

# **Annual Institutional Profile Report**

2024



Submitted to the
New Jersey
Office of the Secretary of Higher Education
by
The Office of Institutional Effectiveness
New Jersey Institute of Technology

September 2024



September 20, 2024

New Jersey Institute of Technology (NJIT) takes great pride in presenting this Institutional Profile to the State of New Jersey. This report highlights our efforts in education, scholarly and applied research, economic development, and engagement during Fiscal Year 2023.

Thanks to the efforts of our dedicated faculty and staff, NJIT continues to be recognized as a top university, as well as for our excellent return on investment that facilitates upward socio-economic mobility. In the FY 2023 ranking cycle, the *Wall Street Journal* rated NJIT the #2 public university and the #19 university overall in the United States, the *New York Times* online college ranking tool placed NJIT #1 in the nation among public universities, when alumni earnings, economic mobility, and academic profile were prioritized.

Our 140+ labs, centers, and institutes strive to lead in five areas of multidisciplinary research: bioscience and bioengineering, data science and management, environment and sustainability, material science and engineering, and robotics and machine intelligence. As a result, our status as a Very High (R1) Research Activity doctoral institution was reaffirmed by the Carnegie Classification of Institutions of Higher Education, placing NJIT among 146 of the most elite and productive research institutions in the nation and one of three in New Jersey.

NJIT is committed to continuing and expanding our contributions to our state, the nation, and the world, and to growing the pipeline of STEM-trained professionals while stimulating economic growth through innovation. Toward those ends, in FY 2023 NJIT enrolled, for the third year in a row, its largest and most diverse first-year class. We also conducted a total of approximately \$178 million in research.

This Institutional Profile Report highlights NJIT's continuing commitment to the State of New Jersey and to its citizens. All information supplied in this document is, to the best of my knowledge, complete and accurate.

Sincerely on behalf of NJIT,

Leih C. Kim

Teik C. Lim President

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## SECTION I – NEW JERSEY INSTITUTE OF TECHNOLOGY

New Jersey Institute of Technology (NJIT) was founded in 1881 as the Newark Technical School, becoming the Newark College of Engineering in 1930. Today, NJIT has six schools and colleges: Newark College of Engineering (1930), the Hillier College of Architecture and Design (1973), the College of Science and Liberal Arts (1982), the Martin Tuchman School of Management (1988), the Albert Dorman Honors College (1993), and the Ying Wu College of Computing (2001).



NJIT has evolved from a commuter school teaching applied engineering skills to a top 50 public university. This evolution has been achieved through an aggressive faculty recruitment plan matched by an extensive building effort that doubled the size of the main campus over the past decade and added major research facilities for environmental engineering and science, advanced manufacturing, microelectronics, and life sciences. Enrollment increased from 6,300

students in 1979 (the first year for which there is publicly available federal data) to over 13,000 students in fall 2023. Total research expenditures in fiscal year 2023 amounted to over \$178 million.

At the same time, NJIT remains true to its urban mission and its commitment to helping motivated and talented students overcome educational challenges. The institution has been ranked highly by *Money*, *The Princeton Review*, *PayScale*, and *Forbes* for career placement, early and mid-career earnings, return on investment, value, and upward economic mobility.



NJIT's 48-acre, computing-intensive, residential

campus is located in the University Heights section of Newark, less than 10 miles from New York City and Newark International Airport. It is easily reached by interstate highways and public transportation. Graduate, undergraduate, and continuing education classes are offered at the main campus, at extension sites at colleges and other locations throughout New Jersey, and increasingly through a variety of distance learning formats.

#### I.A.1 – Our Vision

NJIT will transform the public polytechnic research university experience into an Innovation Nexus through unparalleled education, limitless innovation, and pioneering research to cultivate a diverse community of leaders and professionals.

#### I.A.2 – Our Mission

NJIT advances the state of New Jersey, the nation, and the world through its contributions as an Innovation Nexus:

- Public Polytechnic University—by harnessing the power of experiential learning to transform a diverse community of students into leaders, innovators, and global citizens.
- Research Leader—by advancing knowledge through high-impact basic, applied, and transdisciplinary research, and by developing technological solutions that advance the state-of-the-art and drive economic growth.
- Innovation Partner—by anticipating the needs of industry, government, and civic organizations to spur growth, innovation, and entrepreneurship.
- Inclusive Workplace—by engaging diverse colleagues whose differences build a strong community dedicated to accomplishing our vision.
- Community Member—by applying our technological expertise to serve and elevate the communities that NJIT calls home.

#### I.A.3 – Our Core Values

As Highlanders, our core values reflect our beliefs, guide our behavior, shape our culture, and establish a sense of community and common purpose.

- Excellence: We pursue excellence in all that we do in order to meet and sustain the highest standards of performance.
- **Integrity:** We conduct ourselves honestly and ethically.
- Civility: We treat one another with dignity and respect the opinions and viewpoints of others.
- **Sustainability:** We operate and innovate in a way that promotes stewardship of resources for present and future generations.
- **Social Responsibility:** We engage with the communities in which we live, study, and work to benefit society as a whole.
- **Diversity:** We create a sense of belonging by celebrating the differences of individuals so that all members of our community feel included and empowered.
- Collaboration: We recognize that individual skills and expertise are strengthened through cooperation and teamwork.
- Courage: We move forward by overcoming uncertainty, taking on challenges, and making sacrifices for the common good.

#### SECTION II – DATA BY CATEGORY

#### A. Accreditation Status

#### **II.A.1 Institutional Accreditation**

New Jersey Institute of Technology as an institution is accredited by the following organization: Middle States Commission on Higher Education (MSCHE). Please note that the list of "Other Instructional Sites" is most up to date in section II.G.2 of this institutional profile.



#### STATEMENT OF ACCREDITATION STATUS

The Statement of Accreditation Status (SAS) is the official statement of the Middle States Commission on Higher Education (MSCHE) about each institution's current accreditation status and scope of accreditation. The SAS also provides a brief history of the actions taken by the Commission.

Institution: NEW JERSEY INSTITUTE OF

TECHNOLOGY Newark, NJ

Address: University Heights

Newark, NJ 07102-1982

Phone: (973) 596-3000

URL: www.njit.edu

Accreditation Liaison Officer (ALO): Dr. Eugene Deess

Commission Staff Liaison: Dr. Bobby Nathan, Vice President

#### Accreditation Summary

For more information, see the Commission's Accreditation Actions Policy and Procedures.

Phase: Accredited

Status: Accreditation Reaffirmed Accreditation Granted: 1934 Last Reaffirmation: 2022

Next Self-Study Evaluation: 2029-2030

#### Alternative Delivery Methods

The following represents approved alternative delivery methods included in the scope of the institution's accreditation:

#### Distance Education

Approved to offer programs by this delivery method

#### Correspondence Education

Not approved for this delivery method

#### **Credential Levels**

#### **⊘** Approved Credential Levels

The following represents credential levels included in the scope of the institution's accreditation:

- Bachelor's Degree or Equivalent Included within the scope
- Post-baccalaureate Certificate Included within the scope
- Master's Degree or Equivalent Included within the scope
- Doctor's Degree- Research/Scholarship
   Included within the scope

#### Locations

The following represents branch campuses, additional locations, and other instructional sites that are included within the scope of the institution's accreditation:

Location	Туре
New Jersey Institute of Technology University Heights Newark, NJ 07102-1982	Main Campus
NJIT@Jersey City 101 Hudson St Jersey City, NJ 07302	Additional Location
Bergen County Technical High School 504 Route 46 West Teterboro, NJ 07608	Other Instructional Site
Cranford High School 201 West End Place Cranford, NJ 07016	Other Instructional Site
Delaware Valley Regional High School 19 Senator Stout Road Frenchtown, NJ 08825	Other Instructional Site
Donald M. Payne Sr. School Of Technology 498-544 W Market St. Newark, NJ 07107	Other Instructional Site
East Orange STEM Academy 129 Renshaw Avenue East Orange, NJ 07017	Other Instructional Site
East Side High School 238 Van Buren Street Newark, NJ 07105	Other Instructional Site

Location	Туре
Essex County Newark Tech 91 West Market Street Newark, NJ 07103	Other Instructional Site
Freehold High School 2 Robertsville Rd Freehold, NJ 07728	Other Instructional Site
Freehold Township High School 281 Elton-Adelphia Road Freehold, NJ 07728	Other Instructional Site
Glen Ridge High School 200 Ridgewood Avenue Glen Ridge, NJ 07028	Other Instructional Site
Hanover Park High School 63 Mt. Pleasant Ave East Hanover, NJ 07936	Other Instructional Site
High Point Regional High School 299 Pidgeon Hill Road Sussex, NJ 07461	Other Instructional Site
High Tech High School One High Tech Way North Bergen, NJ 07047	Other Instructional Site
Hillside High School 195 Virginia Street Hillside, NJ 07205	Other Instructional Site
Hoboken High School 800 Clinton Street Hoboken, NJ 07039	Other Instructional Site
John E. Dwyer Technology Academy 123 Pearl Street Elizabeth, NJ 07202	Other Instructional Site

Location	Туре
Livingston High School 30 Robert Harp Drive Livingston, NJ 07039	Other Instructional Site
Mahwah High School 50 Ridge Road Mahwah, NJ 07430	Other Instructional Site
Manasquan High School 167 Broad Street Manasquan, NJ 08736	Other Instructional Site
Marion P. Thomas Charter School 125 Sussex Ave. Newark, NJ 07103	Other Instructional Site
Middlesex County Vocational & Technical School - East Brunswick Campus 112 Rues Ln. East Brunswick, NJ 08816	Other Instructional Site
Northern Highlands Regional High School 298 Hillside Avenue Allendale, NJ 07642	Other Instructional Site
Northern Valley Regional High School 162 Knickerbocker Road Demarest, NJ 07627	Other Instructional Site
Ocean County Vocational Technical School 137 Bey Lea Road Toms River, NJ 08753	Other Instructional Site
Ocean Township High School 163 Monmouth Road Oakhurst, NJ 07755	Other Instructional Site
Parsippany High School 309 Baldwin Rd	Other Instructional Site

