

Gary Goshgarian '64, bestselling author of eight critically acclaimed novels and accomplished professor of English at Northeastern University. Goshgarian's novel *Flashback* won the 2006 Massachusetts Honor Book Award.



William Delphos '74, founder and managing director of Delphos International, a firm that assists companies in achieving their emerging market strategies by utilizing the financial resources of the U.S. government, foreign governments, and multi-lateral organizations. Delphos is also a nationally recognized speaker and the author of more than 15 books about international business.

David LaPré '74, head of Global Operations for Diagnostics for Roche Pharmaceuticals, which led the Tamiflu pandemic supply task force that rapidly ramped up production to reach a goal of 400 million treatments by the end of 2006 to help prepare the world for a potential H5N1avian influenza outbreak.



Dean Stratouly '74, co-founder and president of the Congress Group, a leading

commercial real estate firm. Under his leadership, the Congress Group has successfully developed more than 6.5 million square feet of real estate valued at more than \$1.5 billion.

Linwood Bradford Jr. '89, president and chief executive officer at Conning, a leading asset manager for the insurance industry with more than \$85 billion in assets under management. He is also chair of the board of the Greater Boston Food Bank.

Todd Wyman '89, vice president of Global Operations and Integrated Supply Chain at Ingersoll Rand and a member of the Advisory Council at Ingersoll Rand since November 2010.



Ichabod Washburn Young Alumni Award for Professional Achievement

Thomas Daly '04, co-founder and former chief scientist of Dyn, a private company primarily engaged in the provision of managed domain name systems, email delivery, domain registration, and other infrastructure-as-a-service solutions.



Jeremy Hitchcock '04, co-founder and CEO of Dyn. Dyn was named to the Deloitte Technology Fast 500 in 2013, was dubbed a

Business New Hampshire “Best Company to Work For” from 2007 to 2011, and made the *Inc.* magazine 5000 List from 2007 to 2013.



Herbert F. Taylor Award for Distinguished Service to WPI

Thomas Newman Jr. '64, longtime alumni volunteer and member of the WPI Alumni Association Board who served as association treasurer from 2009 to 2013. In that role he developed a robust and transparent financial reporting system and helped the Board focus on funding more scholarships for WPI undergraduates, resulting in a four-fold increase in scholarship funds offered by the Association.



John Boynton Young Alumni Award for Service to WPI

Joseph Klimek '94, enthusiastic champion of and volunteer for his fraternity, Lambda Chi Alpha, who currently chairs the Alumni Board for WPI's chapter. A longtime member of WPI's Greek Alumni Council, he served as secretary and president from 1996 to 2002 and currently serves as its president again. He is also active in the WPI Alumni Association.





Musical Foundation

Firla and Rudge gifts bring harmony to studies

Bill Firla '60 and Scott Rudge '84 graduated in different decades, but their mutual love of music has led each to give generously to music programming at WPI.

"I see it as a way to reach out into the community to demonstrate that WPI is more than formulas and laboratories," says Firla, who received the Herbert F. Taylor Award for Distinguished Service to WPI in 1995.

The Susanne M. Firla '86 and William J. Firla '60 Endowed Fund supports performance across a broad array of musical genres. Bill says he has always enjoyed "music performances of everything from opera to Broadway to symphony to jazz." His daughter, Susanne, who died in 1996, was a mechanical engineer and a talented violinist. The Firla Fund reflects their shared passion for music.

"The exhilaration of performing in a well-rehearsed and talented chorus or orchestra is difficult to describe," he says.

The Firla Endowed Fund supports a Firla Ensemble, whose makeup may vary from year to year.

"Because Bill has a wide range of interest in music, we have a great deal of latitude in the types of programs it can benefit," says Professor Douglas Weeks, coordinator of music and associate head of the Humanities and Arts Department, who is the administrator of the Firla Fund.

"His gift has definitely made a significant difference for the music program by enabling us to provide more unique performing opportunities."

Scott Rudge, a chemical engineer and a founding member of RMC Pharmaceutical Solutions in Colorado, is also a jazz musician and a composer. As a student at WPI, he completed his sufficiency in jazz composi-



tion and performance, influenced by Richard Falco, assistant teaching professor of music and director of jazz studies.

The Rudge Family Foundation Endowed Fund has created the Richard Falco "Advancing Jazz Appreciation at WPI" program, which funds guest artists for performances and student workshops as well as equipment needs for the jazz program.

As a student, says Falco, Scott Rudge was "an engaged campus jazz musician whose tastes led him to the newest, edgy jazz styles. I so much enjoyed working with him as an undergraduate musician. Through this gift, Scott brings much needed support for inventive programming to our campus."

At the recent Jazz Weekend on campus the new fund celebrated its first event, a symposium on the life and music of Worcester native Jaki Byard, jazz pianist, composer, and educator, as well as an evening concert by New York City-based quintet Yard Byard: The Jaki Byard Project.

To introduce the weekend events, the Firla Endowed Fund also presented a clinic/master class and concert by saxophonist

and composer Dave Pietro and the WPI Jazz Band.

Rudge credits the multidimensional nature of his WPI education with his development as both a musician and an engineer. The humanities requirement not only "fills out our personalities," he says, but also "informs our styles and the way we work, problem solve, and relate to people in our daily lives."

For him, jazz has long been an all-encompassing metaphor.

"I work best with a cacophony of ideas and pursuits around me," says Rudge. "I like to listen to different approaches to different problems, and incorporate ideas from other fields into my own. I think I get that ability and desire from studying, composing, and playing jazz."

The vitality of Rudge's own experience underlies his determination to "make sure jazz stays on campus," he says.

"Scott's generosity and vision ensures a vibrant future for all campus musicians," says Falco. "I am grateful for his continued relationship with the WPI jazz community."

— Laura Porter

Coming Together to Give Back

WPI's fourth annual Community Service Day, a collaboration between the university's students and alumni, took place on April 26 at Elm Park. Started as a way for students to fulfill their community service requirements, the event has grown to include alumni and their families.

"Service to benefit society is an integrated part of the WPI educational experience," says director of student activities Emily Perlow. "It seems only fitting that alumni and students come together in support of WPI's mission to benefit humanity."

This year the group collaborated with Worcester's Department of Public Works and

Parks to spruce up Elm Park, getting their hands dirty with brush removal, litter pick-up, and painting and raking the Newton Hill Disc Golf Course. Following the morning's work, the volunteers returned to campus for lunch and the Alumni Association Annual Meeting, where an MQP team presented a very relevant civil engineering project—designing and replacing the Elm Park Red Wooden Footbridge.

"The city does a lot for us," says executive director of alumni relations and annual giving Peter Thomas. "So this is a great way for us to give back to the city. It's amazing what people can do in three hours."

What had been a steady 100 volunteers

the past few years reached close to 150 this year. Participants came from as far as Texas.

"Alumni give back financially, but time and talent are just as important a resource that our alumni provide," says Myles Walton '97, president of the WPI Alumni Association.

While Community Service Day benefits the city, it's also an opportunity to positively represent WPI and forge a sense of togetherness. Says Walton, "I think people like to be part of organizations that are healthy, growing, and constantly improving. WPI has all those qualities, and this day gives an opportunity for students and alumni to connect."

— Kelsey Keogh





A Passion for WPI

When Ying Becker '89 (PhD '92) met the man who would become her husband, she was living the life of a typical WPI grad student.

"Nothing but work and experiments, and then I'd go to the computer room to do calculations," she remembers. "My mind was fully focused on my thesis."

The young chemical engineering researcher at first suspected nothing when a friend, playing matchmaker, introduced to her to a handsome WPI computer science professor named Lee Becker. But she was soon smitten by his intelligence, sincerity, and genuine interest in international cultures—something Ying, who grew up in Beijing, appreciated. Like her, he was also deeply committed to his work. "He had a passion for what he was doing that I liked and respected," she says.

Professor Becker died in 2004 at the age of 57, but he maintained a passion for his research, his students and his family for his entire life, even during a 14-month battle with leukemia. In the decade since his death, Ying has drawn on his passion as a source of strength as she built a successful second career in finance, and it has inspired her to give generously to WPI in her husband's memory over the years. Last year, she endowed a scholarship in his name, which will help computer science students complete their IQPs or MQPs away from campus at one of the 35 Project Centers WPI maintains around the world.

"He had a lot of passion for the project centers," Ying says, noting that throughout his career at WPI, Lee advised students at centers

around the United States and Europe. "He thought that was a must-do as a faculty member because it not only benefits students, but also enriched his own professional life."

