RESEARCH HEATS UP AT NYU-POLY

ROBOFISH LEAD THE WAY IN MARINE BEHAVIOR STUDIES

BONE CRUSHING RESULTS TO CREATE SAFER ARMOR

i^2e AROUND THE WORLD IN

ABU DHABI • INDIA • CHINA • KOREA
In the early 1990s, Professors David and Gregory Chudnovsky built a supercomputer called “m-zero” that cost nearly $70,000 to engineer and took roughly one week to calculate over 8 billion digits of pi.
[4] NYU-Poly in the News
   [6] NYU-Poly Welcomes New Students
   [7] Project 2010 Brings New Life to NYU-Poly
   [8] NYU-Poly Launches First Engineering Program
       at NYU Abu Dhabi
   [10] Celebrate! Varick Street Incubator Has a Birthday
   [11] Inside the CITE Game Innovation Lab Construction
   [12] NYU-Poly’s High-Tech Incubator’s First Grads
   [14] Mechatronics Mania
   [15] Cardullo Reception Honors Professors Kapila
       and Iskander
   [16] Who Will Protect Our Digital Future?
   [19] New NYC Media Lab
   [20] National Science Foundation IGERT Grant
       Establishes Interdisciplinary Doctoral Program
   [22] Maurizio Porfiri Named One of
       Popular Science’s Brilliant 10
   [23] NYU-Poly by the Numbers
   [24] Improving Armor, Helmets and the Diagnosis
   [26] Free 4G and a Freed-up Parking Spot in NYC
   [27] Lukasz Witek Attends Elite F-BRIDGE Project
   [28] NYU-Poly Welcomes Chairman of the FCC

[30] Faculty News and Notes
   [30] Faculty Notes
   [31] Myles Jackson Awarded Humboldt Fellowship
   [31] Elza Erkip Named Blavatnik Finalist

[32] Campus Buzz
   [32] Alumni Homecoming Baseball
   [32] Career Fair
   [33] Mayor at Varick Street
   [33] New Study Lounge Opens in Dibner
   [33] NYU-Poly’s Website Among the Best

[34] PolyGiving
   [34] John M. Trani ’66AE ’69MG ’71OR
   [34] Young Alumni Leaders Making a Difference

[35] Alumni News
   [35] Letter from the Alumni President
   [36] Poly Alumni Honored at NYU Alumni Day
   [37] Jason Hsuan Receives Distinguished
       Electrical and Computer Engineering
       Alumni Achievement Award
   [38] Class Notes
   [40] In Memoriam
   [41] Obituaries
   [43] Alumni Events

---

WHAT DO YOU THINK?

Take the NYU-Poly Cable magazine online survey at
www.poly.edu/cablesurvey

CABLE GOES DIGITAL!

Enjoy the newly designed Digital Cable with expanded
coverage, videos and fascinating articles about
the exciting research taking place at NYU-Poly.

Visit: cable.poly.edu
President Jerry Hultin made a whirlwind tour of Southeast Asia to renew ties with the Institute’s alumni and friends in South Korea, Taiwan and China. NYU-Poly’s rich diversity has been a source of pride for the Institute, and with its pivotal role in developing the engineering curriculum in Abu Dhabi, the Institute is positioned to extend its global reach. Currently, NYU-Poly’s students and alumni represent 57 countries with alumni living and working in 67 countries worldwide. The Southeast Asia tour included alumni and parent gatherings in Seoul and Taipei, and a special dinner with parents of current students in Nanjing, China, where NYU-Poly is engaged in a historic partnership with Nanjing University in the development of the Joint Institute of Innovation and Entrepreneurship. The Joint Institute’s mission is to implement i2e education; improve the quality of educational programs; and enhance collaboration in order to establish both institutions as acknowledged leaders in the competitive arenas of science, engineering and technology. President Hultin was joined in Nanjing by NYU-Poly Chancellor David Chang, who has been leading the relationship with Nanjing University including developing the study abroad program at the Joint Institute for NYU-Poly students. Established in October 2008 with the support of David J. Lee, an NYU Heights alumnus, the Joint Institute will also be an integral part of the Nanjing University Science Park with new facilities being built and planned for the Xianlin Campus—a 100,000 student-populated campus including Nanjing University as one of five universities in this university town.

The visit to Nanjing also included receptions hosted by dignitaries, including the Deputy Mayor of Nanjing, Zhong Zhi Xu and Shaoyun Fei, the director general of the Foreign Affairs Office of Jiangsu Provincial People’s Government.

In South Korea, Dr. Sang-Kuen Park ’79EE is actively engaged with over 180 Polytechnic alumni through his leadership of the Korean Poly Alumni Association. In the coming months, the Office of Alumni Relations and the Polytechnic Institute Alumni Association will be working closely with Park to enhance collaborations with these alumni to increase global career and networking opportunities.

Taiwan also presents unique opportunities for international alumni engagement. A special alumni reception at the Grand Hyatt Taipei drew approximately 30 attendees, who enjoyed learning about NYU-Poly’s advances on the global stage as a result of the affiliation with New York University. NYU-Poly Development Officer Amy Lei, who is fluent in three Chinese languages, will travel to Taiwan, Japan and South Korea in the beginning of 2011 to support alumni relationships there.

On the heels of his return to the U.S., President Hultin traveled to India on the occasion of President Barack Obama’s visit there to join the higher education mission delegation of the U.S. India Business Council. He was the keynote speaker in New Delhi at the launch of BrainGain Magazine, an online publication for students interested in study abroad opportunities.

Alumni interested in getting involved in one of NYU-Poly’s international chapters should contact alumni@poly.edu or call (718) 260-3885.
Taipei Alumni and Parents’ Reception

From left: NYU-Poly Chancellor David Chang, Chairman Lien Chan Hon ’96, Honorary Chairman, Kuomintang Party (KMT), NYU-Poly President Jerry Hultin and Mrs. Lien

Left to right: Junho Jo ’08, Jin Sung Choi ’06, and Dr. Sang-Keun Park ’79

President Hultin with NYU-Poly parents, Mr. and Mrs. Ahn

Front row, second from the left: President Jerry Hultin and his wife, Jill along with Barbara Noseworthy, vice president for development and alumni relations, far right; Jimi Choi, chief of staff and vice president for strategic initiatives, back row, third from the right, and members of the Korean Poly Alumni Association
The Polytechnic Institute of NYU community, including President Jerry Hultin, Provost Dianne Rekow, author John Seabrook, faculty, staff and special guest Brooklyn Borough President Marty Markowitz, welcomed the Class of 2014 and new graduate students to an academic experience that will prepare them for unprecedented changes in technology and society. President Hultin described the upcoming era as "some of the most exciting and challenging years on earth."

“We will encourage and help you learn to be innovative, inventive, and entrepreneurial – the philosophy we call i2e,” he said. “Our faculty will teach you to understand and use science, mathematics, technology and engineering to meet the needs of the 21st century. You will invent new sources of power and new ways to reduce our power demand. You will find ways to cool the planet. You will help tame the cost of healthcare in the United States and invent new ways to deliver quality healthcare to people in villages and towns across Africa, South America, India and China. You will use massive data, increase bandwidth, build faster chips and protect privacy.”

Keynote speaker John Seabrook, author of “Flash of Genius and Other True Stories of Invention,” said that the technology available today could “bring about a new age of inventors … never before have inventors and innovators had as many tools to create with.”

During the ceremony, students and faculty received awards for outstanding achievement. Assistant Professor Jin Kim Montclare, Chemical and Biological Sciences, received the Jacobs Excellence in Teaching Award, a gift from Dr. Joseph Jacobs ’37 ’39 ’42 Hon’86 which recognizes and fosters teaching excellence. The award is presented to individuals or groups who have demonstrated educational innovation and excellence. Lawrence Chiarelli, industry professor of construction management, received the Distinguished Teacher Award, the Institute’s premier teaching award.

While students, faculty, administrators and alumni enjoyed the ceremony in the Grand Ballroom of the Marriott, construction workers across the street were finishing work on Project 2010, the first effort of NYU-Poly’s i2e Campus Transformation.

“The changes happening on campus are indicative of bigger changes at NYU-Poly,” said Provost Rekow. Borough President Markowitz welcomed the students to Brooklyn which—like NYU-Poly, the fourth most ethnically and racially diverse college in the nation according to U.S. News & World Report—is known for its diversity. The borough’s 2.6 million residents represent over 100 ethnic groups and speak 136 languages.

Markowitz also highlighted neighborhoods like Williamsburg, with venues and restaurants that rival Manhattan hotspots, and other reasons that Brooklyn will be an exhilarating place to live during their time at NYU-Poly.

Following the Convocation in Brooklyn, the Class of 2014 joined President Hultin and other NYU-Poly administrators at Radio City Music Hall for New York University’s Presidential Welcome. It was the first time that NYU-Poly was part of the annual ceremony where President John Sexton welcomed first-year students from NYU’s 10 undergraduate colleges. It was also the first time that an NYU-Poly student participated in the Presidential Welcome processional. Student Council President Kevin Sukhoo carried the NYU-Poly banner to the stage where it joined the other colleges’ banners.
Polytechnic Institute of NYU celebrated the grand opening of Project 2010, a vibrant renovation of the campus’ main corridor in Rogers Hall and its cafeteria, at a town hall and ribbon-cutting ceremony on September 27. It is the first of many significant construction projects planned for the next 10 years called “i²e Campus Transformation” for their promotion of the school’s invention, innovation and entrepreneurship (i²e) philosophy.

“We are well on our way to being where a great engineering and science institute for the 21st century needs to be...”

- President Hultin

He also thanked the faculty, students and administration members who sat on Project 2010-related committees. The project, he noted, was completed “on time and on budget.”

Project 2010 highlights in the main Rogers corridor include a textured green glass wall, LCD monitors that display news and events around campus and New York City and a touch screen that allows students to swipe their IDs to see their schedules. Students used that feature 2,000 times on the first day of classes. Cafe highlights include glass doors that let sunlight stream in from the cafe into the hallway; new, modern furniture; and energy improvements like a white ceiling that reflects light.

Daniel Hernandez of Jonathan Rose Companies, the firm overseeing the i²e Campus Transformation, presented concepts for future i²e Campus Transformation projects. Among them is a green engineering and science building with a green utility plant that would replace the Jacobs Administrative Building. Another potential opportunity presented is the renovation of Rogers Hall, incorporating multi-use laboratories to strengthen the building’s role as the “heart of the campus.”

NYU-Poly will finalize the i²e Campus Transformation capital plan by the end of the year with input from the NYU-Poly community.
Unlike NYU’s 18 study abroad programs, the World’s Honors College, as it is also known, is a full-fledged liberal arts college with a new and dynamic engineering program. The engineering program is an integral part of the overall curriculum and was developed specifically by NYU-Poly faculty—a point that has not been lost on the students, with 21 already opting for the “Engineering Foundations” course in their first semester.