Location	Туре
Parsippany, NJ 07054	
Parsippany Hills High School 20 Rita Dr Morris Plains, NJ 07950	Other Instructional Site
Paterson Charter School for Science and Technology 196 West Railway Ave. Paterson, NJ 07503	Other Instructional Site
Pequannock Township High School 85 Sunset Road Pompton Plains, NJ 07444	Other Instructional Site
Perth Amboy High School 300 Eagle Ave. Perth Amboy, NJ 08861	Other Instructional Site
Philip's Academy Charter School of Newark 342 Central Avenue Newark, NJ 07103	Other Instructional Site
Pioneer Academy 164 Totowa Road Wayne, NJ 07470	Other Instructional Site
Roselle Park High School 510 Chestnut Street Roselle Park, NJ 07204	Other Instructional Site
Saddle Brook High School 355 Mayhill Street Saddle Brook, NJ 07663	Other Instructional Site
South Brunswick High School 750 Ridge Road Monmouth Junction, NJ 08852	Other Instructional Site

Location	Туре
Sparta High School 70 West Mountain Road Sparta, NJ 07871	Other Instructional Site
STEM Innovation Academy of the Oranges 445 Scotland Road South Orange, NJ 07079	Other Instructional Site
Sussex County Technical School 105 North Church Rd Sparta, NJ 07871	Other Instructional Site
The Academy for Math, Science & Engineering- Morris County 520 W Main St Rockaway, NJ 07866	Other Instructional Site
Thomas Edison EnergySmart Charter School 150 Pierce St, 2nd Floor Somerset, NJ 08873	Other Instructional Site
Wayne Valley High School 551 Valley Rd. Wayne, NJ 07470	Other Instructional Site
Whippany Park High School 165 Whippany Road Whippany, NJ 07981	Other Instructional Site
Woodbridge Township District High School (Colonia High School) 180 East Street Colonia, NJ 07067	Other Instructional Site

Definitions: For definitions of branch campus, additional locations, or other instructional sites, see the **Commission's Substantive Change Policy and Procedures**.

#### Accreditation Actions

The following represents the MSCHE accreditation actions taken in the last ten (10) years. For more information, see the Commission's Accreditation Actions Policy and Procedures and the Substantive Change Policy and Procedures.

June 26, 2024 To acknowledge receipt of the substantive change request. To note the

institution's decision to close the additional location at 100 Pingleyuan Chaoyang District, China that ceased operations effective December 31, 2012. To remove the additional location from the institution's scope of accreditation. To note that the Commission reserves the right to rescind this action if any developments reveal additional information that might have affected the

Commission's decision. The next evaluation visit is scheduled for 2029-2030.

May 20, 2024 Staff acted on behalf of the Commission to request a supplemental information

report, due September 1, 2024, that provides additional information on Standard II: Ethics and Integrity and Standard IV: Support of the Student

Experience. The next evaluation visit is scheduled for 2029-2030.

January 18, 2024 To rescind the substantive change action April 28, 2022, for the additional

location at 1 NJIT, Bloomfields, Mostakbal City (Arab Contractors), Eastern Lotus Extension, New Cairo, Egypt because the change was not implemented within one calendar year. The action to rescind a substantive change request is

not an adverse action, therefore, it is not subject to appeal.

November 16, 2023 To acknowledge receipt of the supplemental information report requested by

the Commission action of June 23, 2022. The next evaluation visit is scheduled

for 2029-2030.

October 31, 2023 To note the verification visit took place on June 21, 2023 to the main campus at

University Heights, Newark, NJ 07102.

June 23, 2022 To acknowledge receipt of the self-study report. To note that the institution

hosted a virtual site visit in lieu of an on-site visit in accordance with the United States Department of Education (USDE) guidelines published March 17, 2020. To reaffirm accreditation. To request a supplemental information report, due April 1, 2023, documenting further evidence of the implementation of organized and systematic assessments that evaluate the extent of student achievement in general education (Standard V). To note that a verification visit is required by USDE guidelines and will be conducted within a reasonable

period of time following the virtual site visit. The next evaluation visit is scheduled for 2029-2030.

April 28, 2022

To acknowledge receipt of the substantive change request. To include the additional location at 1 NJIT, Bloomfields, Mostakbal City (Arab Contractors), Eastern Lotus Extension, New Cairo, Egypt within the institution's scope of accreditation. To require written evidence of approvals from all necessary licensing, regulatory, or other legal entities as necessary, including the New Jersey Secretary of Higher Education, Egyptian Ministry of Education, and Egyptian Office of the President. To require immediate notification when instruction commences at the additional location. To note that the Commission may rescind this action if instruction does not commence within one calendar year from the date of this action. To note that the evaluation visit has occurred and will be acted upon by the Commission at the June meeting.

June 17, 2020

To acknowledge receipt of the substantive change request. To note the institution's decision to close the additional location at 1200 Old Trenton Road, Windsor, NJ 08550. To require immediate notification when instruction ceases at the additional location. To note that the Commission reserves the right to rescind approval of this substantive change if any developments reveal additional information that might have affected the Commission's decision and/or the requested substantive change is not implemented within one calendar year from the date of this action. The next evaluation visit is scheduled for 2021-2022.

April 30, 2019

To acknowledge receipt of the substantive change request. To include the additional location at NJIT@Jersey City, 101 Hudson Street, Jersey City, NJ 07302 within the institution's scope of accreditation. To note that the Commission may rescind this action if instruction does not commence within one calendar year from the date of this action. The next evaluation visit is scheduled for 2021-2022.

November 16, 2017

To accept the Periodic Review Report, to reaffirm accreditation, and to commend the institution for the quality of the report and the PRR process. The next evaluation visit is scheduled for 2021-2022.

July 5, 2017

To acknowledge receipt of the substantive change request. To include the additional location at Mercer County Community College, 1200 Old Trenton Road, Windsor, NJ 08550 within the scope of the institution's accreditation. The Commission requires written notification within thirty days of the

commencement of operations at this additional location. Operations at the additional location must commence within one calendar year from the date of this action. To note that the Periodic Review Report has been received and will be acted upon by the Commission at the November meeting.

March 6, 2014

To accept the progress report. The Periodic Review Report is due June 1, 2017.

August 1, 2013

To note the institution never opened the additional locations in Kochi, India and Thiruvanathpuram, India. To also note that approval has lapsed and to remove the contractual agreement with NeST Group of Companies and these additional locations from the institution's accreditation.

June 28, 2012

To reaffirm accreditation. To request a progress report, due December 1, 2013, documenting evidence of steps taken to strengthen shared governance (Standard 4). The Periodic Review Report is due June 1, 2017.

February 28, 2012

To acknowledge receipt of the substantive change request and to include the contractual agreement with NeST Group of Companies and the additional locations in Kochi, India and Thiruvanathpuram, India, provisionally within the scope of the institution's accreditation, pending a site visit to one of these locations within six months of commencing operations. The Commission requires written notification within thirty days of the commencement of operations at these additional locations. In the event that operations at the additional locations do not commence within one calendar year from the approval of this action, approval will lapse. The next evaluation visit is scheduled for 2011-2012.

August 30, 2011

To acknowledge the substantive change request and to include the contractual agreement with Amity University, located at Sector 44, Noida, U.P., India, within the scope of the institution's accreditation. The next evaluation visit is scheduled for 2011-2012.

#### Information about the Middle States Commission on Higher Education

The Middle States Commission on Higher Education (MSCHE) is a global institutional accreditor recognized since 1952 by the United States Secretary of Education. As an institutional accreditor and member of the regulatory triad, MSCHE assures students and the public of the educational quality for its over 500 institutions of higher education.

MSCHE accreditation applies to an institution as a whole rather than the specific programs within an institution. MSCHE does not approve or accredit individual programs. Each institution is regularly and consistently evaluated and monitored in accordance with the Commission's policies and procedures.

An institution maintains its accreditation unless it is voluntarily surrendered, whether through institutional closure or otherwise, or it is denied or withdrawn by the Commission. For more information, visit msche.org.

#### **II.A.2 Professional Accreditation**

Association to Advance Collegiate Schools of Business (AACSB)

Accreditation Board for Engineering and Technology (ABET)

Council for Interior Design Accreditation (CIDA)

Forensic Science Education Programs Accreditation Commission (FEPAC

National Architectural Accrediting Board (NAAB)

National Association of Schools of Art and Design (NASAD)













## **B.** Number of Students Served

NJIT served 13,931 enrolled students in the fall of 2023.

## **II.B.1 Number of Undergraduate Students by Attendance Status**

Table II.B.1
Undergraduate Enrollment by Attendance Status, Fall 2023

Full-time		Part-time		Total
Number	Percent	Number Percent		Number
7,913	83.1%	1,610	16.9%	9,523

## **II.B.2** Number of Graduate Students by Attendance Status

Table II.B.2
GRADUATE ENROLLMENT BY ATTENDANCE STATUS, FALL 2023

Full-time		Part-time		Total
Number	Percent	Number Percent		Number
2,475	71.0%	1,009	29.0%	3,484

## II.B.4 FY2023 (12-Month) Unduplicated Enrollments

Table II.B.4
UNDUPLICATED ENROLLMENT, FY 2023

	Headcount Enrollment	Credit Hours	FTE
Undergraduate	9,945	246,059	8,202
Graduate	3,986	48,808	2,034
Doctoral- Professional Practice	0	0	0
Total	13,931	294,867	10,236

## C. Characteristics of Undergraduate Students

More than 16,600 individuals applied for admission as first-time freshmen to NJIT for fall 2024.

#### II.C.1 Mean Math and Evidence-Based Reading & Writing SAT Scores

Fall 2023 freshmen entered NJIT as either regular admits or Educational Opportunity Fund (EOF) admits. By admitting students using different admissions categories, the university provides opportunities to a broader range of students.