Lee Becker took an unconventional path to WPI, joining the computer science faculty in 1984 after earning his PhD in Slavic language-



es from the University of Illinois at Urbana-Champaign, then following up with a master's degree in computer science at Indiana University. Much of his research spanned the two disciplines.

"He was very, very creative," Ying says, adding that WPI seemed, more than other schools, to embrace such original thinking. A decade after she earned her own PhD, it was her husband's example, coupled with her experience at WPI that gave her the courage to change careers, making the transition from chemical engineering to investment finance.

"While I was finishing my PhD program, Lee gave me tremendous support," she says. "Later, I said, 'Why don't I combine my tech-

nical skills with a faster growing field?' I asked Lee, and he said, 'Yes, I'm confident you can do it!'"

He encouraged her as she pursued a second master's degree in finance at Brandeis, and as she began working as a quantitative researcher at State Street Global Advisors in Boston. Although Lee died before he could see his wife rise to a senior management position as managing director at the firm's Advanced Research Center, Ying says she still felt his support, especially as she recently realized another longtime goal and became a professor herself.

"In the classroom, I am going through what he went through, what excited him so much, what rewarded him so much," says Ying, who has taught graduate finance courses at Brandeis and at Suffolk University. "I feel closer to him, going through his footprints to an extent."

It's an experience that also drove home for her how strongly she felt about giving back to WPI. She was pleased this past year to read letters of thanks from the first batch of computer science students to receive the new Lee Becker Scholarship. They were traveling to Costa Rica, Hungary, New Zealand, Hong Kong, and Silicon Valley, and each expressed gratitude for an opportunity they might not otherwise have been able to afford. It's something Ying knows would please her late husband.

"I see how much WPI had done for me, that I could get this far," she says. "And I see so many talented students, who can contribute so much to society in return for the education they get from WPI."

— Amy Crawford

if... the campaign to advance WPI

Paying It Forward – A WPI Legacy

Scholarship Dinner celebrates chain of giving that started with Robert Foisie '56

As she addressed over 200 guests at this year's WPI Scholarship Dinner, her voice hitched, and it was clear that Heidi Wyman '14 was beginning to cry. Recalling the moment she opened her WPI acceptance letter, the high school class valedictorian from Maine described her elation at being accepted into her dream school. That elation was followed by the immediate and hard realization that, as one of seven children, her WPI dream might never come true. Affording college is a common concern, but what Wyman said next brought tears.

"What I didn't know at that time was that WPI alumni had my back." As she uttered those heartfelt words, it was difficult to find anyone in the room that evening who was not moved by her and by her gratitude.

The event's theme was "Pay It Forward," but Wyman's story began back in the 1950s with a WPI student named Bob Foisie who received much-needed scholarship support. Four decades later, Foisie generously paid his scholarship forward by personally establishing an unprecedented 18 endowed scholarships at WPI. One of the recipients was Myles Walton '97, who in 2010, paid his scholarship forward by establishing the Myles Walton Global Studies Scholarship—which helped Heidi Wyman's dream of a WPI education come true.

It's the generosity of generations of WPI alumni that helped Wyman cross Earle Bridge in May equipped with the tools she needs to make her mark in the world, and the determination to use her education to not only make a difference, but also "to honor my scholarship donors and all of



A



C



B



D

A. Dean Emeritus Bill Grogan '46 with Myles Walton '97, recipient of the William R. Grogan Scholarship (established by Robert Foisie '56), current president of the WPI Alumni Association, and a WPI scholarship donor B. Heidi Wyman '14, recipient of the Myles Walton Global Studies Scholarship C. Myles Walton and Heidi Wyman D. Kevin Hufnagle '14, recipient of a Robert A. Foisie '56 Scholarship

the generous WPI donors by paying my scholarship forward."

The audience then heard the stunning story of Kevin Hufnagle '14, recipient of a full-tuition Foisie Scholarship. Hufnagle expressed his gratitude to Foisie—and to all the WPI scholarship donors who, in paying

it forward, have helped build such an intelligent and compassionate WPI student body. In 2011 Hufnagle learned that he would need open heart surgery to repair a congenital heart defect. He described a long and slow road to recovery, wrought with physical and emotional challenges. He also shared

touching stories of the overwhelming support he received from the WPI community.

“I look forward to paying this scholarship gift forward by offering the next generation of WPI students the chance to explore the beauty and wonders of community—of the enlightened and compassionate WPI community and of communities all around the world,” said Hufnagle.

Myles Walton '97 recalled with great fondness his memories of Dean Bill Grogan '46 and what it felt like to receive the William R. Grogan Scholarship established through Foisie's generosity. As a child, Walton wanted to be an astronaut. Although he had a passion for math and science, being the sixth of seven children was certainly going

to pose challenges to affording a top-notch education. Competing for Walton with schools like RPI and MIT, WPI won him over with a financial aid package made possible by Foisie and all of the donors who enable WPI to recruit bright students of his caliber. Walton has since earned his PhD from MIT and now works as a senior aerospace defense analyst.

Walton honored the helping hand he received by stepping up to provide scholarship support for the next generation of students. He invites all WPI scholarship recipients to do the same. At the dinner, speaking for himself and his wife, Annalisa Weigel, he said, “It remains our privilege to give back, and we encourage all the recipi-

ents here tonight—when the time is right—to pay it forward.”

WPI's upcoming 150th anniversary brings many reasons for alumni to be proud and thankful. This profound legacy of scholarship support is one of them. As Wyman put it, “To the WPI scholarship donors of the past, thank you for leading the way; to the scholarship donors of today, thank you for supporting me and my generation; and to the scholarship donors of the future, please join me in my goal to one day provide support and opportunity to WPI students.”

Read more about Robert Foisie '56 and his extraordinary impact on WPI students and alumni on page 20.

— Sira A. Naras

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1941

Harris Miller tells us, "My 96th is here in July; I've been blessed with good genes. I live by myself in Vienna, Va., a suburb of Washington D.C. I'm still active in golf, painting watercolors, reading novels, and keeping up with world news and the frustrations with our inept elected Congress and elected officials."

1946

Richard Anschutz writes, "Retired (twice) from Pratt & Whitney and Citigroup. Active in church and service positions at our condominium. Still reasonably healthy." He lives in Juno Beach, Fla., with his wife, Shirley.

1948

Frank Holby sends this update. "One of my grandsons is a true entrepreneur—he learned Mandarin to expand his design degree into international markets. I'd like to say that I steered him into industrial design by introducing him to computer-aided design by showing him my AutoCad program and giving him the freedom to use it on my computer when he was 14. I learned AutoCad in the 1980s while working in my final job. He's established a firm that makes unique products (e.g., a spatula with an LED in the handle) and has so far made 12,000 pieces in the United States and China. His other company develops and manufactures highly specialized equipment for high-yield berry growers in the US, Mexico, Chile, Portugal, and southern China. He is one of my eight grandsons (of 15 grandchildren) and keeps in touch with me using Skype when he's in a time zone 12 hours different from mine. I'm proud of him for pursuing and achieving his goals through self-initiative."

Allen Mintz writes, "Have spent the winter forcing daffodils and now have the pots ready for tomatoes. The basil, rosemary, and garlic chives are sprouting. Spring, despite the cold, is here. One grandson leaves when the semester is over, and another has started at Salem State."

Ron Moltenbrey (MS '50) writes, "During a recent CT scan, they found a small nodule in my upper left lung. After testing and a biopsy, I was scheduled for treatment with a new Cyber Knife radiation unit. Completed the treatment in three 1-hour sessions. No pain, no side effects. An amazing

technique, although it's only practical for small areas and for people who can lay flat on their backs without moving for an hour. I recommend that anyone who develops a similar problem look into it: It replaces as many as 50-60 radiation treatments by the more common method and eliminates the side effects for most individuals. Despite all of this, and being on oxygen 24/7, I have been able to stay reasonably active. I bowled all winter and ended the season with a 148 average. Hope to resume playing 18 holes of golf in the next week or so. The only thing lacking is long travel trips. That means missing seeing old friends at WPI reunions, which we always looked forward to. My wife of 65 years and I live in an Erickson Seniors Community and get along very nicely. Our population has grown to 1,500, so lots of new friends and lots to do along with excellent health care. I hope many of my classmates will use class notes to stay in touch. Always good to hear about you."

1951

Dick Davis was the proud winner of a WPI watch for his class note in the last issue of *WPI Journal*. But you have to play to win. Send *your* news to classnotes@wpi.edu today!

