

## MAL & FRIENDS

**NJIT Magazine invites new correspondents to join Mal Simon in sharing news about class members and alumni organizations. Professor emeritus of physical education and athletics, Mal was director of physical education and athletics, and men's soccer coach, for 30 years. In 1993, he received the Cullimore Medal for his service to the university.**

**If you would like to be a regular correspondent, don't hesitate to send an e-mail to the editor of NJIT Magazine: [crovetto@njit.edu](mailto:crovetto@njit.edu)**

**First, the latest news from Mal –**

**M**y column is dedicated to the many exceptional women who have graduated from NCE/NJIT. The idea for the column came while I was chatting with Libby Hamilton '77 and Tulia Rios '94 at the Florida Soccer Alumni Reunion at Cape Canaveral in March 2017. At breakfast one day, I was listening to their sometimes difficult experiences prior to and during their undergraduate days when my “light bulb” went on and I thought it would be interesting to hear from other alumnae to see if they had similar stories.

Libby and Tulia had read about our reunions, which are open to all alumni, and each decided to attend in 2011. They had such a good time that they were “hooked” and have been to every reunion since. In addition to Libby and Tulia, the alumnae whose stories I have included represent only a few among an awesome group of alumnae.



*Libby Hamilton '77 (second row, far left) and Tulia Rios '94 (far right) at the 2011 Florida Soccer Alumni Reunion.*

A “small world” experience resulted in including Marisa Fazio McGourty '87. I went to see my grandson play rugby at

Delbarton School, and when entering the spectator area I heard my name being called. I turned to see a smiling Marisa, whose sons were also on the Delbarton rugby team, coming over to greet me. We remembered each other even though it had been 30 years since she graduated. Shortly afterward I received a copy of the 1967 Golden Anniversary Yearbook from Gerry Kurth '67, one of the yearbook editors. The yearbook included bios by Susan M. Harrington '67, Kathy Martell Ciociola '67 and Joanne Marucci-Roth '67.

Libby was part of a large family growing up in New Jersey. She attended Watchung Hills Regional High School where her favorite classes were math, chemistry and German. At that time, although young women were not encouraged to seek professional degrees, she found a welcome at Newark College of Engineering. When she graduated from NJIT in 1977, there were still very few women in attendance, but Libby said they were an impressive group. NJIT was still a commuting school in those days and she was busy commuting and working her way through school. She worked at NJIT for several years during and after graduation in the Student Employment Office. The job gave her the advantages of an office, a typewriter and a phone — cell phones were non-existent. But the best part was meeting so many fellow students and employees within the NJIT community.

Libby's great aunt was a major influence in her life. She was quite modern for her time and worked

outside the home. Thanks to her “Auntie” and experiences at NJIT, Libby did not have any inhibitions about going into the business world. After graduation, she went on to an MBA at Rutgers-Newark and landed her first job with Ernst & Young in Saddle Brook, New Jersey, earning her CPA license along the way. This eventually led to a career in management positions at



*Among a much smaller contingent of women at NJIT: Libby Hamilton on campus shortly before graduating in 1977.*

major international companies.

Libby has two handsome and accomplished sons that make her proud. She said it was not always easy raising two boys alone but they are worth everything. She splits her time between her home and office in Boston, where she works at a major CPA firm and the west coast of Florida. Having dual locations allows her the freedom to pursue outdoor activities that include hiking White Mountain peaks, biking, kayaking and snowshoeing, and one more — attending annual reunions with wonderful NJIT graduates in Florida. Libby thanks the soccer alumni

*In addition to attending NJIT reunions, one of Libby Hamilton's favorite activities is hiking in the mountains of New England.*



for “letting the girls attend” but it really is the “guys” who thank her for being someone special at the reunions.

Tulia was born in Bogota, Colombia, and came to New Jersey when she was 12 years old. The Rios family is the ultimate example of the American Dream. Like many immigrants, her father, Jaime Rios, came to the United States first to open new horizons for his wife and six children. As money became available, more members of the family emigrated. Maria came in 1979, Augusto in 1981, and Gustavo and Liliana in 1982. Her mom, Ana Rios, who was an educator for over 28 years in Colombia, came to the United States with Tulia in 1983. Her brother, Jaime, was the last to join them. He is a 1988 graduate of NJIT’s School of Architecture. Tulia’s father, who was an airplane and auto mechanic, was her inspiration to become a mechanical engineer.

Tulia graduated in the top 10 of her class in 1988 from Elizabeth High School. She played volleyball all four years in high school and was recruited to play volleyball at NJIT, where she played for four years. She graduated from NJIT in 1994 with a B.S. in mechanical engineering.



*Tulia Rios,  
1994 NJIT  
graduate*

Tulia moved to Miami in 1995 when one of her sisters, who lived there, was diagnosed

with lymphoma, sadly passing away that same year. In Miami, she got a job at the Miami Airport Marriott Hotel, where she met Mr. J. W. Marriott, Jr. himself. She then moved into sales, working for Panasonic Latin America. In 2004, Tulia joined Carrier Latin America as a sales engineer, which gave her the opportunity to work closely with mechanical design engineers and contractors. She

subsequently became responsible for Carrier’s domestic sales in south Florida.

Tulia currently works for Modine Manufacturing Company - Commercial and Industrial Solutions as a sales engineer for anticorrosive coatings for HVAC systems. Recently, she became the president for the Miami chapter of the American Society of Heating, Refrigeration and Air Conditioning Engineers. Founded in 1894, the organization has more than 50,000 members worldwide. It focuses on building systems, energy efficiency, indoor air quality, refrigeration and sustainable technology.