Table II.C.1 contains information on the average SAT scores of NJIT's fall 2023 enrolled full-time and part-time first-time freshmen. It should be noted that the first-time, full-time freshman population differs slightly from the cohort of first-time, full-time undergraduates who are tracked for federal reporting purposes using the IPEDS Graduation Rate Survey (GRS). This is because the IPEDS cohort also includes first-time, full-time students who are admitted above the freshman level because of advanced placement credits.

Prior to the 2023 Institutional Profile report, enrollment figures for Tables II.C.1 and II.C.2 included non-degree students. Starting with the 2023 Institutional Profile report, enrollment figures for these metrics exclude non-degree students and only include degree-seeking undergraduates.

Table II.C.1

Mean Math, Reading, and Writing SAT Scores for First-Time Freshmen, by Admission

Status and Overall, Fall 2023

Full-Time Students					
	Total	Math	N	ERW*	N
Regular Admits	1524	684	666	651	1524
EOF Admits	111	613	36	573	111
Special Admits	0	0	0	0	0
Total	1635	680	702	647	1635
Missing Scores	0	0	933	0	933

Part-Time Students					
	Total	Math	N	ERW*	N
Regular Admits	117	581	25	557	25
EOF Admits	10	570	3	560	3
Special Admits	0	0	0	0	0

Total	127	580	28	558	28
Missing Scores	0	0	99	0	99

<sup>\*</sup>Note: ERW is Evidence-Based Reading & Writing.

## II.C.2 Enrollment in Remediation Courses by Subject Area

Table II C.2
ENROLLMENT IN REMEDIATION COURSES

## **Total Number of Undergraduate Students Enrolled in Fall 2023**

Total Fall 2023 Undergraduate Enrollment	Number of Students Enrolled in One or More Remedial Courses	Percent of Total
8,762	37	0.4%

# Total Number of First-Time, Full-Time (FTFT) Students Enrolled in Remediation in Fall 2023

<b>Total Fall Number of FTFT</b>	Number of FTFT Students	Percent of FTFT Enrolled in	
Students	Enrolled in One or More	One or More Remedial	
	Remedial Courses	Courses	
1,635	30	1.8%	

# First-Time, Full-Time (FTFT) Students Enrolled in Remediation in Fall 2023 by Subject Area

Subject Area	Number of FTFT Enrolled	Percent of FTFT Enrolled
	In:	In:
Computation	0	0.0%
Algebra	0	0.0%
Reading	0	0.0%
Writing	0	0.0%
English	30	1.8%

## II.C.3 Race/Ethnicity, Sex, and Age

Table II.C.3.a
UNDERGRADUATE ENROLLMENT BY RACE/ETHNICITY: FALL 2023

White	N	2,388	325	2,713
VV IIIC	Percent	30.2%	20.2%	28.5%
Black	N	813	145	958
DIACK	Percent	10.3%	9.0%	10.1%
Uicpanic	N	2,191	360	2,551
Hispanic	Percent	27.7%	22.4%	26.8%
Asian	N	1,701	171	1,872
Asian	Percent	21.5%	10.6%	19.7%
American Ind.	N	9	1	10
American mu.	Percent	0.1%	0.1%	0.1%
Native	N	1	1	2
Hawaiian/Other Pacific Islander	Percent	0.00%	0.10%	0.00%
U.S.	N	411	45	456
Nonresident	Percent	5.2%	2.8%	4.8%
Two or More	N	246	35	281
Races	Percent	3.1%	2.2%	3.0%
Race Unknown	N	153	527	680
Kace Unknown	Percent	1.9%	32.7%	7.1%
Total	N	7,913	1,610	9,523

Table II.C.3.b
UNDERGRADUATE ENROLLMENT BY SEX: FALL 2023

	Male	Percent	Female	Percent	Total
Full-Time	5,626	71.1%	2,287	28.9%	7,913
Part-Time	1,072	66.6%	538	33.4%	1,610
Total	6,698	70.3%	2,825	29.7%	9,523

Table II.C.3.c
UNDERGRADUATE ENROLLMENT BY AGE: FALL 2023

	<b>Full-Time</b>		Part-	Time	То	tal
	N	Percent	N	Percent	N	Percent
LT 18	44	0.6%	443	27.5%	487	5.1%
18-19	2,782	35.2%	300	18.6%	3,082	32.4%
20-21	2,743	34.7%	143	8.9%	2,886	30.3%
22-24	1,638	20.7%	329	20.4%	1,967	20.7%
25-29	528	6.7%	235	14.6%	763	8.0%
30-34	115	1.5%	92	5.7%	207	2.2%
35-39	42	0.5%	33	2.1%	75	0.8%
40-49	14	0.2%	26	1.6%	40	0.4%
50-64	7	0.1%	8	0.5%	15	0.2%
65+	0	0	1	0.1%	1	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%
Total	7,913	100.0%	1,610	100.0%	9,523	100.0%

<sup>\*</sup>Some totals may be higher than 100.0% due to rounding.

# II.C.4 Numbers of Students Receiving Financial Assistance under Each Federal-, State-, and Institution-Funded Aid Program

During the 2022-2023 academic year, undergraduates at NJIT received financial aid from multiple sources, i.e., Federal, State, institution, and other private sources. Aid was provided in the form of scholarships, grants, loans, and waivers.

Table II.C.4
FINANCIAL AID FROM FEDERAL, STATE, & INSTITUTION-FUNDED PROGRAMS, AY2022-2023

Federal Programs	Recipients	Dollars (\$)	\$ / Recipient
Pell Grants	3,746	\$19,905,000	\$5,313.67
College Work Study	360	\$635,000	\$1,763.89
Perkins Loans	0	\$0	\$0
SEOG	1,538	\$542,000	\$352.41
Stafford Loans (Subsidized)	2,669	\$11,245,000	\$4,213.19
Stafford Loans (Unsubsidized)	2,556	\$9,751,000	\$3,814.95

PLUS Loans	358	\$7,162,000	\$20,005.59
SMART & ACG or Other	0	\$0	\$0
CARES ACT- HEERF Student Aid	1,364	\$2,823,000	\$2,069.65

State Programs	Recipients	Dollars (\$)	\$ / Recipient
Tuition Aid Grants (TAG)	3191	\$27,158,000	\$8,510.81
Educational Opportunity Fund (EOF)	470	\$824,000	\$1,753.19
Other State Programs (OSRP, NJ-	0	\$0	\$0
GIVS, WTC, etc.)			
Distinguished Scholars	0	\$0	\$0
Urban Scholars	7	\$6,000	\$857.14
NJ STARS	23	\$48,000	\$2,086.96
CCOG	0	\$0	\$0
NJCLASS Loans	90	\$1,353,000	\$15,033.33

Institutional Programs	Recipients	Dollars (\$)	\$ / Recipient
Grants/Scholarships	4736	\$51,164,000	\$10,803.21
Institutional Loans	0	\$0	\$0

## **II.C.5** Percentage of Students Who Are New Jersey Residents

Close to ninety percent of first-time undergraduates were from the state of New Jersey in the fall 2023 cohort.

Table II.C.5
Fall 2023 First-Time Undergraduate Enrollment by State Residence

State Residents* Non-State Residents		Total	% State Residents
1,582	180	1,762	89.8%

<sup>\*</sup>Residence unknown included with New Jersey residents

## **D. Student Outcomes**

The one-year retention rate of first-time, full-time freshmen (fall 2022 cohort) is 90.7%, and the six-year graduation rate is 72.4% for the fall 2017 cohort.

#### **II.D.1 Graduation Rates**

Table II.D.1.c

FOUR-, FIVE- AND SIX-YEAR GRADUATION RATE OF FALL 2017 FULL-TIME, FIRST-TIME

DEGREE/CERTIFICATE SEEKING STUDENTS

		2017 Cohort	Graduates after 4 years	Graduates after 5 years	Graduates after 6 years
American	N	0	0	0	0
Ind.	Percent		0.0%	0.0%	0.0%
Asian	N	284	162	206	217
Asian	Percent		57.0%	72.5%	76.4%
Black	N	75	25	46	52
Diack	Percent		33.3%	61.3%	69.3%
Uispanis	N	185	66	99	111
Hispanic	Percent		35.7%	53.5%	60.0%
Pacific	N	0	0	0	0
Islander	Percent		0.0%	0.0%	0.0%
U.S.	N	53	25	34	35
Nonresident	Percent		47.2%	64.2%	66.0%
Race	N	32	14	18	22
Unknown	Percent		43.8%	56.3%	68.8%
2 or More	N	36	18	24	27
Races	Percent		50.0%	66.7%	75.0%
White	N	406	214	296	311
vv iiite	Percent		52.7%	72.9%	76.6%
Total	N	1071	524	723	775
Total	Percent		48.9%	67.5%	72.4%

## **II.D.2 Third-Semester Retention Rates**

Table II.D.2.a

Third-Semester Retention of First-time Undergraduates by Attendance Status, Fall
2022 to Fall 2023

	Full-Time		Part-Time				
Fall 2022 First-Time Undergraduates	Retained in Fall 2023	Retention Rate	Fall 2022 First-Time Undergraduates	Retained in Fall 2023	Retention Rate		
1,465	1,329	90.7%	110	74	67.3%		

## **E. Faculty Characteristics**

A total of 514 full-time faculty (including tenured/tenure-track faculty and non-tenured University Lecturers) taught classes in Fall 2023.