“The goal of the engineering curriculum is to prepare students to be leaders for tomorrow’s technologically advanced, competitive global economy,” says NYU-Poly Professor Sunil Kumar, who is the dean of engineering of NYUAD. “The curriculum eschews traditional engineering disciplinary demarcations, thereby fostering a broad understanding of the field, while developing depth in thematic concentrations.”

The three concentrations available are Information, Computation and Electronic Systems; Urban Systems; and Biomedical and Health Systems, each of which draw upon content from the traditional engineering disciplines. Students enjoyed “Marhaba Week” (welcome week in Arabic) during the
waning days of Ramadan. Activities, which included student orientation seminars and workshops and an iftar dinner, when the traditional Ramadan fast is broken, took place in a large white tent.

Of the 9,048 applications received worldwide, 180 were accepted for admission; only 39 turned down the offer. The candidate pool proved to be so extraordinary that the final class of 150 was, in fact, 50 percent higher than anticipated. “These students are outstanding in every aspect,” says NYU-Poly President Jerry Hultin. “They are intellectually curious, socially and culturally diverse, multilingual and very serious about their education and the contributions they will make to the world.”

A third of the Class of 2014 reside in the United States, followed by the UAE, China, Hungary and Russia. Before making a final decision, students were invited to Abu Dhabi during one of five Candidate Weekends. These weekends offered students the opportunity to meet one-on-one with faculty and counselors as well as their extraordinary peers.

NYU Abu Dhabi was made possible by a partnership between NYU and the government of Abu Dhabi. The cost of the program is subsidized by the Abu Dhabi government. Students are offered financial aid by NYU, which is committed to ensuring that no student will have to incur debt in order to attend the college. There is no doubt that cultural and social adjustments will have to be made, but most students believe that is part of the learning curve and understanding a different culture will make them more valued global citizens. Classes are small – usually less than 12 – and the courses are multidisciplinary, seminar-focused and taught in English.
Even without the party hats, balloons and noisemakers, there was absolutely no doubt that the first anniversary of the 160 Varick Street incubator was an occasion that called for a celebration.

New York City Economic Development Corporation (NYCEDC), the Polytechnic Institute of New York University (NYU-Poly), Trinity Real Estate and the tenant-entrepreneurs who call 160 Varick Street their headquarters came together to join in the festivities at The Greene Space at the Varick Street location. Since opening in July 2009, the 35 tenant companies — representing a cross-section of promising startups, including a green retrofitting company; a global fund management firm for feature film production and distribution; a digital forensics and data recovery product developer; and an electronic fixed-income brokerage — created 110 jobs, hired approximately 250 freelancers and student interns, and raised more than $15 million in venture capital and angel funding. 160 Varick, a collaboration between NYCEDC, NYU-Poly and Trinity Real Estate, is a city-sponsored incubator launched as part of the city’s efforts to promote business innovation through entrepreneurial activity. NYCEDC President Seth W. Pinsky, NYU-Poly President Jerry Hultin, and Trinity Real Estate President Carl Weisbrod attended the event along with incubator tenants, New York City-based startup and early-stage companies, and venture capital and angel investors.

“When the technical and scientific expertise and resources of a university join with government and the financial and market resources of business, a powerful new paradigm for innovation and entrepreneurship emerges,” said NYU-Poly President Jerry Hultin. “By breaking the silos between academia and the business world, we create a stream of jobs for the city and offer students real-life action learning opportunities. We also build channels to bring university-developed technologies to market, a cornerstone of our core philosophy that we call i2e: invention, innovation and entrepreneurship.”

“The Varick Street incubator is a prime example of Trinity Real Estate’s fundamental operating principle: “Do well by doing good,” said Carl Weisbrod, the firm’s president. “We gave this space rent-free because we wanted to contribute to the city’s creative economic development strategies in response to the global economic crisis. We are so delighted now to see the first businesses successfully graduating from the incubator and taking permanent space in the Hudson Square area.” Tenant companies expect to hire 95 additional employees by July 2011. In addition, several companies have “graduated” from the incubator. Companies graduate when they have closed a Series A or angel round of financing, when they have 15 employees total, or when their business case has progressed to a level where incubator services are no longer as critical.

Among the innovations currently being developed and scaled-up on-site are New York’s first urban-scale wind turbines; next-generation bio-pesticides and bio-plastics; a revolutionary method of generating hydroelectric power; and a web property that aims to become a leading online selling platform.

NYCEDC provided a $100,000 capital grant to establish the incubator and helped to negotiate a rent-free three-year lease between the landlord, Trinity Real Estate, and the facility operator, NYU-Poly. The 16,000-square foot space offers high-quality, ready-to-use office space. Basic business services and administrative support is provided by NYU-Poly. In addition, the Institute provides mentoring services, business seminars and networking opportunities for tenants, who can sublease space starting at $250 per person per month for six months with an option to renew. To date, more than 300 companies have applied for space.

160 Varick is also home to NYU-Poly’s New York City Accelerator for a Clean and Renewable Economy (NYC ACRE), which helps clean technology and renewable energy companies grow in New York City, advancing the city as a role model for environmental sustainability and smart growth. NYC ACRE is seeded by a four-year, $1.5 million grant from the New York State Energy and Research Development Authority (NYSERDA) to NYU-Poly. Nine 160 Varick tenants companies are part of NYC ACRE.
This conceptual rendering shows how gaming projects will be exhibited on CITE’s exterior wall via a media display that passersby will be able to interact with.

INSIDE THE CITE GAME INNOVATION LAB CONSTRUCTION

Within days of completing the first renovation project of a 10-year plan to transform its Brooklyn campus, Polytechnic Institute of NYU started its next. Construction began on the new project, the Center of Innovation for Technology and Entertainment (CITE), in early October on the first floor of the Dibner Building and is expected to be completed by late winter/early spring. Like Project 2010, the first renovation initiative of the 10-year i2e Campus Transformation, CITE will be a showcase of NYU-Poly’s invention, innovation and entrepreneurship philosophy – what it calls “i2e.” Its centerpiece will be the Game Innovation Lab, a place, according to its research director Katherine Isbister, “that will bring together some of NYU-Poly’s strongest researchers and their students across multiple departments (Computer Science and Engineering; Electrical and Computer Engineering; and Humanities and Social Sciences), taking games as an innovation challenge.”

Isbister explains that “games are profound drivers of both technological and user experience innovation, and we have deep expertise at NYU-Poly that can extend and transform what’s already happening in this exciting field.”

The CITE project’s goals include creating a flexible space, fostering interdisciplinary collaboration and facilitating the meeting of the top-down theory of science and engineering with bottom-up tinkering and problem-solving.

The gaming lab’s interior will be a 3,000-square-foot, open space with a technical grid to create integrated teaching and research areas with projection, large shared monitors, moveable smart boards and moveable modular furnishings. It will also feature a state-of-the-art Human-Computer Interaction (HCI)/Video Quality Lab. A high-tech “living room” will give researchers and students a comfortable place to evaluate and discuss prototypes and showcase their work.

Some of that work will be exhibited on CITE’s exterior wall via a 12.6-foot wide by 5.2-foot high media display. People in the Dibner Building and MetroTech Plaza will be able to see and interact with the display. Windows in the wall directly beside the display will further enhance the lab’s connection to the outside world, and vice versa.

An expert team of NYU-Poly digital media, computer science and electrical engineering faculty members are leading the CITE project. Consistent with other campus transformation-related initiatives, CITE’s governance system encourages input from the NYU-Poly community.

CITE is funded by a $2 million New York State grant.
In an economic recovery that is generating too few jobs, the Polytechnic Institute of New York University and its partners, the City of New York, the New York City Economic Development Corporation, Trinity Real Estate and the New York State Energy Research and Development Association are generating some good news.

The incubator is creating not only new technologies, software and products, but also much-needed jobs for New York City – more than 200 so far. NYU-Poly faculty provide technical support as consultants to many of the startups.

Bruce Niswander, director of NYU-Poly’s Office of Innovation, Technology Transfer and Entrepreneurship, leads the incubator. Niswander – who has law and business degrees, a chemical engineering background and a history of not only creating successful businesses, but also of teaching people how to launch commercially viable startups – was hired in 2008 to direct NYU-Poly’s Brooklyn Enterprise on Science and Technology (BEST).

In today’s market, Niswander said entrepreneurs have achieved success by creating products and services that reduce costs or improve efficiencies in energy consumption and waste treatment, or that leverage the participation potential of social networks such as Facebook.

The four companies featured here provide a fine example of the variety of industries and interests where success has been realized.

HARNESSING URBAN BREEZES

In 2007, Russell Tencer, who founded an investment bank and a strategic-advisory firm specializing in clean technologies, became CEO of AeroCity, which designs and manufactures wind-energy turbines. He was intrigued by the future of urban wind energy because big cities pay high prices for power.

“Big cities, which have many large ‘objects,’ traditionally are hard places to quantify wind energy,” Tencer said. “So, we developed a tool to assess wind energy and saw a huge potential for economical wind-energy generation in cities like New York and Boston.”

Tencer’s company, now Wind Products LLC, turned to the design and manufacture of small-wind systems and services for residential, commercial and industrial property owners. (Small-wind turbines have a capacity of less than 100 kilowatts.) “The company's wind-assessment software and wind turbine electronic controller operate up- and downstream from turbines to improve the overall economics of small-wind energy systems,” he said.
A BETTER INFORMATION MOUSETRAP

Anand Sanwal knows what works. He is co-founder and CEO of CB Information Services: “We’re building what one of our customers referred to as a ‘Bloomberg’ for high-growth private companies. We collect and offer structured data via our online platform, CB Insights.”

Sanwal was inspired while managing a $50-million American Express Innovation Fund. Using and evaluating information platforms, he discovered he was paying a high price for low-value data. “So I left to build a better mousetrap.” He had an idea, a “loose plan” and two trusted American Express colleagues. Sanwal invested some personal savings and fees from consulting work, and “just started building.”

“We’ve had no illusions that this would be a sprint,” Sanwal said. “We are in it for the long haul and expect to build a world-class data and information company that does unconventional and groundbreaking things.”

CB Insights hired Robert Mulley, an NYU-Poly graduate in computer science, to help the team improve upon and build new technology solutions to extract structured data from unstructured information sources.

What does it take to be a successful entrepreneur? Sanwal summed it up: “Credibility with your employees, customers and partners, as well as pragmatism, competitiveness, comfort with uncertainty, the ability to connect disparate data points to identify opportunities, tenacity and a bit of paranoia.”

MAKING CITY BUILDINGS ‘GREENER’

Ecological LLC designs energy-efficient buildings. With 14 employees, the most of any company at Varick Street, Ecological is looking for its own quarters. Its reach has just grown exponentially. Last April, Ecological announced a strategic alliance with Cushman & Wakefield, the world’s largest privately held commercial real-estate services firm, to provide all sustainability services to its clients.

