



# NJIT

New Jersey Institute  
of Technology



## Graduate Studies at **NJIT**



## Message from the Vice Provost for Graduate Studies

**T**hank you for your interest in New Jersey Institute of Technology's graduate programs. We realize that selecting a university to further your higher education is an important decision that requires careful review of all an institution has to offer—especially considering today's highly competitive job market.

The value of graduate degrees, as well as graduate certificates, cannot be underestimated when it comes to career advancement. Graduate study is in fact often essential for landing well-paying positions in science, engineering, business and architecture, which is exacerbated further for emerging fields such as nanotechnology, big-data analytics, advanced computing and communications, and intelligent transportation systems that continuously push technology forward by relying on novel thought, design and implementation. Graduate-level education and experience also cultivate leadership qualities and are increasingly sought by businesses of all sizes in a range of industries. Graduate degrees contribute to personal growth as well, providing opportunities for self-discovery that enhance professional acumen.

NJIT features a robust academic environment that engages graduate students in advanced study and innovative real-world research, preparing them for professionally and financially rewarding careers. NJIT ranks eighth in alumni earning potential and our graduates have joined such business and industry giants as AT&T, IBM, Qualcomm, Exxon-Mobil, Amazon, Google, Mercedes-Benz and Pfizer.

You can choose from among our more than 55 M.S. programs (including online programs), 19 Ph.D. programs and about 45 certificate programs that cover the most progressive specialties in engineering, computing, management, architecture and science. Our Ph.D. program at NJIT's Martin Tuchman School of Management, for example, is one of just a few in the country to focus on big data analytic processes applied to business applications. And many of our certificate programs center on emerging fields, such as big data, intelligent transportation systems, environmental science and engineering, polymers and plastics, hydrology and water resources engineering, neuroscience, financial technology, biomedical device development, supply chain engineering, information security and pharmaceutical management.

NJIT is a leading public research university that continues to garner multimillion-dollar support from notable federal- and state-funding agencies that include the National Science Foundation and National Institutes of Health. This funding affords our graduate students ample opportunity to work side by side with faculty on groundbreaking research initiatives.

NJIT also offers a culturally diverse learning and social environment. Our campus is ideally located in a powerhouse corporate corridor in New Jersey and in close proximity to New York City. Our flexible education modes, from classroom to online to hybrid instruction, coupled with our affordability and value, cited by both BuzzFeed.com and *Bloomberg Businessweek*, have helped make us the university of choice for thousands of graduate students each year.

We appreciate you considering NJIT for your graduate study and hope that you will enroll in one of NJIT's graduate programs!

Sotirios G. Zivras, D.Sc.  
Vice Provost for Graduate Studies &  
Dean of the Graduate Faculty



## About NJIT

NJIT was established in 1881 to address the growing demands for technical education during the industrial revolution. Well over a century later, NJIT stands as a leader of excellence in higher-education instruction and research, and is the only public technology university in the New York-New Jersey metropolitan area.

Our 45-acre campus houses five schools: Newark College of Engineering, College of Architecture and Design, College of Science and Liberal Arts, Martin Tuchman School of Management and Ying Wu College of Computing. Newark College of Engineering ranks among the top 100 engineering schools in the nation, and both the School of Architecture and Martin Tuchman School of Management are accredited. Graduate courses may also be offered through online and distance-learning programs and at off-campus extension sites. Certificate programs, many in emerging fields of technology, and cooperative arrangements with other universities in the region, are available as well.

NJIT boasts a continually growing graduate-student body that represents more than 100 countries, and comprises nearly one-third of the university's entire student population.

Backed by cutting-edge, multidisciplinary research laboratories, NJIT continues to respond to state, federal and industrial initiatives to solve pressing contemporary problems while encouraging economic development. Research focuses on a range of areas that includes environmental protection, advanced manufacturing, traumatic brain injury, nanotechnology, big data and cybersecurity.

NJIT has been cited repeatedly for its value, affordability

and quality education. It has been listed among *Princeton Review's Best Colleges*, the top 10 percent for return on investment by *Bloomberg Businessweek*, and the top 25 for online master's programs in engineering by BestColleges.com.

## About Newark and the New York/ New Jersey Metropolitan Area

NJIT is situated in the University Heights section of Newark, a major urban center that is also home to Rutgers University-Newark, Seton Hall Law School and Essex County College, as well as Fortune 500 companies, industry giants and leading financial and engineering firms. Many NJIT graduate students commute from nearby Harrison, Kearny and Jersey City.

