



NYU

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Immediate Release

Real-time flood sensors, urban farms, autonomous cars, dancing drones and more at NYU Tandon's Research Excellence Exhibit

***Over 40 innovations, including new influenza diagnosis tests and human-driven robots,
will be on display at the Downtown Brooklyn event***

BROOKLYN, New York, Thursday, April 21, 2022 – The [NYU Tandon School of Engineering](#) will showcase over 40 innovative and future-forward research projects by faculty and students, along with interactive, family-friendly tech activities, at its 2022 [Research Excellence Exhibit](#).

The annual expo, in its ninth year, takes place on **Friday, April 29th from 1:00 p.m. to 4:00 p.m.** at **Brooklyn Commons at NYU Tandon's MetroTech campus in Downtown Brooklyn**. The event is free and open to the public.

The event will spotlight technology with real-world applications for **health** and **biomedical** fields, **cybersecurity, sustainability, urban life, robotics, emerging media, telecommunications**, and much more from Tandon's labs and prototyping facilities like the [NYU MakerSpace](#).

Additionally, it will feature research, applications and devices developed by students in NYU Tandon's highly popular [VIP](#) (Vertically Integrated Projects) initiative, which offers invaluable experience applying engineering principles to pressing global challenges. Also showcased will be projects developed by the students in NYU Tandon's many K-12 STEM Education programs, of special interest to even the youngest attendees, their parents, and teachers.

Highlights include:

- [FloodNet](#), a network of urban flood sensors and the dashboard that will show, in real-time, what these ultrasonic sensors "see." FloodNet gives reporters, policy makers and researchers a critical tool for coastal cities to adapt in the face of stronger storms and rising sea levels.
- The chance to "drive" a virtual autonomous car via an AI-powered simulation that chooses its driving style based on perception of surroundings and predictions of possible futures. The goal is to reach your destination quickly without colliding with other vehicles or objects.
- Multiple projects benefiting the vision-impaired, including a wearable, machine learning system that can detect obstacles faster than the human eye, and [SoundCells](#), a web-based music

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notation technology that students designed in collaboration with vision-impaired musicians for writing print and braille music.

- A live demo of hydroponic and aquaponic farming, opening the door to urban farming and sustainable life at the global level.
- The latest lunar rover from the NASA Robotic Mining Competition VIP team.
- A robotic “co-worker” that creates a digital twin of a construction environment and projects images of hidden construction defects onto walls to alert builders and craftsmen to unseen challenges.
- A demonstration of choreographed aerial routines by quadrotor drones.
- The Tandon-designed AerVent, a portable system for patients with airborne infectious diseases like COVID, TB or influenza that allows health workers to isolate patients individually, without sequestering them in costly negative-pressure isolation rooms without sequestering them in costly negative-pressure isolation rooms whose supply is [limited](#).

“After two long years, we are looking forward to finally welcoming everyone back for this engaging event,” said [Jack Bringardner](#), Assistant Dean for Academic and Curricular Affairs, Academic Affairs Industry Associate Professor and Director, General Engineering Program. We expect the event to be as fun and educational as it is each year, and we hope it will allow the community to see the important work being done right here in Downtown Brooklyn. If it sparks a love of science and a desire to further explore the STEM fields in our attendees, the event will have been even more of a success.”

“Every year I look forward to our annual Research Excellence Expo, which allows us to show the community how engineers, including students on our VIP teams, are impacting society in positive ways,” NYU Tandon Dean [Jelena Kovačević](#) said. “Because we are able to resume the Expo in-person this year after pivoting virtually for the pandemic, visitors can once again see, touch, hear and interact with many of these technologies and practical solutions to problems we all face, allowing us to inspire others — particularly young people — to join us in becoming inventors and innovators.”

Visit the [2022 Research Excellence Exhibit page](#) for more details, including a complete list of exhibits

About the New York University Tandon School of Engineering

The NYU Tandon School of Engineering dates to 1854, the founding date for both the New York University School of Civil Engineering and Architecture and the Brooklyn Collegiate and Polytechnic Institute. A January 2014 merger created a comprehensive school of education and research in engineering and applied sciences as part of a global university, with close connections to engineering programs at NYU Abu Dhabi and NYU Shanghai. NYU Tandon is rooted in a vibrant tradition of entrepreneurship, intellectual curiosity, and innovative solutions to humanity’s most pressing global challenges. Research at Tandon focuses on vital intersections between communications/IT, cybersecurity, and data science/AI/robotics systems and tools and critical areas of society that they influence, including emerging media, health, sustainability, and urban living. We believe diversity is integral to excellence, and are creating a vibrant, inclusive, and equitable environment for all of our students, faculty and staff. For more information, visit engineering.nyu.edu.

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