Ecological has a distinguished pedigree. The company was co-founded by Joseph Grano, former chairman of UBS, former New York Governor George Pataki and Anthony Sblendorio, a pioneer in regenerative design. Grano invited Brian King to join the trio as president and chief operating officer. A private investor financed the startup with $2 million.

“We analyze building operations for all energy sources: water, waste, site and indoor working environment,” King said. Sustainability services include planning, financial analysis, financing, incentive planning; building metering, benchmarking and analysis; and behavioral programs and retrofit projects.

NYU-POLY ALUM ADVANCES LASER-BASED CHEMICAL SENSORS

NovaWave was founded in late 2002 by Drs. James Scherer and Joshua Paul with the goal of developing next-generation, laser-based chemical sensors for numerous civilian and military applications. A short time later, Dr. Stephen Holler ’95PH was recruited from the Sandia National Laboratories to join as a partner. By the end of 2009, they had 17 employees. Last year, just days before Holler’s wife gave birth to twins, Thermo Fisher Scientific acquired NovaWave for an undisclosed amount. The small firm became part of a multi-national corporation of more than 35,000 employees.

Holler and partners grew their company by leveraging the competitive Small Business Innovation Research Program, which provides government-agency funds for high-technology research and development. Applications for NovaWave’s sensor technology include chemical- and biological-agent detection, trace-explosives sensing and greenhouse-gas and pollution monitoring.

Holler said one of the biggest challenges was having to “wear many hats” to keep everything going. “You have no choice but to learn areas outside your expertise, such as finance, engineering and shipping,” he said. “Navigating through them can be tricky if you’re not specifically trained in those areas.”

Holler is quick to credit NYU-Poly as the catalyst for his entrepreneurial ventures.

“I can honestly say that I wouldn’t be where I am today if it were not for Physics Professors, Lorcan Folan and Stephen Arnold,” he said. Holler published seven peer-reviewed research articles with Arnold by the time he left for graduate school at Yale. The two continue to collaborate and publish together.
Having demonstrated that robots can effectively teach math, science and engineering to Brooklyn youngsters, NYU-Poly took its message to a national audience in Washington, D.C. on October 23 for the inaugural USA Science and Engineering Festival Expo on the National Mall. The NYU-Poly exhibit, “Mechatronics Mania,” was one of only 15 chosen by the National Science Foundation (NSF) as part of its display for the grand finale weekend in a two-week celebration designed to re-invigorate youngsters’ interest in science, technology, engineering and mathematics (STEM). Led by Vikram Kapila, associate professor of mechanical engineering and one of the founders of NYU-Poly’s successful robotics and mechatronics outreach program, and Magued Iskander, associate professor of civil engineering, NYU-Poly team members used small robots to demonstrate techniques that have raised the letter grades and skills of students in Brooklyn’s economically disadvantaged neighborhoods.

The robots are no substitutes for teachers. Instead, teachers and NYU-Poly doctoral fellows employ the kid-friendly robots to encourage students to learn the math and science that they will need to succeed in STEM subjects and careers. “Well before college, students must learn abstract algebraic and statistical concepts; they must be able to interpret graphs, solve problems and understand measurement methods,” Kapila said. “These seem to be unrelated to their everyday experiences…until they try to perform simple tasks with a LEGO robot.”

In 2007, two members of what is now the Brooklyn Community Foundation urged NYU-Poly’s Kapila and Noel Kriftcher, former executive director of the David Packard Center for Technology and Educational Alliances, to create the Central Brooklyn Robotics Initiative (CBRI) and provided seed funding. Today, CBRI and a companion Graduate K-12 (GK-12) Fellows program supported by the NSF pairs teachers from 18 economically disadvantaged elementary, middle and high schools with doctoral fellows from NYU-Poly’s engineering programs to design dynamic, hands-on classroom lessons.
NYU-Poly fellows and teachers spend summer recesses training in mechatronics and robotics, developing research and hands-on lessons. When school resumes, the fellows and teachers continue their partnership, bringing robotics projects to life with students and exposing them to tools and techniques used by scientists and engineers.

CBRI has a profound and measurable impact on students, according to the program’s external evaluation. For example, in spring 2010, teachers reported changes in letter grades for 810 students during or directly following the program; 74 percent of students saw their overall grades jump one-half or one full letter grade and 80 percent saw their science and math grades improve one-half or one full letter grade. Students reported educational and emotional benefits from the program, ranging from increased interest in science and technology (77 percent) to improved listening skills (83 percent) and finding a role model in the NYU-Poly fellows (80 percent). The CBRI program also helps reduce the isolation of minority students through robot design contests, in which they compete against students from unfamiliar communities as well as participate with them in informal learning experiences.

In addition to the Brooklyn Community Foundation, CBRI is supported by The Black Male Donor Collaborative, Motorola Foundation, JPMorgan Chase Foundation, NY Space Grant Consortium and Alliances for Graduate Education and the Professoriate. The program is synergistic with a five-year program at NYU-Poly funded by the GK-12 Fellows program of the NSF to broaden graduate engineering education and provide fellows with teaching, communication, pedagogical, management and team-building skills.

In Washington, Kapila and Iskander, along with NYU-Poly students and Brooklyn teachers, demonstrated to expo visitors the mathematics, engineering and science behind their robots. The teachers are Cluny Lavache of Bedford Academy High School and Noam Pillischer of Urban Assembly Institute of Math and Science for Young Women. Representing the NYU-Poly fellows are Nicole Abaid, doctoral candidate, mechanical engineering; Jennifer Haghpanah, doctoral candidate, chemical and biological science; Carlo Yuvienco, doctoral candidate, biomedical engineering; Ryan Caeti, master of science, mechanical engineering; Jared Alan Frank, master of science, mechanical engineering; and David Lopez, bachelor of science, mechanical engineering.
WHO WILL PROTECT OUR DIGITAL FUTURE?

A One-Woman Team, a High School Videographer, Student Hackers and Researchers
NYU-POLY’S PRESTIGIOUS CYBERSECURITY COMPETITION YIELDS SOME SURPRISING WINNERS

When 300 of the country’s best students of cybersecurity gather, the competitive spirit of hacking is inevitable. But the 7th Annual Cybersecurity Awareness Week (CSAW) challenges at Polytechnic Institute of New York University (NYU-Poly) yielded its share of surprises, too: The winner of the difficult Embedded Systems Challenge was a one-person team – a woman, one of only a handful who made it to the final rounds. A high school student won the Video Awareness Challenge. And while it came as no surprise that a team from Carnegie Mellon University took the top spot for the second year in the popular Capture the Flag Applications Challenge (CTF), the university’s dominance might not have been predicted – a second Carnegie Mellon team took the number two CTF spot, and the two teams also captured the top two positions in the Quiz Tournament.

The annual cybersecurity games, organized by the students of NYU-Poly, brought finalists from across the continental United States to the Brooklyn campus last week. They had been winnowed from a record 1,000 by top cybersecurity professionals acting as judges.

“CSAW has two goals,” said Nasir Memon, head of NYU-Poly’s cybersecurity program. “We want to encourage talented students to pursue research and careers in this field because it is vital to protect our personal security, our infrastructure and national defense. But from the beginning, we also wanted participants to build friendships with other students and professionals.”

Take the NYU-Poly Cable magazine online survey at www.poly.edu/cablesurvey
because it helps the students while advancing the cause of those working to protect digital security.”

Keynote speaker W. Baird McNaught, program manager, Control System Security Program of the U.S. Department of Homeland Security, outlined recent security breaches including $400 million annually in fraudulent energy meter readings, a water treatment plant with an easy-to-hack password, hackable automobile controls and the Stuxnet worm that reprograms industrial controls: “the most advanced and complex we have ever seen.”

Homeland Security’s responses include a traveling team that applies forensic and preventive skills to protect business and institutions, according to McNaught.

Rounding out the winning field in the CTF competition was a team from Rensselaer Polytechnic Institute, and a team from NYU-Poly came in third in the Quiz Competition.

NYU-Poly was one of the earliest schools to introduce a cybersecurity program, receiving National Security Agency (NSA) approval nearly a decade ago. Designated as both a Center of Academic Excellence in Information Assurance Education and a Center of Academic Excellence in Research by the NSA, the school houses a National Science Foundation-funded Information Systems and Internet Security (ISIS) Laboratory, the nerve center of cybersecurity research. Under Memon, ISIS students create and run the annual CSAW games.

“We want to encourage talented students to pursue research and careers in this field because it is vital to protect our personal security, our infrastructure and national defense.” – Nasir Memon
Mayor Michael Bloomberg announced that New York University, with Polytechnic Institute of NYU as the lead, and Columbia University, will direct NYC Media Lab, the nation’s first government-sponsored laboratory for media innovation. NYC Media Lab will connect private-sector businesses with research already underway at academic institutions, and sponsor independent research on topics vital to the city’s $30 billion media industry. Roger Neal, former senior vice president and general manager of BusinessWeek Digital, is the lab’s founding executive director and Shivendra Panwar, professor, Electrical and Computer Engineering and director of the Center for Advanced Technology in Telecommunications and Distributed Information Systems, serves as its administrative director.

“Many of New York City’s 100 universities and colleges are conducting new media-related research within areas that the city’s 10,000 media companies are looking to expand, but often, that connection is made too slowly or never at all. The NYC Media Lab will bring these two forces together,” said Mayor Bloomberg at WIRED’s “Disruptive by Design” conference. “And by sponsoring its own independent research driven by private sector interests, the NYC Media Lab will further establish the city as a center for next-generation media research and commercial development.”

Advanced search technologies, legal and privacy issues surrounding mobile content, computer animation for film and gaming, emerging marketing techniques and content distribution are some of the topics affecting media companies that academic institutions can provide critical research on through NYC Media Lab.

“The NYC Media Lab will demonstrate that a university’s great ideas need not live only in laboratories, but in the real world. The powerful combination of technology push from academia and marketplace pull from the city’s media leaders will transfer great research breakthroughs into new commercial products and processes,” said NYU-Poly President Jerry Hultin. “The NYC Media Lab is a prime example of academic entrepreneurship, a concept that we at NYU-Poly refer to as i2e: invention, innovation and entrepreneurship.”

“The NYC Media Lab will demonstrate that a university’s great ideas need not live only in laboratories but in the real world.” – President Hultin

The New York City Economic Development Corporation will provide $250,000 to establish NYC Media Lab, which will be located at NYU-Poly’s Center for Advanced Technology in Telecommunications and Distributed Information Systems in downtown Brooklyn.

NYC Media Lab is also creating a media research and development database comprised of university faculty, experts from corporations, not-for-profit research institutions and R&D facilities throughout New York City.
NATIONAL SCIENCE FOUNDATION IGERT GRANT ESTABLISHES INTERDISCIPLINARY DOCTORAL PROGRAM
Last fall, NYU-Poly launched an innovative graduate program for scientists and engineers that will reconfigure/redefine the methods that are employed to evaluate the increasingly complex issues surrounding information security and privacy. A $2.85 million award from the National Science Foundation’s flagship interdisciplinary training initiative, Integrated Graduate Education and Research Traineeship (IGERT), funds the program.

