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COVER PHOTO MATT FURMAN
SUMMER ACCOLADES

Just a note to say the summer 2016 edition is excellent. It is well balanced, interesting, creative, and tells the WPI story in a readable and attractive format. I’ve written directly to some of the people highlighted in several stories to compare notes and provide encouragement for their work.

Well done, keep up the great work.

—Henry Stragle ’56

WATER ACROSS AMERICA

Many of the WPI Journal articles deal with bleeding-edge technology and the New England area. Some WPI graduates, like myself, have enjoyed very rewarding careers in a traditional industry in other parts of the United States. For example, my water utility career has taken our family on a wonderful adventure across America—from the pristine reservoirs of New England, to the big rivers of the Midwest, and on to the sacred rivers of the West. I am very proud that I have been engaged in a career that provides safe drinking water, wastewater management, stormwater protection, water for agriculture, recycled wastewater, and groundwater replenishment. Over the last 40 years, I have been involved with the planning, design, and construction of over $2.5 billion of water infrastructure. Some of us have also had the opportunity to manage and operate utility systems. I have been on-call, responding to hurricanes, floods, tornados, and earthquakes—always making sure the water services were uninterrupted.

Most people in our country wake up every day and turn on the faucet or flush the toilet and take it for granted. Compare this to the environmental issues at the 2016 Olympics in Rio de Janeiro and count your “lucky stars.”

Thanks, WPI, for providing me the funding, opportunity, and encouragement for my work.

—Mark Johnson ’76

ICELANDIC VIEWS

I enjoyed “A Widened Lens” that appeared in the Summer 2016 issue of the WPI Journal. It was actually the beautiful pictures that first caught my attention and led me to read the fascinating story behind them told in the article. Donal Boyd clearly has an exceptional talent, and one looks forward to seeing more of his work in the future.

I find it interesting that Professor Diwan Apelian, Boyd’s mentor at WPI, encouraged him to pursue his dreams and “[t]o do so with a critical global mindset” instead of merely confining his passion to a hobby. Boyd’s work exemplifies this critical global mindset.

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Last year, I had the opportunity to visit Iceland as a guest speaker for the University of Iceland. I found the students and faculty to be among the happiest in the world. The pictures than Donal Boyd published in the WPI Journal further confirm my experience.

Donal Boyd’s work is a true example of the sort of synthesis we try to nurture and promote at WPI.

—Mark Apelian, Boyd’s mentor at WPI

Dear Friends,

Like many university presidents, I take college rankings with a grain of salt. Too often, I find, they focus on the wrong things—for example how many students a school turns away or the test scores of the young men and women who are admitted. Rarely do they zero in on the qualities that will help prospective students understand what makes a school like WPI distinctive or what they might actually take away from their education.

That’s why I was delighted to discover a newcomer to the American rankings marketplace this fall, one that takes a different approach and reaches, in my opinion, more useful conclusions. And as you will see, it is the rare ranking that actually measures a quality that illuminates one of WPI’s core values. Like the well-known U.S. News & World Report college guide, the new Wall Street Journal/Times Higher Education (WSJ/TH) report bases its rankings, in part, on data about faculty quality, research, student engagement, and so on. But the WSJ/TH rankings add a new spin by cross-referencing those numbers with insight into the student experience. The editors asked 100,000 college students whether they received personal attention from their professors; whether they collaborated on projects; whether they were encouraged to think critically; and whether they’d recommend their school to others. By emphasizing the interview results, and by heavily weighting data about students’ postgraduate success, the editors produced rankings they claim are “driven entirely by what matters most to students and families.”

In addition to an overall ranking (WPI placed 71st out of 1,000 schools), the editors produced lists that sort colleges according to how well they fit a variety of student-centric criteria. WPI ranked 2nd, tied, for “The Top Faculties,” which ranks schools according to how well their professors balance their roles as teachers and researchers. “Some schools hire brilliant professors whose research expands the boundaries of their academic disciplines,” the Wall Street Journal noted. “Others hire great teachers who inspire and engage their students.” WPI is among a handful of schools that do both, the journal concluded.

I believe our No. 1 ranking is the product of a decision WPI made several decades ago to become a place that values both great teaching and impactful research. With the advent of the WPI Plan in the 1970s, the Institute doubled down on its commitment to undergraduate education as well as its heritage of balancing theory with practice. A decade later, it turned its attention to building a research enterprise, guided by the belief that the best teachers and project advisors not only understand their fields, but are actively engaged in advancing them. Achieving the best of both competing worlds has required building a faculty that is equally passionate about working with students in the classroom and the lab.

That may sound simple, but it requires diligence and a willingness to invest in the kinds of world-class academic and research infrastructure that top scholar educators seek out (think Gateway Park and the Fusilier Innovation Studio).

Those investments have had a wonderful outcome: satisfied students. Our spot atop “The Top Faculties” ranking reflects what our students think about their experience with our professors. Clearly, they appreciate the opportunity they have to learn from them, to benefit from their mentorship, to solve real-world problems working side-by side with them on projects, and to be immersed into our active research programs as valued contributors.

Their excitement at being part of this exciting and intellectually stimulating community is captured not only in the WSJ/TH rankings, but in the annual Princeton Review guide, which perennially finds WPI students to be among the happiest in the nation (we’re No. 19 on that list of 318 colleges this year). And while I still think that most rankings miss the mark, this one, I have to admit, seems right on target.

Sincerely,

Laurie A. Leshin
President
Michelle Jones-Johnson is WPI’s new vice president for talent development and chief diversity officer. Her role in the Office of Human Resources oversees all HR activities. This innovative approach to talent development will have Jones-Johnson collaborating with many groups on campus from faculty and staff to students and organizations, and is a direct result of a recent climate survey crafted to help create WPI’s first strategic diversity plan. Recently the Journal asked Jones-Johnson a few quick questions to get a sense of her goals and aspirations for the coming year.

Through your 23-year career, what are the biggest changes you have witnessed within the field of HR?

The greatest changes have been in the changing role of HR and the focus on managing talent within an organization. HR professionals are not just interested in the transactional aspects of the work but are keenly aware of the opportunity to have a more impactful and strategic role on the broader organization both in terms of its people and in supporting the organization in meeting its business objectives.

What is the message reflected in the change in your position—from VP of HR to VP for talent development and chief diversity officer?

The role represents more than a title change. It reflects a shift in institutional priorities that align with our strategic initiatives that are enabled through a robust talent management approach grounded in diversity, not just in terms of representation, but inclusive of different perspectives and contributions.

What do you see as your biggest challenge in creating a more supportive, inclusive campus here at WPI?

I view life through a lens of opportunity and possibility, each which represent a level of transformation and change that may feel daunting to some or unfamiliar to others. I am excited about working collaboratively with the WPI community to create a strategic roadmap to further build our culture and strengthen inclusion throughout all aspects of our community.

In an academic setting, what are your key initiatives to support employee and leadership recruitment and retention?

I plan to focus on attracting, developing, and retaining talent that distinguishes WPI in the competitive marketplace. WPI is competing for talent both inside and outside of the higher education marketplace. We have to create a strong employee value proposition and craft an enticing employer brand that speaks to the excellence we desire in talent and the diversity we value.

What’s your own strategy for maintaining a fun work/life balance?

I gave up striving for balance and focus more on choosing to find joy and gratitude in all that I do. I laugh a LOT! I spend time with people who fuel my need for connection, love, and inspiration. I prioritize date night with my husband. I gave up trying to be perfect. I close the door to messy rooms and instead opt to go out and have fun with my family.
Its history and culture are a rich fusion of influences; its people are proud, innovative, and environmentally fastidious; its picturesque harbor greets looming mountains that are home to an array of exotic and endangered plants and animals. Many factors make Wellington a unique and unrivaled location. That's what ultimately convinced professor of organizational studies Michael Elmes that it would be a prime spot for one of WPI's project centers. After visiting the country as a Fulbright Scholar in 2005, he championed the Wellington Project Center, and students have been visiting and working there for four years.

“It's really quite a dynamic place for being such a small country,” says Elmes, who runs the center with assistant teaching professor Ingrid Shockey. “It's a great place to visit, and it's a great place to do interesting, challenging projects.” In those four years, IQP teams have been involved with more than two dozen such initiatives—among them, researching endangered dolphins, investigating prospects for hydrogen fuel, studying the food rituals of native birthday parties, raising awareness of tsunamis, and examining flood and climate change.

Mechanical engineering major Paige Moot '17, who spent the winter of 2016 at the center, said of the experience, “I felt like I'd found another home.” Students are very often struck by what Elmes calls the starkly beautiful natural environment, plus the country’s high happiness index and quality of life. “They do have some kind of secret formula there,” he says.

The center works with diverse sponsors, from the Māori communities, to the Greater Wellington Regional Council, to the Museum of New Zealand Te Papa Tongarewa. Elmes says it's a mutually beneficial relationship, and a way to show off WPI's excellence. “We have so many repeat project sponsors because they're so impressed with the quality of the work that our students do. I can't tell you how many times people over there say, ‘Your students are just great.’” Myatt was in a group that created a feasibility report for a hydroponic greenhouse that would tap excess electricity from a micro-hydro power system operated by Māori in the rural town of Horohoro. The experience had such a profound impact on her life and career path that she'll be going back in winter 2017 for her MQP. Her plan is to work with that Māori community again to help them design the greenhouse for which she and her IQP teammates created the feasibility study.

She recalls a Māori proverb: “What is the most important thing in the world? It is people, it is people, it is people.” Not, she emphasized, that people are more important than the natural world and its creatures, but that they are ultimately responsible for taking care of it.

“The Māori try to be very aware of how they're impacting their environment. They're efficient with their resources,” Myatt says of the Māori and of kiwis at large. “It's a very refreshing viewpoint to experience.”

—Taryn Plumb

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The heart of your alma mater remains the same.
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wpi.edu/+alumniweekend
THE ROBOTS WERE RIGHT

A decade ago WPI was the first university to allow robot-obsessed teenagers to engage with the passion as an academic discipline. In 2016 the university received the ABET® Innovation Award for developing and implementing the first ABET-accredited undergraduate robotics engineering (RBE) program in the United States.

“The program incorporates an innovative, project-based curriculum that integrates computer science, engineering, and entrepreneurship,” reads the citation. “It is producing large numbers of successful graduates, while serving as a model for robotics engineering programs at other institutions.”

The award recognizes vision and commitment that challenge the status-quo in technical education. — True innovation is hard to define, but easy to identify.” It further notes that recipients are chosen for breaking new ground and bringing a new dimension to education.