Newark is a culturally rich and diverse community offering a variety of leisure activities. Its revitalized downtown features art galleries, restaurants and shopping. Visitors and residents also have access to such attractions as The New Jersey Performing Arts Center, Newark's Symphony Hall, The Newark Museum and Newark's Branch Brook Park.

Other nearby attractions include Liberty Science Center in Jersey City, MetLife Stadium in East Rutherford, and Jersey Gardens Outlet Center in Elizabeth. To the south is the beauty of the Jersey Shore and to the north, just 20 minutes from Newark via public transportation, is the bustle of New York City.

For more information, go to:

- [newarkhappening.com](http://newarkhappening.com)
- [nycgo.com](http://nycgo.com)
- [state.nj.us](http://state.nj.us)

## MARTIN TUCHMAN SCHOOL OF MANAGEMENT ALUMNUS



### James Schworn EMBA '06

As deputy chief of Light Rail and Contract Services for New Jersey Transit in Newark, James Schworn is responsible for the daily operations of all light rail operations as well as private carriers for bus, ferry and paratransit service. He chose NJIT's EMBA program for its strong business curriculum with its focus on technology, its flexibility and its affordability. James appreciated the small classes, the diversity of his fellow students and an environment he describes as dynamic and "extremely conducive to learning." He remembers driving to NJIT on Saturday mornings and feeling excited to go to school again. James, who also teaches International Business at NJIT as an adjunct instructor, is confident his NJIT education contributed to his career progression and success.



COLLEGE OF  
ARCHITECTURE  
& DESIGN



COLLEGE OF  
SCIENCE &  
LIBERAL ARTS



MARTIN TUCHMAN  
SCHOOL OF  
MANAGEMENT



NEWARK COLLEGE  
OF ENGINEERING



YING WU  
COLLEGE OF  
COMPUTING

## NJIT Graduate Degree Programs

### ■ College of Architecture and Design

Since its founding in 1973, the College of Architecture and Design (CoAD) has continuously expanded its academic, research and technical strengths, and further broadened design education at NJIT through degree programs in urban studies (Infrastructure Planning and Urban Systems), digital design, industrial design and interior design. Situated in one of the largest metropolitan areas in the world, CoAD is an ambitious architecture and design school in which students and faculty enjoy unique opportunities to participate in a wide range of design platforms: multidisciplinary applied research and design projects across the globe. They have an opportunity to engage architecture from the micro-scale to city-scale. CoAD prepares students for a plethora of options beyond traditional architecture and design career paths.

CoAD is accredited by the National Architecture Accreditation Board at both the graduate level and undergraduate level, the Council on Interior Design Accreditation and the National Association of Schools of Art and Design. An exceptional faculty challenges students and offers different perspectives using the latest digital tools and progressive design methodologies. The College offers bachelor's, master's and doctoral degree programs as well as dual degrees both within the college and with other disciplines at NJIT.

#### Areas of Study and Degrees

- Master of Architecture (M.Arch.)
- Master of Science in Architecture (M.S.Arch)
- Master of Infrastructure Planning (MIP)
- Urban Systems (Ph.D.)
- M.Arch. and MIP (dual master's degree program)
- M.Arch. and Civil Engineering (M.S.C.E., dual master's-degree program with Newark College of Engineering's Department of Civil and Environmental Engineering)
- M.Arch. and Master of Science in Management (M.S.Mgmt, dual master's-degree program with the Martin Tuchman School of Management)

#### For more information:

973-596-3080 / frederick.a.little@njit.edu / design.njit.edu

### ■ College of Science and Liberal Arts

The College of Science and Liberal Arts (CSLA) is dedicated to instruction in the mathematical, physical and biological sciences as well as traditional liberal-arts disciplines. CSLA is home to internationally renowned research centers and award-winning researchers, and partners with departments throughout NJIT to explore emerging frontiers and expand interdisciplinary initiatives in a diverse range of areas that include genomics, neuroscience, ecology, biomechanics, solar physics, photonics, environmental science, industrial mathematics, technical communication and social media. Students learn how to formulate significant questions about the world, think analytically, and express ideas and solutions with clarity and precision.

#### Areas of Study and Degrees

- Applied Mathematics (M.S.)
- Applied Physics (M.S. & Ph.D.)
- Applied Science (M.S.)
- Applied Statistics (M.S.)
- Biology (M.S. & Ph.D.)
- Biostatistics (M.S.)
- Chemistry (M.S. & Ph.D.)
- Computational Biology (M.S.)
- Environmental and Sustainability Policy (M.S.)
- Environmental Science (M.S. & Ph.D.)
- History (M.S.)
- Materials Science & Engineering (M.S. & Ph.D.)
- Pharmaceutical Chemistry (M.S. with a Professional Option in Biotechnology)
- Professional and Technical Communication (M.S.)