## II.E.1 Full-Time Faculty by Race/Ethnicity, Gender, and Tenure Status

Table II.E.1
FULL-TIME FACULTY BY RACE/ETHNICITY, SEX, TENURE STATUS & ACADEMIC RANK: FALL 2023

	Amer Ind		As	ian	Bla	ck	Hisp	anic		ific iders	U Noi ide	ires		ice nown	2 o Mo Rao	ore	Wh	ite		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	All
									TE	NURE	D										
Professors	0	0	32	4	5	2	3	0	0	0	1	0	11	0	0	0	66	8	118	14	132
Associate																					
Professors	0	0	28	10	2	0	3	1	0	0	2	3	3	0	0	0	41	8	79	22	101
Assistant																					
Professors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	60	14	7	2	6	1	0	0	3	3	14	0	0	0	107	16	197	36	233
									NOT	TENU	RED										
Professors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
Associate																					
Professors	0	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	2	1	7	1	8
Assistant																					
Professors	0	0	8	9	1	0	2	1	0	0	24	16	1	0	0	0	20	14	56	40	96
All Others	0	0	19	7	2	0	12	1	0	0	12	7	5	0	0	1	64	35	114	51	165
Total	0	0	31	16	3	0	14	2	0	0	37	23	6	0	0	1	87	50	178	92	270
								WITH	OUT F	ACUL	TY ST	CATU	S								
Total	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	5	3	5	6	11
									GRAI	VD TO	TAL										
Total	0	0	91	30	10	4	20	3	0	0	40	26	20	1	0	1	199	69	380	134	514

## **II.E.2** Percentage of Course Sections Taught by Full-Time Faculty

Table II.E.2
Percentage of Course Sections Taught by Full-Time Faculty Fall 2023

			by Full- Faculty	Taught Time I	by Part- Faculty	Taught by Others*	
	Total	Number	Percent	Number	Percent	Number	Percent
**Total Number of Course Sections	2201	1149	52%	714	32%	338	15%

<sup>\*</sup> Others include Full-time Administrators and Teaching Assistants.

## II.E.3 Ratio of Full- to Part-time Faculty

Table II.E.3
RATIO OF FULL-TIME TO PART-TIME FACULTY, FALL 2023

	Number	Percent
Total Number of Full-time Faculty	514	57.6%
Total Number of Part-time Faculty	379	42.4%
Total	893	100.0%

<sup>\*\*</sup> Excludes Service Learning, Co-ops, Labs, Seminars, etc.

## F. Characteristics of the Trustees or Governors



# II.F.1 Race/Ethnicity and Sex (simultaneously)

Table II.F.1

RACE/ETHNICITY AND SEX OF BOARD OF TRUSTEES AT

NEW JERSEY INSTITUTE OF TECHNOLOGY

	Male	Female	Total
White	6	1	7
Black	1	1	2
Hispanic	0	1	1
Asian	1	0	1
American Indian	0	0	0
International	0	0	0
Unknown	0	0	0
Total	8	3	11

## II.F.2 List of Trustees/Governors with Titles and Affiliations

Table II.F.2
Members of the Board of Trustees

Name	Title	Affiliation	
Hon. Philip D. (Phil) Murphy,			
'19 HON	Governor	State of New Jersey	
ex-officio			
Hon. Ras J. Baraka, '18 HON	Mayor	City of Newark	
ex-officio	iviayoi	City of Newark	
Robert C. Cohen '83, '84, '87	President, Digital Robotics and	Stryker Orthopaedics	
(Chair)	Enabling Technologies	Stryker Orthopactics	
Norma J. Clayton '81	VP of Learning, Training &	The Boeing Company	
(Co-Vice Chair)	Development (Retired)	The boeing company	
Nicholas M. DeNichilo '73, '78	President & Chief Executive	Mott MacDonald	
(Co-Vice Chair)	Officer (Retired)	Wiott WacDollaid	
Dennis M. Toft, Esq.	Environmental, Regulatory	Chiesa Shahinian &	
(Co-Vice Chair)	Attorney	Giantomasi PC	

Dhiraj Shah '00H (Co-Vice Chair)	Founder and Chief Executive Officer	AVAAP		
Demetrios (Jim) Stamatis '85 (Co-Vice Chair)	CEO	True Environmental		
Dr. Jason R. Baynes	Founding Member/Manager	Baynes Orthopaedics		
Elisa Charters '92, '93	President	Latina Surge National		
Gary C. Dahms PE, PP, CME	President and CEO	T&M Associates		
Richard M. "Rich" Maser '73	Executive Chairman	Colliers Engineering & Design		
Diane Montalto '82	President	DSA Engineering, LLC		

## II.F.3 URLs of Webpages with Information on Trustees/Governors

Table II.F.3
URL of Webpage with Information on Trustees

URL
https://www.njit.edu/boards/board-trustees-membership/

## G. Profile of the Institution

## **II.G.1 Degree and Certificate Programs**

In fall 2024, NJIT students were enrolled in 22 Ph.D. programs, master's programs in 48 specialties, 30 Post Baccalaureate Certificate programs and 54 active baccalaureate degree programs.

#### COLLEGE OF SCIENCE AND LIBERAL ARTS

Bachelor of Arts Chemistry

Biology Data Science Statistics Option

Communication Environmental Science
History Materials Science & Engr

Law, Technology, & Culture Mathematical Sciences

Theater Arts and Technology Master of Science

Bachelor of General Studies Applied Mathematics
General Studies Applied Physics

Bachelor of Science
Applied Physics
Applied Science
Applied Science

Applied Physics Applied Statistics
Biochemistry Biology

Biology Biology of Health Chemistry Biostatistics

Communication Chemistry

Cyberpsychology Data Science Statistics Track
Data Science Statistics Option Environmental Science

Environmental Science Pharmaceutical Chemistry

Forensic Science Post-Baccalaureate Certificate

Mathematical Sciences

Cell and Gene Therapy Sci
Science, Technology & Society

Environmental Sci & Engr

Undecided-Sci & Liberal Arts Environmental Science

Doctor of Philosophy Neuroscience

Applied Physics Statistics for Data Science Biology

#### HILLIER COLLEGE OF ARCHITECTURE AND DESIGN

Bachelor of Architecture Architecture

Architecture Industrial Design
Bachelor of Arts Doctor of Philosophy

Digital Design Urban Systems

Interior Design Master of Architecture

Bachelor of Science Architecture

Master of Science
Architecture

Digital Design Urban Design

#### MARTIN TUCHMAN SCHOOL OF MANAGEMENT

Bachelor of Science Management

Business Post-Baccalaureate Certificate

Financial Technology Business Analytics **Doctor of Philosophy** Financial Technology

Business Data Science Management Information Systems

Master of Business Administration Management of Technology

Business Administration Marketing
Master of Science Mini-MBA

#### **NEWARK COLLEGE OF ENGINEERING**

Bachelor of Engineering Biomedical Engineering

Computer Technology Chemical Engineering
Construction Engineering Tech Civil Engineering

Construction Management Tech Computer Engineering
Electrical & Computer Eng Tech Electrical Engineering

Manufacturing Engr Tech

Mechanical Engineering Tech

Mechanical Engineering Tech

Industrial Engineering

Medical Informatics Tech

Surveying Engineering Tech

Materials Science & Engr

Mechanical Engineering

Technology Education Transportation

Bachelor of Science
Biomedical Engineering
Biomedical Engineering

Chemical Engineering Civil Engineering Civil Engineering Civil Engineering

Computer Engineering Computer Engineering

Concrete Industry Management Critical Infrastructure System

Electrical Engineering

General Engineering

Engineering

Engineering Management

Industrial Engineering Engineering Science

Materials Engineering Environmental Engineering
Mechanical Engineering Healthcare Systems Management

Doctor of Philosophy Industrial Engineering

**Internet Engineering** 

Manufacturing Systems Engr Materials Science & Engr

Mechanical Engineering

Occupational Safety & Health

Engr.

Pharmaceutical Engineering

Pharmaceutical Sys Management

Power and Energy Systems

Telecommunications

Transportation

#### Post-Baccalaureate Certificate

Construction Management

Hydrology & Water Res Engr

Pharmaceutical Management

Pharmaceutical Manufacturing

Pharmaceutical Technology

Polymers and Plastics

Power Systems Engineering

**Project Management** 

**Transportation Studies** 

#### YING WU COLLEGE OF COMPUTING

#### **Bachelor of Arts**

Computer Science Information Systems

#### **Bachelor of Science**

**Business & Information Systems** 

Computer Science

Computing & Business

Data Science Computing Option

Human Computer Interaction

Information Technology

**Undecided-Computing** 

Web & Information Systems

#### Doctor of Philosophy

Computer Science

**Data Science Computing Option** 

**Information Systems** 

#### Master of Science

Artificial Intelligence

**Bioinformatics** 

**Business & Information Systems** 

Computer Science

Computing & Business

Cyber Security & Privacy

Data Science Comp Track

Information Systems

IT Administration & Security

Software Engineering

#### Post-Baccalaureate Certificate

Artificial Intelligence

Big Data Essentials

Bus & Info Syst Implementation

Cert in Found of Cybersecurity

Certificate in Comp Sci

Data Mining

Information Security

IT Administration

Network Security & Inform.

Assurance

Software Engr Analysis/Design

#### **ACCELERATED PROGRAMS**

- B.Arch./MBA
- B.Arch./MUD
- B.Arch./MS
- BA/BS/MPH with Rutgers School of Public Health (Master's in Public Health)

- BA/DMD with Rutgers School of Dental Medicine
- BA/DPT with Rutgers NJ Medical School (Physical Therapy)
- BA/MD with American University of Antigua, West Indies
- BA/MD with Rutgers NJ Medical School
- BA/MD/MBA with American University of Antigua, West Indies
- BA/OD with State University of New York (SUNY) College of Optometry
- BS/JD with Pace University Law School
- BS/JD with Seton Hall University School of Law
- BS/MBA
- BS/MD
- BS/MUD
- BS/MS
- BS/OD