The first introductory robotics courses offered at WPI filled up before students arrived on campus. Even when extra sections were added, there was still a waiting list. There are now more than 20 RBE courses offered, and the program has 11 labs; it has grown every year for 10 years running, and now boasts 340 undergraduate majors and 160 graduate students.

“Robotics engineering truly exemplifies what WPI can do so well,” says program head Mike Gennert. “A diverse set of faculty worked together, pursuing a vision to create an innovative, challenging, and highly respected degree program where nothing like it existed before. Our students have gone on to win awards, create companies, push the boundaries of knowledge, and take leading roles in the Robotics Revolution. And we’re just getting started!”

Accreditation Board for Engineering and Technology

NEVER UNDERESTIMATE, NEVER GIVE UP

For years, Michael Vaudreuil ’16 juggled a full schedule of classes with a full-time, second-shift custodial job. He sometime picked up the occasional plastering gig on top of that. Most of the time in between (what little of it he had) was spent on coursework and his MQP.

But WPI’s custodian-turned-engineer finally got his payoff. Vaudreuil, whose story went viral after he received his BS in mechanical engineering at WPI’s 2016 commencement ceremony, is now employed in the Hot Section Engineering division of Pratt & Whitney on the aerospace manufacturer’s Production Integrated Product Team.

Vaudreuil’s story — of enduring setback after professional setback, losing his home, his life’s savings, and, for a while, his hope — has resonated with millions. Media outlets around the world picked up the story about the custodian who graduated from the university he cleaned at night. One video of him at Commencement garnered more than 11 million views.

After a segment about him aired on NBC Nightly News, four people from Pratt & Whitney reached out to him on the same day, independently of each other. He was soon hired, and now spends his days working on jet engine combustion chambers and turbine and exhaust systems.

“My wife, Joyce, was key in seeing to it that nothing derailed me from the ultimate goal of graduating,” he says. “My job at WPI gave us the stability and dispel the stereotype that their better days are behind them and they’re just riding it out to retirement. As is clear in Vaudreuil’s case, one should never assume, never underestimate — and never give up.

— Taryn Plumb
GROTESQUES LIVE ON

After standing for a century, lending both dignity and a quirky charm to the campus Quad, Alumni Gymnasium is no more. Before demolition of the brick walls began, the building’s most distinctive features were carefully removed for historic preservation. Special attention was given to the 34 hand-carved limestone grotesques, which were carefully loosened from their pegs by skilled masons, then lowered by a crane onto wooden pallets. University archivist Jessica Colati has been researching the meaning and origins of these beloved icons. She reports that they represent not only athletic pursuits, but also the Glee Club, the student newspaper, and the Journal. Several grotesques give a nod to sporting teams not officially sanctioned on campus at the time, such as bowling, fencing, and gymnastics. One, with a tennis racket, is believed to honor mathematics professor Levi Conant, who, as interim president from 1911 to 1913, oversaw fundraising for tennis courts on campus.

A time capsule housed in the building’s cornerstone was also preserved. The sealed copper box is presently being examined, says Colati, and the capsule’s contents will be revealed at a later date. (Only a partial list had been held by Gordon Library’s Archives.) “When we do open it, it will be really exciting to see if the items are intact,” she says, “and to see if there is something else included.”

When the Foisie Innovation Studio and Messenger Residence Hall rises on the site, a number of the grotesques will be incorporated in the new building. Several others will be displayed near the athletic fields as a motivator to WPI’s student athletes. Six grotesques—chosen by popular vote—were memorialized on a T-shirt, with a portion of proceeds funding student scholarships.

“We co-advise an IQP team that did the bulk of the background research and program design. That initial IQP fed into a successful NSF grant proposal that funded the first two years of Camp Reach,” each summer, the campers work in teams to complete a real-world project for a Worcester nonprofit. Two decades later, Demetry continues to follow Camp Reach alumni through longitudinal studies to assess impact. She notes that continued contact through the middle school and high school years has been shown to make a difference. Over the years, numerous alumnae have returned to serve as camp counselors, speakers, and mentors, showing younger girls a path that is open to them.

AMERICAN CHAMPION

President Laurie Leshin was selected by WGBH as a 2016 American Graduate Champion, as part of a PBS initiative to address the nation’s dropout crisis. President Laurie Leshin works with a student group on WGBH’s American Graduate: Let’s Make It Happen. The program is part of American Graduate: Let’s Make It Happen, which harnesses the power of public television to help communities understand the challenges and community-driven solutions associated with the dropout crisis. Along with ongoing reporting on the issues, public forums and community conversations are activating discussions between community leaders, educators, and others. Learn more about the dropout crisis at americangraduate.org.

What does it take to move the needle on the number of girls who “Strongly Agree” with that statement? Over the course of 20 summers, Camp Reach has changed the lives of 640 girls by immersing them in hands-on projects, surrounding them with like-minded mentors, and treating them to a taste of college dorm life for two fun-filled weeks during the summer before they start 7th grade.

Camp Reach, launched in 1997, grew out of conversations between two WPI professors about how they’d been encouraged, as girls, to go into a predominantly male profession. “I grew up around WPI and its students,” says co-founder Chrys Demetry ’88, director of the Morgan Teaching and Learning Center, and associate professor of mechanical engineering. “My dad (ECE professor Jim Demetry ’88) helped me get access to people and equipment here to help with my science projects.”

Her friend and colleague, the late Denise Nicoletti—who taught as the only female mechanical engineering student, as girls, to go into a predominantly male profession. “I grew up around WPI and its students,” says co-founder Chrys Demetry ’88, director of the Morgan Teaching and Learning Center, and associate professor of mechanical engineering. “My dad (ECE professor Jim Demetry ’88) helped me get access to people and equipment here to help with my science projects.” Her friend and colleague, the late Denise Nicoletti—who taught as the only female mechanical engineering student—wanted to do something similar. “I could be an engineer if I wanted to.”

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“Girls don’t always get good information about what engineering is and what the opportunities are. “Denise and I took what we knew is really effective about the WPI Plan and project-based learning at the college level, and sought to apply that at the middle school level,” Demetry relates. “We co-advise an IQP team that did the bulk of the background research and program design. That initial IQP fed into a successful NSF grant proposal that funded the first two years of Camp Reach.” Each summer, the campers work in teams to complete a real-world project for a Worcester nonprofit.
Bert LaValley

Bert LaValley ’07 is CEO of Deadhorse Hill, in partnership with chef Jared Forman and beverage director Sean Woods. The downtown restaurant/cafè is named for a steep incline that that challenged horses—and then motorists—in bygone centuries. His is also founder of Sustainable Comfort Inc, specializing in energy efficient multifamily homes. WPI Journal asked him to share his thoughts on revitalizing Worcester’s culinary scene.

Where did you like to eat when you were at WPI? I have always loved Corner Grille up near Tatnuck Square—I used to get their Aloha Pie once a week. The Boynton and up near near Tatnuck Square—I used to get their Aloha Pie once a week. The Boynton and

What drew you into the Deadhorse enterprise? Sean and I have lived across the hall from each other for a number of years. Our building has a great outdoor patio—a lot of people like to cook outside when the weather is nice, particularly on Saturday and Sunday afternoons. Sean would always come out with something to share—a really well-balanced cocktail, or a dish he had been preparing all day.

What he produced was unique and interesting, but what always stood out about Sean is how much he cared about taking care of people. When he teamed up with Jared and began planning a restaurant in downtown Worcester, I was excited as a chef to offer help anyway I could. I mostly had in mind a project partners and mentors can be. I am incredibly lucky to work with these people—I am consistently amazed by their work ethic, creativity, and raw talent. This project would fall flat without them. I am motivated daily to try and keep up.

Any common ground between your restaurant work and your sustainable construction business? A lot, actually. In both businesses we have a philosophy around taking the long-term view. In the restaurant, that means we source from the local area, focus a lot on the sustainability of the products we use, and try to create an environment where everyone—staff and guests—feels welcome and taken care of. At Sustainable Comfort, we are working to make buildings more resilient, efficient, and healthy for their occupants. Both things directly impact the quality of people’s lives in a, hopefully, very positive way.

So many say Worcester is on the rise. What’s your take on this? Worcester has a stated goal of having more young professionals educated at the local colleges and universities live and work in the area. One element I think is necessary for that is a robust and diverse culinary scene, and Worcester is growing in that regard. That said, diversity means there should be options at different price ranges and cuisine types—so different people can look for an experience that provides the best value to them.

Fish hackers? Wait... does that mean cyberpunching a fisherman’s home computer? Anon contraire, it’s about WPI students using mobile tech to help sustain fisheries. Last April (during Earth Day weekend at WPI), Fishackathon united coders, graphic designers, and project managers for an intensive two-day programming session to devise cutting-edge solutions to the most pressing industrial and environmental issues plaguing aquaculture and aquatic life.

Hosted by the U.S. Department of State since 2014, Fishackathon teams work creating a mobile smartphone app to address one of nine problems fishery experts define as the most critical to making the global fishing industry sustainable. In the largest Fishackathon to date, teams participating simultaneously from more than 40 locations all over the world tackled issues related to fish identification and tracking, monitoring systems for lost fishing gear, fishing vessel data, and compliance with marine laws and regulations.

Of hundreds of submissions, SUNSHEE—short for “Scraping Unanswerable Sources to Halt Environmental Exploitation”—an app created at WPI by Jonathan Leichich ’16, Maryann O’Connell ’17, and Mariann O’Connell ’17, and

#CODEFORFISH

#ALUMINUM:
A GRAVE-TO-GATE ANALYSIS

Though your car won’t fit into your curbside recycling bin, a significant part of the vehicle—not from radiator and engine block to wheels and bumpers—are highly recyclable and endlessly reusable. WPI’s Center for Resource Recovery and Recycling (CR3), part of the Metal Processing Institute (MPI), recently confirmed that 91 percent of automotive aluminum gets recycled at the end of a vehicle’s life—keeping it in use and out of landfills.

A study commissioned by the Aluminum Association and conducted by the CR3 looked into three processes where aluminum is most often lost during automotive recycling: shredding, downstream separation, and scrap melting. Working with a representative sampling of dismantling yards, recyclers, and manufacturers, MPI founding director Ditan Apelian and graduate student Sean Kelly tracked the full process to assess the percentage of aluminum captured and the opportunity for further improvement.

In the report “Automotive aluminum recycling at end of life: a grave-to-gate analysis,” Kelly writes, “Recycling is a critical step for the sustainability of a man-made metal like aluminum since it significantly saves both energy and scarce natural resources.” According to Apelian, the results confirm that aluminum—whether lightweight and, pound for pound, stronger than steel—“helps reduce energy consumption, lower carbon emissions, and increase fuel economy.”