Tulia lives in Miami with her son, David S. Lopez, who just graduated summa cum laude from Miami South Ridge High School.

Marisa was awarded a bachelor’s degree in electrical engineering from NJIT, and a master’s in technology management from Stevens Institute of Technology. At NJIT, Marisa was the treasurer of the IEEE student chapter and worked part time in the Health Services Department. She was a women’s intramural sports director and has many fond memories of hanging around with the other student directors in the office of Mr. Duane Felczak.



*Electrical  
engineering  
graduate  
Marisa Fazio*

The student intramural directors were volunteers

and were rewarded for their service by attending the annual conferences of the National Intramural Association, a professional association of teachers and students. Marisa said the conferences in New Orleans and Las Vegas were especially memorable. While walking around the cabin on one of the flights, the captain noticed her interest in the

instrumentation and began talking to her. He welcomed her into the cockpit (these were the days before 9-11, shoe bombers, etc.) and she said that she was studying to become an electrical engineer and had always been fascinated with flying. Marisa told him about her part time job working for People Express Airlines and he started explaining how the flight instruments operated. Marisa said that their conversation didn’t last very long but it was memorable!

During college, Marisa had internships at the Ethicon and Personal Products divisions of Johnson & Johnson. She became involved with control-system troubleshooting, production/machining optimization and controls upgrades for the maintenance and manufacturing groups. She has never felt that being a female student in a predominantly male program gave her any advantage, but felt she had to work harder to prove herself whether it was in the academic or professional arena.

Marisa’s first position after graduation was as an electrical engineer in the Vitamins and Fine Chemicals Division of Hoffmann-LaRoche, where she gained extensive experience with programmable logic controllers (PLCs) and related systems. Marisa also gained familiarity with FDA documentation requirements as well as power distribution and theory for substation design, building systems and construction projects. While at Hoffman-La Roche, she participated in the Biotin Manufacturing Project at the company’s facility in Nutley, New Jersey. As part of the project team, Marisa did program configuration, implementing a highly integrated, networked process approach.

Marisa has been with Glatt Air Techniques for over 26 years, and is currently a senior automation engineer. She has successfully completed the design, startup and commissioning of many PLC-based fluid-bed control systems. She has handled a variety of assignments in both the Process Automation and Validation Departments, also assisting with marketing efforts. As lead engineer

## A L U M N I C I R C U I T

for PLC-based integrated control systems, her current responsibilities include preparation of piping and instrumentation diagrams, control schematics, instrument procurement, technical documentation, and writing validation protocols for Glatt equipment such as tablet coaters, fluid-bed dryers/granulators, and vertical granulators.

Marisa has served on the Industrial Advisory Board at NJIT providing input for the curriculum related to the program in electrical engineering technology. She worked with Professors Bill Barnes and Bob English, who said she brought a fresh perspective to the discussion of issues considered at Board meetings. She has also participated in the Pre-Engineering Industrial Outreach Program, helping middle and high school teachers encourage their students to pursue careers in engineering. In addition, she has been active with MentorNet, a nonprofit e-mentoring initiative that gives STEM students access to advice and encouragement from professionals in the STEM fields.

Marisa's other activities include volunteering at a soup kitchen run by Franciscan Charities and promoting animal welfare. She is currently a member of the Board of Governors of The Morristown Club, the oldest private club in New Jersey.

While attending graduate school Maria met her husband, Dr. Jack McGourty. They are celebrating their

25th wedding anniversary this year, and live in Chester with their boys, Michael and Jason. Her sons both graduated from Delbarton School in Morristown, and are attending Columbia University.

After graduation, Susan married and was a full-time mother for three years. In 1971, she started her engineering career at Newark Brush Company in Kenilworth. In 1976, she joined Thomas & Betts in Elizabeth as a product engineer, designing electrical connectors and other components, and working with Underwriters Laboratories on listings. She became an engineering manager in the Electrical Products Group and, in 1991, director of environmental affairs for the corporation.

Following a divorce, Susan met her current husband, Glenn Storck, a 1969 graduate in electrical engineering. Susan and Glenn completed master's degrees in Engineering Management at NJIT in 1988 and were married in 1989.

When Thomas & Betts moved to Memphis in 1993, Glenn and Susan packed up and moved to Tennessee. Glenn retired in 1991 and Susan retired in 1997. Since then, they have enjoyed traveling and visiting family in Florida, California and New Jersey. Combined, they have seven grandchildren and three great grandchildren.

Susan and Glenn moved to a rural area near Hilton Head, South Carolina, to be closer to their family. They designed their new home and had it built to their specs. Susan and Glenn agree that this is their last home until they are put in a "home."

Kathy's activities at NCE included being president of Sigma Chi Epsilon,

and a member of the Society of Women Engineers, Tau Beta Pi, the Neuman Club and Omega Chi Epsilon (Eta chapter). She began her professional career at Esso Research and Engineering as a pilot-plant engineer, transitioning to Esso Math and Systems in Florham Park, New Jersey. Kathy married her high school sweetheart, Fred Ciociola, in August of 1967.

Kathy earned an M.S. in computer science from Rutgers in 1977 and began a 20-year career at Rutgers as director of telecommunications, with responsibilities for voice and data, including internet access, on all campuses. In 1999, she retired and became a program manager for Verizon until her second and final retirement in 2008.

While working for Rutgers, Kathy was named president of the New Jersey Intercampus Network (NJIN), linking all of New Jersey's higher-education members to the internet. NJIN morphed into NJEDge and provided her with many opportunities to visit the NJIT campus, where their offices are now located.