#### For more information:

973-596-3676 / csla@njit.edu / csla.njit.edu

### ■ Martin Tuchman School of Management

The rapid convergence of technology into business has created demand and opportunities for a new generation of management professionals, corporate leaders and academic scholars. Within its STEM-based academic environment, NJIT's Martin Tuchman School of Management delivers distinctive, highly valued academic programs that are business focused, technology integrated and experientially

driven to educate and prepare students to not only be competitive in today's business world, but also to excel and be leaders in the future. The school is accredited by The Association to Advance Collegiate Schools of Business (AACSB), the highest standard of excellence for business schools globally.

### Areas of Study and Degrees

#### Master of Science in Management (M.S.M.) Specializations:

- Business Analytics
- Financial Technology
- Global Project Management
- Web Systems and Media Management

#### Master of Business Administration (MBA) Specializations:

- Finance
- Healthcare Management
- Innovation and Entrepreneurship
- Management Information Systems
- Marketing
- Custom
- STEM-MBAs (accelerated B.S./MBA programs offered jointly with STEM disciplines; launching Fall 2016 with engineering)

#### Doctorate in Business Data Science (Ph.D.)

Executive Master of Business Administration (EMBA)  
(tailored for busy professionals seeking career advancement without career disruption; 48 credits over 18 months of Saturdays)

#### For more information:

973-596-8477

[lilia.a.lozarito@njit.edu/management.njit.edu](mailto:lilia.a.lozarito@njit.edu/management.njit.edu)

## ■ Newark College of Engineering



One of the oldest and largest professional engineering schools in the United States, Newark College of Engineering (NCE) at NJIT emphasizes design as the

ultimate objective of engineering education. The College provides extensive hand-on experience supported by the exploration and exploitation of the newest and most scientifically advanced methods. NCE faculty and students conduct research and development in key areas of public need, including transportation, automated manufacturing and robotics, clean energy, computing and computer networks, medical imaging and instrumentation and nanotechnology. *U.S. News & World Report* ranks NCE among the country's top 100 engineering schools.

### Areas of Study and Degrees

- Biomedical Engineering (M.S. & Ph.D.)
- Biopharmaceutical Engineering (M.S.)

- Chemical Engineering (M.S. & Ph.D.)
- Civil Engineering (M.S. & Ph.D.)
- Computer Engineering (M.S. & Ph.D.)
- Critical Infrastructure Systems (M.S.)
- Electrical Engineering (M.S. & Ph.D.)
- Engineering Management (M.S.)
- Environmental Engineering (M.S. & Ph.D.)
- Healthcare Systems Management (M.S.)
- Industrial Engineering (M.S. & Ph.D.)
- Internet Engineering (M.S.)
- Manufacturing Systems Engineering (M.S.)
- Mechanical Engineering (M.S. & Ph.D.)
- Occupational Safety & Health Engineering (M.S.)
- Pharmaceutical Engineering (M.S.)
- Pharmaceutical Systems Management (M.S.)
- Power & Energy Systems (M.S.)
- Telecommunications (M.S.)
- Transportation (M.S. & Ph.D.)

#### For more information:

973-596-6506 / [nce@njit.edu](mailto:nce@njit.edu) / [nce.njit.edu](http://nce.njit.edu)

## ■ Ying Wu College of Computing

Established in 2001, Ying Wu College of Computing was one of the first colleges devoted entirely to computing in the country. Its establishment reflected NJIT's recognition of the central role of computing in all facets of the modern world—including science, business, design and culture. The College features small class sizes and an exceptionally broad curriculum and array of course offerings, with degree programs in all of the major domains of computing. The college has a renowned faculty with funded research in cybersecurity and privacy, big data, bioinformatics and other areas, providing graduate students with many opportunities to combine classroom studies with research. It has extensive ties to industry and government partners in the New York/New Jersey area, from startups to global enterprises, which enable the development of professional connections.

### Areas of Study and Degrees

- Bioinformatics (M.S.)
- Business & Information Systems (M.S.)
- Computer Science (M.S. & Ph.D.)
- Cyber Security and Privacy (M.S. with a Professional Option in Cyber Defense)
- Data Science (M.S.)
- Information Systems (M.S. with a Professional Option in Professional Management, & Ph.D.)
- Information Technology Administration Security (M.S. with a Professional Option in Professional Management)
- Software Engineering (M.S.)