## II.G.2 Agreements and Articulations with Other Schools and Institutions

Academy for Math, Science, and Engineering, Dual Enrollment

Arts High School, Dual Enrollment

Bergen County Academies, Dual Enrollment

Bergen County Technical High School, Dual Enrollment

Central High School, Dual Enrollment

Colonia High School, Dual Enrollment

Cranford High School, Dual Enrollment

Demarest High School, Dual Enrollment

Don Bosco Prep, Dual Enrollment

Eagle Academy, Dual Enrollment

East Brunswick Magnet High School, Dual Enrollment

East Side High School, Dual Enrollment

Essex County Schools of Technology, Dual

Enrollment

Freehold High School, Dual Enrollment

Freehold Township High School, Dual

Enrollment

Gill St. Bernard's School, Dual Enrollment

Glen Ridge High School, Dual Enrollment

High Point Regional High School, Dual

Enrollment

Hillside High School, Dual Enrollment

Hoboken High School, Dual Enrollment

Hunterdon Central Regional High School,

**Dual Enrollment** 

Irvington High School, Dual Enrollment

John E. Dwyer Technology Academy, Dual Enrollment

Kearny High School, Dual Enrollment

Livingston Public Schools, Dual Enrollment

Mahwah High School, Dual Enrollment

Malcolm X Shabazz High School, Dual Enrollment

Marlboro High School, Dual Enrollment

Newark Vocational High School, Dual Enrollment

Northern Highlands Regional, Dual Enrollment

Ocean Township High School, Dual Enrollment

Old Tappan High School, Dual Enrollment

Parsippany-Troy Hills School District, Dual Enrollment

Passaic Academy for Science & Engineering, Dual Enrollment

Paterson STEAM High School, Dual

Enrollment

Perth Amboy High School, Dual

Enrollment

Pioneer Academy, Dual Enrollment

Plainfield High School, Dual Enrollment

Rita L. Owens STEAM Academy, Dual

Enrollment

Saddle Brook High School, Dual

Enrollment

Science Park High School, Dual

Enrollment

St. Benedict's Preparatory School, Dual

Enrollment

STEM Innovation Academy of the

Oranges, Dual Enrollment

Sussex County Technical School, Dual

Enrollment

University High School, Dual Enrollment

Warren County Technical High School,

**Dual Enrollment** 

Wayne Valley High School, Dual

Enrollment

Weequahic High School, Dual Enrollment

West Morris Regional HS District, Dual

Enrollment

West Side High School, Dual Enrollment

## Articulation Agreements with In-State, Two-Year Colleges

### Bergen Community College

Applied Math, Biology, Biomedical Engineering, Business, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Industrial Engineering, Information Technology, Mechanical Engineering

#### Bergen Community College Honors Program

#### Albert Dorman Honors College

#### **Brookdale Community College**

Business, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science, Computer Technology, Electrical Engineering, Electrical Technology, Engineering Science, Industrial Engineering, Mechanical Engineering

#### **Burlington County College**

Business, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Electrical Engineering Technology, Industrial Engineering, Mechanical Engineering

#### **County College of Morris**

Business, Electrical Technology

#### **Essex County College**

Biology, Business, Chemistry, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, History, Industrial Engineering, Information Technology, Mechanical Engineering

#### **Hudson County Community College**

Business, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Electrical Technology, Industrial Engineering, Information Systems

### Mercer County Community College

Business, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science, Computer Technology, Engineering Technology, Option in Construction Engineering Technology, Industrial Engineering, Mechanical Engineering, Surveying Technology

## Middlesex County College

Business, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Electrical Technology, Industrial Engineering, Manufacturing Engineering Technology, Mechanical Engineering

#### Ocean County College

Business, Civil Engineering, Computer Engineering, Electrical Technology, Mechanical Engineering, Surveying Technology

#### Passaic County Community College

Business, Engineering Technology

#### Raritan Valley Community College

Applied Mathematics, Biology, Business, Chemistry, Computer Science, Electrical Technology, Management

#### **Union County College**

Business, Chemical Engineering, Civil Engineering, Construction Engineering Technology, Computer Engineering, Computer Technology, Electrical Engineering, Electrical Technology, Industrial Engineering, Mechanical Engineering, Mechanical Technology, Surveying Technology

#### Agreements with Out-of-State, Two-Year Colleges

#### Lincoln Technical Institute

A.A.S. degree students transfer to NJIT to pursue BS in Electrical Technology

#### **Rockland County College**

**Electrical Engineering Technology** 

#### Agreements with U.S. Four-Year Colleges and Universities (Undergraduate)

#### **New Jersey City University**

3+2 Dual Degree Program for NJCU students majoring in Applied Physics to transfer to NJIT to pursue BS in Electrical Engineering

#### New York Institute of Technology College of Osteopathic Medicine

Early Interview Assurance Program

#### **Pace University**

Qualified NJIT students are admitted to Pace University School of Law

#### Paul Smith College of Arts and Science

2+2 program in Surveying Technology

#### Ponce Health Sciences University

Undergraduate program leading to BA-MD Degrees

#### William Paterson University

Students complete coursework in the Pre-Engineering program at WPU, then transfer to NJIT to pursue a degree in one of the engineering disciplines.

#### Seton Hall University

3+2 Dual Degree Program for SHU students majoring in either Chemistry or Physics to transfer to NJIT to pursue a degree in one of the engineering disciplines.

### **Stockton State College**

3+2 Liberal Arts/Engineering Dual Degree Program

#### Thomas Edison State University

ASAST students will pursue BS in Engineering Technology degree program at NJIT.

#### **Rutgers University**

Qualified Albert Dorman Honors College students will enroll at the Rutgers School of Public Health to pursue the Masters in Public Health degree.

## Agreements with International Institutions

UNDERGRA	DUATE	
Grenada,		Articulation
West Indies	St. George's University Limited	Agreement
Italy	Universita degli Studi di Parma	Joint Degrees
South Korea	Pukyong National University	Exchange
Taiwan	Wenzao Ursuline University of Languages	Exchange

UNDERGRADUATE & GRADUATE							
		Accelerated					
		Articulation					
Antigua	American University of Antigua	Agreement					
Austria	University of Innsbruck	Exchange					
		Exchange;					
		Articulation					
China	Qingdao University of Technology	Agreement					
		Joint Degree					
China	Shanghai Lixin University of Accounting and Finance	(Supplement)					
China	Wuchang University of Technology	Exchange					

China	Xiamen University of Technology	Exchange
Cyprus	Frederick University	Exchange
Egypt	Ain Shams University of Cairo & Ocean County College	Exchange
Germany	Furtwangen University of Applied Sciences	Exchange
	The Hochschule Bremen - City University of Applied	
Germany	Sciences	Exchange
	Jawaharlal Nehru Technological University Hyderabad	
India	(JNTU)	Exchange
		Exchange;
		Articulation
India	Visvesvaraya Technological University	Agreement
Italy	University of Bologna	Exchange
Italy	University of Siena	Exchange
Netherlands	University of Twente	Exchange
Philippines	University of the Philippines	Exchange
South Korea	Hanyang University	Exchange
Spain	Universidad Nebrija	Exchange
Spain	Universidad Pontificia Comillas	Exchange
Spain	University of Cantabria (Universidad de Cantabria)	Exchange
	Jonköping University	
	(School of Engineering and International Business	
Sweden	School)	Exchange
Sweden	Linköping University	Exchange
Taiwan	National Chiao Tung University	Exchange
Taiwan	National Chung Cheng University	Exchange
	National Kaohsiung University	
Taiwan	of Science and Technology	Exchange
	National Taipei University	Exchange; Joint
Taiwan	of Technology (NTUT)	Research
Taiwan	National Taiwan Ocean University	Exchange
Taiwan	National Tsing Hua University	Exchange
Turkey	Istanbul Technical University	Dual Degree
Vietnam	Fulbright University	Joint Degrees
	<u> </u>	

GRADUATE		
		Pre-Master's Study
		Abroad Training
China	Soochow University	Agreement
Germany	Universitat Passau	Joint Degree

India	Siksha O Anusandhan University	Joint Degree
Israel	Ben-Gurion University of the Negev	Dual Degrees
Italy	Politecnico di Bari	Joint/Dual Degrees
Italy	University of Parma (Universita di Parma)	Joint Degrees
		Joint PhD
Italy	University of Salerno (Universita degli Studi di Salerno)	Program
		Joint PhD
Italy	University of Parma (Universita di Parma)	Program
		Exchange; Joint
Japan	National Institute of Informatics	Research

# H. Major Research and Public Service Activities

# II.H.1 R&D Academic Expenditures

R&D Expenditures: Fiscal Year 2023	
Federally Financed Academic R&D Expenditures	\$70,080,000
Institutionally Financed Academic R&D Expenditures	\$64,230,000
Externally Financed Academic R&D Expenditures	\$96,848,000
Total Academic R&D Expenditures	\$161,078,000

# II.H.2 Research Institutes, Centers and Laboratories



NJIT is proud of its reaffirmed status as an "R1" Very High Research Activity doctoral institution according to the Carnegie Classification of Institutions of Higher Education. NJIT is one of only three R1 institutions in the state of New Jersey and 146 institutions across the country. The R1 classification is the result of NJIT's growth in research in five transdisciplinary areas: Bioscience and Bioengineering, Data Science and Management, Environment and Sustainability, Material Science and Engineering, and Robotics and Machine Intelligence.

#### **BIOSCIENCE AND BIOENGINEERING**

This research cluster includes multidisciplinary research in the areas of biomedical devices, sensors and instrumentation, brain health & neuroscience, tissue engineering, biological sciences & behavior, molecular biology, evolutionary sciences, and gene therapy and phenotype related research.

#### **INSTITUTES**

## Institute for Brain and Neuroscience Research (IBNR)

IBNR promotes research and training in neuroscience and neural engineering, and provides the overall contact point for neuroscience initiatives at NJIT.

#### **CENTERS**

## BioSensor Materials for Advanced Research & Technology (BioSMART Center)

BioSensor Materials for Advanced Research & Technology (BioSMART Center) is an interdisciplinary research laboratory that seeks to understand the mechanisms of how chemical information is transformed from one interface to another, and to use that

knowledge to develop innovative sensing technologies, functional materials, and environmental devices.

# Center for Brain Imaging

The long-term goal of the Center for Brain Imaging is to better understand human brain function using integrative neuroimaging and statistical and computational modeling methods.