“Traditionally, engineers are taught to evaluate projects by technical standards alone, a narrow approach that is out of touch with today’s connected society,” said the initiative’s team leader, Nasir Memon, professor in the Department of Computer Science and Engineering and director of the Information Systems and Internet Security Lab. “For the scientists of tomorrow, social context will be a critical aspect of innovation.”

To reach beyond the technical approach, faculty and staff of New York University’s Courant Institute of Mathematical Sciences, Robert F. Wagner School of Public Service, Leonard N. Stern School of Business and Steinhardt School of Culture, Education and Human Development, along with faculty of the John Jay College of Criminal Justice, will participate. Only NYU-Poly and Courant will grant degrees. Called INSPIRE (Information Security and Privacy): An Interdisciplinary Research and Education Program, the program addresses the shortage of scientists and engineers versed in the interplay between information security and economics, psychology, public policy and law. INSPIRE graduates will be able to apply their understanding of these fields to develop technology solutions attuned to an increasing dependence on trustworthy information systems.

“Information systems are indispensable components of every aspect of our personal and professional lives,” said Kurt Becker, NYU-Poly associate provost for research and technology initiatives. “Protecting their integrity by authenticating content and ensuring seamless, fast, reliable and secure transmission of data and information is critical in areas including national security, personal safety and comfort, commerce and business.”

Becker added, “In the context of INSPIRE, faculty and doctoral students address the balance between what is technologically feasible and what is acceptable within legal, political, economic and societal constraints. NYU-Poly is proud to lead the way toward this new paradigm for information security research and education.”

INSPIRE fellows address some of the most pressing issues in information security, including identifying physical vulnerabilities in critical infrastructures such as IT networks and public utilities, developing new risk mitigation and information security models for enterprise and using human behavioral models to design end-user security solutions.

This is the first IGERT program award for NYU-Poly, and is projected to educate 25 doctoral fellows over the next five years. Application forms will be posted at http://crissp.poly.edu/inspire. This site also includes information about a similar NSF-funded program that provides scholarships and faculty support for undergraduates and master’s degree students at NYU-Poly and NYU. This cybersecurity scholarship program is called ASPIRE, a Scholarship for Service Partnership for Interdisciplinary Research and Education.

NYU-Poly was one of the earliest schools to introduce a cybersecurity program, receiving National Security Agency (NSA) approval nearly a decade ago. Designated as both a Center of Academic Excellence in Information Assurance Education and a Center of Academic Excellence in Research by the NSA, the school houses a National Science Foundation-funded Information Systems and Internet Security (ISIS) Laboratory, the nerve center of cybersecurity research.
Popular Science magazine hailed NYU-Poly’s Maurizio Porfiri, assistant professor of mechanical engineering, as one of the nation’s brightest young researchers. The magazine, which is the nation’s largest consumer science publication, named Porfiri one of this year’s “Brilliant 10” – an elite group of scientists under age 40 whose work stands to dramatically impact their fields. The article appeared in the October 20, 2010 edition.

Porfiri is recognized for his work on biologically inspired robots that mimic the near-silent movement of schooling fish so convincingly that real fish are enticed to follow them. His goal is to create self-powered underwater robots capable of steering fish populations away from hazards such as oil and chemical spills or power turbines. Porfiri, who brings a lifelong passion for wildlife to his research, told Popular Science, “If we borrow design from nature to build our robots, why not use the robots to assist nature?”

NYU-Poly Provost Elizabeth Dianne Rekow congratulated Porfiri on his “Brilliant 10” honor. “This is an opportunity for a worldwide audience to get a glimpse of the creativity and tireless innovation that drives Dr. Porfiri’s work, and for him to take the stage alongside scientists and engineers from nationally recognized universities much larger than NYU-Poly,” she said. “Dr. Porfiri’s robotic fish hold great promise for humans and the inhabitants of our oceans, and I join with his students and colleagues in congratulating him for this high honor.”

Porfiri, who came to NYU-Poly in 2006, is also the recipient of the National Science Foundation’s prestigious CAREER award. The grant supports early career development activities for teachers and scholars, and in this case, enabled Porfiri’s studies of fish behavior and the development of his biomimetic robots.

Another component of the award allows Porfiri to team with the New York Aquarium, where he brings the thrill of robotics to life in workshops with elementary and middle school students from area schools.

Up next for Porfiri? Research to develop methods for harvesting untapped energy from small eddies in ocean currents to power self-sustained marine microsensors. These sensors could be used for multiple purposes, including monitoring ocean environments for contaminants.

“The ‘Brilliant 10’ is our annual salute to young scientists who are shaking up their fields,” said Popular Science Editor-in-Chief Mark Jannot. “This year’s group brings fresh perspective and extraordinary smarts to bear on issues ranging from infectious diseases to endangered marine life, and their solutions won’t just change the world – they’ll make it better.”
NYU-POLY

BY THE NUMBERS


Judging by the results of two college ranking reports, NYU-Poly is nurturing the American dream for science, technology, mathematics and engineering students of New York as well as international students whose homes lie far from its Brooklyn, NY campus. The polls found NYU-Poly has one of the most diverse undergraduate enrollments in the nation, and that we are graduating students with some of the highest potential salaries.

In college rankings by U.S. News & World Report, NYU-Poly tied for fourth among all national schools in the ethnic and racial diversity of its undergraduate student body, and it tied for seventh in the proportion of international undergraduate students. Recent Payscale.com rankings reported NYU-Poly among the top undergraduate engineering schools and all Northeastern schools in starting and mid-career salaries.

“Throughout its 156-year history, NYU-Poly has been a portal to success for the best and brightest technical students from Brooklyn and New York, traditionally among the most diverse immigrant hubs in America,” said President Jerry Hultin. “In recent years, though, NYU-Poly has begun evolving into an international research institution, in which we disseminate the same knowledge of invention, innovation and education – something we call i2e – to students who will return home and change societies throughout the world.”

The latest U.S. News & World Report data ranks NYU-Poly fourth among national schools, tied with New Jersey Institute of Technology in racial and ethnic diversity. The index ranking of 0.69 (with 1.0 as the highest) factors in the proportion of minority students – leaving out international students – in each institution’s 2009-2010 undergraduate student body. The highest ethnic group at NYU-Poly is Asian-Americans, who comprise 34 percent of all undergraduates.

Three schools tied for seventh place in the proportion (12 percent) of international undergraduate students: NYU-Poly, Andrews University and California Institute of Technology.

In the Payscale.com report, NYU-Poly ranked fifth among all engineering schools in salary potential and eighth among all schools in the Northeast, ahead of several Ivy League universities. The Payscale.com poll registers the annual pay for bachelor’s graduates without higher degrees. Typical starting graduate salaries reflect two years of experience; mid-career statistics are typically 15 years. Median starting salary for NYU-Poly was $62,100 and median mid-career salary was $111,000.

10 Best Engineering Colleges By Salary Potential

<table>
<thead>
<tr>
<th>College Name</th>
<th>Average Starting Salary</th>
<th>Average Mid-Career Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts Institute of Technology (MIT)</td>
<td>$61,000</td>
<td>$118,000</td>
</tr>
<tr>
<td>Harvey Mudd College</td>
<td>$60,000</td>
<td>$116,000</td>
</tr>
<tr>
<td>Georgia Institute of Technology</td>
<td>$59,000</td>
<td>$114,000</td>
</tr>
<tr>
<td>Colorado School of Mines</td>
<td>$58,000</td>
<td>$112,000</td>
</tr>
<tr>
<td>Polytechnic Institute of New York University</td>
<td>$57,000</td>
<td>$110,000</td>
</tr>
<tr>
<td>Rensselaer Polytechnic Institute (RPI)</td>
<td>$56,000</td>
<td>$108,000</td>
</tr>
<tr>
<td>California Institute of Technology (Caltech)</td>
<td>$55,000</td>
<td>$106,000</td>
</tr>
<tr>
<td>Polytechnic Institute of New York University</td>
<td>$54,000</td>
<td>$104,000</td>
</tr>
<tr>
<td>Worcester Polytechnic Institute (WPI)</td>
<td>$53,000</td>
<td>$102,000</td>
</tr>
<tr>
<td>New Mexico Institute of Mining and Technology</td>
<td>$52,000</td>
<td>$100,000</td>
</tr>
</tbody>
</table>
Improving Armor, Helmets and the Diagnosis

It can mean the difference between life and death or living with a catastrophic injury, and has far-reaching implications for the fields of medicine, automotives and athletics.

In a counter-intuitive finding, scientists at New York University (NYU) and Polytechnic Institute of New York University (NYU-Poly) have found that the foam used in helmets and other body armor indeed absorbs damage when compressed slowly, but can cause as much injury as a hard object when hit at high speeds.

The materials scientists also found that bones fracture differently according to loading – another factor that will lead manufacturers to select protective materials according to the speed of impact, whether for sports equipment, military armor, car interiors or submarines.

Their findings could change the methods of diagnosis for soldiers and athletes whose injuries are not immediately detectable but whose symptoms evolve over time.

Nikhil Gupta, assistant professor in NYU-Poly’s Department of Mechanical and Aerospace Engineering, and Paulo Coelho, assistant professor in NYU’s Department of Biomaterials and Biomimetics, led a team that undertook two recent studies using rabbit femur bones.

Gupta became interested in the research after speaking with veterans of the wars in Iraq and Afghanistan.

“Discussions with the soldiers about the nature of the IED blast injuries sparked my interest because physicians were unable to detect any injury immediately after the blast,” says Gupta. “The symptoms of serious injury usually evolved over time. My interest in materials characterization provided me with a background to develop techniques that can test bones at high-compression rates, simulate similar effects in the laboratory and conduct scientific investigation of this problem.”

Advanced engineering and medical equipment such as CT-scanners, electron microscopes and high-speed camera systems documented how bones and lightweight composite materials deformed and
fractured under high compression rates, Gupta believed it was imperative to work with a doctor to investigate his hypothesis from the medical side and found the perfect complement in Coelho, who holds a PhD in Materials Science as well as a medical degree. “Our connection was easy and instantaneous,” says Gupta.

In addition to helmets and armor, the lightweight foams are widely used in marine structures such as boats. Describing the importance of the findings on foams, Gupta said that “the foam materials that seem soft when slowly compressed can actually become much stiffer as the loading rate is increased. A foam that would crush when slowly compressed can cause injury if punched hard.” In subsequent studies, the team plans to investigate whether the change in the material behavior at high loading rates can actually increase the risk of injuries.

The team used a high-speed camera to take about 7,000 images per second when the bones were loaded at high rates, simulating a blow to the body or the impact from a nearby bomb blast, among other conditions. They found that the fracture pattern varied according to the load. The team expects similar results on human bones.