#### For more information:

973-596-5304 / [computing@njit.edu](mailto:computing@njit.edu) / [computing.njit.edu](http://computing.njit.edu)

# NJIT Graduate Degree Programs

## Professional Science Master's Degree Programs



Earn targeted science or technology industry understanding, and gain the tools to lead in today's competitive world. NJIT's tracks

for professionals in master's degree programs provide the topical expertise in addition to training in management, communications and finance.

- Cyber Security and Privacy: PSM Cyber Defense Option (M.S.)
- Pharmaceutical Chemistry: PSM Biotechnology Option (M.S.)
- Information Systems: PSM Professional Management Option (M.S.)

## Graduate Certificate Programs

Certificates have become a common postsecondary award in the U.S., and *The Washington Post* reports that certificates can boost earnings by up to 25 percent. Certificate programs provide advanced learning that promotes greater productivity in current occupations, acquisition of new knowledge for career advancement or transition, and a feel for a field of study before committing to a master's degree.

NJIT offers 12-credit Graduate Certificates for lifelong learners and busy professionals interested in a stand-alone credential or a master's degree. Credits earned from an NJIT certificate program may be applied toward master's study at the university. Certificate programs at NJIT, which have been recognized by the American Council of Graduate Schools, can be completed in one year and most are available online.

### Areas of Study

- Applied Science\*
- Applied Statistics Methods
- Big Data Essentials
- Biomedical Device Development
- Biostatistics Essentials
- Biotechnology
- Business and Information Systems Implementation\*
- Clinical Trials: Design and Analysis
- Construction Management\*
- Data Mining\*
- Digital Marketing Design Essentials\*
- Environmental Science
- Environmental Engineering
- Environmental Science and Engineering

- Finance for Managers
- Financial Mathematics
- Financial Technology
- Hydrology and Water Resources Engineering
- Information Security\*
- Instructional Design, Evaluation and Assessment\*
- Intelligent Transportation Systems
- IT Administration\*
- Management Essentials\*
- Management of Technology\*
- Network Security and Information Assurance\*
- Neuroscience
- Pharmaceutical Management\*
- Pharmaceutical Technology\*
- Polymers and Plastics
- Power Systems Engineering\*
- Project Management\*
- Quantitative Finance\*
- Quantitative Tools in Finance\*
- Social Media Essentials\*
- Software Engineering Analysis and Design\*
- Supply Chain Engineering
- Technical Communication Essentials\*
- Transportation Studies\*
- User Experience Essentials\*
- Web Systems Development

\*Available online

For more information:

973-596-3300 / [graduatestudies@njit.edu](mailto:graduatestudies@njit.edu)  
[njit.edu/graduatestudies](http://njit.edu/graduatestudies)

## Online Master's Degree Programs

- Master of Business Administration (MBA)
- Master of Science in Applied Science
- Master of Science in Business and Information Systems
- Master of Science in Civil Engineering
- Master of Science in Computer Science
- Master of Science in Computing and Business
- Master of Science in Electrical Engineering
- Master of Science in Engineering Management
- Master of Science in Industrial Engineering
- Master of Science in Information Systems
- Master of Science in IT Administration & Security
- Master of Science in Management
- Master of Science in Power and Energy Systems
- Master of Science in Professional and Technical Communication
- Master of Science in Transportation

# Research Facilities

NJIT is a leader in interdisciplinary applied research that encourages partnership among various disciplines, as well as with other educational institutions, private enterprise and government organizations. The university boasts cutting-edge, multidisciplinary research laboratories in hot areas like traumatic brain injury, sensing and biomedical devices, neuroscience, tissue engineering, materials science and nanotechnology, mechatronics, big data analytics, cybersecurity, financial bubbles, resilient design, wireless communications and networking, transportation systems, solar-terrestrial science and more. With research expenditures exceeding \$140 million and ongoing support from notable federal- and state-funding agencies and the private sector, NJIT continues to build its research initiatives and looks to engage more graduate students for experiential investigative study.

## HIGHLIGHTED CENTERS AND LABS

*Life Sciences and Engineering*

### **Center for Injury Biomechanics, Materials and Medicine (CIBM3)**

**Namas Chandra, Director**



The Center for Injury Biomechanics, Materials and Medicine (CIBM3) is a multi- and interdisciplinary research center focused on understanding, diagnosing and treating brain injuries and concussions using experimental and computational methods. It is involved in both Traumatic Brain Injury (TBI), a major concern among U.S. soldiers and veterans, and Mild TBI and concussion in sports injuries. The center uses animal models and mechanical surrogates to examine the role of blast pressures and the height of falls to relate insult to

injury to medical outcomes, and studies what type of helmets, pads and configurations offer the right protections to soldiers and players.