The CR3, a National Science Foundation Industry/University Cooperative Research Center, is a multi-university, member-driven collaborative focused on helping industry create a sustainable future through advances in technologies that recover, recycle, and reuse materials throughout manufacturing processes. Partner organizations are WPI, Colorado School of Mines, and KU (Katholieke Universiteit) Leuven, along with the University of Tokyo, which joined in August.

Photo: Alastair Grant/Alamy

The results confirm that aluminum—which is lightweight and, pound for pound, stronger than steel—“helps reduce energy consumption, lower carbon emissions, and increase fuel economy.”

“A lot, actually. In both businesses we have a philosophy around taking the long-term view. In the restaurant, that means we source from the local area, focus a lot on the sustainability of the products we use, and try to create an environment where everyone—stuff and guests—feels welcome and taken care of. At Sustainable Comfort, we are working to make buildings more resilient, efficient, and healthy for their occupants. Both things directly impact the quality of people’s lives in a, hopefully, very positive way.”

Past to the future, I was unaware of the complex issues we are facing globally in regards to fishing.”—O’Connell says. “By participating in Fishackathon, I was able to have fun developing software while contributing to a worthwhile cause.”

—Kerry O’Brien

Prior to this, my experience in the restaurant industry was the same as most people’s—I had eaten at one. WPI taught me how valuable

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Past to the future, I was unaware of the complex issues we are facing globally in regards to fishing.”—O’Connell says. “By participating in Fishackathon, I was able to have fun developing software while contributing to a worthwhile cause.”

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Prior to this, my experience in the restaurant industry was the same as most people’s—I had eaten at one. WPI taught me how valuable project partners and mentors can be. I am incredibly lucky to work with these people—I am consistently amazed by their work ethic, creativity, and raw talent. This project would fall flat without them. I am motivated daily to try and keep up.

ANY COMMON GROUND BETWEEN YOUR RESTAURANT WORK AND YOUR SUSTAINABLE CONSTRUCTION BUSINESS? A lot, actually. In both businesses we have a philosophy around taking the long-term view. In the restaurant, that means we source from the local area, focus a lot on the sustainability of the products we use, and try to create an environment where everyone—staff and guests—feels welcome and taken care of. At Sustainable Comfort, we are working to make buildings more resilient, efficient, and healthy for their occupants. Both things directly impact the quality of people’s lives in a, hopefully, very positive way.

SO MANY SAY WORCESTER IS ON THE RISE. WHAT’S YOUR TAKE ON THIS? Worcester has a stated goal of having more young professionals educated at the local colleges and universities live and work in the area. One element I think is necessary for that is a robust and diverse culinary scene, and Worcester is growing in that regard. That said, diversity means there should be options at different price ranges and cuisine types—so different people can look for an experience that provides the best value to them.

Fish hackers? Wait... does that mean cyberpunching a fisherman’s home computer? Anon contraire, it’s about WPI students using mobile tech to help sustain fisheries. Last April (during Earth Day weekend at WPI), Fishackathon united coders, graphic designers, and project managers for an intensive two-day programming session to devise cutting-edge solutions to the most pressing industrial and environmental issues plaguing aquaculture and aquatic life.

Hosted by the U.S. Department of State since 2014, Fishackathon teams work creating a mobile smartphone app to address one of nine problems fishery experts define as the most critical to making the global fishing industry sustainable. In the largest Fishackathon to date, teams participating simultaneously from more than 40 locations all over the world tackled issues related to fish identification and tracking, monitoring systems for lost fishing gear, fishing vessel data, and compliance with marine laws and regulations.

Of hundreds of submissions, SUNSHEE—short for “Scraping Unanswerable Sources to Halt Environmental Exploitation”—an app created at WPI by Jonathan Leichich ’16, Maryann O’Connell ’17, and

#CODEFORFISH

#ALUMINUM:
A GRAVE-TO-GATE ANALYSIS

Though your car won’t fit into your curbside recycling bin, a significant part of the vehicle—not from radiator and engine block to wheels and bumpers—are highly recyclable and endlessly reusable. WPI’s Center for Resource Recovery and Recycling (CR3), part of the Metal Processing Institute (MPI), recently confirmed that 91 percent of automotive aluminum gets recycled at the end of a vehicle’s life—keeping it in use and out of landfills.

A study commissioned by the Aluminum Association and conducted by the CR3 looked into three processes where aluminum is most often lost during automotive recycling: shredding, downstream separation, and scrap melting. Working with a representative sampling of dismantling yards, recyclers, and manufacturers, MPI founding director Ditan Apelian and graduate student Sean Kelly tracked the full process to assess the percentage of aluminum captured and the opportunity for further improvement.

In the report “Automotive aluminum recycling at end of life: a grave-to-gate analysis,” Kelly writes, “Recycling is a critical step for the sustainability of a man-made metal like aluminum since it significantly saves both energy and scarce natural resources.” According to Apelian, the results confirm that aluminum—which is lightweight and, pound for pound, stronger than steel—“helps reduce energy consumption, lower carbon emissions, and increase fuel economy.”

The CR3, a National Science Foundation Industry/University Cooperative Research Center, is a multi-university, member-driven collaborative focused on helping industry create a sustainable future through advances in technologies that recover, recycle, and reuse materials throughout manufacturing processes. Partner organizations are WPI, Colorado School of Mines, and KU (Katholieke Universiteit) Leuven, along with the University of Tokyo, which joined in August.

“Look for a feature story on CR3’s diverse research in the next annual research issue.”

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ELECTION 2016: HACKS, AUDITS, AND OTHER WORRIES

Amid one of the strangest and most contentious presidential elections in recent memory, there is widespread concern about electronic voting machines being “rigged,” malfunctioning, or falling under cyber attack by domestic or foreign bad guys. How can the public trust that their ballots are counted correctly—or at all?

That question is always on the mind of Suzanne Mello-Stark, a forensic computer scientist at WPI who studies voting technology and has served as technical advisor to the election boards in Rhode Island and Connecticut. Mello-Stark, associate teaching professor of computer science, says her interest was piqued during the 2000 presidential election, when the hotly contested result of the tally in Florida (remember the “hanging chads”?) had to be decided by the Supreme Court.

Although not terribly concerned about a full-blown hijacking of the election—Americans vote on an apples-and-oranges hybrid of different types of machines managed state by state with no networked, centralized system for cybersecurity to successfully target—Mello-Stark is worried about audits, recounts, and public trust.

With funding to improve election processes provided by the Help America Vote Act of 2002, many states bought electronic voting machines. While they seem like reliable and familiar technology to voters, many have not been fully vetted or secured, cautions Mello-Stark, and some provide no audit trail, making a recount all but impossible. And because most new machines are built and maintained by private companies whose proprietary interests in their software limit outside oversight, for example, could go undetected. Old paper ballot machines may be more reliable, after all.

It’s clear that voting technology needs further study, and the system needs a strategic overhaul that provides strict security and transparent auditing capabilities. That’s not going to happen before the 2016 presidential election, and then, says Mello-Stark, “we’ll be off people’s radar for another four years. Nobody worries about election technology until something goes wrong.”
That was her one-year survival prognosis when Dara Zuckernick ’91, ’97 (MBA) was diagnosed with stage 3 breast cancer in 2011, and it gave her inspiration to transform her future.

The child of an artist, Zuckernick had a great eye for creativity early on. Yet her mother urged her to pursue her analytical—and potentially more financially stable—strengths.

The summer before her high school senior year, she attended the WPI Frontiers program, which led her to apply to WPI. “Before you knew it, I was becoming a scientist,” she admits.

Upon earning her BS in biotechnology, it was apparent to Zuckernick that the best way to get ahead in her field was with a PhD, but the routine lab work fizzled her passion rather than ignite it.

“A friend of mine had completed her MBA in the WPI program and I thought that might provide an avenue for me to stay in a technical field—but on the business side rather than the technical side. My employer offered a tuition assistance program, so the decision to pursue the MBA was pretty easy.”

Fast forward to her role as North American sales manager at Molecular Devices: It was during this time Zuckernick was diagnosed with cancer, and suddenly she felt her priorities shift.

She promised to get back to her creative roots and open an art gallery—and in the summer of 2013, she did just that with Blank Canvas Gallery. For two years she balanced her corporate life and the gallery 24/7, but when she realized her bigger joy came from the most mundane work at the gallery— even just refurbishing the gallery walls—she was finally convinced to leave the corporate life behind.

She now gets more of a thrill selling small works of art than she ever received closing big capital equipment deals. “The personal connection with both the art and the artist can be very intense, and so many of my artists are now my very good friends,” she explains.

Despite the change in direction, Zuckernick still feels her WPI education guiding her. “A lot of that questioning—analytical work that you learn as a scientist—I now employ toward evaluating art. And just like science, a lot of art is built on the work that came before, so the volume of reading and researching and learning is just like you would do in science.” And her MBA background has helped her navigate her new role of entrepreneur in establishing a gallery and helping the artist community.

Flash to today: Zuckernick is set to launch an art concierge service in the Philadelphia area. She is also on the board of a nonprofit group called The Art Trust, with a gallery in downtown West Chester and a list of shows set for 2017.

With her cancer now in remission, her schedule is just as busy as it was in her corporate role, but with a soul fulfillment missing early in her career. Filling her iCal with pursuits she’s passionate about, from Olympic lifting to paddle-boarding, Zuckernick admits she’s never been as happy as she is now.
In 2005 Anne (Zichitella) Cheung was losing sleep. Anne Rapin, a close friend, had just returned from Cameroon, where she’d taught science to upper-level students as a Peace Corps volunteer. Rapin had brought home some unsettling stories from the West African country. For Cheung, one stuck out.

“She said something in her classroom one day about how girls can do anything that boys can do,” Cheung recalls. “And one of the girls in her class actually said, ‘No, you’re wrong. Madam, we can’t.’”

Rapin explained that in Cameroon girls are far less likely to get an education than boys because they’re often thought to have less potential. Also, they’re frequently married off at a young age; to school, teachers sometimes approach girls for sex in exchange for work, Cheung was able to pay for a year of schooling for 17 students, at about $75 each. Soon after, she and Rapin launched a nonprofit, A2Empowerment (A2 is for the two Annes), to continue the program. To date, they’ve funded more than 980 scholarships.

IMPACT
The first thing you should know about Anne Cheung is that she’s humble. She’d much rather talk about other people—and about doing things for other people—than discuss herself. That quality helps make her “an inspiration to almost everyone who knows her,” Rapin says.