“The CT-scan and electron microscope allowed us to observe that at high loading rates, the fracture starts as numerous hairline cracks and causes substantial damage to the entire specimen,” Coelho said. Lower loading rates generated fewer cracks. “Clinically, it may be very challenging to detect and repair small-scale but widespread damage caused by high loading rates,” he said.

This observation will be useful in analyzing injuries of soldiers who are subjected to blasts or football players who do not display immediate detectable injuries but have their symptoms evolve over time.

“We also hope that our studies will lead to better diagnostic equipment,” says Gupta. “Today’s medical scanning devices are unable to detect the microscopic damage to bones – and we assume such damage also occurs to the brain and other parts of the body. With today’s technology, it could take years to detect the injury, making treatment difficult.”

The papers authored by the team appear in Materials Science and Engineering: A and Journal of Biomechanics. Their studies were supported by a National Science Foundation grant and supplemented by an NYU seed grant designed to foster research collaboration between the two affiliated schools.
On the same day that a commercial carrier officially turned on its 4G mobile network in New York City, the country’s top wireless researchers were pushing the boundaries for the 4G future: technology that displayed open parking spots in the notoriously congested Brooklyn neighborhood adjoining NYU-Poly.

NYU-Poly and Rutgers University professors and students beamed their live demonstration to Washington, D.C., where more than 300 researchers from academia, industry and government gathered as part of a National Science Foundation initiative to take America’s mobile phone systems beyond today’s typical third generation mobile networks (hence 3G) to 4G, in which data is transmitted up to 15 times faster. The project is called GENI, for Global Environment for Network Innovations, and it aims to encourage experimentation and research in wired and wireless networks.

The one-day Brooklyn parking demonstration used NYU-Poly’s new open, public 4G WiMAX network and eight automobiles equipped with ultrasonic sensors developed by Rutgers. As drivers cruised downtown Brooklyn streets within the NYU-Poly/GENI 4G network, sensors fed data to the 4G antenna atop its Dibner Building then to the Rutgers server, where its ParkNet software compiled real-time information on a map that showed each parking spot as either red (filled) or green (available). Thanks to the high-speed capability of 4G, researchers could view the maps in real time on their 4G-equipped laptops. Any commercialized version would include 4G smartphones, too.

Researchers envision that drivers would equip their vehicles with such sensors in exchange for information that would let them make informed decisions about whether to take mass transit or park at a distance from their destination.

Traffic congestion costs the U.S. $78 billion annually. One Brooklyn neighborhood (Park Slope) study found that 45 percent of driving is in search of a parking space; in SoHo, it’s 28 percent. Congestion also takes a heavy toll on air quality.

The parking demonstration was transmitted live to the GENI Engineering Conference #9, and it was the first example at NYU-Poly of the technology that the GENI 4G network will enable. Working with Rutgers, Raytheon BBN technologies and five other universities all using the same WiMAX network, students and faculty will explore research and innovation aimed at opening network experimentation to more people. Rutgers is the lead university, and NYU-Poly piloted the WiMAX platform for all the schools.
LUKASZ WITEK ATTENDS ELITE F-BRIDGE PROJECT

Lukasz Witek ’14ME would be the first to admit he’s been lucky. The eldest son of Polish immigrants and first-year doctoral student was among the elite 40 young students and researchers to be selected from an applicant pool of 400 to attend the first F-BRIDGE Project (Basic Research for Innovative Fuels Design for GEN IV systems) in Karlsruhe, Germany. The workshop’s panel was made up of world-class experts from universities and national laboratories (Imperial College, Los Alamos Argonne, CEA (the French Atomic Energy Commission) and ITU (the European Energy Commission).

The project was undertaken to develop a new approach to fuel development by creating a conduit between basic research activities and technological applications for GEN IV fuel-cladding system. Particular focus was given to improvement of promising composite ceramics concept, the sphere-pac fuel which exhibits significant advantages for GEN IV.

At the behest of his advisor, Remi Dingreville, an assistant professor in the Department of Mechanical and Aerospace Engineering, Witek waded through the daunting application process. With an undergraduate degree in biology from Temple University, a master’s in biomaterials science from NYU and numerous abstracts, conference proceedings and published papers, he proved in the end to be an ideal candidate for F-BRIDGE. The project ties in nicely with his doctoral thesis, Quantifying the Uncertainty in Nuclear Fuel Response Using Mesoscale Modeling, which focuses on modeling nuclear fuel pins using computational materials sciences and applied mechanics.

“The WiMAX network will allow NYU-Poly to accelerate our contributions to cooperative networking, and advance the leading research conducted at NYU-Poly’s Center for Advanced Technology in Telecommunications – one of the State of New York’s original Centers for Advanced Technology, as well as the Wireless Internet Center for Advanced Technology, funded by the NSF,” said Shivendra Panwar, director of both centers. “It will prove particularly helpful in helping us design and develop standards for cooperative networking, a technology that promises to greatly increase the reliability and speed of wireless communication.”

Thanasis Korakis, research assistant professor, heads the 4G project at NYU-Poly.

The Federal Communications Commission granted NYU-Poly two licenses for channels within the 4G band to establish a public 4G WiMAX network and study it. A 4G hot spot differs from the typical WiFi hot spot in that a single tower covers an area large enough to allow connections while the user is mobile. Several new laptops have 4G WiMAX capability; earlier models can install an inexpensive dongle to access NYU-Poly’s coverage free of charge.

As cars equipped with ultrasonic sensors (A) navigate local roads, data is collected and sent via the NYU-Poly 4G network (B) to the Rutgers ParkNet Server. The collected information is translated into a real-time color-coded street map (C), highlighting areas of optimal parking that can be viewed by any 4G-enabled device.

“Lukasz’s research will definitely benefit and be inspired by some of the materials covered in this workshop,” says Dingreville. “The experience could give him a chance to find a summer internship in one of the national laboratories working in areas similar to our research effort – a definite plus in terms of research experience, building up his résumé and finding the step after his PhD.”
Broadband, net neutrality and American innovation in the global marketplace were just some of the topics Julius Genachowski, chairman of the Federal Communications Commission (FCC), addressed at NYU-Poly October 28.

It was his only visit to an area university, and Congressman Edolphus Towns, who represents the 10th Congressional District of Brooklyn, home to NYU-Poly, and serves as chairman of the Committee on Oversight and Government Reform, underscored the occasion by joining President Jerry Hultin in welcoming Chairman Genachowski to campus.

Chairman Genachowski, Congressman Towns and President Hultin chatted beneath the bright fall foliage of the MetroTech Commons before touring the NYU-Poly grounds. Their next stop was the Dibner Library where they met with faculty.

The FCC and Academia

President Hultin and Provost Dianne Rekow introduced Chairman Genachowski to faculty from departments including Electrical and Computer Engineering and Computer Science and Engineering who are conducting research on areas regulated by or of interest to the FCC. Faculty appeared eager to hear from Chairman Genachowski, with Katherine Isbister, associate professor of digital media and research director of the Game Innovation Lab, asking, “Other than traditional media, how do games play into your strategy?”

Chairman Genachowski explained how his agency oversees the Universal Service Fund, which has a program called E-rate that supports programs and classrooms. “We’ve been trying to update it to facilitate 21st-century-learning techniques,” he said. “I have three kids. I see how they interact with new media technologies, and I’m certainly interested in the potential opportunities around gaming-like activities to enhance learning.”

From there, the conversation ranged from the relationship between government and academia, as well as our shrinking broadband spectrum, which Yao Wang, professor of electrical and computer engineering, touched upon.

“What do you see in the future in terms of accessing video in high quality over wireless?” she asked. Because video requires the transfer of large amounts of data, it consumes a significant amount of the broadband spectrum, but Chairman Genachowski believes video transfer must remain high quality.

The discussion also covered net neutrality, which questions whether all content on the Internet should travel at the same speed. On that issue,
Chairman Genachowski likened the Internet to a system of pipes, with the FCC as the caretaker of that system. “Our general policy has been to encourage unfettered activity inside the pipes, but certainly we hear more and more about market power growing in layers within them,” he said, “but the honest answer is we continue to be focused on the pipes themselves and keeping the data flowing.”

Governance and Innovation
The lively and pleasant exchange between faculty and Chairman Genachowski extended to the presentation that followed when he spoke to NYU-Poly students, faculty, staff and invited guests. Introductions by Brooklyn Borough President Marty Markowitz and Congressman Towns preceded the chairman’s remarks, with the leaders focusing on Brooklyn’s growing importance to the technological future of the New York metropolitan area. “This is a secret to a lot of people,” said Towns, “but now people more and more will get to know that great things are coming from the students here who are showing initiative.”

The two expressed local pride, while President Hultin offered a global perspective. Describing a conversation he recently had with an official running one of the biggest cities in China, President Hultin spoke of the conflict there between efficiency and fairness, reminding the audience that the “tension between governance and innovation is one we also face here, and a regulator especially faces that tension.”

Chairman Genachowski accentuated President Hultin’s remarks by explaining where the United States stands among 40 countries that continue to develop broadband technologies: dead last. “The rest of the world is not standing still,” he said. “If we keep moving at the pace we’re moving, we’ll fall even farther behind [in broadband innovation].”

New Initiatives at the FCC
During the Q&A session that followed Chairman Genachowski’s remarks, one student asked which phone he uses. Cracking a grin, the chairman listed a Blackberry, Droid and iPad. He then took the opportunity to introduce a new initiative related to the student’s question. “As an organization made up of people who are working on these policies, how does the FCC make sure that our staff has hands-on experience with cutting-edge technologies so that they can actually get this stuff right?” the chairman asked. To offset this issue, the FCC is establishing a technology experience center where its employees can try the latest devices. The center will function like a library, and eventually the public will also have access to it. The initiative will “increase the level of firsthand knowledge with devices and platforms,” explained Chairman Genachowski. “I think it will make for better policy.”

The chairman described other policies the FCC is enacting, such as releasing unlicensed spectrum. He closed his talk by assuring the audience that “we benefit the most as a country both economically but also in the spirit of free speech and the First Amendment by having a really vibrant marketplace for ideas.”
Stephen Arnold, the Thomas Potts Professor of Physics and University Professor of Chemistry and Physics, entered into an interdisciplinary collaboration with the bio-engineering department at the University of Michigan and reported the operation of a bio-inspired laser in the prestigious “Proceedings of the National Academy of Sciences.” The laser uses energy transfer in DNA as a medium for precisely and efficiently shifting the frequency of laser radiation from a Whispering Gallery Mode resonator.

George Bugliarello, president-emeritus and institute professor, delivered a lecture to a group of foreign associates of the U.S. National Academy of Engineering at the Royal Academy of Engineering in London. The lecture focused on the national academy’s international programs. He also participated in the first European Union – U.S. Frontiers of Engineering Symposium at Cambridge University in England. His invited paper, “Ethics of Medicine, Biology and Bioengineering at the Crossroads of Our Species—Beyond Aristotle and Hippocrates,” was published in the inaugural issue of Ethics in Biology, Engineering and Medicine: An International Journal.