NCE/NJIT became a "family" thing for Kathy as her brother, Rich, is a Class of 1971 graduate, and two of his children have received graduate degrees from the university. Fred and Kathy are the proud grandparents of seven: four girls and three boys, ages 21 to 12. They very much enjoy their son Rick, daughter Cindy and grandchildren, spending time on Long Beach Island, New Jersey, and are both very active in their parish, Blessed Sacrament in Martinsville.

Joanne said that NCE changed her life. In addition to gaining solid technical knowledge, she credits the discipline of the education she received at NCE with helping her develop a way of thinking needed to effectively solve problems and meet career challenges. Her career began at Colgate-Palmolive as a process engineer. Four years later, she and her husband, Bob, welcomed the birth of a son, Robby, and then a daughter, Stephanie, after which she rejoined the workforce as a cost engineer. Joanne is a licensed Professional Engineer and also has an M.S. in



*Marisa Fazio McGourty '87 with husband Jack and sons Jason (left) and Michael*

management from NJIT. In 1992, she was a TWIN (Tribute to Women in Industry) honoree and is especially proud of her two terms as president of the Construction Round Table of New Jersey, being the only woman to serve in this position.

In 2001, Joanne retired from Roche after 23 years, having had a notable career in capital project management, and directing procurement and supply management. To celebrate, Joanne and Bob traveled through Italy and France. She then returned to the workplace, joining Turner Construction to direct pharmaceutical procurement. She moved to Volt Information Sciences in 2005 as vice president for project management and chief procurement officer. For the next seven years, Joanne led strategic initiatives, including offshore operations in India. She retired (again) in April 2012.

Joanne has a passion for singing and

talent to match. As a member of the New Jersey State Opera and Opera Orchestra she has performed at Carnegie Hall. She is now a member of the Masterwork Chorus of New Jersey, which will perform spring and winter concerts, and Handel's Messiah each December at Carnegie Hall. She will also sing with the elite Camerata Chamber Choir, a select group of 16 singers from the Masterwork Chorus who will join with the Garden State Opera for performances at Caldwell University and St. Elizabeth's College in October and December 2017.

Bob and Joanne have traveled extensively throughout the U.S., Canada, France, Italy, Switzerland, Germany, the Netherlands, Ireland, England and India. They celebrated their 50th anniversary in August 2017.

The women who studied at NCE/NJIT in years past certainly did have to work hard and may not have received the

accolades they deserved. However, the accomplishments of women highlighted in various NJIT publications vividly show how extraordinary they are. Let me close in today's politically correct vernacular by paraphrasing part of a Maurice Chevalier song, "Thank Heaven for NCE/NJIT women, without them what would NCE/NJIT men have done."

I could have said much more about the outstanding women I have mentioned and others who are equally accomplished alumnae, but I was limited by the space available to me. However, the following insightful comments by Joanne are presented in full because they tell the story much better than I could, and put the current experience of NJIT women in the proper perspective. ■

Keep the news coming, folks, to [mjs@njit.edu](mailto:mjs@njit.edu).

## AFTER 50 YEARS: REFLECTIONS FROM THE OTHER SIDE

by Joanne Marucci-Roth, Class of 1967

I can clearly recall the incoming freshman class assembled in Weston Hall that September morning in 1963. We were the "Class of '67," nervously anticipating an exciting college adventure. Ten of those present that morning were women striving to begin a career in a male-dominated field. What follows is one female student's perspective, colored perhaps by the tumultuous backdrop that was the 60s; complete with long-festering racial discontent, emerging anti-war sentiment, and the shocking assassination of a dearly beloved president. Perspectives evolve over time and as we anticipate our 50th Class Reunion, I now share some well-aged observations; viewed through a 21st-century lens and with the benefit of five decades of lessons learned.

I was happy to be part of that freshman class at NCE, though I could not begin to know the fortuity of that decision. That

morning, having successfully navigated the intimidating sprint from Eberhardt Hall, past Central High School to Weston Hall, I felt that I was up for the challenge. We sat with our weighty book-bags, jam-packed with textbooks, NCE-logo spiral notepads, drafting tools and an Aristo slide-rule. Young men and women, in casual but dress-code appropriate garb, listened attentively to the Dean, as he began his address: "**Look to your right and look to your left. Only one of you will make it; only one of you will graduate!**"

He delivered a serious dose of reality that shattered any preconceived notions of a "fun" college experience and set us up for what was to come. Despite being confronted by the student next to me, because I was taking the place of a boy who really wanted to be an engineer, I resigned myself to keep going. Every student in that auditorium would soon



face the rigors of this curriculum, riding waves of successes and setbacks, yet trudging forward through the challenging days and sleepless nights of the months and years ahead. Those experiences and sacrifices knew no gender, were equitably shared and still remain somewhere in the backchannels of my mind.

Aside from being obviously conspicuous, I believed that we were all in the same boat and that the journey would not be much different for us than it was for the men. I had become desensitized to the handful of professors who were either discernibly begrudging of a "girl" in the class or who were openly nasty. However,

my senior year presented another set of revelations and became a predictor of the roadblocks I would encounter in my chosen career path.

A daunting experience for most, interviewing was especially frustrating for me. The executives representing the companies with whom I met — potential employers — did not disguise their trepidation about hiring a woman. One interviewer grilled me about my plans for marriage and birth control (noting my engagement ring and my religion), challenging me, repeatedly, to respond to the posed conundrum; seeking assurance that I wouldn't get pregnant and leave. Remarkably, I wasn't outraged; merely stunned and embarrassed. Armed with a new understanding that I would need a strategy to deal with such interrogations, I continued my search for the right job and an employer who would value my potential contributions to the team.