Cheung grew up in a family of educators. Her mother, who returned to school to become a high school chemistry teacher (and who went on to earn a PhD at age 50), would often bring 5-year-old Anne to the lab to look through microscopes. Cheung says she was the best role model a girl could ask for. Her father, a grammar school teacher, would take her on nature walks and science museum outings. Because their parents hadn’t had the benefit of a college degree, she says her own parents were especially passionate about the value of education. With education, they taught her, life could be better; doors could open. “I think that’s been a theme throughout all the extra work I’ve done,” Cheung says.

From the moment she first perched through these microscopes, Cheung was drawn to science; a job fair in high school solidified her path. She talked with a biochemist from Roswell Park Cancer Institute who told her about a cancer patient who was given a poor prognosis. When the biochemist tested the tumor, he found that the cancer wasn’t life threatening, after all.

“He excidedly described how awesome it was to be able to give such wonderful news to that patient, and how it helped in other ways,” says Cheung. “That conversation had a huge impact on me.” She’d seen family members battle diseases like Alzheimer’s and cancer, and she felt helpless watching them suffer. Now, she’d discovered a way that she could make a difference. Science meant hope.

After completing her BS in molecular biology at SUNY Fredonia, Cheung came to WPI to earn an MS in biochemistry. A teaching assistantship covered her tuition and provided a stipend for living expenses. “It was such a gift to have that opportunity,” she says. As she went on to become a research assistant in the lab of José Argüello, where she studied the structure/function relationship between enzymes and cells, that lab was the setting for two life-changing moments. It’s where she first became interested in the possibility of using that knowledge to target proteins associated with disease. And it’s also where she met an undergraduate named Man Ching Cheung, who she’d go on to marry.

Cheung takes a measured approach to her projects, knowing that testing can take years, and that a high percentage of research won’t ultimately lead to a commercial product since so many things can go wrong along the way. At Biogen, she’s found that the success rate for drugs entering Phase I clinical trials is about 10 percent.

That, in part, drew her to find new areas where she could make a difference—as a volunteer. “I got into science because I wanted to help people—and it seemed so interesting, and I had that push from my mom,” she says. But once she began working in the field, she says, “it seemed as hands-on as I wanted, so I found new avenues.”

Cheung is a frequent presence at the Biogen Community Lab, where she teaches school kids about science and mentors them on their science fair projects. In her early days at Biogen, she got involved with the Big Sister Association of WPI Foundation, as part of a team developing an antibody that targets one of the misfolded proteins associated with Alzheimer’s. If it’s successful, it could help slow the progression of the disease. She’s also worked on projects aimed at slowing the progression of certain types of breast cancer, and is developing a diagnostic test for a latent virus that can cause severe debilitation or death in patients with suppressed immune systems.

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Greater Boston, and met Lois Contreras. Cheung became the 9-year-old’s mentor, taking her bowling and to the theatre—pursuits the young girl had never experienced. Through Contreras’s years in grammar school and then high school and college, and through Cheung’s marriage and the birth of her two sons, their friendship grew. Now 25, Contreras says Cheung inspired her to take school more seriously, and helped her see that education could open doors. “She makes you want to be a good person in this world, to do something meaningful,” says Contreras, who works as an educator at Roxa, a Boston-area nonprofit, where she teaches young women who didn’t complete high school. She tells them that education can open doors for them, too. “I can talk about Anne forever,” says Contreras. “She’s one of the most awesome people I’ve ever met in my life.”

Biegen’s Weinerich is also effusive about Cheung. “Whether it is her scientific contributions to discovering new treatments for neurodegenerative disease, such as multiple sclerosis or Alzheimer’s, her volunteer work with the Community Lab, or, perhaps most notably, her efforts to establish and run a charitable foundation to help girls and women in Cameroon, Anne has always demonstrated that she truly cares. She is truly passionate about empowering women in science, and these causes all are consistent with that goal.”

In fact, Fortune magazine in 2015 named Cheung one of the “Heroes of the 500,” highlighting her work with A2Empowerment. The annual list spotlights extraordinary people working for Fortune 500 companies.

**A2Empowerment at a Glance**

- Founded in 2008, this nonprofit company is dedicated to empowering women through education.
- So far, it has awarded more than 980 educational scholarships to young women in Cameroon (234 recipients, in seven of the country’s 10 regions, were selected in 2014).
- Recipients are expected to meet monthly with their mentors and other scholarship recipients in their areas to report on their academic progress and to discuss topics like health and wellness. They must also serve as role models by volunteering in their communities.
- About $75 will cover tuition, fees, and books for a year of school.
- All company overhead costs have been covered by the company co-founders, so the full amount of all donations is put toward scholarships.
- Since the project is set up as a Peace Corps Partnership Project, all funding is strictly monitored by the Peace Corps and A2Empowerment.
- Plans for 2017 include sustaining support for current recipients who qualify, and expanding the program to additional students.

**For more info, visit a2empowerment.org**

In 2011, a few years after starting A2Empowerment, Cheung flew to Cameroon. It was the first time she’d been to Africa, or to a developing country, and it made her appreciate, immensely, how easy her life had been and the educational opportunities she’s had. In a small rural village she met 14 scholarship recipients who threw a party to thank her. A father of one girl told Cheung how grateful he was that the scholarship made it possible for his daughter to go back to school. “He said he didn’t cry for her because she can buy her own bread and buy her own soap,” Cheung recalls, her voice growing soft. “And I just thought about how hard it must be to not be able to send your kid to school if you wanted to.”

While the trip inspired her, she’s not sure she’ll make a habit of it. “What I paid for the whole trip, it could have been a lot of scholarships,” she says.

Lately, Cheung has been pondering how to do even more. She thinks the scholarship program in Cameroon is a good start, but she’d love to find a way to help the girls gain skills and jobs so they can support themselves. She’s considering completing her MBA through WPI to help guide her. Because she’s seen the doors education can open, she’s determined to keep knocking. “I decided I’m just going to keep working toward helping these girls, no matter what. There’s more I can always do, until I’m done. I feel so passionate about how important education is and the ripple effect it can have. And I don’t want to ever stop.”

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#WPIplan
Road Diet

Jon Kaplan ’85

Maps a new approach to transportation planning

By Amy Crawford | Photography Rick Levinson
A two-lane highway in most sections, U.S. 302 follows a series of rivers—the Jail Branch, the Winooski, the Presumpscot—from Vermont’s capital of Montpelier, 171 miles east to Portland, Maine. This area of northern New England, known for forested peaks, pristine lakes, and quaint villages, also has its share of less-than-bucolic spots. One is the stretch of 302 from the town of Berlin to the historic city of Barns.

“It’s a typical commercial strip with lots of chain stores and shopping plazas,” says Jon Kaplan, who manages bicycle and pedestrian programs at VTrans (Vermont Agency of Transportation).

The four-lane boulevard, lined with drive-through restaurants, gas stations, and auto supply stores—each fronted by a generously sized parking lot—has long served as a reminder that the United States developed its highways for the automobile, not for people who walk or bike. But when Berlin announced a pairing project last summer, Kaplan and his VTrans colleagues saw an opportunity to make the road work for a wider swath of the population: They would put Route 302 on a diet.

Transportation planners are the first to admit it’s an amusing description, but the “road diet” is actually one of the most important elements of a new approach to transportation planning—a philosophy that prioritizes safety for all, putting pedestrians and bicycles on equal footing to speak with cars and trucks. While its goal is not to reduce the volume of traffic, a road diet usually cuts the number of travel lanes, creating space for bicycles, pedestrian sidewalks, and bus lanes. Car traffic may slow down a bit, but it flows more smoothly. According to the Federal Highway Administration, the approach—which is recommended for roads with a traffic volume of fewer than 20,000 cars per day—has the potential to cut automobile accidents nearly in half, something Vermont authorities welcomed on a stretch that had become notorious for near-end and side-swipe crashes.

“This is about trying to get the road to function more safely for everybody,” Kaplan asserts, in effect summing up the mission of his entire department, and much of his career so far.

MEANERING PATH

Appropriately enough for someone whose work focuses on more leisurely modes of transportation, Kaplan’s life has taken a meandering course since his days as a civil engineering major at WPI.

“I remember taking light steel design, reinforced concrete design—a lot of specialized classes,” Kaplan says, adding with a laugh, “but I actually never ended up doing any structural engineering once I graduated. Still, WPI prepared me in terms of all the basics of engineering, and learning how to work hard to get things done. Like a lot of life, it’s just the luck of the draw in terms of where I ended up.”

After graduation, Kaplan accepted an offer at a Boston consulting firm. After that came a job on Cape Cod reviewing development plans as he worked on roadways—it meant many of his projects required bike lanes and sidewalks. Kaplan became familiar with this law and engineers from around North America were working with state coordinator Michael Ronkin, in the state’s bicycle and pedestrian program.

Then, in 1993, he was promoted to a position in the state’s bicycle and pedestrian program, working with state coordinator Michael Ronkin, one of the biggest names in the field. “He is very well known nationally,” Kaplan says. “He was one of the innovators around bike and pedestrian planning and design in the U.S. I was really lucky to work for him. He took me off in that direction, and that’s what I’ve been doing ever since.”

MULTIMODAL

Ronkin, Kaplan, and their colleagues at the DOT were among the first state officials to place bicycles and pedestrians on par with automobile traffic. It was a philosophy that continued to inform Kaplan’s work after he and Anne, decided to move to Oregon. “We just wanted to live somewhere different,” Kaplan says. “We had been in Vermont for a while, so we did a big trip across country. At first we thought we’d like Virginia or, possibly, Colorado, but nothing really struck us as the place to be. We did like Oregon, though.”

The couple settled in Salem, the state’s capital, and Kaplan found work at a restaurant. But he began to crave the more stable working hours of an office job. “I thought, ‘Well, I have this engineering degree...’” he says. He wound up at the Oregon Department of Transportation, at first on a survey crew, and then as a roadway designer—a job that focused, like most transportation planning still did at the tail end of the 20th century, on cars. But that was beginning to change, and Oregon, one of the more progressive states when it comes to alternative modes of transportation, would lead the way.

Since 1973 Oregon has had a law on the books that requires the state transportation budget to include funding for bicycling and walking. Kaplan became familiar with this law as he worked on roadways—it meant many of his projects required bike lanes and sidewalks.

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moved back to Vermont in 1995 to be closer to their families, and today it has filtered through much of the field. The current buzzword is “multimodal,” and transportation planners now hope to make roads work for everyone.