Bugliarello also contributed two chapters, titled “Engineering, Technology and Society” and “Emerging and Future Areas of Engineering” in the international report, ENGINEERING: Issues, Challenges and Opportunities for Development, which was published by UNESCO.

He delivered a lecture at the World Congress and Exhibition, Engineering 2010 in Buenos Aires, Argentina on “Some Thoughts on Engineering and Sustainable Development in Fostering Technology, Innovation and Production.” At the same event, he was also invited by the World Federation of Engineering Organizations to speak on “Urban Sustainability and Some of its Emerging Critical Challenges.”

Yi-Chen Chiang, associate professor, Computer Science and Engineering, was awarded a three-year, $300,000 grant from the Department of Energy for his collaborative research project, “An Information-Theoretic Framework for Enabling Extreme-Scale Science Discovery.” Co-collaborators are Ohio State University and the Argonne National Laboratory, and the total amount of the grant is $1.2M. The research aims at effectively and efficiently managing, analyzing and visualizing extremely large scientific data, which would enable new scientific discoveries by developing an information-theoretic framework and computer visualization algorithms to automatically identify the salient features embedded in the data; explore/visualize the portions of the data in the order of their saliency/importance; and provide a theoretical guarantee on how much information of the data has been conveyed and visualized during the data exploration/visualization process.

Along with Professor John Qualter of the NYU Medical School, he received a $30,000 NYU-Poly seed grant to study “The Development of Real-time Optimization Algorithm for Medical Visualization.”

Zhong-Ping Jiang, professor, Electrical and Computer Engineering, addressed the 2010 Chinese Control Conference’s panel on “Frontiers in Systems and Control” in Beijing, China. He also served as co-chair for the pre-conference workshops.

Jonathan Soffer, associate professor, Humanities and Social Sciences, has written a book on the turbulent years of Ed Koch’s mayoralty titled “Ed Koch and the Rebuilding of New York City.” The book has garnered the praise of several noted critics including Benjamin Schwarz, The Atlantic’s literary and national editor, who calls it “…bracing reading in a new era of straitened circumstances and subdued civic ambition.”


Kang Xi, industry associate professor, H. Jonathan Chao, head, Electrical and Computer Engineering and Chaoyi Guo ’10ECE, received the Best Paper Award for “Recovery from Shared Risk Link Group Failures Using IP Fast Reroute” at the 19th International Conference on Computer and Communication Networks 2010 in Zurich, Switzerland.
MYLES JACKSON
AWARDED HUMBOLDT FELLOWSHIP

Myles W. Jackson, the Dibner Family Professor of the History and Philosophy of Science and Technology, will study the application of mathematical models to skilled labor practices under an Alexander von Humboldt Fellowship. Jackson, also a professor of the history of science at New York University’s Gallatin School of Individualized Study, will conduct his research at the Fraunhofer Institute for Applied Mathematics in Kaiserslautern, Germany this summer. Research resulting in his most recent work, “Harmonious Triads: Physicists, Musicians, and Instrument Markers in Nineteenth-Century Germany” (MIT Press, 2006), was also done under a Humboldt Fellowship. Humboldt Fellowships are given by the Alexander von Humboldt Foundation, located in Bonn, Germany. Jackson’s first book, “Spectrum of Belief: Joseph von Fraunhofer and the Craft of Precision Optics” (MIT Press, 2000), received the Paul Bunge Prize from the German Chemical Society for the Best Work on Instrument Makers and the Hans Sauer Prize for the Best Work on the History of Invention.

ELZA ERKIP NAMED BLAVATNIK FINALIST

Elza Erkip, associate professor, Electrical and Computer Engineering was named a faculty finalist in the 2010 Blavatnik Awards for Young Scientists. The award recognizes highly innovative, impactful and interdisciplinary achievements in the life sciences, physical science and engineering. The designation includes $10,000 in unrestricted funds. The award was announced during the New York Academy of Sciences’ Seventh Annual Science and City Gala. Erkip has made outstanding contributions to the areas of cooperative wireless communication, information theory and communication theory. In addition to being named a Blavatnik faculty finalist, Erkip is the recipient of the 2001 National Science Foundation’s CAREER Award and an IBM Faculty Partnership Award in 2000.

Three other New York University researchers were recognized. Evgeny Nudler, the Julie Wilson Anderson Professor of Biochemistry at NYU Langone Medical Center, was among the faculty awardees, each of whom received $25,000 in unrestricted funding. Daniela Schiller, a former post-doctoral fellow in the Department of Psychology and Center for Neural Science and currently an assistant professor of psychiatry and neuroscience at Mount Sinai School of Medicine, received a post-doctoral award, which includes $15,000 in unrestricted funding. Neal Weiner, an associate professor in the Department of Physics, was a finalist for the faculty award and received $10,000 in unrestricted funding.

“Now in its fourth year, the Young Scientists awards program was established to encourage scientific talent by supporting promising scientists early in their careers when they are most in need of funding and recognition,” said Len Blavatnik of the Blavatnik Family Foundation in presenting the awards. “The development and support for the next generation of leading scientists in the United States and their scientific research is an issue of great national importance and one about which I care deeply. The Blavatnik Family Foundation is proud to support and honor these wonderfully creative and intelligent finalists.”

PHOTO: Elza Erkip and her husband, Mithat Gonen, an associate attending biostatistician, Department of Epidemiology and Biostatistics, Memorial Sloan-Kettering Cancer Center.
ALUMS HIT ONE OUT OF THE PARK AT HOMECOMING

The NYU-Poly Department of Athletics hosted its annual Alumni Varsity Baseball Game in October during Homecoming Weekend. The event was a huge success as over a dozen former players returned to campus for the game. It was a beautiful day and a great game, which ended with the varsity squad (in the black shirts) winning 16-7. Alumni who attended the game included the father and son team of Ray and Jamie Nella. Also on hand were Phil Procker, who pitched the only no-hitter in NYU-Poly baseball history, and Bruce Brandt, who helped secure the current fields that were built at Gateway National Park at Floyd Bennett Field.

ABOVE PHOTO: Kneeling: Mike Giannettino ’82CS and Bill Marin ’96CE. Standing second row: Jamie Nella ’70ME, Devin Kittle ’09ECE, Charlie Gozdzieski ’72AE, Bruce Brand ’72CE, Frank Spada ’08BTM, Ray Nella ’70ME and Mike Frey ’96ME. Standing third row: Henry Boyton, ’86ME—and Phil Procker ’98CS. Missing from photograph: Peter Stampfel ’02EE.

CAREER FAIR:
EMPLOYER PARTICIPATION STRONG AND STUDENT CONFIDENCE HIGH

Over 750 students—dressed in business attire and with résumés in hand—made the rounds meeting company representatives at the 2010 Fall Career Fair on October 6. It was the culmination of serious preparation that included attending Career Management Center workshops and résumé critique sessions. With unemployment remaining at near double digits, students such as Kwadso Sarpong-Faried remained hopeful that his electrical engineering degree would help him land a job.

For non-engineering majors or those who are generally less optimistic, Angela Ho ’03CS, a New York City Police Department detective, was on hand to offer advice and help recruit for the NYPD internship program. Angela was a participant in the program and informed students of the many opportunities in security civil service positions.

More sources of optimism: the number of employers at the Career Fair was up 38 percent from the Spring Fair, and sought-after companies such as Johnson and Johnson, Procter & Gamble and the United Nations participated for the first time.

WHAT DO YOU THINK?

Take the NYU-Poly Cable magazine online survey at www.poly.edu/cablesurvey
Mayor Michael Bloomberg has been named the next chair of the C40 Climate Leadership Group, succeeding Toronto Mayor David Miller. The climate leadership group is an association of major international cities committed to reducing carbon emissions and slowing climate change. As the chair, Bloomberg will work with the eight-member steering committee of other C40 mayors to guide the work of C40 by planning and measuring the results of local initiatives that reduce emissions from energy, waste water supply and transport and increase cities’ resilience to climate change.

The announcement was made by the C40 Steering Committee at a press conference at NYU-Poly’s New York City Accelerator for a Clean and Renewable Economy, which assists clean technology and renewable energy companies to grow in New York City.

Photo: Mayor Michael Bloomberg at the podium. Background: President Jerry Hultin, left, and Toronto Mayor David Miller.

NEW STUDY LOUNGE OPENS IN DIBNER

Dibner Library now has its very own snack lounge where students can go to recharge, have a bite to eat and chat with friends. Provost Dianne Rekow and Library Director Jana Richman officially opened the lounge at a ribbon-cutting ceremony in October. Faculty, staff and students enjoyed a selection of cheeses and crudite and signed up for the raffle to win a laptop security lock.

PSSST... DID YOU HEAR THE GOOD NEWS?

NYU-Poly’s web site was listed among the eight of the best in college homepage designs by www.davemulder.com, a design blog written by Dave Mulder, a design leader and planner in higher education. Mulder cites the web’s “aesthetically pleasing speaking navigation and recent minor tweaks” as the factors that moved our site into the realm of the “nation’s best.” Kudos to the web team!
“Giving to Poly is part of my giving back to those institutions that positively influenced my life. With the great need of our country to develop engineering and science leadership, Poly is a natural place to meet that need. Unfortunately, higher education is more and more costly, so providing scholarships to gifted, driven students is sometimes the only way for them to further their education. All of us at one time or another have been given the opportunity by others to thrive in our great country. Supporting Poly through gifting enables students to fulfill their dreams.”

John M. Trani ’66AE ’69MG ’71OR
John M. Trani, LLC
$25,000
Promise Scholarship

Chris Clinton ’09ME and Eric Levenstein ’06 CompE ’08TN, both recent graduates, are the first members to join Polytechnic’s newest alumni membership group – the Young Alumni Leadership Council (YALC). As students, both Chris and Eric developed a keen spirit and admiration for their alma mater. Chris led his fellow classmates as the Student Council President during his senior year and shares his knowledge and dedication as president and secretary for the Polytechnic Institute Alumni Association. Eric, a two-time Polytechnic alum, recently received his third degree from NYU-Poly – a Master of Business Administration.

Chris and Eric are leading the YALC and are working with today’s most recent graduates in creating opportunities for young alumni to network, socialize and build relationships within the NYU-Poly community and with the Institute’s leadership. YALC recognizes NYU-Poly’s graduates from the last 10 years who have made annual contributions to the Institute’s core needs.

For more information about the Young Alumni Leadership Council, and all of its benefits, please contact Natalie Silva at nsilva@poly.edu.
Dear Fellow Alumni,

It has been a busy fall season in Brooklyn, and I am thrilled to have this opportunity to share with you some of the exciting things happening at our alma mater. We are now in our third year of the affiliation with New York University, and now more than ever, we need your involvement and support to propel NYU-Poly forward as the premier engineering and technology school in New York City and the world.