1952

Monroe Dickinson writes, "We now live at a continuing care retirement community, where I serve as chair of the finance committee, as a member of the development committee, and as a board member with governance and finance committee responsibilities. I also volunteer as an AARP tax preparer. And so I stay busy! We continue to enjoy our vacation home on Block Island and plan a trip to Europe during the summer vacation season. Good health is a blessing."

1953

David Hathaway writes, "We escaped some of the terrible NE weather in March with a Grand Circle Travel trip to Tuscany and the area of Sorrento, Italy. A little cool, but rainless and beautiful—and peaceful, being where drivers were very reluctant to use their auto horns. Five hundred and fifty pictures say that we saw quite enough sights to make the trip well worthwhile. Now, back to my two motorcycles and a trip to Nova Scotia with my son—our third trip together. Life cannot be better!"

Nasuh Malas has worked in the United States and Syria, including a job with the first petroleum refinery in Syria. For the last decade of his career, he worked for a private company called Nahas Enterprises before retiring completely in 1995. He recounts, "My first job in the USA was with Armour Chemical in McCook, Ill. In 1957 I returned with my wife and daughter to Syria and worked for different government ministries. During my work in Syria, I had the opportunity to travel to many countries of the world in government delegations and business missions. I was granted the Medal of Merit by the president of France, Mr. Valery Giscard d'Estaing in 1980. In 1984 I resigned and retired from the Syrian Government. • "Family-wise, I married in 1955, in New Hampshire, to June Ann Willey, graduate of Becker Junior College. We got divorced in 1963, after having one girl and four boys. Then I remarried in 1964, to my present wife, Souhad Malas, with whom I had three boys. We lost a son, age 27, in a traffic accident. I now have seven children, 12 twelve grandchildren, and one great-granddaughter, all living in the USA, and I am very fortunate to have this nice family. Since 1995, I spent my time between Syria and the United States. But I have not returned to Syria since 2011 due to the grave and dangerous situation there. I am now living in Illinois (10197 W. Higgins Road, Apt. 202, Rosemont, IL 60018). My email is nmmalas@aol.com."

1954

Paul Alasso is retired from Bayer Corp. His wife, Juliana, died in 2008. His son, Andrew, graduated from WPI in 1990. He also has a daughter and four grandchildren.

Walt Dziura retired from Scoville Apparel as director of research and development. He says, "Since then I have been so busy with house up-keep, social activities, organic gardening, fishing, and hunting, that I really do not feel retired. That comes next. I write letters, make phone calls, and talk to whomever will listen, to try to get the proper officials in office so we can get this country headed back to viable operation."

Joe King retired in 2000. He writes, "Since then we have been wintering at our home in Bonita Springs, Fla., and enjoying summers on the island we owned in New Hampshire until a few years ago, when we bought a summer home in Brunswick, Maine. DuBois & King, the

'59

Jack McManus proudly attended the WPI graduation of his granddaughter Kelly McManus '14 on May 17, along with her dad (Jack's son, John McManus '82). "It was a great moment," he writes. "In the fall, my grandson Riley McManus will enter WPI as a member of the class of 2018." Jack tells us he's retired, living in Lehigh, Fla., in the winters, and South Kingstown, R.I., in the summers. "Married Erika 10 years ago, we play golf, tennis, and cruise for excitement."



engineering company I cofounded in Randolph, Vt., in 1962, is still going strong. My wife, Peggy, and I will be married 60 years this June. We celebrated by buying another sailboat to continue sailing the coast of Maine, which we have been doing since 1965."

Ed Power writes, "In March we completed our relocation from Saratoga County in New York to Malvern, Pa., 25 miles west of Philadelphia. We are in the process of settling into our new home and area." He adds "I was indeed fortunate to have had the guidance of Dean Bill Grogan who introduced me to WPI and was an informal adviser during my four years at the institute."

Bill Schoenemann writes, "Before the war, my family and I were on the *St. Louis*, a German ship that was denied entry into Cuba even though we had visas). I had always wanted to return to see what might have happened. Last year we were able to finally cross this off my bucket list. In fact, we have now crossed 110 countries off our list and truncated our travels by moving into an independent living community in Union City, Calif., which is close to two of our daughters. Occasionally I still teach the game of bridge on cruise ships. This is stated with definitive wording for a reason: I once wrote to the P & O asking if they needed a 'bridge director,' since I was well qualified. I received an answer that I needed a little more practice before I could command a ship!"

1957

Bob Beaudet reports, "I retired from the University of Southern California in 2005 as emeritus professor of chemistry, after 42 years. I am working at JPL three days per week with the microbiologists that keep the spacecrafts clean. We worked on the Mars rover *Curiosity* as part of the Mars Science Laboratory.

John Hobe and his wife, Carole, live in Garnerville, N.Y. They have three sons and two daughters.

Walt Kress is retired from Cytec Industries, where he worked on the implementation of modern project management practices for the worldwide manufacture of heavy and commodity chemicals, as well as specialty and fine chemicals. His focus included training, project evaluation, and remediation of failed projects. He lives in Simsbury, Conn., with his wife, Elizabeth.

Bob Lemay is retired and living in New Fairfield, Conn., with his wife, Arlene.

George Long lives in Dorset, Vt., with his wife, Linda. They have four children, 10 grandchildren, and two great-grandchildren.

1959

Jim Alfieri is a self-employed civil engineer living in Santa Rosa, Calif., with his wife, Janet. Since 2000 he's been running marathons and half-marathons and serving as a team captain for The Leukemia and Lymphoma Society's Team In Training program.

Bob Allen spent 31 years in the US Navy and 12 years with the Virginia DEQ. He lives in Virginia Beach with his wife, Linda. "Happily married and enjoying retirement!" he reports.

1960

When **Bernie Tetreault** retired after 24 years of service as the executive director of the Housing Opportunities Commission (HOC) of Montgomery County, Md., some of his friends wanted to come up with a special way to celebrate those years and to give back to the community that he had served for so long. In 1996 they established the Bernie Scholarship Awards Program to assist residents of affordable housing in the County to achieve their academic dreams. The program continues to grow—it has helped 347 low-income scholars with \$384,451 in funding over the past 19 years.

Dick Meyer has vivid memories of the scuffle that grounded him during the Freshman-Sophomore Rivalry of 1956—and ended the Paddle Rush at WPI. Read his account in the *Letters to the Editor* section of this issue.

Send your class note to classnotes@wpi.edu. Images welcome!

Veikko Uotinen was honored with lifetime membership status in the American Nuclear Society. He is organizing two special events at the ANS summer conference.

1962

Michael Davis works as a consultant to the medical device and pharma industry, focusing on safety and FDA approvals. "Rona and I feel truly blessed," he writes. "We have two devoted children and four terrific grandchildren. We travel a fair amount and are thankful for our health. We just moved to Falmouth, Mass., where we have had a summer home for 37 years. Our goal for the next 10 years is simple: Be there at the end."

George Forsberg retired from Monsanto and resides Cantonment, Fla., with his wife, Charlene.

Mike Gordon quips, "I have had, and continue to have a very satisfying multi-dimensional career path. However, I forgot what the dimensions were. My family relationships have always been my top priority, but I forgot why. I have learned so many things in the past ten years, if only I could remember them. Unfortunately I forgot my goals and objectives. They were quite bold though. Considering everything, my hobbies and activities have kept sanity in my life. Now what were they ...?" Mike lives in Watertown, Mass., with his wife, Maria. They have five children and three grandchildren.

Ralph Johanson is a vice president of GRW Engineers. He lives in Louisville, Ky.

Neil Jorgensen retired from Raytheon in 2003, "when the work seemed to be not as much fun as it had in the previous 40+ years. I worked primarily in radar system software specification and testing. My favorite systems were Ground Controlled Approach radars, but I also enjoyed working on some of the big phased array early warning systems. Janet, my first wife, died in 2006; Doris, my second wife, died in 2008. I've learned that you can't waste your time here on earth, and I hope to share my remaining years with my wife, Maureen, for a good long time. Matthew, Erica, and Andrea, are the Jorgensen progeny. Maureen has three children: Deirdre, Bryce, and Brock. Together we have eight grandchildren." Asked for his favorite WPI professor, Neil retorts, "Only one favorite? Ralph Heller, Herr Mayer, and Romeo Moruzzi are the first to come to mind. All were great teachers who made learning a fun-filled adventure."

David Lyons lives in Bonavita Springs, Fla. He writes, "After graduation I worked in highway and bridge design for four

years. With the advent of the environmental movement, I changed my career path to environmental engineering specializing in wastewater treatment. I earned an MS in environmental health engineering from the University of Texas in 1969 and joined the EPA in 1972. I was a member of the team that developed the first major national environmental program under the Federal Water Pollution Act. I spent the next thirty years working at EPA in various management positions in compliance monitoring and inspections, including serving as national program manager of EPA's wastewater inspection program. I was married for 47 years to my wife, Judy, who died in January 2010. We had three daughters, who now live in Virginia, California, and New Zealand. I am an avid golfer and enjoy playing at least three days a week. I also work as a volunteer in the local county jail and spend a good amount of time and energy in my church's Mission Leaders group.