Despite this shift, Kaplan laments that many Americans are still biased against bikes. “We got a lot of negative comments on the public survey we did before the road diet,” he says. “I can’t really explain this other than to say that we in the U.S. are still, for now, a car culture. Many people don’t bike seriously as a mode of transportation, even though it is very efficient, especially for short trips in areas with traffic congestion.”

Still, perspectives can change. In this, Kaplan draws inspiration from a Federal Highway Administration-sponsored tour of Europe he took several years ago, which opened his eyes to the possibility that one day Americans might embrace biking and walking as valid ways to get around.

“It was all about visiting countries that had good records of bike and pedestrian safety and good infrastructure for biking and walking,” Kaplan says. “Copenhagen, in particular, was just incredible. There were as many people biking as there were driving in the center city—just streams of bicyclists wearing high heels, men in suits, little kids on the backs of bikes, postal service people delivering mail. It’s just how people get around. I think once you’re exposed to that, you see what’s possible.”

Statewide, a lack of infrastructure for bikes and pedestrians may be partly to blame, and Kaplan is excited about several efforts he and his team are making to change that. In village centers, they have worked with towns to install rectangular Rapid Flash Beacons, which pedestrians can activate at a crosswalk to emphasize that drivers are required to yield. Kaplan’s office also administers a grant program to help towns improve bike and pedestrian safety and access, including laying sidewalks, installing intersection signals, and widening shoulders on rural roads.

While Vermont has a population smaller than the city of Boston, it can be a challenge to coordinate efforts among the state’s 255 municipalities, each with different needs. But Kaplan has found that, in the eight years since he took over bike and pedestrian projects at the state level, the values he has worked for since his days in Oregon have become more widely accepted. “I no longer have to advocate as strongly as I did in the past,” he says. “People see me as a resource on incorporating biking and walking into projects and we work collaboratively most of the time.”

**BREAKING THE CYCLE**

Kaplan’s life may have taken an indirect course, but looking back, his destination—working for everyone. “How do you get around when you’re a kid? I rode my bike a mile down the street to my best friend’s house. In Worcester I didn’t own a car until my senior year of college. I remember walking downtown with friends all the time.”

On Cape Cod, Kaplan biked the three miles to work all summer, whisking by vacation travelers in bumper-to-bumper traffic. Later, he and his wife biked for fun in Oregon. And today, the entire Kaplan family—Jon, Anne, and their three teenagers—spend weekends biking around their small town of Randolph.

“It’s not uncommon for all five of us to bike downtown for ice cream cones during the summer,” he says. “If I have to go out to the hardware store or to get groceries, I use my bike. I never lock it, partly because we’re in Vermont, but also because it’s a real beater—it doesn’t look like much, but it’s a great bike, totally dependable.”

It’s a lifestyle Kaplan hopes he can help more Vermonter’s adopt. He’s fond of citing surveys that show as many as 60 percent of Americans would like to bicycle, but are prevented from doing so because of safety concerns. It was with these people in mind that Kaplan and his team planned the Route 302 road diet, the most high-profile bike and pedestrian project Vermont has launched to date.

After extensive studies, the diet began last June. First, VTrans reduced the number of travel lanes from two to one in each direction, adding a turn lane in the middle for drivers turning left. That discouraged speeding and freed up room for a bike lane on either side, as well as space for a buffer zone between cyclists and automobile traffic. [The buffer was Kaplan’s concept, and one that has been shown to make cycling even safer and more comfortable].

Kaplan worked with consultants and with the town of Berlin to coordinate and refine the design; he developed an evaluation plan and worked with the media to get the word out and answer local residents’ questions. The diet seems to have paid off—shortly after the project was completed in August, a video traffic count showed the number of cyclists expanded nearly eight-fold, even as the travel time by car remained roughly the same.

“It’s an exciting thing,” Kaplan says. “There is still a lot to do, but we definitely have made a lot of progress, especially in a place that’s not a big urban center. I’ve heard from colleagues around the country, and a lot of them face some similar challenges—sprawl, car culture. I think what we’re doing could serve as a model for how we can make our streets work for everybody.”
Scott Ayers ’99, ’01 puts out fires before they start

Homeland FPE

By Ted Flanagan | Photography Matt Furman

The Consumer Product Safety Commission (CPSC) fire lab in which Ayers does most of his fire testing.
Early in his career in the private sector, Scott Ayers sought better ways to safeguard the Navy’s newest supership from fire. Later, he earned four patents for his innovative work miniaturizing fire suppression components during the design phase of what would become the world’s largest jumbo jet, shrinking crucial sensors into a package small enough to fit inside the engines of what would become the world’s newest supercarrier. Battling the limitations of weight and space demanded of engineers working on aircraft fire suppression systems presented the greatest design challenge he yet faced. “Weight and space are always at a premium,” he says.

Ayers discovered that he loved the challenge of engineering large, complex systems into small packages. One project, in particular—designing a system to extinguish engine fires on a new model jumbo jet—one of the largest and most complex commercial aircraft ever built—stretched him in new ways.

That stretching resulted in four patents, including one for an analyzer that ensures that a sufficient concentration of clean agent is injected into an engine in the event of a fire. Although his design didn’t make it into the finished airplane, it did pass muster with the Federal Aviation Administration.

A NEW BALANCE

When Ayers left the aerospace industry for his current job with the CPSC, he initially saw his move to the public sector mainly as a way to achieve some work-life balance. Coaching his daughter’s soccer team, serving as president of the local PTO—these were desirable perks of his new line of work. He felt it was a trade-off between the personal rewards of his aerospace work and his desire for a more family-friendly schedule. But he wondered if his best work was behind him.

At the CPSC, he began working on the safety of propulsion systems for the U.S. Naval Research Laboratory (NRL). As a project manager in the propulsion systems division of the Naval Research Laboratory, Ayers discovered that he loved the challenge of doing work directly with consumers. “I liked this idea of being able to see the result of that work,” he says. “You’re making a difference, and you see that happening right in front of you.”

When fire protection engineers, it’s sometimes hard to see the worth in work whose ultimate and best expression is in what doesn’t happen, he says. Firefighters might appreciate that a small fire didn’t become a conflagration thanks to a well-designed sprinkler system, but that’s the respect one artist has for another. It’s not something apparent to a layperson. “A firefighter enters a building, extinguishes the fire, rescues some people, or prevents a burning building from destroying the house next to it— it’s easy to recognize the result of that work,” he says. “You’re making a difference, and you see that happening right in front of you.”

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Seeking to reduce one source of potential harm, Ayers initiated a CSPC program that brings parents of children injured in fire protection accidents into the process. Working with the manufacturers, they are looking for ways to ensure such incidents never happen again. For his part, Ayers is astounded by these mothers’ resolve. “They’re amazing,” he says. “They want to be part of the solution, to look into the faces of accident victims and their mothers and speak a truth they’ve always known about their work but hadn’t been able to see so clearly. The truth is, each day that Scott Ayers goes to work, he has a chance to lower the odds that an accident will scar another child.

“I want to be able to help these mothers’ kids, but they know what I’m trying to do, and to see the look in their eyes, and see the satisfac- tion they clearly get from my wanting to do my job,” Ayers says, before pausing. “It was a huge mental boost for me. I finally got to put a face to the job. It’s been the most rewarding aspect of my professional career.”

His work has always focused on Protecting People from Flames.

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GMO gatekeeper
Melinda Belisle '08

BY ANDREW TAUGHT | PHOTOGRAPHY MATT FURMAN
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everal nights each week, Melinda Belisle takes the train to a 1.8-acre lot bordering the Fort Totten Metro Station in Washington, D.C. There, the Mamie D. Lee Community garden teems with a cornucopia of squash, melons, leafy greens, and herbs. She tends a 629-square-foot patch of earth, taking what she needs and donating any of the bounty — most recently several batches of homemade marinara pasta — to a local food bank. On a hot and humid night in August, Belisle casts a gimlet eye at her five beefsteak and grape tomato plants.

“They’re really struggling,” she laments. “They have early blight.” Belisle’s tomato tribulations serve as a pointed reminder of her day job. As a science and technology fellow with the U.S. Department of Agriculture, she works in the office that regulates genetically modified organisms, or GMOs, which include engineered plants made to flourish in parts of the world beset by drought, climate change, and pest infestations. And even, possibly, in a tiny corner of the nation’s capital.

“If I had a genetically engineered tomato,” Belisle laughs, “I would totally plant it as early-blight resistant variety.”

While scorn has been heaped on some agribusinesses’ GMO corporate practices, many scientists — often, people thought we were messing with nature, I found it very comforting. It was a very welcoming and supportive environment. I found it comforting. I’m a very sensitive person, in general,” she adds. “I can pick up on social cues and things in my environment very easily. I can see it being overwhelming. But when I’m in nature, those things kind of fade away. There are stimuli, of course, but it’s just not as intense. I really appreciate that.”

I was 12 when her mother died, after which Belisle, an older sister, and her father (a Methodist minister) moved to Oxford, Mass., and enrolled at WPI to be closer to family. She was 12 when her mother died, after which Belisle, an older sister, and her father (a Methodist minister) moved to Oxford, Mass., and enrolled at WPI to be closer to family. The culture shock was immediate, and, at times, humorous. “I remember that a friend had to show me how to use a vending machine,” she says. “I spent a lot of time just being in nature. I found it very comforting. I really appreciate that.” She was 12 when her mother died, after which Belisle, an older sister, and her father (a Methodist minister) moved to Oxford, Mass., and enrolled at WPI to be closer to family. The culture shock was immediate, and, at times, humorous. “I remember that a friend had to show me how to use a vending machine,” she says. “I spent a lot of time just being in nature. I found it very comforting. I really appreciate that.” She was 12 when her mother died, after which Belisle, an older sister, and her father (a Methodist minister) moved to Oxford, Mass., and enrolled at WPI to be closer to family. The culture shock was immediate, and, at times, humorous. “I remember that a friend had to show me how to use a vending machine,” she says. “I spent a lot of time just being in nature. I found it very comforting. I really appreciate that.”

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Belisle’s own values were forged in the great outdoors. She grew up in Georgetown, Guyana, the lone metropolis in a South American nation where 80 percent of the land is covered by unspoiled rain forest. She tended the family’s verdant back yard, often perching on the limbs of a five-finger apple (or star fruit) tree with her beloved cat, Rosemary.

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Belisle at the Mamie D. Lee Community Garden in Washington, D.C., where you can find her many weeknights tending her 625-square-foot patch of earth.
Vitamin A. Other crops (including corn, eggplant, variety enriched with beta carotene, a source of and evaluate genetically modified golden rice, a for example, is leading a fight to further develop safety may be more unjustified.”

farmers who can’t afford it? That’s a big part again. What does that mean, especially for save their seeds from year to year, but now those practices are what really upsets them,” Belisle says. Some major benefactors have cast their lot will get them to share what they’re doing. That’s helpful for the work she’s doing – she has to talk with scientists, politicians, and everyday people. There aren’t too many scientists who can work comfortably in so many different environments. Melinda is a rare person to come across.”

