NYU | TANDON SCHOOL OF ENGINEERING









2026

UNDERGRADUATE SUMMER RESEARCH PROGRAM

STUDENT ABSTRACT BOOKLET

A MESSAGE FROM THE VICE DEAN

The NYU Tandon School of Engineering's Undergraduate Summer Research Program (UGSRP) provides a hands-on research opportunity for students across NYU Tandon, NYU Abu Dhabi, NYU Shanghai, NYU College of Arts and Science, NYU-KAIST, and other select institutions. During this 10-week program, student researchers collaborate with faculty mentors, graduate scholars, and research staff on high-impact projects. By connecting classroom learning with real-world challenges, UGSRP expands academic horizons and prepares participants for lasting scholarly success.

Guided by faculty across Tandon's Impact Areas, participants work to build smart, secure, sustainable, and healthy urban communities. Faculty and research supervisors provide essential guidance in research methodologies and field-specific practices. Alongside lab work, students attend lectures and professional development workshops. Special thanks to Matthew Frenkel for leading the Student2Scholar (S2S) Series, and to our guest speakers for sharing valuable guidance for our students' futures.

Financial support from NYU Tandon, faculty research grants, and external donors is vital to the program. This year marks the 15th anniversary of the Thompson Bartlett (TB) Fellowship, which supported ten female researchers thanks to Mrs. Dede Bartlett. Her father, George Juul Thompson, graduated from the Electrical Engineering program at the Polytechnic Institute of Brooklyn in 1930; we sincerely thank Dede for her ongoing support. Other fellowships include the Tandon Scholars Fellowship, the Visiting Student Fellowship, and the NYU-American Heart Association (AHA) Cardiovascular Engineering Undergraduate Summer Research Fellowship, featuring projects with NYU Langone faculty. Donors' generous contributions allow us to expand opportunities for students and mentors alike.



This summer offered both on-campus and remote research opportunities, creating a hybrid experience that mirrors today's professional landscape. The program concluded with a research poster session celebrating student achievements. The abstracts and posters in this booklet highlight the diverse research conducted this summer.

Coordinating this program requires significant effort. Special thanks to Sara-Lee Ramsawak, Assistant Dean of Undergraduate Academics and Global Engagement, who oversees the program and manages booklet production. Miri Cha helped compile this year's Abstract Booklet. Jen Piro, Director of Undergraduate Programs, managed student placements and stipends, supported by Raffy Orbe on application enhancements. Kat Arrendondo, Manager of Undergraduate Programs, led the event calendar and engagement initiatives. Thank you to the entire team!

Congratulations to all participating student researchers! Thank you to our mentors, staff, Dede Bartlett, Matt Frenkel, coordinators, and guest speakers. I am extremely proud of this program and look forward to future summers of scholarly growth.

Peter J. Voltz

Peter Voltz, Vice Dean for Academic Affairs

A MESSAGE FROM THE COORDINATORS

The Tandon Undergraduate Summer Research Program (UGSRP) was initiated at NYU Tandon in 2007. The Office of Undergraduate Academics (UGA) has coordinated the program since 2011, driving its growth from 60 student participants to over 130 this year.

Our program encompasses a diverse group of faculty and research projects across NYU Tandon academic departments, NYU Wireless, the NYU Center for Urban Science and Progress, NYU Langone, and various VIP projects.

We have worked tirelessly to match students with best-suited project supervisors and research staff members to foster fruitful research and strong mentorship. In addition to hands-on research, we offer dedicated academic, career, and personal development seminars, lectures, workshops, and events designed to deepen students' research knowledge and highlight future professional opportunities and paths.

Our commitment to developing, maintaining, and continually enhancing this program remains steadfast. We extend our sincere gratitude to everyone who joined and supported this summer's program to ensure its seamless execution. We congratulate all student participants on a successful summer and hope you enjoyed the experience!