Brian O'Connell is director of nuclear waste programs for the National Association of Regulatory Utility Commissioners, where he represents the interests of state public utility commissions and their electricity ratepayers on the safe storage and eventual disposal of used nuclear fuel from commercial reactors. He lives in Alexandria, Va.

1963

Joe Beaulac retired from Raytheon as a senior principal engineer. He lives in Boylston, Mass.

Roger Flood retired as president of R. D. Flood Co. As a project management consultant he provided services to Raytheon for six years. He lives in Prosper, Texas, with his wife, Deborah.

John Geffken is retired and living in Chagrin Falls Ohio. He has two children and five grandchildren.

Bob Gowdy is chair of the physics department at Virginia Commonwealth University. He reports, "I am responsible for the day-to-day operation of a small department at a major state university (17 faculty members, 80 physics majors, approximately 6,500 students enrolled in courses)."

Les Hart is retired from a career as general counsel for the former semiconductor sector of Harris Corp., where he also served as intellectual property counsel for the rest of the company. He and his wife, Barbara, live in Salem, S.C.

Paul Ulcickas lives in Manchester, N.H., with his wife, Leilani. His is retired from an R&D position developing high intensity discharge lamps.

George "Spider" Vittas spent his career providing consulting services to airlines, airports, and other aviation clients in the field of airport planning, development, and operations. He is retired and living in Bedford, Texas.

1964

Dick Brown retired as chairman and CEO of Brown Wright & Co. He says, "While I moved on to study liberal arts after Tech, my years in engineering served me well in many years of high-tech marketing and branding at Data General, and later running my own marketing company. And I treasure the many good friends I made during my years at WPI and at Sig Ep. My wife, Carol, and I are avid anglers and have spent much of our lives contributing in various ways to the protection of our saltwater and freshwater fisheries and the waters they inhabit that sustain us all."

Milt Dentch worked at the Polaroid Corp. for 27 years, retiring in 1996. He is now lead auditor at TUV SUD America, where he provides quality, environmental, and safety management systems audits to international standards organizations.

1965

Bill Hager relocated to Vermont last August after a 20-year adventure in the Midwest. "Happy to be back in the mountains," he writes.

Pat Moran shares the sad news of the passing of **Dick Ryczek '64** on March 20, 2014, after a three-year battle with cancer. "Another empty Adirondack chair around the fire pit at the Mashpee Muster," he says.

1967

Bill Carboni is a senior engineer at Spath-Bjorklund Assoc. He lives in Newtown, Conn.

Jim Dunn continues as president of Future Solar Systems.

Paul McDonagh lives in Tucson, where he is a professor at the University of Arizona. He reports that he and his wife, Jennifer, are "waiting patiently" for grandchildren.

Charles Proctor is senior counsel in a small law firm in Oxford, Mass., where he practices real estate, probate, estate planning, corporate, criminal, and general practice. He's also president of Fenton Properties, a real estate brokerage and management corporation selling residential

and commercial properties, including gas stations and convenience stores.

1969

Alexander Malcolm has written a novel based on the life and death of President John F. Kennedy. In *JFK: Secrets of Camelot Revealed*, he explores questions surrounding the lives and deaths of Kennedy and actress Marilyn Monroe. Learn more at JFK-SecretsofCamelotRevealed.com, which also offers a free download of *The Sinking of PT-109*, a stand-alone excerpt from the novel. The complete novel is available for e-readers on Amazon, iTunes, Barnes & Noble, and the European outlet Kobo. A paperback is also available from Amazon.

1971

Ben Katcoff retired from the Office of the Comptroller of the Currency, a bureau of the Treasury Department, on April 30, 2014. He worked there for 11+ years as director, compensation and benefits. He spent the previous five years as VP, human resources, at Intelsat, after 25 years at Polaroid Corp. in progressively more senior HR positions. "I'm currently planning to spend more time with family—my wife, Nancy; son, Gregory; daughter, Rebecca, and her husband, Jimmy; and their three boys—twins Joshua and Dylan (age 6), and Gavin (age 1). I also plan to make considerable travels throughout the East Coast, and several weeks in Maui."

1972

Ralph Blackmer is vice president for regulatory affairs at GlaxoSmithKline.

Alan Dion works part-time with the Atlanta Metro YMCA as fitness instructor for older adult groups as a self-employed Tai Chi instructor and personal trainer.

Mark Fritz teaches math as an adjunct professor at Nashua Community College. He and his wife, Debbie, have two children and five grandchildren..

Henry Greene shares, "After several career changes and several brain surgeries, I am now a tenured associate professor of marketing at Central Connecticut State University in New Britain, and I am living in Windsor. I will be on sabbatical in the spring of 2015 and I hope to finish a textbook on direct marketing and learn something about video production."

David Hayhurst '76 (PhD CM) was appointed dean of the College of Science and Technology at the University of Southern Mississippi. His 35-year career in higher education includes posts as dean of the College of Engineering at San Diego State University and the University of South Alabama, as well as chair of the Department of Chemical Engineering at Cleveland State University (1985-1991). He will begin his new role at Southern Miss on Aug. 15.

Edward Perkins is a self-employed consultant doing internal audit, performance assessments, governance, and enterprise risk management. He lives in Tualatin, Ore

1974

Jonathan Barnett is technical director of Olsson Fire & Risk, Pty Ltd., in Melbourne, Australia.

"Hello everybody," writes **Tony Cappuccio**. "Gail and I will be celebrating our 40th wedding anniversary this year and our 34th year in NH. I am retired after 25 years at Mitre. Gail continues to work at a local law office. Both our children have graduated from college and graduate school, and my daughter is a lawyer licensed to practice in 3 states. We stay in touch with about a dozen alumni from our class on a regular basis. We are also looking forward to our upcoming 40th reunion in order to connect with many others. Especially the members of The Higgins Estate Residents Association (THERA), which was a group of up to 24 WPI students, men and women, who lived in and helped maintain Higgins House while attending WPI from 1972 to 1974. It's been a busy time, as we work to coordinate our rendezvous at Alumni Weekend." Former Higgins House resident **Mike Tanca** adds, "This was part of the glory days for the Higgins House and WPI. We have many stories to tell, including meeting Milton Higgins. We even had our own sports teams."

Ken Charak retired from Ethicon Endo-Surgery, a division of Johnson & Johnson, as director, regulatory affairs. Before that, he spent 28 years with Procter & Gamble. "The pinnacle of my career was taking a team of doctors, scientists, and engineers to Washington, D.C., to present the clinical results of a first-of-a-kind medical device (designed to sedate patients without the presence of an anesthesiologist) to an FDA Advisory Panel. The panel overwhelmingly recommended approval of this device that

'73

Bruce and Allison (Huse)

Nunn hosted a mini reunion for the Einhorn Road crew on May 2. Attending were classmates **Bill Nutter** (and his wife, Kris), who were visiting from Florida, **Don Kray, Ken Levy, and Fred Baker**. "Great memories were shared," they say. (From left, Fred, Ken, Bill, Don, and Bruce.)



has the capability of transforming the practice of sedation and anesthesia for generations to come. "After 38 years in Corporate America, I have completely and thoroughly 'checked-out' and moved on to retirement," he says. "Adrienne and I have a second home in Naples, Fla., where we spend the winters playing golf and tennis, biking, swimming, and all that stuff. Also, I'm actively pursuing a lifelong passion for astrology. I'm enrolled in a 3-year 'virtual' program originating in South Africa that is taught by one of the world's most well-known and respected astrologers."

Chris Cigal writes, "I retired the end of March, after 28 years of Federal Civil Service in the Army and 8 ½ years of commissioned service in the Army before medical retirement. I served as the weekend leader for Kairos 7 at Sussex II State Prison. Kairos is an adaptation of Cursillo or

Send your class note to classnotes@wpi.edu. Images welcome!

Walk to Emmaus, for ministry in prison. I'm enjoying the time I have now for volunteer ministry."

George Clark retired from Nortel Networks; he previously worked for Norton Company. "I'm currently doing volunteer development and serve as the release manager for the Foswiki open source project," he writes.