The talent serves Belisle well in her current role. In 2015 she traveled to Paris for a meeting of the Organization for Economic Cooperation Development, a group that was formed after World War II to help prevent another world war while also facilitating trade. She is part of a team writing a consensus document that “harmo- nizes” regulatory oversight in biotechnology among participating countries. Such papers are used to weigh the risks between modified and unmodified plants. The papers frequently are consulted by bureaucrats and agriculture ministers. GMOs aren’t without controversy. “I think it’s definitely up for discussion,” Belisle says. “You can have arguments on either side.” More than half of the European Union’s 28 member nations ban the cultivation of genetically modified foods, in part because of concerns about their safety. In the United States, meanwhile, more than 90 percent of soybean and corn crops are genetically engineered. Supporters say GMOs reduce the need for harmful pesticides, while detractors say they’ve expanded the use of herbicides, which can kill non-crop plants like the milkweed that monarch butterflies consume during their annual migration. “I think for a lot of people, the corporate practices are what really upset them,” Belisle says. “You’re going from farmers being able to save their seeds from year to year, but now those seeds are patented, so they have to buy them again. What does that mean, especially for farmers who can’t afford it? That’s a big part of the conversation, but I think the attacks on safety may be more unjustified.”

Some major benefactors have cast their lot with GMOs. The Bill & Melinda Gates Foundation, for example, is leading a fight to further develop and evaluate genetically modified golden rice, a variety enriched with beta carotene, a source of Vitamin A. Other crops (including corn, eggplant, cashew, and banana) are being genetically modified for people in the developing world. For her part, Belisle serves as a gatekeeper: “We try to evaluate whether the things that companies would like to plant – or more internate or import or export – are safe,” she says. “Is it safe for the environment and is it safe for agriculture? Our partners at CIRP and EPA focus on whether there are pesticide use issues or whether it’s safe for human consumption and feed.”

Sally McCammon, a science adviser for the USDA, says Belisle has a knack for analyzing and processing complex information. “This allows her to take on and deliver upon a variety of intellectual challenges,” McCammon says. “With her extensive scientific training, she is able to distinguish the important aspects of a problem and organize them into discreet and addressable components.”

These were skills Belisle nurtured at WPI. During her senior year, she spent six months at the Arkansas Biosciences Institute working on her MQP, “Researching a Novel Pathway to Vitamin C Synthesis.” Increasing Vitamin C levels in crops can create more nutritious foods and result in higher crop yields, she notes. Leading the research was Angelia Lorence, professor of metabolic engineering at Arkansas State University. But Belisle didn’t just benefit from her mentor’s scientific acumen. Lorence was born and raised in Mexico City; she was struck by one particular skill. “Something that is unusual is how well she wrote, even back then,” Lorence says. “That’s not easy to find in an undergraduate.”

While still a student at WPI, Belisle worked at Pepperdine University in California, where she studied the ability of various plants to withstand drought. After graduating from WPI, she served research stints with the Environmental Defense Fund’s Oceans Program. Belisle already has her eyes on the future. She’ll complete her USDA fellowship (which is sponsored by the American Association for the Advancement of Science) in September 2017, after which she will consider going to work for a nonprofit organization in the international sector – possibly in the area of agricultural biotechnology.

“I wouldn’t put it past myself to start my own biotech company in the future,” she says. “My work is having an impact on lives, and can see it happening in real time. I’m just really interested in new kinds of technology and agriculture and how these can be applied to help people.”

including, perhaps, solving the mystery of a blight-free tomato.
LGERT, for those unfamiliar with the acronym, stands for Integrative Graduate Education and Research Traineeship. This NSF-funded program at WPI focuses on helping PhD students whose research falls under the umbrella of biodesign, recognizing the commercial aspects of their projects, and establishing an entrepreneurial mindset. For Lindsay Lozeau, it was the instrument that brought her to WPI and her pursuit of a PhD in chemical engineering.

Armed with a BS in chemical engineering from the University of Rhode Island, the 26-year-old says the fellowship was an offer she simply couldn’t refuse. “I didn’t think I wanted to be entrepreneurial originally—or that I had it in me to be entrepreneurial,” says Lozeau, “but I’d never explored it and this seemed to give me that opportunity.”

With one first author publication and another under review, she has given several presentations at academic conferences and has mentored more than 20 students in developing their own projects in the lab. She’s a recipient of two fellowships (LGERT, Hitchcock) and an E-Team grant, and a co-founder of the student-led Chemical Engineering Graduate Organization (CEGO).

If her academic achievements aren’t enough to make her a prime WPI insider, her entrepreneurial highlights will surely secure her in the role. She is co-founder and CTO of AMProtection, LLC, a spinout of dean of graduate studies Terri Camose’s lab that focuses on unique antimicrobial coatings to prevent infections of medical devices. AMProtection has received all three stages of the 5-year grant program from Venture60 (totaling $25,000) and another $20,000 as a 2016 winner of the Hitchcock Innovation Prize. In 2014, Lozeau won the “Best Concept” and this year the “Best Overall” and “People’s Choice” awards for her three-minute elevator pitches at i3 (Investing in Ideas with Impact). She also won the WPI Venture Forum’s 5-Minute Pitch Competition.

Her winnings went toward AMProtection technology, of which she is co-inventor with a pending patent. She is also working on the early stages of a provisional patent application regarding another technology she helped develop. This company, QuadraCare Medical, is focusing on ways to help diabetic foot ulcers heal better. She was funded under an NSF STTR for her PhD project. “This was a great experience, allowing funding for a commercially minded partnership between Histogen Inc. and WPI,” she explains.

When asked what her highlight moment has been at WPI so far, Lozeau says, “I’m getting paid to do research in an area I love, explore my multifaceted interests in chemical engineering and entrepreneurship, mentor students in a way that makes a real difference in their lives, and discover new platforms that have actual commercial potential—how can it not be everything?”
Dear Alumni:

The flurry of activity, possibility, and pride this fall has been incredible, to say the least. Over the summer we said goodbye to our beloved Alumni Gymnasium, a necessity that allows us to keep alive the tradition of alumni supporting current students. Just as Alumni Gym was funded by alumni to meet the need for an athletic space for the students of that time, the Foisie Innovation Studio and Messenger Residence Hall will meet the needs of today’s students and many more in the future. The ceremonial groundbreaking for the new building was held Aug. 31, with attendees given the opportunity to take home a commemorative mason jar of groundbreaking sand and Alumni Gym debris. Those of us who wanted a bigger piece of WPI history took advantage of the opportunity to pre-reserve an original Alumni Gym brick that was carefully removed and preserved during the demolition process.

Our commemorative bricks were picked up Oct. 8, during Homecoming. It was great to see so many alumni come back home. With all the construction activity on the Quad, holding Homecoming on West Street was quite a different experience—how great was that?

Also during Homecoming the Alumni Association posthumously honored trustee emeritus Steve Rubin ’74 with the Goat’s Head Award for Lifetime Commitment to WPI. We were privileged to have his wife, Tracy, there to accept the award, and many friends in attendance to help us celebrate Steve’s commitment to WPI and the role model he provided as a proud, engaged, and dedicated alumnus. His commitment to the Institute is inspiring and will forever be remembered.

The Women of WPI came together on Nov. 12, for our annual conference to share and celebrate the diverse paths and experiences of our lives. Keynote speaker Kristin Tichenor, senior vice president, enrollment management, was inspiring and the breakout sessions educational. We couldn’t have asked for a better day. I am proud to call those women my peers. I am excited by the possibilities that lie ahead for this talented group engaging more alumnae in the future.

And, looking to the future, there are two events I’d like to bring to your attention. The first provides us the opportunity to continue the proud tradition and legacy that has been well established by all of us and by alumni before us—and, I anticipate, by alumni of the future. November 29 marks our second Giving Day. Our goal is to engage as many alums as possible with a target of 1,000 donors in 24 hours to secure an additional $125,000 for the WPI Fund. I am confident that the generosity of our alumni will be evident once again and we will crush that goal.

The second event is Alumni Weekend 2017. That’s right! Mark your calendars for next June 1–4. It’s never too early to plan for a great time with great people. I hope to see you there.

All the best—and with pride,

Rachel M. Delisle ’96, ’06 MBA
If a prototype exists for a strong and effective college alumni group, it can be found in Panama. Though formalized as the WPI Panama Alumni Chapter only a year ago, its members have long served as unofficial ambassadors for the university and were instrumental in creating a project center in their country’s capital.

The alumni chapter’s stirrings began in the early 1980s when the first wave of Panamanian students graduated from WPI. Graduates stayed in touch over the decades, drawn together by the shared experience of traveling to a college far from home, then returning with a unique education and a desire to help advance their country. Roughly 30 Panamanians have graduated from WPI since Irvin Hallman ’80 initiated this wave.

At first, the alumni socialized, supported one another professionally, and promoted their alma mater to high schoolers. But over time and as they rose in their careers, they wanted to etch a deeper role for WPI in their home countries. Their willingness to help students apply their firsthand knowledge of both WPI’s curriculum and critical needs in their home nations. Their willingness to help students apply their education to these challenges made them integral to advancing the global initiatives laid out in President Leshin’s strategic plan, Elevation Impact.

“The alumni group has opened a lot of doors for us,” El Korchi says of the Panama alumni. “They’ve been our networking champions.” For Motta and Halman, WPI’s presence in their country has stoked pride in their alma mater; in their country, and in the strength of their chapter. WPI alumni have served in leadership positions in Panama’s Chamber of Commerce, Industry and Agriculture of Panama (three as its president), Panama Canal Authority, National Private Sector Council, and other governmental and private agencies.

“All of this has translated into greater philanthropic support for WPI, as well; last year the Panama Alumni Chapter presented a check for $30,000 to WPI to support students and faculty.”

This is no coincidence,” Halman says. “This is the work of the WPI Plan, which instills and develops our networking champions.”

Also speaking at the event was Jennifer Chandler, chief of staff for Congressman James McGovern (D-MA), who credited WPI and the education it delivers with helping to create a stronger and more vibrant city. In his remarks, Warren Foisie Innovation Studio applauded the university for creating spaces like the Foisie Innovation Studio where WPI students can exchange ideas and move them forward. He also thanked the Alden Trust and Warner Fletcher for their generous support of institutions like WPI.

