NJIT NEXT
STRATEGIC FOCUS:
ENHANCING THE CAMPUS

Physical improvements to the campus and its surrounding neighborhood are just the beginning of the strategic goals related to the quality of life on campus. The Campus Gateway Project remains one of NJIT’s key planning initiatives to improve the amenities available to the campus and local community. Other tactics to enhance the university experience include continuous curriculum improvement, streamlined administrative processes, and performing arts on campus.

NJIT officially gained occupancy of Central King Building (formerly Central High School) in mid-2010. Following a complete renovation, the building will house education at all levels, including pre-college programs. The university is already using 13 classrooms and a student lounge on the second floor. A task force will develop a vision for future utilization including smart-classroom technology, new telecom and computer networks, and upgrades for lighting and temperature control.

“The Art of Invention,” an exhibit featuring the sculpture of American artist Daniel A. Henderson, brought fine art to the NJIT campus during 2011 as part of an effort to bring arts experiences to the University Heights area. Henderson, an inventor and entrepreneur, has created a body of work to explore the viral allure of technology and its unintended consequences.

Vincent J. Naimoli, ’62, and his wife, Lenda (right), were honored for their continuing support of NJIT at the dedication of the university’s newest building, the Naimoli Family Athletic and Recreational Facility. The facility has more than doubled the amount of space available for recreational sports, intramurals, athletic practice sessions, intercollegiate tennis matches, and other university activities. It features a floor surface suitable for indoor tennis, soccer, cricket and other athletic activities.

NJIT student government leaders worked with NJ Transit and the Newark Preservation and Landmarks Committee to design and install display tiles in the newly-named Warren St./NJIT stop on the Newark light-rail system so as to better connect the subway stop to NJIT’s campus.

Excellence by Design
At NJIT’s College of Architecture and Design, students get real-world experience by participating in regional and national competitions and exhibiting their work at trade fairs.

NYC Design Week in which they designed a bench with Brooks Atwood, assistant professor of industrial design, and designer Marc Thorpe. The bench was fabricated during those three days on site by a group of fabricators and is currently being considered by the Cooper-Hewitt Design Museum to become part of their permanent collection.

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Industrial design students Sara Jane Rin and Avrami Rakovsky participated in a three-day workshop during
**COMING SOON:**

**WARREN STREET VILLAGE**

Ground will be broken this spring for the [Warren Street Village](below), an $80-million residential complex that includes the six-story [Dorman Residential Honors College](below) as well as five duplex homes that will house 10 or more Greek organizations. Scheduled for completion by fall of 2013, the complex will be funded by the university with an Economic Development Authority urban transit tax hub credit.

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**Excellence by Design**

Dominika Tarkowska and Gary Einloth, both 2011 graduates in industrial design, were among the group who represented the School of Art + Design at the International Contemporary Furniture Fair in New York. Gary had his own booth adjacent to NJIT’s to launch his new company, PIJPJoJ, specializing in art-inspired furniture.

The chair in the photo is one of Gary’s creations. Industrial design student Dominika Tarkowska was accompanied by her mentor, Dr. Anthony Rizzuto, School of Art + Design. The two received the Excellence in Design Award at the fair.

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Excellence by Design
The Dorma n Residential Honors College (left) will house residences for 360 students, studio apartments for visiting fellows and guests, computer lab, library, a student lounge and administrative offices, as well as three studios designed for interdisciplinary research. The first floor will include a restaurant, convenience store and fitness center to be operated by private vendors.

The Village, to be located on the site of a parking lot at Warren Street and Raymond Boulevard, will include five three-story brick homes that will house 240 students in Greek organizations. The complex will have its own courtyard and green space for outdoor events and informal sports.

ASSISTING ECONOMIC DEVELOPMENT

As New Jersey’s science and technology university, NJIT has always had a vital role in the state’s economy, through education of skilled professionals needed for a knowledge-based economy; in research into cutting edge technologies and partnerships with industry that help to create new industries; and in outreach programs like the Enterprise Development Center, New Jersey’s oldest and largest high-tech small business incubator. In keeping with the state strategic plan, the university is working to expand its role in economic development.

- With an eye toward expanding industry partnerships and collaborations, university officials have been meeting with the leadership of AECOM, Barnabas Health Care System, Merck, NeST and Panasonic companies.
- To enhance strategic research areas and accommodate enrollment growth, the NJIT Board of Trustees has directed the hiring of 12 tenure-track professors and nine university lecturers for fall 2012.

FOSTERING INNOVATION AND ENTREPRENEURSHIP

Recognizing innovation as a key factor in economic development, NJIT has recently launched several programs designed to teach students how to develop their own ideas into businesses:

Gaining Private Support

One of the biggest challenges facing public universities is funding as state support continues to diminish. State appropriation now covers barely a quarter of the university’s operating budget, making private support critical to the university’s growth and development. Despite a poor economy, NJIT has had promising results in the first stages of its planned comprehensive campaign, securing gifts totaling more than $62 million.

John Hartmann ’51 and his wife Helen (above) supported NJIT throughout their lives with gifts to the Annual Fund and several gift annuities. When John passed away in 2010, Helen made a gift of $600,000 in his memory. When Helen died in 2011, the university learned that the Hartmanns had willed virtually their entire $5 million estate to NJIT.