Will McBride is retired from Alaskan oil industry and is living in Anchorage, with a second home in Arizona and property in Alaska, Washington, Oregon, Hawaii, and Baja, Mexico. He's helped update numerous electrical codes and standards as part of NFPA's National Electrical Code Making Panel 14, and he's active on the IEEE Petroleum & Chemical Industry Committee. His goals include building several sustainable dwellings.

Joe McGinn is the water resources division manager for the Pueblo of Santa Ana, N.M. He recently sponsored a WPI IQP, "Improving Irrigation Efficiency," through the WPI Santa Fe Project Center. Students included Meena Khayami, Dan Gonzales, Liz Paulsen, and Russ Hedlund, all in the Class of 2015. Advisors were Fabio Carrera and Lauren Matthews. In May, Joe wrote that he was planning to drive cross-country from Albuquerque for the 40th class reunion. "I'm looking forward to visiting the campus, playing golf with fellow alumni, and attending the dinner before heading back to New Mexico. My youngest son, Kevin, and his family have relocated to Worcester. Kevin recently received his master of divinity degree from Liberty University, in Lynchburg, Va., and my wife, Debbie, and I attended the commencement there."

1975

Bill DiBenedetto reports that he resides in Shrewsbury, Mass., and has been happily married since 1978. "As a dual career couple, Molly and I have committed our lives to developing a strong and healthy family, and to keeping pace with an ever-changing set of social and technological changes. One of our common goals is to continue to develop our careers long into our senior years, using our skills and technology to help family, friends, and our local communities to prosper." He is president and CEO of Lampin Corp.

1976

Barry Siff was elected president of the board of the USA Triathlon Association. He did his first marathon in 1981, jumped into triathlon in 1986, and now has completed well

over 50 races. He retired from the food industry in 1998 and cofounded MountainQuest Adventures, organizing adventure and multisport races. He morphed that company into 5430 Sports in 2004, with events involving more than 7,000 athletes (Boulder Peak Triathlon, most notably); then sold to Ironman in 2009. He continues to consult and speak in the world of endurance events and leadership, as well as write for many publications and popular websites.

Art Stryer earned an associate degree in IT at Foothill College in 2012, focusing on Internet and web development. His recent work involves developing proprietary software delivering competitive, enhanced solutions for application security. He writes that he will soon also be providing e-commerce. Art has a 17 year-old-son and was divorced in 2006.

1977

Allan Shear works at Caputo and Wick Ltd. in East Providence, R.I., along with **Heather Trowbridge Chatelle '10**.

Congratulations to WPI physics professor **Matt Ward**, who received the 2014 honor for outstanding senior faculty research from the WPI Chapter of the Society of Sigma Xi.

1979

Mike Blaney is senior specialist in trade ally engagement and strategic marketing at National Grid. "My early career in environmental instrumentation provided data to develop air pollution legislation and informed decision making globally," he writes. "I'm still cycling (road and mountain bike), hiking, and snowshoeing when time allows. Not skiing as much as I would like to now that the kids have grown up. A favorite memory is skiing the Big One with **Bill Cunningham '77** and all the Sugarloafers who trekked to Carrabasset Valley in January to enjoy a week of skiing and socializing in the Great North of Maine. Also, Professor Robert Wagner and his boundless enthusiasm, which kept us Chem E's motivated through all the academic rigor and the Comp."

In May, **Mary (Farren) McDonald** wrote, "Heading back to WPI for my daughter Karen's graduation (IE) and looking forward to seeing her 'walk the bridge.'" Congratulations to both of them!

Michael McDonald was recently appointed the lead start-up test engineer for the nuclear island at the Vogtle

3&4 nuclear power plants in Georgia. "These are the first new nuclear power plants being built in the United States in over 30 years," he reports. "My wife, Lynn, and I are building a new house just across the Savannah River in South Carolina, where we will be moving with our two Westies by the end of the summer. It'll be a lot easier on me than the last year of traveling back and forth between Georgia and our home in Connecticut. We will miss New England but will probably return after the project is done. Our three older daughters are out of the house (CT, VA, and CA), and our youngest will be entering her second year of a six-year doctorate program in physical therapy at Quinnipiac University. She can take care of me when I'm old! Wish I could have made reunion this year, but the plant schedule doesn't allow it. Maybe the 40th. Hope all is well with the rest of my Theta Chi brothers. Maybe I'll go by WPI on my next trip home. In the meantime, I'm enjoying a little bit of southern comfort (pun certainly intended)."

1982

Maureen Ashley homeschools her youngest daughter. She and her husband are starting up a small farm with organic products, including maple syrup, chicken eggs, vegetables, and fruit.

Anni Autio writes, "In October 2013, I joined The Thompson & Lichtner Co. as a senior engineer. T&L was founded in 1896 and is now a veteran-owned engineering, testing, and consulting firm that performs a broad range of engineering, testing, quality-control, advisory, and forensic services to the construction industry, particularly in areas of weatherproofing, moisture penetration, and water leakage. We have an in-house laboratory that provides a wide range of routine and specialized services for the quality control of construction materials utilizing test specifications of ASTM, ANSI, Federal, and other national standards-setting organizations. In my spare time, I continue to remain actively involved with ASCE, BSCES, and WGBH public television.

Deborah Chichlowski-Luszey is a proud first-time Nana. Her grandson, Oliver Luszey, was born on April 11, 2014, to her son, Christopher, and daughter-in-law, Shawnasey. Deborah has recently returned from trips to England and Germany, visiting with her daughter, Ashley, who attends graduate school at the University of Greenwich in London. Deborah also serves as an ambassador on the board of directors of Moore*Mart (mooremart.org).

'88



Stephen Farr, a transportation engineering project manager at Nitsch Engineering, was appointed a shareholder of the company founded by Judy Nitsch '75. Steve's 26 years' experience in the field includes municipal projects programmed through the State Transportation Improvement Program and constructed by MassDOT. Steve is a certified Envision Sustainable Professional with the Institute for Sustainable Infrastructure, and a LEED Green Associate. He also serves on the Town of Needham (Mass.) Conservation Commission.

1986

Ron Barth writes, "Five years ago I purchased the software development firm that I had been working for since 2004, and have been a proud business owner of Alternative Systems, Inc. ever since! I currently split my time between the high-tech world and my love of music. I have a band that performs at wedding receptions across New England. In fact, we did 66 weddings last year, and have been rising in popularity for the past 5 years. The name of the band is Clockwork (clockworkboston.com). On a personal note, I have a wonderful wife, Brenda, and two great kids, Julia and Nick, who are both in college."

Trustee **Jim Baum**, former president & CEO of Netezza, joined the board of directors DataStax. His previous posts include president and later CEO of Endeca (now owned by Oracle Corporation), and Parametric Technology Corporation (PMTIC). Baum is currently a director for several companies including Enernoc, Jibe, and Newforma.

Dennis Donovan continues to teach math at Xaverian Brothers High School. He writes, "I recently traveled to Dubai to teach an AP calculus workshop for College Board. I will also be a co-author on the 13th edition of Barron's *AP Calculus Review* book to be published in the fall."

1987

Marie Hutchinson is working at UTC Aerospace Systems as manager of program office effectiveness. She reports her status as married with two young daughters.

After 24 years, **Tim Schmoyer** retired from the Army, put down roots in Harvard, Mass., and is currently the vice president of engineering for Jericho Systems Corporation in Dallas. "My daughter and I recently enjoyed visiting WPI for a campus tour," he writes. "Great job by admissions staff and student interns! What a bonus and extremely pleasant surprise to see the GASCAN project for NASA that was flown on a Space Shuttle mission sitting in the electrical engineering building. Congratulations, Professor Looft!"

Susan Shanahan's son, Liam, is entering WPI with the Class of 2018.

John Dagostino owns Stonepine Investments LLC in Denver.

Moe DeLuca serves as plant receiving manager for Ocean Spray Cranberries, where he is responsible for overall plant operations and business results. He and his wife, Sarah, live in Wisconsin Rapids, Wisc.

George Oliver is CEO of Tyco International, Ltd. He and his wife, Karen, live in Lower Gwynedd, Pa.

1983

Mark Fisher is running for governor of Massachusetts on the Tea Party platform, taking on big government and issues of personal liberty in his campaign. The owner of Merchant's Fabrication in Auburn, Mass., he lives in Shrewsbury with his wife, Margaret, and two children.

1984

Jim Bock writes, "Congrats to our son, Cam, who made the Dean's list his first year at Bates. He has declared his major as mathematics. Good to have him home for the summer!"

Bob Norberg is a cofounder of the SaaS start-up company Docufyi, which helps organizations track, monitor, and stay on top of their contracts and agreements.