At the close of the ceremony, after the turning of the dirt with the official shovels, the more than 250 in attendance were invited to take up shovels of their own to fill jars with the ceremonial red sand and ground-up debris from Alumni Bridge. A plaque that reads “Alumni Bridge was dedicated in honor of Priscilla and George Messenger.”

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At the close of the ceremony, after the turning of the dirt with the official shovels, the more than 250 in attendance were invited to take up shovels of their own to fill jars with the ceremonial red sand and ground-up debris from Alumni Bridge. A plaque that reads “Alumni Bridge was dedicated in honor of Priscilla and George Messenger.”

Also speaking at the event was Jennifer Chandler, chief of staff for Congressman James McGovern (D-MA), who credited WPI and the education it delivers with helping to create a stronger and more vibrant city. In his remarks, Warren Foisie Innovation Studio applauded the university for creating spaces like the Foisie Innovation Studio where WPI students can exchange ideas and move them forward. He also thanked the Alden Trust and Warner Fletcher for their generous support of institutions like WPI.
The projects are theoretical, but many students take it well beyond that, especially when the topic sparks a passion. We’ve had students get provisional patents for project work, design a fundraiser to build two wells in Africa … and get unserved food in the dining hall to a local shelter.” Wobbe personally finds the GPS approach had been around when he at WPI. “I had no idea what an engineer did,” he says. “With physics, you would get so into the bowels of what you were doing with equations – how it related to big problems was unfathomable. It makes so much sense to help kids understand where they come in.” — Susan Shalhub

EDGAR “LEO” DOUVILLE ’39,

a generous supporter of WPI scholarship, died Aug. 23, 2016, at the age of 99. A longtime resident of Wilmington, Del., he was predeceased by his wife, Sara. He is survived by his son, Leo E. Douville.

A career design engineer, Douville got his start in the aircraft industry after graduation. With engineering jobs scarce in New England, he moved to Maryland to work for Glenn L. Martin, where he was responsible for plant layout and power systems. In 1946, he joined the DuPont Company where he remained for the rest of his career. His work took him around the world, designing and building textile and fiber plants. His overseas postings included long-term assignments overseeing plants in Germany, Northern Ireland, Brazil, and Iran. He retired from DuPont in 1981, with 35 years of service.

In 2009, Douville made a bequest of $1.5 million to establish the Sara and Leo Douville Endowed Scholarship at WPI. In a profile in WPI Union, the newsletter of the Alden Society, he said, “I struggled through financing my education, working all year round to earn money for my WPI education. I want to make it easier for students to get a college education.” He also noted that his world travels had enlarged his understanding. He praised the “real world” experiences that WPI offers students and expressed his intent to “help educate students more than through books alone.”

RUTH (SHONYO) TRASK, who chronicled the achievements and diverse career paths of WPI’s graduates for more than two decades as alumni editor for the WPI Journal and The Wire, passed away in Northborough, Mass., on July 26, 2016. She was 86. 

A graduate of Colby Junior College, where she won a campus correspondent award from the former MaineNets magazine, she went on to earn her bachelor’s degree from Middlebury College, then attended Katherine Gibbs School in Boston. She wrote for Vermont newspapers and also won an honorary short story writing award from Writer’s Digest and poetry awards from the Days of Poetry. She would go on to publish many short stories as well as poems and articles. She is survived by her ex-husband, William F. “Tuna” Trask, longtime director of WPI’s Office of Graduate and Career Plans, sons Jeff and Terry, daughters Carrie and Laurie, and three grandchildren.
50
1966
50
1966
achieve all that can be dreamed!”
offers: a future and the opportunity to
hope all at WPI realize what the school
challenge, fun and at times exasperat-
over the United States—in those states,
Texas. Between us, we have eight
United States, Europe, and Great Britain
then moved into business and
chemical engineering at Air Products,
headquartered in Allentown, until the
Pennsylvania, after working for APCI,
Phil O’Reilly
1961
Phil O’Reilly is retired and living in
Pennsylvania, after working for APCI,
headquartered in Allentown, until the
late 1980s. He started his career in
chemical engineering at Air Products,
then moved into business and
marketing positions. “Working in the
United States, Europe, and Great Britain
and traveling just about everywhere in
the world has been enlightening,
challenging, and fulfilling,” he writes.
After leaving APCI he went into real estate
management. “My wife, Mary, and I
travel extensively, with homes in
Pennsylvania, outside Hulen Hotel in
South Carolina, and the Gulf Coast in
Texas. Between us, we have eight
children and many grandchildren all
over the United States—in those states,
and in Georgia. Don’t retire in retirement.
We work at our business and real estate
interests. Life consistently is a
challenge, fun and at times exasperat-
ing but always interesting. Even now I
wonder what tomorrow will bring. I
hope all at WPI realize what the school
offers a future and the opportunity to
achieve all that one can dream!”
1966
Peter Kudrova and his wife, Karen, have
six children, all of whom have jobs. He
supports. He served 26 years in the
United States Air Force (1961–87) as
the flight surgeon at the Wright
Patterson Air Force Base, Ohio, and as the
flight surgeon at the Nellis Air Force Base,
Las Vegas, Nev. “By then I had three
sons and six grandchildren. My WPI
memories include the huge bonfire he
helped build freshman year, and
physicist professor Louis Garanz

Eastern Pennsylvania Soccer Association
and the Mid-Penn Conference.

Carl was nominated in 2016 as the
Commencement speaker for James Madison
University’s spring commencement ceremony.
As founder and CEO of Practice of Innovation,
he is known as a thought leader on the subject.

Women’s North High School
dedicated its library to Cynthia Loughton
(NHS), in recognition of her Longtime
service teaching science in the local
school system. Newspaper coverage paid
thrust to her dedication, and her
work at the school. In her honor and
memory, the school has named its
academic advisor, Mr. Loughton.
Jagatrall Singh was appointed vice
president and chief technology officer of METER
Corporation. He was previously
director of biomedical sciences,
overseeing the organization’s
elements of innovation and health care
technology R&D program. “Jag brings an impressive R&D
background to METER, and
I’m looking forward to his leadership in
the future,” said METER
president and CEO Alfred Grasso ‘93 (MS)
(MCB). “He has a truly brilliant
teaching and life sciences expertise
offers an invaluable perspective as we
look for new and innovative ways to
solve complex challenges, particularly
in the international healthcare
domains. Before joining METER,
Schurrine was the director of the
Defense Sciences Office at the Defense
Advanced Research Projects Agency
(DARPA).

Stephen Page was named to the 2016
Florida Super Lawyers list for the
practice area of business litigation. He is
a shareholder in the Stuart, Fla.,
office of one of the state’s oldest and
largest full-service business law firms.
His practice focuses on business
and intellectual property litigation, as well
as probate, environmental, land use,
and securities litigation. He earned his
law degree at Simon University in
Culver City (California) and was admitted to
the Florida Bar in 1977.

1973
Tight is a habit recently
highlighted by
Claude Mancel,
founder of the Defe-
Radar and the
CIA. Claude Mancel
was appointed vice
president, supply
chain operations, at the private
equity
firm Permira, where he
has retired after 40 years
in the financial services
industry. He is currently
managing the co-investment
practice area of business
litigation. He is
a shareholder in the Stuart, Fla.,
of office of one of the state’s oldest
and largest full-service business
law firms. His practice focuses on business
and intellectual property litigation, as well
as probate, environmental, land use,
and securities litigation. He earned his
law degree at Simon University in
Culver City (California) and was admitted to
the Florida Bar in 1977.

1976
Mark Johnson has retired after 40 years
in the water utility business. “After
earning a master’s in environmental
engineering from the University of
Massachusetts, I worked for the
Bridgewater Hydraulic Company in
Conneticut for 15 years, becoming an
officer at age 33, and president of its
Sanford Water Company subsidiary at age 37.
My career took me to Illinois in
1992, where I worked for the Northern
Illinois Water Corporation in Cham-
paign. We moved to Denver in 1996,
where I became VP Engineering for
American Water in Illinois. In late 2004, I
moved to Ogden, Utah, where I have
served as director of engineering for the
Greeley Water and Sewer District for
the City of Greeley, Colorado. In
2013, I joined the Colorado River and
the California Water Association’s
Health Transformation R&D Program.
I’ve also been a member of the
environmental site assessment and
field operations leadership role as vice
president, supply chain operations, at the private
equity
firm Permira, where he
has retired after 40 years
in the financial services
industry. He is currently
managing the co-investment
practice area of business
litigation. He is
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and intellectual property litigation, as well
as probate, environmental, land use,
and securities litigation. He earned his
law degree at Simon University in
Culver City (California) and was admitted to
the Florida Bar in 1977.

1979
Lisa Mauroth was appointed area
coordinator for the Center for Local Food
Systems and Infrastructure office of WSP | Urban.
She began her career with WSP in 2007 as an
environmental analyst and has since
been promoted to a leadership role.
She holds a master’s degree in
environmental studies from the
University of Washington in
Seattle.

WHAT HAVE YOU BEEN UP TO?
Tell us about it in Class Notes. And send a photo while you’re at it.

CLASSNOTES@WPI.EDU
submit your class notes to CLASSNOTES@WPI.EDU
Phil Guerin, director of water and sewer operations in the Worcester Water Department, was in the news this summer, speaking about drought conditions that forced tighter water restrictions on the region. He spoke of the importance of raising awareness of the severity of the situation; urged residents and business to heed water use restrictions; and limit non-critical water. “Even a return to normal rainfall, at this point, wouldn’t all be that helpful,” he said in the Telegram & Gazette.

Taco-International CEO George Oliver made IFIBIC Global’s list of Top 50 Most Influential People in Security and Fire for 2014. He was praised for overseeing the world’s largest fire protection and security company, with 57,000 employees in 50 countries and over $10 billion in annual revenue. “Since the company’s founding by George Oliver in 1963, the firm has grown from a single office in New York City to an operating company in 2012, Mr. Oliver has led the more focused fire and security company in 2012, Mr. Oliver has led the

Anup Ghosh, co-founder and CEO of Iconis, was the subject of a Forbes ‘thought leaders’ profile in the series “Thought Leaders Changing the Business Landscape.” Iiconis is a data analytics and AI company that creates predictive models of complex systems and uses them to save lives and solve problems. “Iiconis’ knowledge and skills will be an exceptional asset for our community,” said Michael Gough,总裁 of Iiconis’ School of Business. “There is tremendous talent and innovation on campus,” he says. “I look forward to working with entrepreneurs and sharing my experiences to accelerate new ventures.” [Tawid was featured in the Winter 2015 issue of the WPI Journal].