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

"We want to help soldiers, athletes and civilians by understanding why and how blasts and blunt trauma causes injury. Our holistic and collaborative approach explores Traumatic Brain Injury to save and improve lives." – Namas Chandra, Ph.D., PE., Director CIBM3 Professor, NJIT Dept. of Biomedical Engineering

#### **LABORATORIES**

- Advanced Biomaterials Translation Laboratory
- BioDynamics Laboratory
- Cardiovascular Tissue Engineering and Stem Cell Laboratory
- Computational Neuroanatomy and Neuroinformatics Lab
- Computational Orthopedics and Rehabilitation Lab
- Coppélia Research Laboratory
- Ecohydrology Lab
- Fluid Locomotion Laboratory
- Global Change and Urban Ecology Lab
- Laboratory for Neurobiology and Behavior
- Laboratory of Evolutionary Pattern and Process
- Laboratory of Neuroethology of Locomotion
- Neural Engineering for Speech and Hearing Laboratory
- Neural Prosthetics Laboratory
- Neuroecology of Unusual Animals Laboratory
- Sensorimotor Quantification and Rehabilitation Laboratory
- STG Lab
- Structural Ecology Lab
- Swarm Lab
- The Horax BioDatanamics Lab
- The Keck Laboratory for Topological Materials
- Vision and Neural Engineering Laboratory
- Zebrafish Neural Circuits and Behavior Laboratory

#### DATA SCIENCE AND MANAGEMENT

This research cluster includes the study and practice of data science and analytics, and extracting information and knowledge from data that can be used for medical, financial, business management scientific and engineering applications. These groups conduct research on bioinformatics, medical informatics, image processing, data mining, solar-terrestrial physics, transportation, financial management, business administration and management, life sciences and healthcare.

## **INSTITUTES**

## Henry J. and Erna D. Leir Research Institute for Business, Technology and Society

The Henry J. and Erna D. Leir Research Institute for Business, Technology, and Society (LRI) creates value by integrating research and education to support economic and policy impacts that foster sustainable economic development, addressing critical global challenges to corporate and business continuity and growth.

## Institute for Data Science

The Institute for Data Science initiates collaborative inter-disciplinary research by bringing existing research centers in big data, medical informatics, and cybersecurity together with new research centers in data analytics and artificial intelligence--cutting across all NJIT colleges and schools to conduct both basic and applied research.

## The Institute for Future Technologies

The Institute for Future Technologies combines the academic and research capacities of two global institutions, New Jersey Institute of Technology (NJIT) and Ben-Gurion University of the Negev (BGU), forming the region's next hub of technological innovation.

## New Jersey Innovation Institute (NJII)

New Jersey Innovation Institute (NJII) was founded in 2014 as a non-profit Think Tank and combines the vast resources of the R1 level New Jersey Institute of Technology (NJIT), strong industry and government relationships, and proven methods to drive innovation and deliver transformative products and services. NJIT is the regional leader in producing STEM talent and NJII is the engine to ignite innovation through this collaboration.

#### **CENTERS**

# Center for AI Research

The Center for AI Research aims to provide an intellectual environment and primary home for AI research initiatives at NJIT. It aims to promote cutting-edge and high-quality research activities and to cultivate faculty and student publications and patents in AI and machine learning. It will foster collaborations and interactions between professors in fundamental AI research and professors who leverage AI methods to solve domain problems and to develop synergies among research groups across different departments and colleges. It plans to train postdoctoral researchers, graduate students, and undergraduate students in fundamental AI research as well as applied AI and prepare them to be a skilled and capable workforce in both academia and industry. The Center for AI Research is part of the Institute for Data Science.

# Center for Applied Mathematics and Statistics

The Center for Applied Mathematics and Statistics (CAMS) is an interdisciplinary research center dedicated to supporting applied research in the mathematical sciences at NJIT. CAMS was established in 1986 to promote research in the mathematical sciences at the New Jersey Institute of Technology. Members of the Department of Mathematical Sciences naturally form the core of CAMS membership, but the importance of mathematics for science and technology has made CAMS an interdisciplinary organization.

# Center for Big Data

The mission of the Center for Big Data (CBD) at NJIT is to synergize the strong expertise in various disciplines across the NJIT campus and build a unified platform that embodies a rich set of big data enabling technologies and services with optimized performance to facilitate research collaboration and scientific discovery. The CBD 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 Computational Heliophysics

The primary goal of the NJIT Center for Computational Heliophysics (CCH) is to develop data analysis and modeling tools in the area of heliophysics by combining expertise of the College of Computing Sciences (Computer Science Department) and College of Science and Liberal Arts (Departments of Physics and Mathematical Sciences), and establishing partnership with the NASA Advanced Supercomputing (NAS) Division at the NASA Ames Research Center. The Center focuses on new innovative approaches, including development of intelligent databases, automatic feature identification and

classification, realistic Numbereric simulations based on first physics principles, and observational data modeling.

## Cybersecurity Research Center

Cyber technologies are prevalent in modern society and include communication networks, handheld computers, cloud computing environments and embedded computing technologies such as integrated into all modern automobiles, airplanes and military systems. Many of these systems are not secure by any reasonable definition of security. When compromised, the loss of these systems cause dramatic loss of data and capabilities, resulting in exposure of private information, financial loss, loss of services and even death. The NJIT Cybersecurity Research Center seeks to address ongoing and long-term future needs to research new methods for understanding how these systems can be compromised and fail, how to design cyber systems so they are secure, and how to improve or fix the cyber infrastructure that has already been deployed. Current areas of investigation to address these challenges include developing and applying new approaches to practical encryption, securing cloud computing services, privacy technologies, improved software engineering techniques, better data encoding and communication protocols, human factors research and so on.

# Leir Center for Financial Bubble Research

The Leir Center for Financial Bubble Research seeks to understand through quantitative and qualitative research how a financial bubble can be identified, including its stages of development, and what policies can best manage its impacts.

## New Jersey Innovation Acceleration Center

The New Jersey Innovation Acceleration Center (NJIAC) is a resource for entrepreneurs and innovators from throughout the region. With our partnership with VentureLink (formerly NJIT EDC) we offer a full range of services including business incubation to new businesses training and other resources. The NJIAC focuses on student and faculty at NJIT and throughout Newark & Northern NJ. The NJIAC sponsors the NJIT Entrepreneurs Society and the New Business Model Competition, which is open to both students and community members from throughout North Jersey (formerly NIAC), and TEDxNJIT among other activities. The mission of the NJIAC is to help innovators accelerate their time to market and to revenue metrics.

## NSF iCorps Program Center

Our I-Corps Sites Program offers specialized training and mini-grants to teams with interest in exploring the commercial viability of their ideas for products and businesses that are based on their own inventions, University intellectual property, or any STEM-related technology. Grantees will embark on commercialization of new technologies,

products and processes that arise from the institution. Develop formal, active, local innovation ecosystems that contribute to a large, national network of mentors, researchers, entrepreneurs and investors and encourages collaboration between academia and industry.

## Paul Profeta Real Estate Technology, Design and Innovation Center (RETDIC)

The Paul Profeta Real Estate Technology, Design and Innovation Center serves as the locus of research, teaching and training related to disruptive technologies innovations and novel design, service, management techniques that are actively transforming the real estate field. Housed in NJIT's Martin Tuchman School of Management, and drawing on the expertise, experience and interests of faculty members from Tuchman School of Management as well as the Hillier College of Architecture and Design, Ying Wu College of Computing and the Newark College of Engineering, the center offers new academic programs in Real Estate Technology, provides executive education, organizes conferences, symposia, and workshops related to cutting edge research in the changing ways in which real estate is traded, used and managed. The center's transdisciplinary research activities focus on the use of technology and innovation, new ways of design and innovative business models with a special focus on the application of information technology and platform economics to real estate markets, also known as property technology, or PropTech.

# Structural Analysis of Biomedical Ontologies Center

The Structural Analysis of Biomedical Ontologies Center, located in the Department of Computer Science at the New Jersey Institute of Technology (NJIT), is devoted to research exploring structural issues in biomedical ontologies (e.g., SNOMED CT, NCIt, NDF-RT, and ChEBI). Our research interests include ontology quality assurance methodologies, ontology summarization techniques, ontology change analysis, and analysis of families of ontologies.

# The Elisha Yegal Bar-Ness Center for Wireless Information Processing

Primary Goal: Become the focal point in the Department of Electrical and Computer Engineering for all research and teaching activities in the areas of wireless communications and signal processing.

#### VentureLink

With 110,000 sq. ft. of space across two buildings, NJII offer Incubator space and programming that houses private offices, dedicated parking, and wet labs. Amenities include a full kitchen, phone booths and high-speed internet. The Hub is located in the heart of the bustling NJIT campus within University Heights. The NJIT Technology Hub is made up of two buildings on NJIT's campus, including the Profeta Center for Innovation and Entrepreneurship.

#### **LABORATORIES**

- Advanced Communication and Signal Processing (aCASP) Research Lab
- Advanced Networking Laboratory
- Big Data Analytics Lab
- Design Computation Lab
- FinTech Lab
- Geriatric Engineering Technology Lab
- Gidget Lab (G)ender (I)nclusive (D)esign, (G)ame, and (E)ducational (T)echnology Lab
- High Performance Computing Laboratory
- Laboratory for Discrete Event Systems
- Laboratory for High Performance DSP & Data Engineering Research (HPDER)
- Media Interface and Network Design Lab
- Networked Controls and Intelligent Diagnostics (NCID) Laboratory
- Networking Research Laboratory
- Operations Management Laboratory
- Optimized Networking Laboratory
- Social Interaction Laboratory
- Systems Optimization and Analytics Lab
- The GIScience & Remote Sensing Lab

## **ENVIRONMENT AND SUSTAINABILITY**

This cluster represents interdisciplinary research areas in urban ecology, space weather, solar terrestrial, environmental sensors, sustainable infrastructure, intelligent transportation systems, global climate change, biodiversity and conservation, clean water, waste management, renewable energy, and smart grid systems.

## **INSTITUTES**

# Institute for Space Weather Sciences

The Institute for Space Weather Sciences (ISWS) combines the strengths of three NJIT research centers: Center for Solar-Terrestrial Research, Center for Computational Heliophysics, and Center for Big Data to understand and predict physics of solar activities and their space weather effects. It integrates state-of-the-art observations, modeling, and big data analytics. Promoting multi-disciplinary research and education in space weather is the main goal of this Institute.