Josh Reed is a department manager for Lowe's Home Centers. He and his wife, Karen '84 live in Edgewater Park, N.J. They have two daughters—Hannah, 17, and Kristen, WPI Class of 2015.

1985

Anne (Provencher) Jalbert and her husband, Mark Ashley, moved to Laconia, N.H., recently, and have been enjoying Lake Winnepesaukee and living in the home of the oldest Bike Rally in the country. Anne enjoys working with national clients of her market research consulting business, Research Resource, and staying in touch with fellow WPI alumni. "Happily, my son, Cory, is graduating from URI with a major in computer engineering this spring and will be working nearby in Cambridge Mass., for Vecna," she writes.

David LaBranche was featured in a cover story in the February issue of Geospatial Intelligence Forum, a free trade magazine for geospatial engineering applications in defense and intelligence. He discussed his work as Defense Installations Spatial Data Infrastructure program manager in the Department of Defense.

Send your class note to classnotes@wpi.edu. Images welcome!

'00

Kevin Szeredy is sales manager for New Botic Corp. in Thompson, Conn., a start-up process automatic and robotics systems integrator.

1988

Pamela Curbelo was an inductee in the Connecticut Technology Council's Women of Innovation® class of 2014. She was named a finalist in the Small Business Innovation and Leadership category. She is a partner in the law firm Cantor Colburn, in Hartford, Conn., where she co-chairs the Chemical, Material, and Life Sciences Department and spearheads the firm's international patent activity. She has twice been honored as a Woman of the Law High Achiever by the *Connecticut Law Tribune*.

After graduating from WPI, **Jillian Daniels** moved to Los Angeles with **Ryan Caron '07** to pursue a degree in space physics from UCLA. Six years later, she has changed her major to geology with a concentration in Optically Stimulated Luminescence (OSL) dating. She is expecting to graduate in June 2015.

Associate Professor **Chrys Demetry** was dually honored at WPI's annual Honors Convocation in April. The Board of Trustees' Award for Academic Advising recognizes her dedication to individual students. The citation notes, "Despite having a large caseload, she actively challenges and supports each of her advisees, leaving positive lasting impressions. Students know she wants to give them the best advice she can to help them have a good educational experience." Chrys also received the Denise Nicoletti Trustees' Award for Service to Community. She and the late Professor Nicoletti co-founded Camp Reach, a summer enrichment program that inspires middle school girls to pursue college studies and careers in science and engineering. Chrys added a powerful service-learning component to the program with projects by campers that benefit the Worcester community. She also leads WPI's Morgan Teaching and Learning Center, which offers programs, services, and resources that help faculty members and student teaching assistants become better teachers.

David Picard is president of PSInd (Picard Software Industries), providing consulting services to IT stakeholders and businesses from the SOHO and SMB space, up through large Fortune 500 enterprises.

1989

Kathleen King is an RN at Newton Wellesley Hospital.

Bill Taylor (seen here tackling Mt. Washington) writes, "After WPI I worked my way up to being a product manager for technical products at PTC. Continued that through companies such as eCopy, and SolidWorks, and now as a senior product manager at Nuance Communications. I started my own company, EZ Brands, inventing a no-slip dog mat and patenting it (see our YouTube video). My hobbies include entrepreneurship and continuing to contribute in high technology companies such as Nuance Communications. I also have a degree in aviation flight operations from Daniel Webster College and my pilot's license, and I have competed in aerobatic competitions locally."



Ed Woodrow continues living in northwest Georgia with his wife of 18 years and their middle/high school-aged children. He is planning a family trip to British Columbia this summer and just might look up classmate **Brendan Connelly** from Daniels 2nd. Ed's work takes him on frequent travels to Rancho Cucamonga, Calif., Tampa, Fla., and Beaumont, Texas.

1990

John Lombardi started Ventana Research Corp. in 2001. He has long been engaged the development of chemistry and materials related to Department of Defense innovations, including novel smoke grenades, formulations capable of demilitarizing seized small arms, and, most recently, smart,

'02

protective garment textile coatings that are effective against a broad spectrum of toxic chemical and biological pathogens. This year the company will begin transitioning some of its self-decontaminating textile coatings technology into the commercial outdoor and sportswear market for the production of new antimicrobial, odor-eliminating clothing.

Karin (Ricci) Newman shares, "I am proud to announce that my daughter, Emily, will begin WPI in the fall of 2014 with an intended major of biomedical engineering. She will also be joining the WPI cross country and track teams. My son, Alden, is finishing his freshman year of high school. I am currently working at Keller Williams Realty. I am so excited for Emily to attend WPI and hope that she enjoys her experience as much as I did!"

1991

Yael Schwartz (PhD), founding president and CEO of two pharmaceutical start-ups—Hygeia Therapeutics and Canterbury Laboratories, announces that they have attracted financiers to form a publicly traded entity and operate as wholly owned subsidiaries under the name RestorGenex Corporation (RESX). "Our therapeutic focus is in restorative medicine for dermatology, women's health and ophthalmology," she says. "We will be located in the MetroWest area of Massachusetts."

1992

Dave Andrade reports another exciting year. "I've been working at my new job for a year and a half now. I'm the chief information officer for the Bridgeport Public Schools in Connecticut. In addition, we welcomed our daughter last August. I can't believe she is 9 months old. Things are busy, but going well. My WPI education has proven very useful in transitioning to my new job, learning new things, and managing projects." Dave blogs on educational technology ideas at educationaltechnologyguy.blogspot.com.

Scott Ashton reports that he recently earned his commercial helicopter pilot's license, in addition to his single- and multi-engine airplane, seaplane, and glider ratings. "It was great to be back to WPI recently, taking a tour with my son who wants to study robotics. It brought back some great memories!"

1993

Tim Coleman is founder and president of Nemucore, a Worcester-based company developing targeted nanomedi-

Bruce Skarin is running for U.S. Senate as an independent, hoping to unseat Democrat Ed Markey. In May Skarin set out on a 1,000-mile walk around the Commonwealth, hoping to connect voters. He has set a \$15 maximum on individual campaign contributions and says he wants to end corruption in government and restore representation by removing the dependence between big money and politics. Bruce and his wife, **Diane (Kavanagh) '01** met at WPI and have two children. Bruce works as a simulation scientist for Woburn-based research and development company Aptima.



cines based on a patient's DNA. The firm was featured in a WBZ-TV segment on local businesses that stand to boost the Massachusetts economy. Nemcor is initially focusing on ovarian cancer, but is also researching treatments for breast cancer, arthritis, and other diseases.

1994

Jason Johnson writes, "WPI alumni at Karl Storz are starting the third year of the WPI Leadership Development Program. Several WPI alumni and employees, including **Rachel (Butland) Delisle '96** and **Nicole (McMahon)**

Orrell '04, are looking forward to another great class of WPI students to partake in the program we designed to give them additional exposure to leadership and business skills. I personally have learned so much from the students and continue to be impressed by the participants' efforts and abilities."

Jeff Montigny writes, "I recently moved back to the Boston area after being away in Maine, California, Virginia, and Texas working in semiconductors. I'm currently a hardware quality engineer in Raytheon's Air Traffic Systems group in Marlborough, Mass."

Send your class note to classnotes@wpi.edu. Images welcome!

1996

Teri (Burrows) Brehio '97 (MS BE) writes, "I am in the process of touring colleges my 16-year-old son. It has been a very fun time and you will be happy to know that WPI is currently his first choice! I am a very proud mom! He would fit in very well there, and I know he would get the same excellent education that I did. Aside from that, our family has been spending all of our time going to the kids' sporting events: soccer, dance, gymnastics, and lacrosse. We are a very busy family and I love every minute of it!" Teri is education director for the NH Dartmouth Family Medicine Residency program.

In April **Steve LaBranche** completed his first 100-mile ultramarathon in Utah, earning the Mt. Zion 100 Finisher's Buckle. His time: 29 hrs, 15 min. "Longest run to date," he says. "Goal is to complete Western States 100 (California) and Ultra Trail de Mt Blanc (France) within three years."

1997

Charles Prescott writes, "I am a senior project manager at Riley Power in Worcester, which was founded by R. Sanford Riley. Riley Power (a subsidiary of Babcock Power) recently celebrated its centennial."

1998

Michael Stark was promoted to lieutenant at the Allentown (N.H.) Police Department in November.

1999

Jess (Lowell) Lasonde is an order management engineer for GE Energy. She and her husband, Scott, live in Ashland, Mass., with their three children.