That spring, while on a class trip to Bethlehem Steel, our spirits were high as we rode through the security gate, into the inner sanctum of the immense and impressive steel plant; where we expected to see an operation that, up until that point, we had only read about in textbooks or seen in a documentary film. We were given hard hats and safety instructions, as a prelude to a tour of the smelting operation, where we would get a look at red-hot iron ore being processed.

Before we realized what was happening, Kathy (my friend and the only other

woman in our Chem.E. class) and I were peeled away from the main group, and led through a separate door. We assumed that we'd be rejoining our class inside the plant. Instead, we were politely escorted to a vacant lab, to wait for the others, as apologies were mumbled about women not being permitted to enter the smelting operations. It was little consolation later that all we had to show for the tour was a Polaroid of the two of us standing in that gray lab on that very gray day, in our raincoats and hard hats, as the men excitedly recounted their experiences. Good times!

Anecdotal evidence to the contrary, however, I have little about which to complain, and instead, am ever grateful, even for the most challenging times at NCE. Those times prepared me for the real world, where sexual discrimination and harassment was not only acceptable, but often encouraged; where criticism was levied from all sides, even from other women. All things considered, I would not change a thing.

#### Since then...

Five women from that 1963 freshman class graduated four years later in 1967, an attrition rate that mirrored the rest of the student body; we represented less than one percent of a graduating class that numbered 621. Since then, many young women have followed in our footsteps. By 1987, that percentage had increased tenfold to 11% and by 1989,

had risen to 15%. Today women represent approximately 25% of the total enrollment (undergraduate and graduate). That is an amazing statistic and is reflective of the increasing emphasis to encourage women and minorities toward early STEM (Science, Technology, Engineering and Mathematics) education.

I am proud of the role that my alma mater has played in this regard. In 1963, Stevens Institute of Technology refused to even review my application, despite excellent academic credentials and SAT scores. NCE, on the other hand, was gender neutral, a gift for which I am forever grateful. Between the accessible tuition and a NJ State Scholarship, I was the beneficiary of an affordable, incomparable engineering education, which led to a rewarding career.

#### Now...

Notably, in early 2017, NJIT was acclaimed for its proactive stance towards STEM education, having been named among the top 60 Universities dedicated to STEM diversity, by Diversity in Action Magazine. We, women engineering students of the '60s, may have eased the way for the women who followed us. Change happens through the contributions of individuals over time. By setting examples and breaking a few glass ceilings along the way, the engineering world is becoming accustomed to our presence and appreciates our added value. ■

**SAVE THE DATE**  
**Alumni Weekend**  
**May 18-20 2018**

**Register Online**  
[alumni.njit.edu/events](http://alumni.njit.edu/events)



## A New Face of Chemical Engineering: MUHAMMAD ELGAMMAL '12, M.S. '15

**M**uhammad Elgammal '12, M.S. '15 recalls peering into the yawning construction pit of the future 3 World Trade Center on the first day of his internship with the Port Authority of New York and New Jersey at the end of his junior year. The sounds of the super-strength concrete that would form the core of another tower on the site sounded “like an explosion” when crushed in the materials testing lab where he worked that summer.

For a young engineer hoping to design airports, bridges and tunnels capable of surviving whatever challenges the 21st century could conjure, working for the agency responsible for the region’s major trade and transportation networks put him at the epicenter of critical infrastructure strategy. When offered a job the next year at the agency’s engineering design division, he leapt at the opportunity.

“Hoping for the best and planning for the worst, as engineers we overdesign for safety and unexpected situations,” says Elgammal, P.E., PMP, with his customary cheerfulness. He is now applying these principles at Newark Liberty Airport, where he is part of the design team for the \$2.3 billion redevelopment of Terminal A.

His can-do attitude, hard work – he has designed and directed more than 20 projects so far at the airport – and willingness to share his experiences and love of engineering with up-and-coming STEM students in area high schools, have already won him professional accolades. In May, Elgammal traveled to Arlington, Va. to be recognized at the American Society of Civil Engineers’ (ASCE) Outstanding Projects and Leaders Awards gala as one of the organization’s 10 “New Faces of Civil Engineering” for 2017.

It is the third year in a row that NJIT engineers have been recognized in some capacity at the ceremony.

Elgammal says he’s excited to be working on airports, which are increasingly “a huge public priority” and in dire need of repairs and redesign.

“The airfield is a critical place, where we have to operate, construct and repair faster than anywhere else. Decisions can affect thousands of people by the minute. And anything that happens on an airfield can snowball – from a foreign object that damages a plane to an inspection that takes longer than it should. So we have to consider the consequences from many angles.”

A big part of the challenge is reducing existing delays.

“So we’ve come up with strategies to limit queue times for planes waiting to take off, to land and to get to gates,” he says. “Engineering comes into play here, too, with innovations like high-speed taxi routes that allow schedulers to shave a few seconds off every cycle and make the runway available to other aircraft sooner. This has a ripple effect on arrivals and departures.”

As part of his B.S./M.S. program at NJIT, Elgammal completed a master’s degree in critical infrastructure that combines two essential civil engineering concerns: protecting and rehabilitating aging buildings, roadways and transportation hubs, while also developing new ones.