*Sustainable Systems and Manufacturing*

### **Center for Natural Resources Development and Protection**

**Michel Boufadel, Director**



The Center for Natural Resources Development and Protection (NRDP) investigates sensible approaches to environmental and energy resource utilization. Research projects at the NRDP Center include assessment and remediation studies of pollution in natural settings and the evaluation of natural resources for the potential production of energy, especially the production of renewable energy.

# Research Facilities

## HIGHLIGHTED CENTERS AND LABS

### *Data Science and Information Technologies*

#### **Space Weather Research Laboratory, Center for Solar-Terrestrial Research**

Haimin Wang, Director



The Space Weather Research Laboratory in the Center for Solar-Terrestrial Research investigates how space weather affects the magnetic fields around the earth, composition of the atmosphere, communications, safety of astronauts, power grids and even oil pipes. Working with NJIT's Department of Computer Science, the laboratory has developed an algorithm that can detect and classify solar activities such as flares and solar prominences efficiently and automatically.

### *Life Sciences and Engineering*

#### **Neuroecology of Unusual Animals Laboratory**

Daphne Soares, Director

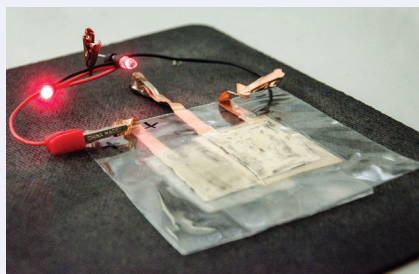


The Neuroecology of Unusual Animals Laboratory studies the synthesis of neuroethological and ecological principles to understand the evolution of neural adaptation. The laboratory's three-pronged research approach examines the evolution of circuitries, molecular mechanisms of behavior and sensory novelty. This integrative approach links a detailed characterization of the environment with the anatomy and function of neural systems within a phylogenetic context.

### *Sustainable Systems and Manufacturing*

#### **Analytical Chemistry and Nanotechnology Laboratory**

Som Mitra, Director



The Analytical Chemistry and Nanotechnology Laboratory focuses on the fields of analytical chemistry, nanotechnology and water treatment. In analytical chemistry, the laboratory is geared toward developing instrumentation for online and real-time monitoring analysis, environmental monitoring, field-portable instruments and microfluidic devices. In nanotechnology, researchers work on nanoparticles, particularly carbon nanotubes, in applications such as batteries and solar cells and chromatography stationary phases. In water treatment, work is related to defluoridation, arsenic removal and desalination.



## NJIT'S MAJOR RESEARCH CENTERS AND SPECIALIZED LABS INCLUDE:

### Life Sciences and Engineering

- **Center for Injury Biomechanics, Materials and Medicine (CIBM3):** Experiments and modeling of blast and blunt Traumatic Brain Injury (TBI).
- **Engineering Research Center for Structured Organic Particles:** Particle technology to improve the way pharmaceuticals, foods and agriculture products are manufactured.
- **Center for Membrane Technologies:** Micro- and nanoporous filters for medicine and pharmaceutical manufacture.
- **Rehabilitation Engineering Research Center:** Neurorehabilitation and robotics and virtual reality rehabilitation.
- **Neural Interface Laboratory:** Interfaces with the central nervous system to record volitional control signals and microstimulate the spinal cord to improve the motor function after injury.
- **Stem Cells and Tissue Engineering Lab:** Natural biopolymer, micropatterning techniques.
- **Swarm Lab:** Mechanisms underlying the coordination of large animal groups.
- **The Vision and Neural Engineering Lab:** Oculomotor dynamics and vergence eye movements.
- **Neuroecology of Unusual Animals Laboratory:** Studies the synthesis of neuroethological and ecological principles to understand the evolution of neural adaptation.

### Sustainable Systems and Manufacturing

- **York Center for Environmental Engineering and Science:** Hazardous substance management, pollution remediation and prevention, and sustainable manufacturing.
- **New Jersey Center for Engineered Particulates:** Tailored particle coatings for pharmaceuticals, food, cosmetics, ceramics, defense, electronics and specialty chemicals.
- **Center for Natural Resources Development and Protection:** Field, analytic and computational studies of techniques for dealing with coastal pollution and storm-water management.
- **Membrane Science, Engineering and Technology (MAST) Center:** Development of specialized membrane technology for energy production, water treatment, pharmaceutical purification and chemical processing.