2002

Robert Dowding, research manager for Materials and Manufacturing Science, U.S. Army Research Laboratory,

received the first-ever Vanguard Award from the Metal Powder Industries Federation. He was honored for his work on process development for tungsten and tungsten alloys, including research on strain aging in tungsten heavy alloys, the processing of novel tungsten-based compositions, and the re-spheroidization of tungsten grains in heavily cold-worked WHAs. Dowding has been a longtime leader in the Army's Small Business Innovative Research program.

Alexander Haley and his wife, Emily, celebrated the arrival of their second son, Winslow, born in March 2014. "In May we celebrated my brother's graduation from WPI," he writes. "Congratulations, Victor, Class of 2014."

2004

MQP partners **Kevin D'Aquila, Jeff Rosenberger, Anthony Oteri, and Frank Gerratana (all BS '04 and MS '05)** celebrated the 10th anniversary of the completion of their MQP at Jeff's wedding to Kimberly Gaulin in Groton, Mass., on March 22, 2014. Kevin was the best man. Frank was the one who originally introduced Jeff to Kim, who was

'06

Julian Race is spending the Austral winter at Palmer Station, Antarctica—one of three year-round U.S. research bases for the United States Antarctic Program—where he is serving as senior systems administrator alongside 21 support personnel and scientists. He is helping to keep science operations running throughout the winter, as well as supporting station safety by serving on the Fire Brigade and Search and Rescue teams. This will be his fourth season on 'the Ice' and he continues to enjoy all that Terra Australis has to offer.



'08

Ryan and Erin (Vozzola) Kendrick are living and working in Geoje, South Korea. They share their adventures in their "Traveling Techies" blog, where there are guest posts by engineers (some from WPI) solving world problems all over the globe, and photos from the couple's multinational adventures. Between the two of them, they had been to nearly every continent before they turned 25, only missing South America and Antarctica. Read more at traveling-techies.com.



Frank's law school classmate at American University in Washington, D.C.

Amanda Delaive is an IT business analyst at GW&K Investments.

Nicole (McMahon) and **Michael Orrell**, along with their two sons, Jack and Brayden, are excited to announce the expected arrival of another Orrell boy, in July.

Since graduation, **Duncan Torkornoo** has been working at SAP America as a global learning content director, out of their Newtown Square, Pa., office. He graduated from Ohio University with a master's in financial economics on May 3, and notes that he is still in touch with WPI.

Matthew Zuccaro works for John Moriarty & Associates, doing pre-construction consulting for commercial residential, office, laboratory, mixed use, and institutional projects ranging from \$15M to \$500M.

2005

Ty and Josie (Jaecksch) Bailey '04 moved to Portland, Ore., in April. "Who else is in the Pacific west coast these days?" they ask.

Bill Caulway writes, "Since graduating from WPI with my MSOIT degree, I worked at Clark University for four years as their IT deployment manager. My role includes project managing and aiding in the deployment and implementation of HR/payroll systems, student email, document imaging, and the university portal. During the last two years I have been at UMass in the president's office as their service performance analyst, working on the service management program and service performance metrics."

Barrett Franklin has been detailed to the VA Medical Center in Manchester, N.H., as acting associate director (chief operating officer). When not working at Manchester, Barrett serves as chief clinical engineer for the VA New England Healthcare System, VISN 1.

Samantha Michalka recently received her PhD in computational neuroscience from Boston University.

After graduation, **Lindsey (Tetreault) Waitt** went to work for Raytheon as systems engineer. "After four years with the company," she writes, "they gave me the opportunity to work in Hawaii for a Radar Defense program for two years. I was deployed to Wake Island twice, and California three times for flight test missions—what an experience! Met the love of my life while working in Hawaii. He is in the Army and got deployed to South Korea, so I took a leave of absence from work in 2011 to move there with him. Currently, I live in Port Orange, Fla., and am a stay-at-home mom to a beautiful 2-year-old son, Anthony."

2006

Colin Marker (MS ME), engineering project manager for spacecraft bus at Boeing Satellite Systems, received the 2013 Via Satellite Young Engineer Excellence award in December. "Growing up in Houston, I have fond memories of climbing through the Johnson Space Center shuttle mockup

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and the huge Saturn 5 rocket," he says. "I hope to be able to live up to the title as I continue forward in my career, to age 30 and beyond." Marker worked in the oil and gas company in Texas before entering a 5-year rotation program with Boeing. "Today the space industry is not as sexy or popular as it was during the space race," he says, noting that the media tends to focus on failures. "I often walk through the high bay and remind myself that very few people get to work on things that go into space."

Anne St. Martin has joined the Colgate-Palmolive Co. as patent counsel for Oral Care. Anne received her JD and LLM from UNH School of Law (Franklin Pierce Law Center) in 2009 and worked for a large patent boutique firm in Washington, D.C., prior to joining Colgate.

2008

After graduating from WPI, **Jillian Daniels** moved to Los Angeles with **Ryan Caron '07** to pursue a degree in space physics from UCLA. Six years later, she has changed her major to geology with a concentration in Optically Stimulated Luminescence (OSL) dating. She is expecting to graduate in June 2015.

Cheryl (Boquist) Ingram and her husband, Eric, were delighted to welcome their son, Zakkary Eric, in April 2014. "Big sister, Tesla Jane, 2, is happy to have a sibling!" she writes.

Isaiah Janzen '10 (MS MTE) was among climbers rescued from the south side of Mt. Everest after an avalanche this spring. He shares his reflections on his "Learning to Do" blog at isaiahjanzen.com. Before the trip he sent this update. "The last three years I have been working at John Deere Construction and Forestry in Dubuque, Iowa, and I am fortunate on several levels to be able to pursue "And Life." I have learned so much about product development the last few years and I regularly remember *Lehr und Kunst*, because it is true, theory + practice is so much more effective than either one, be it running a marathon, climbing Mt. Everest, or understanding the datum structure on a complex casting being resourced as it relates to final quality."

Vincent Kan writes, "Just graduated from University of Vermont College of Medicine this past May and will be starting my emergency medicine residency in June at none other than...UMass Medical School! Excited to be back to the Woo!"

2009

Matthew Zagaja holds the post of deputy data director at the Connecticut Democratic Party.

2010

Heather Trowbridge-Chatelle works at Caputo and Wick Ltd. in East Providence, R.I., along with **Allan Shear '77**.

Chrissy Nilsen works for DEKA Research and Development in Manchester, N.H.

Ashish Palooparambil writes, "Ever since I graduated, I've been doing something epic—I work as a project manager helping hospitals implement our software and improve healthcare for their patients: in other words, I help save lives!"

Alejandro Solà (MS SD) writes, "In September 2013 I left my job at Novartis to join Mylan Pharmaceuticals as director of strategy, North America."

Tom Villani and **Nick Crider** cofounded Phytosys LLC to sell the reagent Visikol, which Tom invented during his graduate studies. Visikol renders biological tissues transparent to allow internal structures to be studied intact, without tedious sectioning or expensive CT or PET scans. Their customers include more than 75 professors from major institutions in the United States. Through their Kickstarter campaign (under the brand TaxiClear), they hope to spread awareness and to make transparent specimens available to teachers, professors, and researchers as a biological model for study.

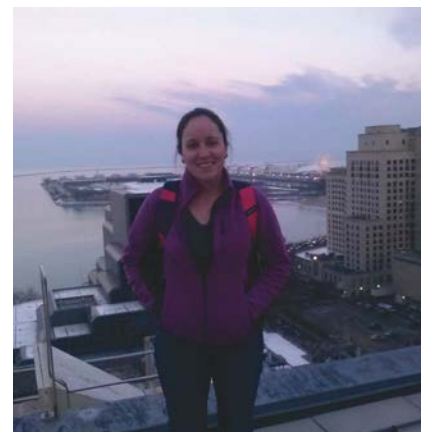
Arie Vilders writes, "After two and half years of living in Pennsylvania and Texas, I have moved back New England. I took a new job in Leominster, Mass., and am working for a wire and cable company. My girlfriend and I had been doing a long distance relationship and have finally got a place together right in Worcester. It is great to be back in the Woo and to be able to visit WPI for alumni events and to see my fraternity. I have been a frequent customer at The Boynton, The Sole, and many other WPI favorites. It is great to be home!"

2011

Jared Drake shares, "This weekend I watched two great friends from WPI get married on a beautiful Saturday afternoon. After, I was able to hang out with my old roommate who came from California for the weekend and

'12

Lauren Laboissonniere sends this photo from the rooftop of the Northwestern Medical School in Chicago. "I am pursuing my PhD in the Interdepartmental Program of Neuroscience at Iowa State University; and I collaborate with a lab at Northwestern for the research I am currently doing on ALS (Lou Gehrig's disease). We actually snuck onto the rooftop for this photo, but I like it so much because you can see beautiful Lake Michigan and the pier in the background as the sun sets."



another friend who came down from Maine. It was great to see everyone, especially in such great conditions!"