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Commemorating 15 Years of the Thompson Bartlett Fellowship Program:
Empowering Undergraduate Research at NYU Tandon



Since 2007, each summer members of the Tandon School of Engineering faculty with yearly expansion to include several other offices, centers, and labs have opened spots on their research projects to allow rising sophomore, junior, and senior level undergraduate students to work at a level generally reserved for master's and doctoral candidates through the Undergraduate Summer Research Program. In addition to the work they do on the projects, students participate in programming coordinated by the Undergraduate Academics Office.

Since 2012, numerous outstanding female undergraduates have been eligible for an additional honor: the Thompson Bartlett Fellowship, sponsored by longtime benefactor Dede Bartlett. Bartlett — a former Fortune 25 executive with Exxon Mobil and Altria, philanthropist, advocate for victims of domestic abuse, and 2025 NYU Tandon commencement speaker — launched the fellowship in honor of her father, George Juul Thompson. Thompson graduated in 1930 from the Polytechnic Institute of Brooklyn, received naval awards for his service, and served as an electrical engineering instructor at the school from 1948 to 1968. "During his two decades of teaching, he had only one female student," Bartlett explained, "and I wanted to help change that." Bartlett, who has also supported internship programs at Vassar and NYU, established the fellowship to create tangible research opportunities for women in engineering.

Summer 2026 marks the 15th anniversary of the fellowship program. Initially sponsoring 3 students, Dede Bartlett and her son, Jim Bartlett, have expanded the program to annually support 10 students. The fellowship forms part of a structured 10-week paid summer research assistantship program open to undergraduate students across all majors, enabling hands-on research and mentorship.

The program boasts significant Student and Alumni Impact: to date, approximately 138 students have been sponsored, with about 70% pursuing careers in STEM fields and roughly 45% earning or pursuing advanced degrees. Alumni have secured prominent career placements and admissions to top graduate institutions. At the 15-year celebration event, alumni panelists such as Sarah Appelbaum and Rana Mohamed shared their professional journeys, reflecting on how the fellowship helped shape their careers in STEM and supported their technical and leadership growth.

The Undergraduate Academics Office, the Undergraduate Summer Research Program, and the New York University Tandon School of Engineering are extremely thankful to Dede and Jim Bartlett for their contributions and support of our female students. Over the years, a large network of exceptional women have developed and have been nurtured through this Fellowship. We are, and continue to be, impressed with them and all that they do. We look forward to the future achievements of all our Thompson Bartlett alumni!

THOMPSON BARTLETT FELLOWSHIP CELEBRATES 15 YEARS OF IMPRESSIVE WOMEN













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William Zhang
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Calendar of Events

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4 Translating Research for a Public Audience

9 The Lab Link-Up: Summer Research Social

10 S2S: Finding what you Need: Building a Knowledge Base for Research Questions

11 Navigating Plagiarism in the Age of AI

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UGSRP Fellowships

American Heart Association (AHA)
The NYU-AHA Cardiovascular Engineering Fellowship Program is supported by the American Heart Association's institutional award for undergraduate student training. This fellowship provides support for five undergraduate students, offering them the opportunity to engage in cutting-edge cardiovascular engineering research.

Tandon Scholars Fellowship
The Tandon Scholars Fellowship supports high-achieving undergraduates with the potential to become global leaders in innovation, technology, research, and entrepreneurship through the GLASS Scholars Program. This fellowship provides resources, mentorship, and opportunities for upper level GLASS students to engage in cutting-edge research and collaborate with distinguished faculty and industry professionals. It emphasizes developing socially conscious engineering leaders ready to impact society significantly.

Thompson-Bartlett Fellowship
Established in 2012 and generously supported by Dede Bartlett, the Thompson Bartlett Fellowship funds summer research internships for outstanding women undergraduate students across various majors at NYU Tandon. This includes those majoring in engineering fields, as well as those pursuing STEM-related projects.

Visiting Student Fellowship
The Visiting Student Fellowship provides a unique opportunity for select non-NYU students to participate in research at NYU each year. This fellowship aims to diversify the research community by incorporating students from various institutions and backgrounds. Participants gain access to NYU's cutting-edge research facilities, collaborate with leading scholars, and engage in innovative projects across multiple disciplines.