At the Port Authority, Elgammal recently took on a new role as an agreement project manager, working with outside firms building and rehabilitating agency facilities. His current task is to coordinate smoothness testing for 13 runways at the region’s five airports.

In the redevelopment of Terminal A, for example, he’s making sure that projects that are designed and built by outside firms will conform to the agency’s performance criteria. This requires coordinating with stakeholders ranging from design, engineering and program professionals within the agency

to outside consultants. He notes that the new terminal must be designed to allow for all current uses as well as for possible expansions to accommodate projected future demand.

“When I graduated, I wanted to work in construction. Like a lot of college graduates, it felt like a form of freedom not to be tied down to a desk,” he recounts. And I’m really glad I did. What makes a good engineer is a well-rounded perspective. You’re a better designer if you’ve watched someone build it first.

These are some of the on-the-job experiences he shares with middle and high school students at the Future City and ACE Mentor Program, whose roles are to expose more students to engineering concepts through hands-on projects and design charrettes. He also returns regularly to campus as the chair of NJIT’s Young Alumni Committee, crediting much of his development to his involvement with the Alumni Association after graduation.

“I hit the ground running, so to speak, and also learned what it meant to be an engaged alumnus. From my own experience, NJIT alumni opened up many doors and I get to work with and learn from company presidents, COOs and CFOs from many different industries who all share the same common goal: taking NJIT to the next level.”

In the spring 2017 semester, he also taught a 400-level course on construction scheduling and estimating.

“I love this,” he says. “It’s a way of quantifying risk, managing seemingly unpredictable elements such as money and time. The challenge of balancing practical application and theory with 33 students has made me appreciate my time at NJIT, and even more so, my time outside of it.”

“The projects I work on affect millions of people from all over the world,” he says. “And it’s pretty cool that I can see them from Google Earth.” ■

*Tracey L. Regan is an NJIT Magazine contributing writer.*

## A Top Doc, “Barre” None: DR. CHRISTINA SEO '97

She wanted to be a ballerina as a tween, but ultimately swapped dancing for doctoring. It's a decision that has brought Dr. Christina Seo '97 great career satisfaction, as well as many peer accolades. Recently, the NJIT alum, who is a colorectal surgeon, was named a Top Doctor of the Year for 2017 by the International Association of Top Professionals (IAOTP). The honor is based on many factors, particularly her professional accomplishments, leadership abilities, community service and academic achievements.

A partner in the Barash-White, MD, PA medical practice in Englewood, N.J., Seo specializes in colon cancer, inflammatory bowel disease, anorectal disease and diverticulitis. She entered the health care field more than 12 years ago and has since honed her skills in performing colonoscopies, polyp and ulcer screenings, and minimally invasive colorectal surgery. She handles more than 500 cases annually.

### JOURNEY TO THE OR

Seo once dreamed of becoming a professional ballet dancer, but left her pirouetting days behind her when she was 13, opting to follow in her parents' footsteps in the medical field — her father is a nuclear medicine physician and her mother a geriatric nurse practitioner. “I think my parents were nervous that I would want to pursue ballet seriously, so they decided to have me stop classes. I had started high school and it would have been hard to keep up with that rigorous schedule, so I agreed,” she recalled. “Plus, it was always their dream that I go into

medicine. Fortunately, that lined up with my own inclinations anyway. Looking back, I don't think I would have gotten very far in a career in ballet!”

After high school, Seo was accepted into a seven-year combined program between NJIT and the University of Medicine and Dentistry of New Jersey–New Jersey Medical School (now Rutgers New Jersey Medical School). An Albert Dorman Honors College student, she earned both a B.S. in biomedical engineering and, with her AP credits, an M.S. in management from NJIT before receiving her medical degree in 2001. She completed a general surgery residency at the University of Rochester, became board certified in colon and rectal surgery, and began as a staff physician at Cleveland Clinic Florida. Three and a half years later, she joined Barash-White.

“I decided the world of academia was not for me, so I gave private practice a shot,” she said of moving on to Barash-White. “I loved it and have not looked back!

“I hope that I continue [to have] a busy career in colorectal surgery, using all the possible technology available...to make my patients' surgery and recovery as smooth as possible,” added Seo, noting the increasing emphasis in her field on minimally invasive surgery, from laparoscopic to robotic procedures. Seo, who calls the IAOTP distinction “very humbling and gratifying,” also has been cited as a Worldwide Who's Who Professional of the Year in Health Care and an Elite Worldwide Professional and Professional of the Year in HealthCare by Worldwide Branding, among other commendations.



### A FEW REFLECTIONS

#### On Choosing Colorectal Surgery:

“The colorectal surgeons in my program were good at what they did, loved what they did and could have normal active lives outside of work — I thought, that's for me! Plus, anyone who goes into colorectal surgery pretty much HAS to have a sense of humor.”

#### On Caring for Patients:

“Taking care of patients who also work hard at their own health is always a fantastic interaction. Having a patient tell me that they feel better is always the best part of my day.”

#### On the Value of Her NJIT Degrees:

“My studies at NJIT were a good foundation for my first two years of medical school, which are two years of intense lectures and labs. My combined years at undergraduate and medical school exposed me to many cultures and walks of life.”

#### Her Fondest Memory of NJIT:

“Sitting out on the roof of the architecture school to watch spectacular sunsets.” ■

*Julie Jacobs is a staff writer/editor in the Office of Strategic Communications at NJIT.*



## He Owes His Career to His NJIT EMBA: BRANDON ROCKWELL '11

**W**hen Brandon Rockwell '11 started NJIT's EMBA program, he was employed in information technology; now he serves as vice president of business development for a global pharmaceutical company. He attributes his success to a combination of hard work and his EMBA degree from NJIT's Martin Tuchman School of Management.