Brian Meacham received a Fulbright Global Scholar award to pursue his project, “Understanding and Advancing Performance-Based Building Regulatory Systems.” He says, “I am the inaugural group of fellows for this particular Fulbright award (just launched last year), and there are only a total of 19 awardees.” This award will allow him to conduct research in Japan, Spain, and Sweden, where he will investigate gaps and challenges with existing systems, explore the potential for establishing tolerable levels of risk as a basis for establishing regulated levels of safety and performance in buildings; develop the foundation for a risk-informed performance-based building regulatory system framework that addresses gaps and better anticipate and adapts to emerging needs; and test specific components of the framework. “I have already conducted similar work in four other countries as part of my scholarship: Australia, New Zealand, the Netherlands, and Scotland, with support from a previous Fulbright award.

Jeffrey Goldenor writes, “It’s been a hectic and rewarding year. I was an invited speaker at the Pints Caribbean Energy Conference in Trinidad, and at a Future Energy Week forum hosted by the King Abdullah University of Science and Technology (KAUST) in Saudi Arabia. In late March I presented a seminar on campus at WPI entitled ‘Power Generation in Today’s Complex World’ as part of the Sustainable Energy Project Center speaker series. Since then, I’ve spoken at the Power-Gen Europe Conference (Milan, Italy) and the Power-Gen Africa Conference (Jozi South Africa). In August I presented at the Power-Gen Natural Gas conference in Columbus, Ohio. While traveling around the globe I’ve been writing a blog about trends in gas turbine fuel flexibility for the GE Powergen website. “I had the opportunity to meet President Laurita Lodini at a reception hosted by WPI at the IRRI Robotics International Championships in St. Louis. I moderated the Championship as a conductor of Dong Woks. This year’s program included a tribute to the late musician Prince. “I was very active for both Rich Eiklo and myself and is still a very active player,” says Woda. David Pastlor was elected international director of the American Water Works Association. He is an associate and New England client-service manager for CII Smith, an international consulting engineering firm based in Boston.

I am also benchmarking the state of practice of fire safety engineering in all seven countries, and looking at what is needed to implement a risk-informed performance-based approach to fire safety engineering.

I also was make beer with 100% local ingredients. “While small local brewers

2018 - 2019

Joe Pisano on WPI’s annual Summer Band Concert

Joe Pisano was among a dozen alumni who turned out for WPI’s annual Summer Band Concert, which featured student show tunes, pop music, and other lighter musical fare—“you’d be less likely to play in an academic program,” according to conductor Doug Weeks. This year’s program included a tribute to the late musician Prince. “Joe was very active for both Rich Eiklo and myself and is still a very active player,” says Woda.

Michael Pace has completed 15 years of service with Wells Fargo Advisors. He holds the post of associate vice president, investments, and financial advisor, with offices in Temple, Ariz.

Bryan Weeks. This year’s program included a tribute to the late musician Prince. “Joe was very active for both Rich Eiklo and myself and is still a very active player,” says Woda.

I was make beer with 100% local ingredients. “While small local brewers

Richard Burgess returned to WPI in 2015 to coach women’s lacrosse. “The women’s lacrosse team has made significant improvements in the last two years,” he writes, “winning the New York Women’s Lacrosse League and going to the Northeast Conference Tournament. Amy Masara ’16 recently clarified the progress of WPI’s team vs.

find out more at codyleet.com.

Jason Johnson sends this summary of his visit to the Hoover Dam.

Turned a family vacation into an excuse to see one of the greatest Depression-era engineering projects.”

“…”

Diana Hart is senior vice president of health, environmental, safety, and security for Hitachi5 Nuclear Energy.

Joe Pisano at WPI’s annual Summer Band Concert
where she was most recently director of... says. Marni joins the company from the... disease that can help... generate data about the real-world experiences. In the process, they... the same disease or condition to share... PatientsLikeMe, an online network that... is the new senior vice... 1997

2002

Craig Daniels writes, “We have spent a... living our dream to bring to you, France,... my wife and two little girls living here with... for my job with Axton Transportation, as director of vendors (perpudia). We will be moving back... to the Axton office in Rochester, N.Y.,... at the Axton office in Midle-... hunt. If it helps, I am always... to get in touch!”

2003

New Simon writes, “It’s official! My new book,... The Art of Relevance, is now available... and to move from my computer to your hands.”... The Participatory Museum and the... popular Museum 2.0 blog. Nina now... and afterschool programs—offering advice on making their work more... “Relevance is not something an... institution can assign by fiat.”... “Your work matters when it... it’s official. My... and the... The Art of Relevance, is now... the Alstom office in Mel-... our previous home in Rochester, N.Y.,... and for his continued work in... 2008

Correction: Jeremy Lebrato is the... the industrial, manufacturing, and... laboratories at Jensen Hughes (formerly Rolf Jensen & Associates), the... the light fire protection engineering companies in the world. His employment... in the previous issue of the... WPI journal was outdated. We apologize... Team Kinetic Karma completes the Pan-Mass Challenge

Cody Harpo, a manufacturing engineer at Pratt & Whitney, recently graduated from P&W’s Manufacturing Engineering Development (MED) program, a two-year rotational program of six-month rotations offered to new hires. “It really instills confidence in you... brought together a community of... 2006

Justin Matten and Katrina Van de Berg Matten welcomed their son,... Robert Ronzi to the world on Feb. 10,... 1979 is the new city engineer for Easthampton, Mass. He... 2015 - 920-413-8870). We look forward to... found on Amazon.

2008

Michael Diamant writes, “I coauthored... a book in May on using the Scala... and the functional programming paradigm to... high-performance Programming can be found on Amazon.
56

GREAT MINDS
MULTIPLIED

At Worcester Polytechnic Institute, graduate student conduct research that matters in the real world.

Return to WPI—advance your career and pursue a graduate program in science, engineering, or business.

2013
Joseph Gasparino (MBA) was the 2016 commencement speaker for Amtrak Community College, where he earned an associate’s degree in 2001. He’s currently working toward a DBA, with a focus on Lean Six Sigma Implementation within aerospace. From Walden University, Minneapolis, Minn., he and his wife have established a scholarship for Amtrak students.

2014
POW! WOW! Worcester shook up the Woo this summer, drawing internationally renowned muralists and thousands of spectators to downtown Worcester to witness the creation of 13 outdoor mural murals and 10 days of music, plus art talks, local arts events, and outdoor celebrations. The event was coordinated and operated by Actar Worcester and a committee of community partners.

Joshua Croke ’14, executive director of Actar! Worcester says, “POW! WOW! Worcester! Celebrated with us to bring this event to Worcester because of our mutual passion for using art to revitalize communities. We’re already starting planning next year’s festival and are looking forward to bringing more artists, events, and color to Worcester for years to come.”

Christopher Sorng began working as a physical designer for substitutions and other electrical equipment at Black & Veatch earlier this year. In his free time, he enjoys helping out the WPI chapter of Engineers Without Borders as a professional mentor, and planning his next trips and adventures worldwide.

Paul Vedemtling (mechanical engineering) completed his senior of ARC’s BattleBots as captain of the Aptyx Designs team (co-sponsored by WPI), along with software engineer Jeremiah Jones ’07. Although Bite Force was defeated by a robot named Chomp, the team stands at seven wins for eight games over the show’s two seasons.

Alex Schwartz reports big news from Owledge Labs: “We just successfully closed a $5M Series A round led by Qualcoom Ventures and followed by HTC and other strategic investors. We also just announced that Owledge will be building the VR game for the massive Cartoon Network/Adult Swim show Rick and Morty,” which is arguably the #1 cartoon for adults today.” Wold reports that Owledge presented the first demo at Adult Swim’s cartoonthemed Comic-Con Installation outside the San Diego Convention Center. “We’ve solved some of the toughest design and development challenges in this new medium, and with this investment we’ll apply these lessons to a portfolio of full games,” says Schwartz.

Shengtai Zhao is a senior consultant at Mindful in Sydney, Australia. Her article, “An Australian Perspective on Averting Hidden E-Discovery Costs,” recently appeared in issue 6 Data Manager (DM) magazine.

2010
Reema Ganmukhut ’09 writes, “Sunny Mansaram ’07 and I shared some WPI pride at the wedding of my brother, Charles (‘Chuck’) Ganmukhut ’08 on Sept. 3, 2016.”

2011
Victor Brown is senior test engineer for VPT Rad in Chelmsford, Mass.

Melanie Disnais, a third-year student at Umass Medical School, received the 2016 Physician-Scientist Career Development Award from the American Society of Hematology. She will spend a year studying novel proteins with genetic mutations that have been implicated in the development of blood cancers, using cutting-edge techniques such as CEHRF gene editing, RNA sequencing, and mass spectrometry. “It is plausible that these studies will identify new opportunities for therapeutic intervention that target novel transcriptional and/or epigenetic mechanisms in leukemia and other cancers,” she says.

Greg Horvagin (MS ECE) is co-founder of Start Oracle Technologies in Bedford, N.H. “Hoot Oracle addresses a common problem: managing hearing loss,” he writes. “Our vision transforms the way you purchase hearing aids. Check out our Kickstarter at kickstartHoot.”

Lily (Clark) Jeznach writes, “My husband, Chris Jeznach ’10 and I recently moved to the Providence, R.I., area after a three-year completing our graduate degrees at Umass Amherst. Chris received his MBA in February and continues to work as a sales manager at Spiril International Corp. I completed my PhD in civil engineering in September and accepted a job as an assistant professor of engineering at Roger Williams University starting in the fall 2016 semester.”

José Molina was a recent guest on The Space Show (thespaceshow.com). He is president of the Puerto Rico National Space Society Chapter Inc., and a volunteer at the Amosco Observatory Space Academy, serving as a professor and mentor. He has also worked at NASA, UTC, Aerospace, and InterTech Aerospace Services, and holds an MS in space studies from the International Space University in Strasbourg, France.

Daniel Savastino is president of The Smiths Museum, a nonprofit organization dedicated to illustrating and preserving the history and sociocultural significance of The Smiths. He traces his passion back to WPI, where he took up guitar, chaired the Music and Comedy Committee, and was introduced to The Smiths.

In his webpage bio, Daniel explains the inspiration for The Smiths Museum, Theatre, and Café: “People always say to do what you love, but most never follow their own advice. So one day I wrote out everything that I love and narrowed it down to three things: The Smiths, live performance, and coffee.” In June, on the 30th anniversary of the band’s third studio album, The Queen is Dead, the museum staged a pop-up exhibit at the Midflours Lounge in Cambridge, Mass.

POW! WOW! Worcester shook up the Woo this summer.