Over the past several months, NYU-Poly’s alumni presence has truly gone global. President Hultin’s recent visits to China, South Korea and Taiwan have led to a renewed interest in alumni engagement overseas. In South Korea, Dr. Sang-Keun Park ’79 is leading the Korean Poly Alumni Association. We look forward to further collaboration with him to engage with our more than 180 alumni living and working in that country. In other countries and here in the US, the Polytechnic Institute Alumni Association (PIAA) has established clear goals for developing active chapters that will ultimately work in collaboration with NYU-Poly to fortify alumni engagement and networking, as well as student recruitment efforts.

Other goals set forth by the PIAA International Board of Directors for 2011 include:

- Enhancing our efforts to help alumni identify job opportunities and support their job search process
- Building a stronger connection with students through the Student Alumni Association and the newly formed Young Alumni Leadership Council to facilitate relationship building, career networking and a stronger affinity to their Polytechnic roots
- Supporting NYU-Poly’s development goals by increasing alumni giving and first-time donors in support of the Polytechnic Fund

We need you to be part of our efforts. There are multiple opportunities to be involved with the PIAA, to serve on committees, to help revive a local chapter, or to make your first gift to the Polytechnic Fund. These activities fuel NYU-Poly’s growth as a center for urban sustainability, multimedia technology and bioengineering.

To get involved, please e-mail alumni@poly.edu and a representative from the PIAA or the Alumni Relations staff will be in touch. If you aren’t able to commit your time to volunteer, be sure to stay in touch with us by joining our group on Facebook, following us on Twitter, and connecting with us on LinkedIn, so we can keep you informed of the latest news and events.

Please accept my warmest wishes to you and yours as we close out 2010 and welcome the new year with renewed energy and that enduring NYU-Poly spirit that has made us who we are today.

Best,

Christine Ianuzzi
’87BSEE ’94MSISE

FOLLOW US:

www.facebook.com/NYUPolyAlumni
www.twitter.com/NYUPolyAlumni
LinkedIn: Polytechnic NYU Alumni
Over 80 NYU-Poly alumni gathered at Washington Square in October to participate in NYU Alumni Day. Festivities included the opportunity for alumni from all NYU schools to network, reminisce and engage in fun and thought-provoking events.

NYU-Poly alumni enjoyed a luncheon with Provost Dianne Rekow, where they learned how NYU-Poly is successfully integrating with NYU to forward the Institute’s three focus areas – urban sustainability; health and biomedicine; and IT/multimedia – while maintaining its rich history and the unique footprint NYU-Poly has had on Brooklyn and New York City.

Erol Gelenbe ’68 and Howard Hausman ’67 ’71 were honored during the luncheon, and presented with the Polytechnic Institute Alumni Association’s 2010 Distinguished Alumni Award. Gelenbe, second from the left, and Hausman, far right, are pictured with NYU-Poly’s Alumni Association President Christine Ianuzzi ’87 ’94, left, and Provost Dianne Rekow, second from right. The distinguished alumni award is the Institute’s most prestigious honor bestowed upon alumni.

Gelenbe is an international computer scientist, engineer and mathematician well known for his work with random neural networks. He developed the mathematics known as G-networks, and has been described by the Association for Computing Machinery’s Sigmetrics Group as “the single individual who, over a span of 30 years, has made the greatest overall contribution to the field of computer system and network performance evaluation.” He currently serves as the Dennis Gabor Professor at Imperial College London, one of the world’s top science and technology universities.

Hausman, president of MITEQ, Inc. in Hauppauge, NY, has designed microwave systems and components for satellite communications, radar and reconnaissance systems that include receivers, transmitters and synthesizers, making his company a lead supplier of high-performance components and subsystems for microwave electronics in the military and commercial markets.

NYU Alumni Day also featured a panel discussion titled “Technology for a Green Future”, co-sponsored by NYU-Poly and the NYU Stern School of Business. Richard Gross ’86, Herman F. Mark Professor and director of the NSF Center for Biocatalysis and Bioprocessing of Macromolecules, moderated the panel which included NYU-Poly alumnus Stavros Vlachoyannis ’88 ’05, and Stern alumni Dan Gulick and Nicholas DeVito. Gross facilitated a lively discussion on topics ranging from the merging of science and business, to health, finance and the challenge of creating sustainable systems for the 21st century.

Each year, the Polytechnic Institute Alumni Association honors alumni who have made notable contributions to the alumni association, our esteemed institution, or to the world of science and technology as a whole. The PIAA is currently seeking nominations for the Distinguished Alumni and Dedicated Alumni Awards.

For more information on submitting a nomination, please visit www.poly.edu/piaa/awards.
Polytechnic Institute of NYU recognized Dr. Jason Hsuan, chairman and CEO of TPV Technology Limited, the world’s biggest maker of PC monitors, with the Distinguished Electrical and Computer Engineering Alumni Achievement Award in November.

Dr. Hsuan earned his PhD in electrical and computer engineering from Polytechnic in 1975.

“Dr. Hsuan epitomizes our i2e – invention, innovation and entrepreneurship – philosophy,” President Jerry Hultin said of the alumnus who explained that differentiating TPV’s business model from its competitors’ is at the root of its success. Under Dr. Hsuan’s leadership, TPV’s revenue grew tenfold from 1999 to 2005. The Taiwan-headquartered company had a 33 percent market share for PC monitors in 2010, making it the world’s number one producer. It is also the third largest global LCD TV producer. TPV is listed on the Hong Kong and Singapore stock exchanges and has plants in China, Poland, Brazil and Mexico.

“It’s my honor to be here again and to be associated with Poly,” Dr. Hsuan said at an award reception where fellow alums, faculty and current electrical and computer engineering students gathered to celebrate his accomplishments. He thanked his thesis advisor, Dr. Leonard Shaw, who was also in attendance. “Without Dr. Shaw I would not be here,” he said. He also praised his wife for her support during his years as a PhD student.

Dr. Jonathan Chao, head of the Department of Electrical and Computer Engineering, who, like Dr. Hsuan grew up in Shanghai, said he was particularly impressed with Dr. Hsuan’s values as a business leader. Dr. Hsuan explained during a talk with students preceding the awards ceremony, that to succeed professionally they must share the rewards of their achievements with employees and co-workers. Passion, he said, is also mandatory.
Harold L. Schmidt ’49ChE says that “although I graduated what I call ‘summa cum lousy,’ I think I made an excellent engineer – albeit more civil than chemical engineer. My time at Polytech was great…I met my wife (through a classmate), with whom I spent 50 wonderful years.”

Seymour B. Alpert ’52ChE is retired and living in Los Altos, CA. He recently traveled to Peru and other countries in South America.

Donald Klein ’52Chem has volunteered for the past 17 years as a lecturer at the Center for Lifetime Studies sponsored by Marist College. As of this fall, he has taught 30 courses, mostly on the history of technology, including the building of the Brooklyn Bridge and the pioneers of aviation and medicine.

John Schaefer ’55Chem, NYU-Poly trustee, was elected to the Board of Directors at Edmund Optics, the premier provider of optical components. He has had a long and distinguished career as a teacher, academic leader, corporate executive and photographer.

David R. Kassoy ’59AE has created a small business, Kassoy Innovative Science Solutions (KISS), to carry out research on liquid rocket engine stability. KISS has a contract with the Air Force Office of Scientific Research.

Herbert Aschkenasy ’80Chem, president of Oregon Freeze Dry, has moved his company from freeze-drying foods to the drying of chemicals, pharmaceuticals and now to a process that will benefit electric cars, and even blood preservation. He says finding new applications for the company's process is what keeps the business moving forward.

Richard Gran ’61EE presented a lecture titled “Confessions of Columbus’s Shipbuilders” on October 13 to launch the 2010 President's Distinguished Speaker Series at Wentworth Institute of Technology. His lecture began with an account of Eratosthenes, the Greek mathematician-astronomer; continued to Columbus' innovations; described his own work for Grumman, the company that designed the lunar module, and his role as a “shipwright” of Apollo; and concluded with a discussion of the next great voyage of discovery—returning to the moon and visiting Mars. He also discussed Simulink, one of the modern design methods available for the development and coding of embedded computer software, as well as his model of a lunar lander and the algorithms he developed.

Moorfield Storey, Jr. ’61EE, retired from Boeing, is playing badminton and tennis as weather permits, and doing volunteer work on medical equipment for a local organization. He reports a love of cross-country skiing, and traveling by charter bus so he can sit back and socialize while someone else drives. He is also active with his church, and enjoys maintaining his home and yard.
60s continued...

Francis G. Araneo ’63AE retired from the US Air Force civilian workforce in January 2009. During his time with the Air Force, he was a leader of large military engines and oversaw simulated altitude ground testing of gas turbine engines.

Gabriel P. Rottas ’63 ’73CE has been retired for five years and loves it!

Judea Pearl ’65EE was awarded the 2010 Rumelhart Prize by the Cognitive Science Society for his leading research in Artificial Intelligence (AI) and systems that reason plausibly from uncertain evidence.

Joe Mulé ’68IE recently received the prestigious National Marconi Science Award for his lifetime of engineering and scientific achievement. On the cutting edge of the space race, Mulé headed a team of 120 Grumman Aerospace Corp. engineers responsible for design and development of the Apollo lunar module.

Ta-Lin Hsu ’68EP joined the Committee of 100, a prestigious U.S.-based, non-partisan organization composed of American business and community leaders of Chinese descent.

Frank J. Mummolo ’69AE is president and chief executive officer at TMI LLC, a fully integrated, leading international producer and supplier of innovative products and solutions designed to manage customer environments by improving work safety, cleanliness, comfort, efficiency and energy savings. Mummolo previously served as founder and managing director of the Philadelphia-based MCA Consulting Services Inc.

Frederic Quan ’69EE spoke in Shanghai at the 2010 China Public Lighting Summit. Upon returning to Shenzhen, China, he gave a plenary talk at the 7th China International Forum on Solid State Lighting. Quan was also appointed president of the Board of Directors for Optoelectronics Industry Development Association (OIDA) in Washington, DC on April 12, 2010. He joined OIDA as an optoelectronics and telecommunications industry veteran with more than 30 years in senior research and management positions at Corning Incorporated.

70s

Charles Hinkaty ’70 ’72MA, NYU-Poly trustee and Polytechnic Institute Alumni Association director, has been appointed to the Board of Directors of Prestige Brands Holdings, Inc. (NYSE: PBH), a consumer products company with a diversified portfolio of well-known brands in over-the-counter healthcare, household cleaning and personal care categories.

Robert A. Bonelli ’72EE, a 30-year Wall Street veteran and recognized financial expert, released a new book titled “Liberty Rising.” The treatise exposes how our country’s economy and our liberty are under assault from progressive socialist initiatives.

Anthony Palazzolo ’72EE joined New Edge Networks, the managed services business communications unit of EarthLink Inc., as national channel manager with responsibility for developing and building agent relationships in the eastern U.S.