At Par Pharmaceutical — the fourth-largest generic pharmaceutical company in the U.S. and a subsidiary of Endo, a leading global specialty pharmaceutical company — Rockwell manages a cross-functional department of 17 employees. This global unit is comprised of Business Development, Portfolio Management, Project Management and Strategic API Sourcing.

Rockwell has played an integral role in setting the strategic direction of the company through Par's acquisitions of Edict, Anchen, JHP Pharmaceuticals and the integration of Qualitest into Par. He has 10 years of experience in the pharmaceutical industry, having held various prior positions in business development, project management and information systems.

Rockwell, who has a Bachelor of Science degree from Grove City College, knew about NJIT through his father, Bruce Rockwell, a 1987 graduate of the university in electrical engineering. However, he was not as familiar with the EMBA program when he began to consider studying for a master's degree.

"The school has a great history for technology," Rockwell said. "When I began my search, I was in information technology and exploring part-time MBAs. When I called, I spoke with the directors of a few schools who just sent me their programs. However, when speaking to the director at NJIT, she probed deeper and asked for some of my background. She then suggested an EMBA."

Rockwell read a bit more online about how EMBA's differed from traditional MBA programs before finally settling on an EMBA and making the decision that he wanted to experience a program with a local classroom component.

### MAKING CONNECTIONS

"Having a personal connection with a cohort of experienced peers is invaluable in a management program," Rockwell said. "From there, accreditation and location were the two most important factors in narrowing my search. I was searching for an MBA program in northern New Jersey that was accredited by the Association to Advance Collegiate Schools of Business. I was surprised to see that so many other programs that I had heard good things about were not accredited."

Realizing the importance of a program "just feeling right," Rockwell visited his top three picks: Fairleigh Dickinson, NJIT and Rutgers. Contrasting his NJIT visit with the others, NJIT clearly stood out as a place where he believed that he would have the best MBA experience.

"Arriving at NJIT, I was greeted warmly by Elaine Frazier, director of the EMBA program, who quickly invited me to attend a class there," he recalled. "Ultimately, my classroom visit at NJIT made my decision clear."

Midway through the EMBA program, Rockwell was enrolled in an international marketing course where the professor gave students the assignment of developing a marketing plan for introducing a product that had been developed in one country into another country. While most of his peers chose a product for the general consumer market, Rockwell wanted a more complex challenge. So he decided to develop a plan to importing generic drugs manufactured in the U.S. into Brazil.

"As an IT professional working for a pharmaceutical company, my knowledge of the industry was limited to reading the

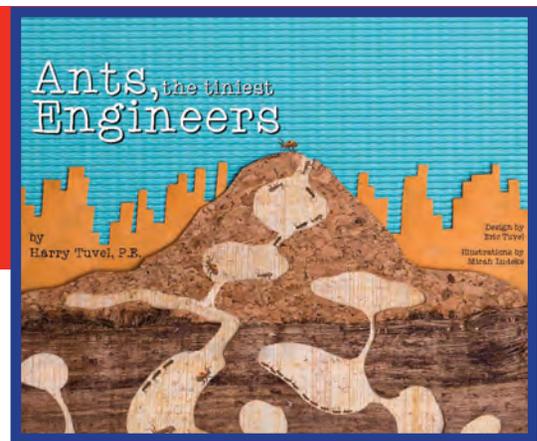
bottles in my medicine cabinet," Rockwell said. "I spent the next month researching pricing, importation challenges, product names, regulations and local laws to understand the barriers to entry. I learned about my business and put together what I believed was a solid plan to submit to our professor. Unfortunately, the professor threw us a curveball when he challenged us to also submit our plans to the companies we developed these for in an effort to solicit feedback from executives."

Rockwell was the only person in the class who based his report on his own company.

"Here I was, as an infrastructure engineer, blindly submitting my marketing plan up the ladder at my company," Rockwell said. "I passed it along to the head of the IT group who in turn passed it up. A few weeks later, I heard that the president found it interesting and wanted me to meet with a director of business development to explore the idea. I then spent a few weeks working with him calling companies in Brazil, which then led to similar calls around Asia, the South Pacific, Africa and Europe. Nothing seemed to really result from my idea at the time, but the director liked the way I approached problems with an analytical view and the company created a new position for me in business development."

Since then, Rockwell has worked his way up, overseeing acquisitions and completing multinational deals. He now oversees multiple departments and has a global group. He reports directly into the CEO, the same president who created the job for him.

"I developed a partnership with one of the companies that I called years ago and I can say that we are successfully exporting our products overseas. We're not doing it entirely how I had proposed during the EMBA program, but I have learned a lot more since NJIT," Rockwell said. Many people can say that they owe their career to what they learned in their MBA program — but NJIT really did a lot for me. ■



## Writing about Nature's Tiniest Engineers: **HARRY N. TUVEL '74, '79**

**T**hey build bridges and tunnels, measure two millimeters long, and are unwelcome at picnics. Ants, one of nature's most minuscule and fascinating creatures, are the subject of a children's book by civil engineer Harry N. Tuvel P.E., P.P. '74, '79.