Honored at Celebration 2011 (below), the university’s annual black-tie event were: John M. Dionisio, president and CEO of AECOM Technology Corporation, accepting the Outstanding Corporate Partnership Award on behalf of AECOM; Ying Wu, ’88, chairman of China Capital Group, receiving the Edward F. Weston Medal for Professional Achievement; Lawrence A. Raia ’65, principal and executive officer of Raia Properties Corporation, awarded the President’s Medal for Life-time Achievement; and Richard S. Bowles III, PhD, executive vice president and chief ethics and compliance officer of Merck & Co., named Special Friend of the University.

A recent TEDx conference featured Human-Computer Interaction major Matt Bischoff (right), who has his own successful start-up called Lickability, and was recently hired by The New York Times as a mobile software engineer.
The Innovation Acceleration Center also sponsored a recent TEDx conference featuring Matt Bischoff, an NJIT student with his own successful start-up called Lickability. Bischoff founded Lickability, an app development company, with fellow student Andrew Harrison, an Information Technology major. Earlier this year the two released an iPhone app, Quotebook, which was Apple’s 5th best-selling app in the Reference Category. Bischoff, a Human-Computer Interaction major, was recently hired by The New York Times as a mobile software engineer.

The Interdisciplinary Design Studio at Albert Dorman Honors College allows teams of students to develop a project over several years, from concept, through research, design, prototyping, and potential commercialization. Teams of four students from several majors work independently in consultation with a faculty advisor and an industry mentor. The program got underway this year with six teams who proposed such innovative projects as AutisMind, interactive learning toys for autistic children, and SmartGuardian, a smart living environment for the elderly with built in health monitors. Biomedical engineering major Kevin Ly is developing a glucose monitor device for diabetics. The device clips onto the ear and uses infrared light to measure glucose levels.

NJIT’s Innovation Acceleration Center, directed by Michael Ehrlich, professor of business, and Judith Sheft, associate vice president for technology development, sponsored the 3rd annual Newark Innovation Acceleration, a competition for students from Newark-based schools for the best early-stage business plan. First prize went to Kevin Ly for his glucose monitor. Second place was taken by civil engineering major Asim Zaman, who is designing fuel cells that convert household garbage and organic waste into electricity.

Gaining Private Support

NJIT recently honored two long-term benefactors to the Albert Dorman Honors College. Gilbert Glass, ’41 (left in photo above), chats with Dorman Honors scholars at the dedication of the Gilbert Glass Library. Benefactor Roberta Renard with Charles R. Dees, Jr., PhD, vice president for university advancement (below), at the dedication ceremony for The Roberta Renard Student Council Office.

Excellence by Design

Kristen Cianrella (below) was awarded the top prize of $1,500 for her “Wave Collection” in a table-top design competition sponsored by Cambridge Silversmiths, Ltd. of Fairfield, NJ for the second-year industrial design studio. Honorable mention awards of $500 each were awarded to Jeffrey Groves and Jabeen S. Ali. The studio is taught by Adjunct Professor Ran Lerner, principal of Ran Lerner Design in New York City.

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ENRICHING THE LEARNING EXPERIENCE

Hands-on, real world experience with the most advanced technologies and science has long been a hallmark of education at NJIT. During 2010-11, 382 students took co-op assignments and internships in industry. Another 335 worked with start-up companies in NJIT’s Enterprise Development Center. More than 1,500 participated in community service projects.
Digital ‘Everyware’ is NJIT’s name for the ubiquitous computing that has changed everything about life in the 21st century, from the way we work and learn to the way we interact with each other. NJIT researchers are working to create the tools to help the digital world function and to evaluate the impact of new technologies on society. They represent virtually every discipline and study every conceivable application:

- Faculty and students at the School of Management have been using the school’s new Bloomberg Terminal to study up-to-the-minute financial data on nearly every market in the world. Assistant Professor of Management Michael Ehrlich has been looking at evidence of financial bubbles, while Assistant Professor Ron Sverdlow has been studying credit default swaps to determine market estimates of default probabilities. Assistant Professor Alan Yan has introduced the technology to his students, and more than 30 have become “Bloomberg Certified,” an important credential in the workforce.

- Sergei Adamovich, associate professor of biomedical engineering, leads a research team that is helping stroke patients regain use of their hands and arms through innovative robotic and virtual reality-based video game therapies. His team’s work was featured in 2011 in the Journal of the American Medical Association.

- NJIT’s ADVANCE Project, led by Nancy Steffen-Fluhr, associate professor of humanities, is pioneering the use of social network mapping to help female faculty advance in their careers. With funding from the National Science Foundation, the project is developing network mapping tools to help women researchers locate potential research collaborators.

- Mathematics Professor Eliza Michalopoulou uses mathematical modeling and signal processing to help the Navy detect submarines in coastal areas. With colleagues from the Scripps Institution of Oceanography, she developed new methods for localization of sound sources and estimation of properties of the ocean seabed. The study appeared in the IEEE Journal of Oceanic Engineering.

- Yeheskel Bar-Ness, distinguished professor of electrical and computer engineering and director of NJIT’s Center for Communications and Signal Processing, leads a research team that is developing the infrastructure to enable the next generation of wireless telecommunications. The group addresses such issues as privacy and security, interference and jamming, ever-heavier user traffic, and rapid transmission of data through wireless networks. He gained three new patents in 2010-2011.