Aarik Devenger '12 (MEng) writes, "Hey, Woopi Tech! I am currently active duty Air Force, stationed at Hill Air Force Base in northern Utah. It's amazing here. World-class mountains for shredding in the winter, and gorgeous

'13

"Hi, WPI!" writes **Cindy Lin**. "Since graduating one year ago, I have been working with Avery Dennison as a global quality engineer. I have been lucky enough to travel the world for work and have so far been to 12 countries—it will be 13 when I arrive in Romania. In July I will be rotating to my next rotation in sunny Los Angeles as a process engineer. During my time home, I still get to see my friends, regularly hanging out with some fellow alums."



landscapes for hiking in the summer. I serve as an aerospace structures engineer for the Air Force's pride and joy: the Close Air Support (CAS) weapons platform A-10 Warthog. WPI prepared me well for working with some of the smartest engineers I've ever met to keep this old (1970s) aircraft flying until the Congress shuts it down. I will soon take on the role of munitions sustainment engineer, also at Hill AFB. Being an engineer is great!"

2012

Grant McDonald writes, "I have been working for Caterpillar since graduating from WPI. The project I'm working on now is called the Autonomous Haulage System (AHS). We currently have several large off highway mining trucks operating in Western Australia. In these remote areas the mining company estimates it cost around \$1 million for each person employed (housing, food, travel, etc.). Taking the drivers out of the truck not only saves the company money, but also improves overall mine safety. ABC in Australia did some coverage on our driverless trucks in April that you can find online at abc.net.au."

Michael Mieyr (MEng) recently began a new position as deputy public works director for the City of Nampa, Idaho. "I oversee three divisions: Water, Wastewater, and Environmental Compliance—and a staff of 80 people. We are in final design of Phase I upgrades of the Wastewater Treatment Plant, and we're evaluating groundwater infiltration water reuse for Phase II. These two projects have an estimated total construction cost of \$80-100 million. My transition from consulting engineer to the public sector brings new challenges. My master's degree from WPI has opened up a lot of new opportunities, and for that I am grateful. The education at WPI has always been, in my

estimation, ahead of the curve. With a new president, I am sure WPI will continue this direction with continued excellence in education."

John Wilder writes, "In October of last year I moved to Stratford, Conn., to accept a job at Sikorsky Aircraft. Since then I have been working on the brand new CH-53K helicopter; we plan to have "first flight" by the end of this year. Here in Stratford I have been volunteering with a local Boy Scout troop, participating in various Masonic organizations, and have most recently joined the Shriners."

2013

Anthony Begins writes, "I'm currently rounding out my first year at Built-Rite Tool and Die, located in Lancaster, Mass., where I design molds for use in compression, transfer, insert, and injection molding. Just recently, my MQP team was granted our utility patent for our design and ideation of new head and neck restraint for use in auto racing."

Joe Contini (MBA) writes, "After finishing my MBA at WPI, I spent 2.5 years working in Boston at a government consulting firm. Last summer, I moved down to our D.C., office to build out a technology consulting team. Every few months I travel to Africa for international development work."

Kyle Diaz writes, "I miss WPI. I'm at grad school somewhere else and just want to come back. :) In fact, I just might!"

Ensign **Christopher Girouard's** naval service includes deployment with MCM Crew Bulwark. In May, he wrote, "I

have been over in Bahrain as the electrical officer aboard USS *Sentry* supervising a shipyard period since December. We are expecting to return to San Diego next month."

Sam Hilerio writes, "After graduation I began my career in fluid analysis and design at Pratt & Whitney, working for the high-pressure compressor department. In March I got engaged to my college sweetheart, **James Alleva '12**. We met in Morgan Hall during New Student Orientation; our first date was the NSO student activities fair on the Quad. This spring, he took me back to WPI on my birthday for what he was calling a 'classic Sam & Jimmy date.' After walking across the Quad (and being sure to step on the seal!), he proposed in front of Morgan Hall, where we met about 5.5 years ago."

Ryan Kimmel writes, "I've been working for a company called Little & Co. (recently purchased by Vantiv) as a software developer."

IMGD majors **Ryan Casey**, **Jill Sauer**, and **Alex Thornton-Clark** are continuing their work on "Pandora: Purge of Pride," the game they created for their MQP with **Mike Frankfort**. They founded a game development studio, High Class Kitsch, in Worcester and are planning to release the game commercially this summer. In an interview in the Worcester *Telegram & Gazette*, Ryan spoke of the town's "untapped" potential for indie game developers and touted the advantages of a WPI education. "The real signal of success is if we can sell enough copies of 'Pandora' for us to keep doing this full time," he told the *T&G* reporter.

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Mechanical Engineering Professor Albert Ferron

Albert G. Ferron '57 died April 7, 2014. He taught courses in fluid mechanics and turbo machinery in the Mechanical Engineering Department for more than 45 years. During that time, he also worked at Alden Research Laboratory (formerly part of WPI), serving as a vice president and part owner. His wife, Lillian, died in 2000. He leaves three sons, two of whom are WPI graduates. Richard P. Ferron '82 says his father was committed to preparing his students for the real world, often sharing real-life experiences to give them a sense of what engineers actually did for a living. "He was known for taking the academic concept and showing how it worked in practice. He would bring pumps, turbine blades, valves, and pipes into the classroom as props, so the students could touch and feel what they were studying. He took a very personal interest in all his students, but especially those students whom he advised."



with the Herbert F. Taylor Alumni Award for Distinguished Service to WPI.

Lindgren and his father founded Lindco Inc. in Worcester, dedicated to the sale of mechanical engineering equipment throughout New England. The company later expanded into pneumatic control systems for the electric power industry, and industrial and precision ball screws.

At Lindco, Lindgren met his future bride, Cecelia (Cis). They married in 1955 and raised five children. John was predeceased by Cis after 56 years of marriage. He is survived by four daughters and his son, Carl J. Lindgren III '82. Memorial contributions may be made to the C. John Lindgren Jr. Scholarship Fund at WPI.



John Lindegren, WPI Trustee Emeritus

C. John Lindegren Jr. '39 died April 2, 2014, at the age of 97. He served on the WPI Board of Trustees from 1983 to 1991 and was elected a trustee emeritus. As a WPI student, he was managing editor of the school newspaper and a member of Sigma Phi Epsilon fraternity. As an ardent and loyal alumnus, Lindegren served on the Alumni Fund Board and chaired his class reunion committee. In 1984 he was recognized

Chemical Engineering Professor John Meader

John W. Meader died March 7, 2014, at the age of 82. A graduate of MIT and a member of the chemical engineering faculty for more than 32 years, he taught many of the department's core interdisciplinary courses, including fluid mechanics and heat transfer, and retired in 1992. His son, John L. Meader '79, (MS CE '86) recalls that his father had a reputation for being tough and that his courses required rigorous mathematics. Survivors also include his wife, Phyllis, and a daughter. He was predeceased by previous wives, Mildred and Laurie.



Randolph Bretton '41, D. Chem. Eng. (Hon.) '57
Leland Ekstrom '42 (Theta Chi)
Newton Burr '44 (Phi Sigma Kappa)
Robert Telzerow '44 (Sigma Phi Epsilon)
Malcolm Bromberg '46 (Alpha Epsilon Pi)
Wilfred DeRocher '47 (Lambda Chi Alpha)
Francis Lambert '48 (Phi Kappa Theta)
Ronald Thompson '52 (Phi Gamma Delta)
Leo Salmen '53
Victor Matonis '54
Wesley Wheeler '54 (Lambda Chi Alpha)

Roger Bardwell '55 (Sigma Phi Epsilon)
Santo Bramande '57 (Sigma Alpha Epsilon)
Albert Ferron '57 (Phi Kappa Theta)
Richard Moore '57
James Fogarty '61
Richard Holden '61 (Alpha Tau Omega)
Adrien Berthiaume '62
William Hartman '63 (Sigma Phi Epsilon)
Richard Ryczek '64 (Phi Kappa Theta)
John Stockhaus '66 (Sigma Phi Epsilon)
Jeffrey Blaisdell '73

Stanley Piekos '74 (Sigma Pi)
Mark Ketchum '75
Thomas Giannetti '86
Barton Kincaid '91
Barry Rodrigues '94

Other members of the WPI community who have recently passed away include staff members John Bizzarro, June Cochran, and Edgar Heselbarth, and friend Lembit Laasberg.

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Alden Society member



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