Featuring images by his younger son, Eric Tuvel, and whimsical illustrations by Micah Ludeke, *Ants, the Tiniest Engineers* originated from a humanities class project assigned by the late Dr. Herman Estrin, professor of English, when Tuvel was enrolled in the early 1970s as a student in Newark College of Engineering. Tuvel had shown a copy of the book to his son Eric, an urban planner and graphic designer who decided on his own to recast the book with new graphics and present it to his father as a surprise birthday gift and self-published copies by Shutterfly. Tuvel, a professional engineer and planner at Tuvel Civil Engineering Services in

Ridgefield, New Jersey, subsequently noticed an item in the John A. Reif, Jr. Department of Civil and Environmental Engineering's summer 2016 newsletter about a children's book that students wrote with Tom Jaworski as faculty adviser and decided to approach NJIT about his own book.

"It seems to me that a children's book that introduces engineering to young minds is a very worthwhile endeavor for an engineering university and also challenges engineering students to explain engineering principles in fundamental terms and ideas that children can understand, which was obviously Dr. Estrin's intent in giving this assignment," Tuvel said.

For the past 20 years, Tuvel has been a professional engineer in private practice specializing in site development for both residential and commercial projects and municipal engineering. He has worked on a number of projects with his older son, Jason,

who is a land use attorney. Prior to that, he was employed at Boswell Engineering as a project manager and also worked on the staff of the American Society of Civil Engineers.

### MEMORABLE MOMENTS

What was his most memorable moment as an NCE student?

"There were a number, including being ASCE Student Chapter President and receiving the Ridgeway Award," Tuvel recalled. "It was also memorable to be inducted into the Chi Epsilon, Tau Beta Pi and Sigma Xi (for my work as a research intern) honor societies."

Now, over 40 years later, Tuvel hopes that his book will inspire the future engineers of the world, including his two grandchildren, Sienna and Zachary. ■

*Christina Crovetto is editor of NJIT Magazine*

**Empower  
Your Team with  
the Strength  
of NJIT**

### Continuing Professional Education

We make it easy for your employees to become proficient in the skills and technologies essential to achieving your strategic business goals. Our industry-specific, customized training programs are designed to provide practical, collaborative learning experiences in technology, business know-how and leadership development. Courses can be held at your company's site, on the NJIT campus, or online. You might even qualify for training at no cost to your company – talk to us.

**Ask about our Corporate Training Partnership today!  
Contact CPE at: 973-596-3061 • [cpe@njit.edu](mailto:cpe@njit.edu) • [njit.edu/continuing](http://njit.edu/continuing)**



# NJIT Freshman Class 2017

**1285**

average overall  
SAT score

**3.58**

average  
GPA

**1,131** freshmen selected out of **7,232** applications

## **MOST POPULAR MAJORS:**

**Computer Science, Mechanical Engineering,  
Biomedical Engineering**

**9**

states and

**23**

countries  
represented

**185**

Albert  
Dorman  
Honors  
College  
students

**34%**

first-  
generation  
students

**9,393 MILES, FROM MALAYSIA**

**Farthest distance traveled to attend NJIT**

*Disclaimer: For first-time full-time degree-seeking undergraduate students only. Data is preliminary as of the 10th day of the semester and is not the official final enrollment.*

**NJIT**

New Jersey Institute of Technology

## 1970's

**'72 DREW MCCASKEY** (Civil Engineering) has retired from the Delaware Transit Corporation (DART) and is now an ordained Christian minister. Before serving at DART, McCaskey was vice president for construction company Moretrench American Corporation and president of MBK Dewatering Corporation.

**'75 STEVE KUBICKA**

(Engineering Science) has been promoted to regional sales manager for Polyglass U.S.A., Inc.'s Northeast region. Kubicka has more than 40 years of sales and marketing experience and has worked for contractors, distributors and manufacturers in the roofing industry.

## 1980's

**'81 BRYAN HALL** (Industrial Administration, M.S., '83) has been appointed senior vice president of sales at Optelian Access Networks Corp., an optical networking solution provider. Hall brings more than 20 years of experience in senior sales leadership roles including senior sales positions at Axsun Technologies, Dowlake Microsystems, Mintera Corp., Quantum Photonics, AstralPoint Communications and Pirelli Telecom.

**'87 ROB FOLEY** (Civil Engineering) has been promoted to associate at Dewberry's Parsippany, New Jersey, office. Foley has 30 years of experience and currently serves as a senior project manager responsible for the management, design, regulatory approvals and construction oversight of site/civil engineering projects. Foley has extensive transportation agency design experience with the New York State Department of Transportation and the Port Authority of New York and New Jersey and is currently working on the civil engineering scope of data center developments in Colorado Springs, Denver and Rockland County, New York.

He is a professional engineer in Colorado, Connecticut, Illinois, North Carolina, New Jersey, New York and Ohio and is a member of the 7X24 Exchange and the American Society of Civil Engineers.

**'87 MIKE HAGEN** (Mechanical Engineering) has joined Freese and Nichols as a senior project manager in the Transmission and Utilities Group in Dallas. Hagen has nearly three decades of experience in water and wastewater infrastructure and will play an integral role in building and supporting large, complex projects for both public and private sectors throughout the region. Before joining Freese and Nichols, he was a project manager at a national engineering firm, where he assisted major water and wastewater providers throughout the Dallas-Fort Worth Metroplex on projects such as pipeline rehabilitation, interceptor improvements and lift station and force main expansion. Hagen has also completed the ISI Envision® exam to become a certified Sustainability Professional by the Institute for Sustainable Infrastructure.

## 1990's

**'90 MASOOD KHAN** (M.S. in Engineering Management) has joined IBMD as director of manufacturing engineering. Khan has more than 20 years of experience in design, development and commercialization of medical devices.