#### **CENTERS**

## Center for Community Systems

The mission of the Center for Community Systems is to be a resource and conduit for creating thriving, sustainable, and resilient communities. It is a strategic platform that connects innovative planners, engineers, environmental scientists, social scientists, architects, and economists with government, industry, and community organizations to solve complex problems.

# Center for Energy Efficiency, Resilience and Innovation (CEERI)

The Center for Energy Efficiency, Resilience, and Innovation (CEERI) conducts research and development, provides technical and educational assistance for the deployment of sustainable technologies and applications to manage energy and water resources, and promotes public awareness of energy resources.

## Center for Ethics and Responsible Research

Focusing on cutting-edge transdisciplinary research in ethics and ethics education, CER2 aims to develop a recognizable NJIT brand of ethical and responsible research. CER2 will help to instill a culture of ethical and responsible research in both NJIT faculty and students. Faculty teach students about ethical and responsible research not only through standalone ethics courses, but also by modeling ethical behavior in their own research and practice. Students are our future researchers, professionals, and practicing engineers, and educating them in ethical and responsible research – via both direct and indirect instruction – will have broad impacts on society. Much of CER2's research will focus on how well we teach our students ethical and responsible research practices. CER2 will promote experiential learning via experimental pedagogical approaches and help develop the means to evaluate those approaches. CER2 faculty also work on policy for ethical and responsible research and education.

#### Center for Solar-Terrestrial Research

The Center for Solar-Terrestrial Research (CSTR) at NJIT is an international leader in ground- and space-based solar and terrestrial physics, with interest in understanding the effects of the Sun on the geospace environment.

## Institute for Future Technologies

The Institute for Future Technologies combines the academic and research capacities of two global institutions, New Jersey Institute of Technology (NJIT) and Ben-Gurion University of the Negev (BGU), forming the region's next hub of technological innovation.

## Polar Engineering Development Center (PEDC)

The PEDC, housed at NJIT and run as a joint venture between NJIT, Siena College, and the University of New Hampshire, is a highly skilled group of collegiate professors, research scientists, electrical and mechanical engineers, and technicians that have decades of experience in instrument and hardware design for deployment at high latitude/polar environments.

#### **LABORATORIES**

- Advanced Energy Systems and Microdevices Laboratory
- Atmospheric Chemistry Laboratory
- Building Dynamics Lab
- Building Energy and Built Environment (BE2) Lab
- Digital Spatial History Lab
- Energy and Environmental Nanotechnology Laboratory
- Environmental Systems Lab
- Geo-Resources and Geotechnical Laboratory
- Laboratory of Applied Biogeochemistry for Environmental Sustainability
- Urban Ecology Lab

#### MATERIAL SCIENCE AND ENGINEERING

This cluster represents transdisciplinary research areas in advanced materials including smart energetic and campsite materials, quantum materials, and biomaterials, polymers and membrane technologies, nanotechnologies, and additive/advanced manufacturing systems. The scope of nanotechnology research includes scientific and engineering phenomena at the minutest and most fundamental levels in order to develop technologies for environmental and pharmaceutical applications.

### **CENTERS**

## Center for Building Knowledge (CBK)

CBK's mission is to help individuals and communities make better-informed decisions about the performance, sustainability and resilience of buildings and communities.

## Center for Natural Resources

The Center's specialties include assessment and remediation studies of pollution in natural settings, and evaluation of natural resources for potential production of energy, especially the production of renewable energy. The Center for Natural Resources conducts studies ranging from the microscopic scale to the landscape scale and utilizes advanced networks of sensors.

## Center for Resilient Design

The New Jersey Institute of Technology established the Center for Resilient Design in late 2012 – in the immediate aftermath of Super Storm Sandy. The Center's founding mission was to serve as a resource to help New Jersey communities recover from the effects of Sandy – first as a special program within the Hillier College of Architecture and Design and then as a full-fledged center within the university. These activities soon evolved into broader explorations of how these same communities could become more resilient in the face of future events. Building on lessons learned in New Jersey, the Center has become a research, technical assistance, and training institution focused on improving the resilience of buildings and communities in the face of natural disasters and other stresses to inform and support disaster-resilience initiatives in other jurisdictions across the US and beyond.

## Center for Structured Organic Particulate Systems (C-SOPS)

The Center for Structured Organic Particular Systems (C-SOPS) brings together a cross-disciplinary team of researchers from major universities to work closely with industry leaders and regulatory authorities to improve the way pharmaceuticals, foods and agriculture products are manufactured.

# Center of Materials for Advanced Energetics

In this center, new metal-based reactive materials are developed, characterized and tested. Correlations between material synthesis processes and the powder characteristics are established and their reaction mechanisms are elucidated. The center includes laboratories for mechanochemistry and metal combustion and a state-of-the-art thermo-analytical facility. The center also conducts research in materials characterization facilities in York Center.

#### Electronic Imaging Center

The Electronic Imaging Center is an interdisciplinary center focused on nanotechnology, spectral analysis with subwavelength structures and energy. Nanotechnology is a field dealing with underlined phenomena at the nanoscale. It covers diverse phenomena that encompass molecular/biological interactions, interfacial science, as well as bulk and surface properties. The field is fast expanding into agriculture, energy and pharmaceutical industries.

## Membrane Science Engineering and Technology (MAST) Center

The Membrane Science Engineering and Technology (MAST) Center is a National Science Foundation Industry and University Cooperative Research Center. The MAST Center has been conducting industrially relevant precompetitive research for over 30 years. The MAST Center works closely with its industrial sponsors to develop innovative solutions to separations challenges. The Center consists of four partner institutions: The University of Arkansas, The University of Colorado, The New Jersey Institute of Technology, and Pennsylvania State University. In addition, the MAST Center collaborates with the R&D Center for Membrane Technology at Chung Yuan University in Taiwan.

## Microfabrication Innovation Center

The upcoming NJIT Microfabrication Innovation Center provides cutting-edge micro/nano-fabrication and characterization facilities for research in fields ranging from bio-sensing, drug delivery to microfluidics and MEMS fabrication. The multi-user cleanroom is divided into ISO 6 and ISO 7 space, with the capability of photolithography, laser writing, material deposition, wet/dry etching, metrology measurement as well as cell-based assays and biomarker assays. The primary objective of the facility is to support NJIT students/researchers as well as corporate partners in overtaking research topics within the fields of micro/nanofabrication technology.

## New Energy Materials Research Center

CNBM New Energy Materials Research Center, a public US corporation and sole owner of the world's only independently formed tellurium mine in China, recently awarded NJIT a three-year, \$1.5 million grant to establish a CdTe solar energy research center.

## New Jersey Center for Engineered Particulates (NJCEP)

Particulate products generate one trillion dollars annually to the US economy. New Jersey deals with a significant portion of this amount, because it is home to many diverse industries that deal with powders and powder processing. These include large and small companies in pharmaceuticals, food, cosmetics, ceramics, defense, electronics and specialty chemicals, dealing with powder-based materials such as, drugs, biomaterials, piezoelectric-ceramics, magnetic materials, optical materials, energetic materials, etc. In order to increase the profitability of New Jersey and US companies dealing with powders, there is an urgent need for developing processes to engineer the particles so that they have improved characteristics such as dispersability, flowability, wettability, sinterability, size uniformity, proper morphology, reduced tendency for segregation, as well as having tailored electrical, electromagnetic, optical, thermal or other properties.

## Otto H. York Center for Environmental Engineering and Science

The Otto H. York Center for Environmental Engineering and Science (YCEES) at New Jersey Institute of Technology (NJIT) offers core laboratory facilities as a resource for the university and for contract research. It has been the home of many interdisciplinary research programs and initiatives. The York Center was the first building in the nation especially constructed for cooperative public and private research in hazardous waste management. Today it has diversified into many other areas with research projects in nanotechnology, drug delivery, particle engineering, microfluidics, membrane science, environmental science and engineering, and biomedical engineering.

## **LABORATORIES**

- Additive Manufacturing Lab
- Applied Electrohydrodynamics Laboratory
- Biophotonics and Bioimaging Laboratory
- Biophotonics Sensing and Imaging Laboratory
- Computational Biophysics Laboratory
- Computational Laboratory for Porous Materials
- Computational Nanomechanics and Materials Science Laboratory
- Computer Assisted Tissue Engineering and Blood System Biology Laboratory
- Heat and Fluid Transport Engineering Research Laboratory
- High Performance Concrete and Structures Laboratory
- Instructive Biomaterials & Additive Manufacturing Laboratory (IBAM-Lab)
- Laboratory for Numbererical Turbulence
- Laboratory for the Mechanics of Advanced Materials
- Laboratory of Nanomedicine and Healthcare Biomaterials
- Mass Spectrometry Research Laboratory
- Material Analysis in Biological Systems Laboratory
- Material Dynamics Lab
- Materials and Structures Laboratory
- Mixing Laboratory
- Nano-Optoelectronic Materials and Devices Laboratory
- Nanoelectronics and Energy Conversion Laboratory
- Nanomaterials for Energy and Environment Labs (NEEL)
- Opto and Microfluidics Laboratory from Diagnostics to Therapeutics
- Particle Engineering and Pharmaceutical Nanotechnology Lab
- Soft Matter Research Laboratory

- Sustainable Environmental Nanotechnology and Nanointerfaces Laboratory
- Terahertz Spectroscopy, Imaging, and Wireless Communications Lab
- Tissue Innervation and Muscle Mimetics Laboratory

#### ROBOTICS AND MACHINE INTELLIGENCE

This research cluster includes human machine interface, cyber-human systems, robotics: bioinspired, medical, social and industrial autonomous systems, intelligent infrastructure, artificial intelligence, machine learning, and augmented and virtual reality.

#### **CENTERS**

## Center for Rehabilitation Robotics

Enhancing Mobility and Manipulation of Individuals with Disabilities.