# Research Facilities

- **Microelectronics Fabrication Center:** Application-specific integrated circuits, optical switches, pressure sensors and MEMS for biomedical, biometrics and microfluidics application.
- **Center for Building Knowledge:** Educational facilities, health care and aging environments, developmental disabilities planning, historic preservation, housing and community development.
- **Center for Resilient Design:** Ready-to-build designs and expertise for smarter, more sustainable designs in areas affected by natural and man-made disasters.
- **Analytical Chemistry and Nanotechnology Laboratory:** Online process analysis, environmental monitoring, portable instruments for onsite environmental measurement.
- **W.M. Keck Laboratory:** Manipulation of liquid flows and the small particles/microorganisms they transport in biological and biomedical technologies.
- **The Idea Factory:** Provides an interdisciplinary hub in which individuals from the design and architecture disciplines as well as the STEM fields can explore ideas, prototypes, products and proprietary designs.

## Data Science and Information Technologies

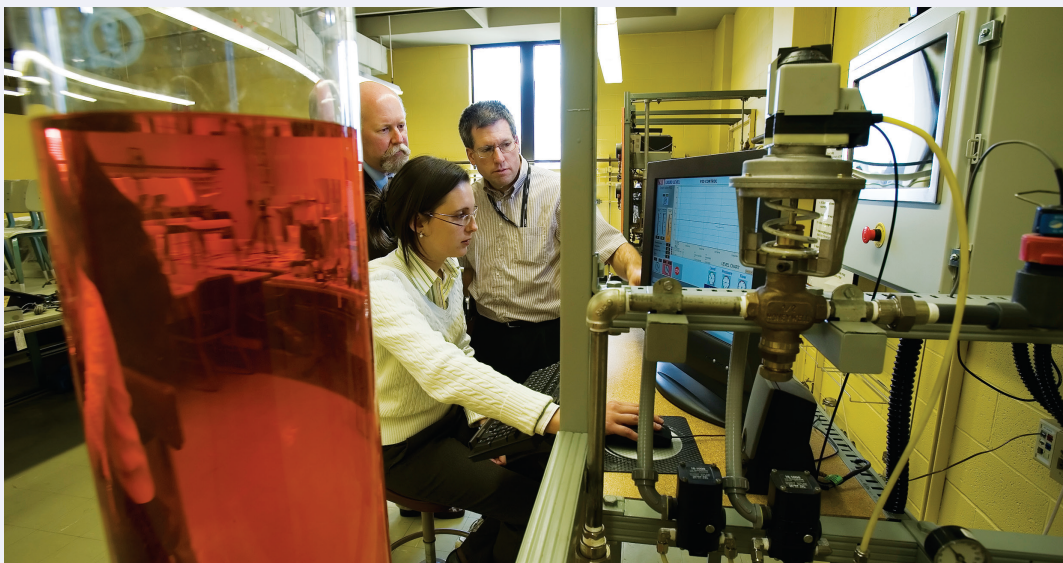
- **Center for Wireless Communications and Signal Processing Research:** Multi-carrier systems, turbo coding techniques, ultra-wideband communications and MIMO systems.
- **Cybersecurity Research Center:** Designing secure cyber systems and improving or fixing the cyber infrastructure that has already been deployed.
- **Data and Knowledge Engineering Laboratory:** Data mining, bioinformatics and computational biology.
- **Center for Big Data Analytics:** Features focused research to investigate, develop and apply cutting-edge technologies to address unprecedented challenges in big data with high volume, high velocity, high variety and high veracity in order to create high value.
- **Center for Solar-Terrestrial Research:** Solar optical astronomy, solar radiophysics, terrestrial science. Operates the Big Bear Solar Observatory and Owens Valley Solar Array in California, the Jeffer Observatory in New Jersey, and the Automated Geophysical Observatories distributed across the Antarctic ice shelf.
- **Center for Computational Heliophysics:** New innovative approaches, including development of intelligent databases, automatic feature identification and classification, realistic numeric simulations based on first physics principles, and observational data modeling.
- **Leir Center for Financial Bubble Research:** Quantitative and qualitative research to determine how a financial bubble can be identified, including its stages of development and what policies can best manage its impacts.
- **Structural Analysis of Biomedical Ontologies Center:** Medical terminologies and ontologies.
- **LIXIN-NJIT Economic Risk Early Warning Center:** Methodologies of early warning for studying macroeconomic risk, industry risk identification and early warning, bank liquidity risk warning index system, and bank credit risk and internal credit rating.
- **Advanced Networking Laboratory:** Improving the performance, dependability and trustworthiness of telecommunications networks.
- **electronic Arts Habitat (eArth):** Multimedia, social computing and human-computer interaction.