**'92 KEN SPAHN** (Engineering Management) has been promoted to associate at Dewberry's Bloomfield, New Jersey, office. Spahn has more than 30 years of experience and serves as Dewberry's regional director for ports and intermodal. He has worked in numerous facets of the industry, including business, operational, and technical areas for the Port of New York and New Jersey. Throughout his career, Spahn has held various leadership positions in facility management, port and rail development, capital planning, program

and asset management, capital program development and implementation, property and business acquisitions and financial management. He is currently working on numerous projects, including the Red Hook flood risk reduction study, Hunts Point interstate access improvements and the Rebuild by Design Hudson River project. Spahn is a licensed project management professional, and a member of the Project Management Institute and the North Atlantic Ports Association.

**'93 MANUEL DA SILVA** (Civil Engineering), vice president of construction operations at the New Jersey Schools Development Authority, has been honored with a Star of Essex Award for his positive contributions to New Jersey, especially in Essex County. Da Silva has served in various capacities with the Authority over the past seven years, including as senior manager of engineering, senior program officer and program director. His responsibilities included managing scope development, procurement and construction of capital and emergent school projects; providing oversight and direction to four teams responsible for the delivery of 22 capital school projects totaling over \$1.75 billion of new school facility construction projects; developing construction procurement strategy and presenting recommendations to the CEO and board of directors. Before joining the New Jersey Schools Development Authority, Da Silva served as director of operations and development at M. Alfieri Co., Inc.

**'97 STEPHEN BONINA** (M.S. in Management) has been named a vice president in the Newark, New Jersey, office of WSP USA, formerly WSP | Parsons Brinckerhoff, a global engineering and professional services organization. In his new position, he serves as the Eastern Region fleet manager for WSP's transit and rail technical excellence center (TEC), responsible for overall management of the firm's rail vehicle practice in

Boston, Newark and Atlanta. Bonina has more than 33 years of experience with commuter rail, rapid transit, light rail and streetcars. He has extensive experience working for rail car manufacturers and a transit authority as well as consulting companies specifying and providing oversight over multiple new rail car and rehabilitation projects. Bonina is a licensed professional engineer in New Jersey and is a member of the American Public Transit Association and the Institute of Electrical and Electronics Engineers.

'99 **DANIEL KOPEC** (Architecture) has been named one of the top 20 architects in Jersey City by Expertise.com. Daniel Kopec Architects LLC is a full-service architecture firm that has been serving residential and commercial clients throughout the Glen Ridge area for over 10 years. Its team handles projects ranging from historic preservation to new

construction and is known for delivering clear-cut, sustainable design solutions infused with natural light.

2000's  
 '06 **STAVAN R. PATEL** (Information Technology, M.S., '09) is one of eight full class residents to have graduated from Connecticut's Greater Danbury Community Health Center's primary care residency program. Patel completed the three-year residency training at the community health center, as required by the American Board of Internal Medicine. Patel since has accepted a position as a nocturnist at Geisinger Health System in Pennsylvania.

2010's  
 '10 **LISA PETERSON** (Surveying Engineering) has recently become a

licensed land surveyor in the state of New Jersey. Peterson is presently one of only four women in New Jersey to hold dual licensure as a professional engineer and a professional land surveyor. Peterson serves as Dewberry's transportation services manager in the firm's Mount Laurel, New Jersey, office. She has more than 15 years of experience as a transportation engineer and project manager specializing in highway design, is a trustee on the foundation board for the Burlington County Institute of Technology and a member of the American Society of Civil Engineers and the Women's Transportation Seminar.

'11 **JASON PANCOAST** (Civil Engineering, M.S., '13) has joined P.W. Grosser Consulting as a project manager in the environmental unit. ■

## IN MEMORIAM

- Frank Cozzarelli Jr. '49, '51
- William Saller '49
- John Finkenberg '52
- Charles Scaturro '53
- Anthony Venturo '53
- Robert W. Armbrust '54, '59
- Bert G. Boer '55
- Frederick I. Scott, Jr. '56
- Lawrence Q. Smith '57
- Edward Leroy (Ted) Jones '58
- Robert Dolecki '61, '72
- Andrew Skislak '64, '69
- James P. Lynch '66
- Arthur Carpousis '67, '71
- Robert J. Humenik, Sr. '67
- Donald E. Hutchinson '70
- Leonard M. Bleier '73
- Clifford J. Brendler '74
- Katherine Sullivan '79, '88
- Walter Henry Zwirz '85, '87
- Cornelius (Neil) Brons '97

**FRANK COZZARELLI JR. '49, '51** peacefully passed away July 28, 2017, at his residence. After completing three semesters at Newark College of Engineering, Cozzarelli joined the U.S. Navy, where he served as an electronics technician. After an honorable discharge, he became a proud veteran of the U.S. Navy, returning to NCE where he earned his bachelor's degree in chemical engineering in 1949 followed by an M.S. in chemical engineering in 1951. For 38 years, he worked for Union Carbide Corporation and became a senior leader within the Union Carbide Research and Development Organization as well as an industry-recognized professional as a Fellow of the American Institute of Chemical Engineers. In 1995, he was presented with the NJIT Alumni Achievement Award. He had many accomplishments before he decided to reinvent himself and enroll in Seton Hall Law School at the age of 50. Cozzarelli graduated from law school in 1982 and transitioned to the intellectual property team at Union Carbide. He finished his career at Union Carbide as a lawyer and U.S. patent attorney. After leaving Union Carbide in 1990, he continued to work in private practice as a lawyer and U.S. patent attorney up to May of this year, never retiring.