Thomas J. Bruno ’76Chem has been awarded a silver medal by the US Department of Commerce. It is the department’s second highest honor. A research chemist at NIST for 29 years, Bruno received the award for “the development of a new method for analyzing complex fluid mixtures that facilitates the introduction of new fuels into the U.S. energy infrastructure.” The medal was presented by the Secretary of Commerce on October 19, 2010.

Michael Sherard ’77EE retired from NYCDEP in November 2008 after 44 years of service. He is now working with Primerica, helping families become properly protected, debt free and financially independent.

80s

Ursula Burns ’80ME, chairman and CEO, Xerox Corporation, ranks number nine in Fortune Magazine’s annual listing of the “50 Most Powerful Women.”

Narain Jote ’80MG is now semi-retired after 39 years of working in the corporate sectors of India, the UK and the US. He and his wife recently attended a conference in Jakarta, Indonesia and enjoyed a holiday with family and friends in Bali, Singapore, Hong Kong and Shanghai, where they attended the World Expo.

Jeffrey Maines ’83ChE, IE, remains in therapy for a traumatic brain injury (TBI) resulting from a December 2000 assault, but is now able to volunteer at the Long Island Jewish Hospital. He also recently visited the “new Poly,” as he calls it, and was greatly impressed.
Daniel Feygin ’02TC ’05MG, and his wife, Magdalena, welcomed Benjamin Gabriel Feygin into the family on September 3.

Robert C. Ilardi ’01IM published a book titled “Source of Endurance,” which seeks to depict life in Brooklyn for a middle-class college student as he maneuvers through the ups and downs of family, friendship, romance, loss and a career after graduation.

Dean Kamen Hon’02 is working on new inventions in the field of energy, environment and medical technology, and hosts the series Dean of Invention which premiered on the Planet Green channel on October 22.

Mohammad Makhdoom ’08CE ’09CS, is an associate programming analyst in Algorithmic Trading Development at Knight Equity in Jersey City, NJ.

Simran Preet Singh Lamba ’09IE enlisted in the US Army. As an Indian national, he was recruited specifically for his Punjabi language skills under the Military Accessions Vital to the National Interest Program that accepts legal non-citizens with particular medical or language skills. Prior to his decision to enlist, Lamba was working as an engineer.

Padmasree Warrior Hon ’07 is senior vice president and general manager of the Enterprise, Commercial and Small Business Development Group at Cisco. In her new role, she will lead a team of more than 10,000 engineers.

Seth Wertheimer Hon ’08 is a recipient of the 2010 Oslo Business for Peace Award in recognition of his contribution to industry, to the creation of exports and his encouragement of young people to enter the manufacturing industry in Israel and the Palestinian Authority.

Raymond Arroyo ’93OB was recognized during the National Society of Hispanic MBA's 2010 Conference and Career Expo for his outstanding work and accomplishments in his community.

Jack Li ’93EE graduated from the Naval Post-graduation School with a MS degree in program management in June 2010. He finally achieved his goal after two years of intensive part-time studies as a distance learning student and working full-time for the US Army in Fort Monmouth, NJ.

Richard Seegull ’94EE is happy to announce that he has launched his own business, iGi Corp., and landed major clients including Bed Bath & Beyond and Hammacher Schlemmer for both domestic and international distribution of iGi Corp’s product, i-Got-Control.

Anthony Vetro ’96 ’01EE is a group manager at Mitsubishi Electric Research Laboratories in Cambridge, MA.

Ravindra Seegull ’94EE joined CNY Builders as director of operations, interiors division. He has more than 20 years experience in project leadership for Fortune 500 clients, multinational corporations and large public institutions.

Gary G. Stephenson ’89EE was promoted to the newly created position of executive vice president, operations of DPL.

IN MEMORIAM
Albert “Al” Thomas ’42
Richard J. Bauer ’51
Charles Caldwell, Jr. ’56
Charles L. Chin ’48
Peter Dorato ’61
Peter Elvis ’61
Robert Feigin ’48
William Gatti ’32
Harold Scheferman ’51
Charles Husick ’54
Robert S. Kieppe ’55
Benjamin Litt ’50
Nicasio Marullo ’61
Gerald G. Maystrik ’37
Richard Metrick ’62
William A. Oetting ’62
Robert “Bob” Rodgers ’66
Andrew C. Ruppel ’65
Leonard C. Sabis ’57
Harold Scheferman ’51
Dettmar R. Tietjen ’48
Lloyd Weinthal ’63
John Vellucci Williston ’68
Alfred Emanuel Vitalo ’61
Arthur Zweibel ’44
FACULTY:
Peter Dorato
Rudolf F. Drenick
Sergio Petrucci
Chemistry Professor

Sergio Petrucci, a professor in the chemistry department, died on October 11. He was 78 years old.

He received a doctorate in chemistry in 1955 from the University of Rome as well as a Libera Docenza in physical chemistry from the same institution in 1966.

After holding an assistant professorship at the University of Rome (1957-61) and the University of Maryland (1964-65), he joined the Polytechnic faculty. Petrucci held positions of increasing responsibility to become an associate professor in 1967, a professor in 1970 and a research member of the Weber Institute in 1985.

His particular areas of interest included relaxation kinetics; microwave and infrared dielectric relaxation applied to molecular liquids and solutions; and IR-Raman spectral studies to elucidate the structure of the systems studied by relation tools.

He received fellowships from the Fulbright Scholars Program, Princeton University, NATO, the British Scientific Research Council and the Max Planck Institute. He was a member of the American Chemical Society, Sigma Xi and the Dielectric Society.

He is survived by his wife, Angela, a daughter, Stephanie Kelly, and two grandchildren.

Sadrul Khan
HUSS Faculty

It is with great sadness that the NYU-Poly community announces the death of Sadrul Khan, an instructor in the Department of Humanities and Social Sciences.

Khan joined NYU-Poly in 1998 and was an enormously dedicated professor who cared deeply about his students. He received his PhD from Ludwig Maximilian University (Germany), where he trained with top scholars in political science. He continued his postgraduate studies at the New School, where he studied with prominent historians including Charles Tilly and Eric Hobsbawm. His academic interests included European political history, South Asian history and development studies, and his teaching was influenced by the commitment of the Jesuit teachers who taught him as a young man. From them, he learned the importance of creating opportunities for his students to succeed.

Khan also did many extraordinary things outside of the academic arena. He lived and worked around the globe, including Japan, Afghanistan, Turkey and Poland, and spoke eight languages. He had an extraordinary commitment to justice and progressive political causes and pursued an honest and open political system both here and in his native country of Bangladesh. As a young man, he organized a union of Dacca’s rickshaw drivers. He also fought as a combat officer in the 1971 Bangladesh revolution against Pakistan and spent hundreds of hours there, helping immigrants with problems that required advanced literacy to address.

He leaves behind a wife and a young son in New York, and brothers in Austria, Canada and Bangladesh.

Bernard Lee ’56 ’60ChE

Bernard Shing-Shu “Bernie” Lee 75, died on Nov. 7, 2010.

Born in China in 1934, Lee came to America in 1949. He received a bachelor’s degree in chemical engineering in 1956 and a PhD in chemical engineering in 1960, both from Polytechnic Institute of Brooklyn. He worked at Institute of Gas Technology in Chicago from 1965-1999, the final 21 years as its president. He served as director of Peerless Mfg. Co, National Fuel Gas Company, and NUI Corp, and on the advisory board of the Center for Applied Energy Research. He also served as advisor to Petronas in Malaysia, and Shanghai Gas Design Institute in China.

He is survived by his wife, Pauline; his children, Karen (David) Wang, Lesley (Greg) Purnell and Tania (Paul) Osmond; grandchildren Josiah, Jonathan, Matthew, Joseph, Timothy, Gabriel, Michael, Jenna and Elijah.
NYU-Poly Alumni Custom Visa® Platinum Rewards Card Makes Giving Easier than Ever!

There’s a new, convenient way for alumni to support the Polytechnic Institute Alumni Association (PIAA)... and it fits in your wallet!

The alumni association has joined forces with CardPartner.com to launch the PIAA Visa® Affinity Platinum Rewards credit card. When a cardholder activates the card, the PIAA receives $50. Then once a month for the life of the program, the association receives a check for a portion of every dollar that every cardholder charges.

Using the PIAA Visa Affinity Platinum Rewards credit card for everyday purchases is an easy way for alumni to support their alma mater and enhance programs that directly impact the lives of our alumni and future alumni of NYU-Poly. Thank you for choosing and using your card.

APPLY ONLINE at www.cardpartner.com/app/piaa.

E-mail alumni@poly.edu or call (718) 260-3885 to request an application.
MARK YOUR CALENDARS

FEBRUARY 2011

Alumni Gathering in San Diego, CA
Tuesday, February 1, 2011
An opportunity to network with other alumni in southern California. For full details, visit www.poly.edu/alumni

Alumni Gathering in Los Angeles, CA
Wednesday, February 2, 2011
An opportunity to network with other alumni in southern California. For full details, visit www.poly.edu/alumni

MOT Alumni Panel & Student Networking Event
Wednesday, February 9, 2011
6:00 pm, LC400
An opportunity for students to hear from a panel of MOT alumni, followed by a casual networking reception. Full details at www.poly.edu/alumni

MARCH 2011

Spring Career Fair
Wednesday, March 9, 2011
10:30 am - 3:30 pm
Every spring, NYU-Poly sponsors a career fair that brings together students, alumni, and potential employers. This event opens doors for students and alumni seeking internship and job opportunities, as well as professional development and networking opportunities. For more information, visit www.poly.edu/alumni

Alumni Gathering in Mountain View, CA
Wednesday, March 16, 2011 (tent)
Alumni in the Bay area are invited to a special event at the Computer History Museum. Full details at www.poly.edu/alumni

MAY 2011

Toast '11
Friday, May 20, 2011
A celebration of the Class of 2011 sponsored by the Polytechnic Institute Alumni Association. Full details at www.poly.edu/alumni

Alumni Weekend & Back to School Day
May 21 – 22, 2011
All alumni are invited to reconnect in Brooklyn in a celebration of NYU-Poly's rich history and promising future, featuring the Class of 1961 as they are inducted into the Golden Jubilee Society. Full details at www.poly.edu/alumni.

Polytechnic Institute Alumni Association Annual Meeting
Sunday, May 22, 2011

NYU-Poly's Commencement Exercises
Monday, May 23, 2011

For more information, or to register for alumni events, please visit www.poly.edu/alumni or call (718) 260-3885.
CABLE IS GOING ONLINE

With fewer print issues and expanded online content, Cable magazine is going green in a big way. Ensure you are getting this new interactive experience by updating your information – you’ll be entered to win an Apple iPad, and this small step will help our efforts to reduce Poly’s carbon footprint.

Just go to GoGreenPoly.org to find out how!
For more information call (718) 260-3885.