## Transdisciplinary

- **Center for Applied Mathematics and Statistics:** Mathematical biology, fluid dynamics and wave propagation.
- **Intelligent Transportation System (ITS) Resource Center:** Assists the New Jersey Department of Transportation in developing and implementing a comprehensive ITS management strategy.
- **National Center for Transportation and Industrial Productivity:** Freight movement at domestic and international gateways, global competitiveness and intermodal passenger and freight transportation systems.
- **North Jersey Transportation Planning Authority:** Maintaining and improving transportation systems.
- **Transportation, Economic and Land Use System (TELUS):** Computerized transportation planning and programming.

## Small Business and Entrepreneurship

- **Enterprise Development Center (EDC):** EDC companies have access to NJIT facilities and can partner with researchers to help grow their business.
- **New Jersey Innovation Acceleration Center:** Offers student, faculty and community-based entrepreneurs access to training and other resources.
- **NJIT Procurement Technical Assistance Center:** Provides contractual and technical assistance to small, established New Jersey businesses interested in marketing their products/services to federal, state and local government agencies.
- **ManufactureNJ:** NJ Talent Network focusing on the specific needs of other key industries including Financial Services, Health Care, Transportation, Logistics, Distribution, Life Sciences, Hospitality and Retail, and Technology and Entrepreneurship.
- **The Social Interaction Lab:** Develops novel technologies for positive social interaction and understanding how people use social technologies such as social media, mobile phones and multiplayer games.





## Careers, Co-ops and College Life

### CAREER DEVELOPMENT SERVICES

NJIT's Career Development Services assists students with career planning and personal/professional development, and provides career counseling to NJIT alumni. The division focuses on workforce readiness and employer engagement through a comprehensive slate of services that includes:

- Career Advisors
- Resource Center
- Workshops and Seminars
- Career Fairs
- On-Campus Interviews with Prospective Employers
- Continuing Career Counseling for NJIT Alumni

### GRADUATE COOPERATIVE EDUCATION

More and more employers are maximizing a return on their training and development investment by converting co-op students into full-time employees. The Cooperative Education Program at NJIT enables graduate students to tap into this wellspring of opportunity through paid professional work experiences before graduation that align with their classroom studies, research activities and career aspirations. Once a student has been placed with an employer, an NJIT faculty serves as a liaison to ensure the co-op meets specific educational and experiential requirements. Co-op assignments are secured through Career Development Services, and most are located in the New York/New Jersey metropolitan area.

Nearly 2,600 companies, from large multinationals to small startups both in the U.S. and overseas, have hired NJIT students for co-ops over the past decade. Recent



employers include AT&T, ADP, Johnson & Johnson, L'Oreal, MTA Transit, Novartis, Panasonic, UPS and Verizon. NJIT also has cooperative arrangements with other universities in the region.

### OFFICE OF GLOBAL INITIATIVES

NJIT's Office of Global Initiatives provides international students with comprehensive, ongoing assistance in all

### COLLEGE OF SCIENCE AND LIBERAL ARTS ALUMNUS



#### Sean O'Malley

Ph.D. '09, Applied Physics

Sean O'Malley came to NJIT for its graduate research opportunities and fondly remembers the close-knit community of graduate students as well as the university's nurturing environment. Sean credits both his NJIT graduate degree and the NJIT pedigree with enabling him to follow a career path to academia. Today, Sean is a tenured associate professor in the Physics Department at Rutgers University-Camden, where he teaches a mix of introductory and upper-level physics courses to undergrads. While at NJIT, he completed

a National Science Foundation (NSF) fellowship using pedagogical techniques with Newark high school students. He recently received an NSF grant to advance teaching methodologies in undergraduate physics labs.



matters related to maintaining immigration status. It offers and oversees a range of programs and services throughout the year to ease students' adjustment to the NJIT community.

### STUDENT LIFE

NJIT is a diverse community committed to mutual understanding and respect for others. The Diversity Programs Office within the Center for Student Involvement initiates and supports activities that promote cultural competency among students.

NJIT's Graduate Student Association (GSA) represents

the interests of all graduate students in university affairs and offers numerous academic and social events. Students automatically become members once they are accepted into an NJIT graduate program.

The Murray Center for Women in Technology at NJIT has worked to ensure the sustainable advancement of NJIT women by facilitating individual growth, community interaction and institutional transformation. The center provides an array of career resources for women students, faculty and staff, including networking programs for both undergraduate and graduate students.