## Intelligent Transportation Systems Resource Center

The Intelligent Transportation Systems (ITS) Resource Center at NJIT is established as a premier technical, research and technology resource for the New Jersey Department of Transportation, Transportation Systems Management unit, including Division of Traffic Operations and Division of Mobility and Systems Engineering. The main purpose of the Center is to conduct research studies of innovative ITS technologies and optimize strategies for their deployment in New Jersey's transportation system. This includes research of system design, deployment, and operation of roadside sensing technologies, information technologies, and communication technologies, and their integration into traffic engineering and management practices with the goal of improving mobility, safety, and efficiency of a transportation system, while supporting sustainable regional growth and economic development.

### **LABORATORIES**

- AI for Social Good Lab
- Controls, Automation, and Robotics Laboratory
- Face Recognition & Video Processing Laboratory
- Information Ecosystems Lab (InfEco)
- Intelligent Transportation Systems Laboratory
- Intelligible Information Visualization Lab
- Interactive Cross-Reality Lab

- Mind, Interface, and Network Design Lab
- Robotics and Data Lab
- The Assistive and Intelligent Robotics Lab
- The Lab of Interesting Agents
- Virtual Technology Applications Lab for Human Simulation (ViTALHS)
- Visual Computing, Graphics, and Artificial intelligence (VGA) Lab

# I. Major Capital Projects Underway in Fiscal Year 2024





## Central King Building Room 218 – Biology & Biomedical Engineering Teaching Lab - \$550K

Room #218 was an existing unrenovated area within CKB that required improvements to transform the space into a room that will support the essential lab courses for undergraduate students at NJIT. The proposed 900-square-foot renovation will provide an updated laboratory environment for students to experience the fundamental firsthand lab instruction that is imperative to the biology and bio-medical engineering programs. The project objectives are to provide flexible and modern laboratory furniture, LED lighting, upgraded HVAC systems, new finishes, upgraded audiovisual equipment, and storage cabinets. The project will also put "science on display" by adding windows to the corridor. Provisions will be made to accommodate generous bench space to encourage student collaboration and interaction utilizing innovative equipment.





## 105 Lock Street - Biomedical Engineering Lab - \$927K

NJIT renovated a portion of the fourth floor for medical device prototyping, characterization, and analytics to support the medical devices innovation cluster. The proposed renovation will provide an updated research lab environment to support current and future research lab space needs. The project objectives are to fully renovate approximately 1,200 square of research lab space, including

flexible and modern laboratory furniture, LED lighting, upgraded HVAC systems, new finishes, and storage cabinets. The project will also include a large testing room and data analysis area.





## Tiernan Hall - Rooms 109 and 206 - Materials Engineering Teaching Lab - \$4.44M

Tiernan Hall, specifically Rooms 109 and 206, constructed in the late 1960s, require renewal and revitalization. These heavily used teaching labs, essential for interdisciplinary courses in basic sciences and engineering, are outdated and need a complete renovation. The 3,900-square-foot project aims to create a state-of-the-art laboratory environment with modern furniture, upgraded utilities, biosafety and fume hoods, LED lighting, and enhanced HVAC systems. Additionally, new finishes, improved instructional technology, and interior glass walls will increase visibility between lab and classroom spaces. The renovation will also provide ample demonstration workspace to encourage student collaboration and interaction with cutting-edge equipment.





## Tiernan Hall - Room 208 - Chemistry Teaching Lab - \$2.1M

Tiernan Hall, Room 208, was built in the late 1960s and requires renovation. As a heavily used chemistry teaching lab at NJIT, it needs a complete overhaul to support essential undergraduate courses. The proposed 2,000-square-foot renovation aims to create a modern laboratory environment with updated furniture, new utilities, snorkel exhausts, LED lighting, improved HVAC systems, and upgraded instructional technology. Additionally, glass windows and doors will be installed to increase visibility, and a demonstration bench area will be included to promote student collaboration with cutting-edge equipment.





# Guttenberg Information Technology Center 2nd Floor - Data Science Suite - \$3.75M

The renovations to the 2nd floor of GITC aim to significantly improve the building for students, faculty, and staff. The proposed Data Science suite will include modernized spaces for academic and administrative offices, a conference room, breakout rooms, and a seminar room. The seminar room will be versatile, serving as a space for meetings, classes, and a hub for students to study or work on group projects.

# **SECTION III – OTHER INSTITUTIONAL INFORMATION**

The New Jersey Institute of Technology has exceptional faculty who educate top students for rewarding careers. In FY2023-2024, NJIT conferred 3,326 degrees and certificates, listed in Section A. Highlights of faculty efforts, including patents, publications and awards are provided in Section B.

# III.A. Degrees Awarded

## **BACHELOR'S DEGREES AWARDED**

BA	113	Biology	12
Biology	46	Biomedical Engineering	73
Communication	6	Business 10	01
Computer Science	5	Business & Information Systems	25
Digital Design	19	Chemical Engineering	53
History	5	Chemistry	5
Information Systems	11	Civil Engineering 10	63
Interior Design	12	Communication	3
Law, Technology, & Culture	7	Computer Engineering	54
Theater Arts and Technology	2	Computer Science 2.	59
BAR	62	Computing & Business	1
Architecture	62	Concrete Industry Management	10
BET	158	Cyberpsychology	12
Computer Technology	13	<b>Data Science Computing Option</b>	6
Construction Engineering Tech	22	Data Science Statistics Option	2
Construction Management Tech	10	Electrical Engineering	53
Electrical & Computer Eng Tech	39	Environmental Science	5
Manufacturing Engr Tech	2	Financial Technology	19
Mechanical Engineering Tech	65	Forensic Science	9
Medical Informatics Tech	2	Human Computer Interaction	14
Surveying Engineering Tech	5	Industrial Design	12
BGS	9	Industrial Engineering	21
General Studies	9	Information Technology 1	99
BS	1379	Mathematical Sciences	23
Applied Physics	11	Mechanical Engineering 1'	78
Architecture	25	Science, Technology & Society	8
Biochemistry	12	Web & Information Systems	11

# Master's Degrees Awarded

MAR	31	Data Science Statistics Track	20
Architecture	31	Electrical Engineering	16
MBA	94	Engineering Management	105
<b>Business Administration</b>	94	Engineering Science	1
MS	1261	<b>Environmental Engineering</b>	7
Applied Mathematics	3	Environmental Science	4
Applied Physics	1	Healthcare Systems Management	6
Applied Statistics	3	Industrial Engineering	31
Architecture	21	Information Systems	66
Artificial Intelligence	1	IT Administration & Security	17
Bioinformatics	4	Management	79
Biology	3	Manufacturing Systems Engr	4
Biology of Health	4	Materials Science & Engr	5
Biomedical Engineering	23	Mechanical Engineering	36
Biostatistics	1	Occupational Safety & Health Engr.	2
Business & Information Systems	49	Pharmaceutical Chemistry	19
Chemical Engineering	11	Pharmaceutical Engineering	8
Chemistry	9	Pharmaceutical Sys Management	6
Civil Engineering	82	Power and Energy Systems	3
Computer Engineering	23	Software Engineering	12
Computer Science	335	Telecommunications	5
Computing & Business	1	Transportation	7
Cyber Security & Privacy	42	Urban Design	5
Data Science Comp Track	181		

# DOCTORAL DEGREES AWARDED

PHD	74	Computer Science	10
Applied Physics	4	Electrical Engineering	12
Biology	3	<b>Environmental Engineering</b>	2
Biomedical Engineering	2	<b>Environmental Science</b>	2
Business Data Science	2	Information Systems	4
Chemical Engineering	6	Mathematical Sciences	6
Chemistry	4	Mechanical Engineering	3
Civil Engineering	6	Transportation	2
Computer Engineering	4	Urban Systems	2

# POST-BACCALAUREATE CERTIFICATES AWARDED

CRT	145	IT Administration	1
Artificial Intelligence	2	Management Information Systems	3
Big Data Essentials	8	Management of Technology	2
Biomedical Device Development	1	Mini-MBA	4
Biostatistics Essentials	1	Network Security & Information	
Business Analytics	10	Assurance	6
Cell and Gene Therapy Sci	1	Pharmaceutical Management	2
Cert in Found of Cybersecurity	8	Pharmaceutical Manufacturing	1
Certificate in Comp Sci	28	Power Systems Engineering	1
Construction Management	5	Project Management	10
Data Mining	24	Software Engr Analysis/Design	2
Data Science for Chem Mat Engr	1	Statistics for Data Science	1
Data Visualization	1	Supply Chain Engineering	11
Environmental Sci & Engr	1	Sustainable Cities & Urban Eco	2
Financial Technology	6	Transportation Studies	1
Geotechnical Engineering	1		

# **III.B. Faculty**

New Jersey Institute of Technology's faculty are productive in developing intellectual property, conducting research, and publishing and presenting scholarly research. Faculty receiving prestigious awards in 2023 and 2024 are listed below.

# **III.B.1 Faculty Awards**

Faculty Awards 2023-2024		
Ahmadpoor, Fatemeh	NSF CAREER	
Alvarez, Tara	NAI Fellow	
Alvarez, Tara	Edison Patent Award	
Bilgili, Ecevit	AiCHE Fellow	
Cessa Rojas, Roberto	NAI Senior Member	
Cohen, Robert	NAI Fellow	
Cummings, Linda	APS Fellow	
Datta, Dibakar	NSF CAREER	
Dhawan, Atam	Innovate 100	
Henderson, Dan	NAI Fellow	
Johnson, Michael	Innovate 100	
Li, Jing	NSF CAREER	
Lim, Teik C.	Innovate 100	

Liu, Qing	IEEE Senior Member		
Sadik, Wunmi	American Chemical Society		
Sadik, Wunmi	Wallace H. Coulter Lecture - Pittcon		
Sadik, Wunmi NAI Fellow			
	Catalysis Society of Metropolitan New York - Award for Excellence in		
Wang, Xianqin	Catalysis		
Wei, Zhi	IEEE Fellow		
Yang, Junjie	NSF CAREER		
Yaramothu, Chang	NAI Senior Member		
Zhang, Wen	NAI Senior Member		
	AAEES Excellence in Environmental Engineering and Science Competition		
Zhang, Wen	Grand Prize for University Research		