The NJIT campus features state-of-the-art facilities on 45 acres in the University Heights section of Newark. Students can take advantage of regularly sponsored lectures, seminars or cultural events, as well as more than 100 clubs and organizations serving a variety of interests. Intramural sports also are available, and the university's state-of-the-art, 220,000-square-foot Wellness and Events Center includes a fitness center, swimming pool, racquetball courts and more.

- **Housing Options**

NJIT features five residence halls offering fully furnished, air-conditioned rooms with high-speed Internet and cable television, along with laundry rooms and study lounges. Many NJIT graduate students prefer to live off campus,

### NEWARK COLLEGE OF ENGINEERING ALUMNUS



#### Vatsal Shah

**M.S. '09, Civil Engineering,  
Ph.D. '14 Civil Engineering**

Vatsal Shah fondly recalls his NJIT experience: having professors who taught real-world engineering, learning

how to apply classroom theory to professional practice, and working while learning in a booming metropolitan environment. He chose NJIT for its well-regarded engineering program and development of practical engineers. A recipient of several awards from national organizations, Vatsal says NJIT helped him establish himself within both the academic and professional communities. Today he manages the geotechnical group at Mott MacDonald in Iselin, N.J., as an associate and senior project engineer.

commuting from nearby Harrison, Kearny and Jersey City. These towns offer several affordable housing options. To find an apartment, visit [theobserver.com](http://theobserver.com), and also network with student groups on Facebook and through the GSA.

- **Transportation**

NJIT is easily accessed by car and the extensive mass-transportation system (bus, train, light rail, subway and PATH train) supporting the New York-New Jersey metro area. Additionally, Newark Liberty International Airport is just five miles from the NJIT campus. For more information, go to [njit.edu/visit](http://njit.edu/visit).

#### COLLEGE OF ARCHITECTURE AND DESIGN ALUMNUS



**Carol Hong**  
M.Arch. '12, MIP '13

Carol Hong remembers her time studying at NJIT as being “filled with passion” for exploring her creativity and intellectual application to problem-solving. She says that CoAD’s graduate program provided her with a diverse education and helped

make her more confident in her decision-making across various scales and project types. Carol came to NJIT after working as an architect for eight years. She chose the university based on its affordability as well as the experience of a good friend who found great success after earning his degree from CoAD. Today, Carol designs restaurants, private residences, wineries and more at BCV Architects in San Francisco. Her past experience includes design work at Tsao and McKown in Brooklyn, and at Gensler’s Shanghai office.

#### YING WU COLLEGE OF COMPUTING ALUMNUS



**Vignesh Kumar**  
M.S. '17, Computer Science

Vignesh Kumar decided to pursue his master’s degree in computer science at NJIT based on the university’s proximity to New York City as well as its respected reputation among employers. “The brand of NJIT is well known not just in the U.S., but also back home in India. I really can leverage this to work for any top tech employer,” said Vignesh, who came to NJIT after working at Amazon.com. While at the university, he had the opportunity to intern at another eminent company, Forbes.com, “an awesome learning experience” that involved him in web development and automation. Among his fondest memories of being a graduate student at NJIT is his job in the Admissions Office, where he remembers feeling welcome and having fun with friends and staff.

# NJIT Campus Map



- |  |  |   |
|--|--|---|
| 1. Parking Deck / Student Mall         | 13. Kupfrian Hall                            | 25. Albert Dorman Honors College  |
| 2. York Center                         | 14. Microelectronics Center                  | 26. Tiernan Hall  |
| 2a. Life Sciences & Engineering Center | 15. Faculty Memorial Hall                    | 27. Wellness & Events Center / WEC                                      |
| 3. Specht Building / Bookstore         | 16. Electrical & Computer Engineering Center | 28. Athletic Field  |
| 4. Weston Hall                         | 17. Laurel Residence Hall Extension          | 29. Cypress Residence Hall  |
| 5. Colton Hall                         | 18. Laurel Residence Hall                    | 30. Mechanical Engineering Center                                       |
| 6. Campbell Hall                       | 19. Oak Residence Hall                       | 31. Guttenberg Information Technologies Center / GITC / NJIT Makerspace |
| 7. Central King Building               | 20. Greek Way 05-07                          | 32. Redwood Residence Hall  |
| 8. Fenster Hall                        | 21. Greek Way 09-11                          | 33. Naimoli Family Athletic Center                                      |
| 9. Eberhardt Hall                      | 22. Greek Way 13-15                          |   |
| 10. Cullimore Hall                     | 23. Greek Way 17-19                          |   |
| 11. Central Avenue Building            | 24. Greek Way 21-23                          |   |
| 12. Campus Center                      |  |   |



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