



NYU

TANDON SCHOOL  
OF ENGINEERING

## Fully-funded PhD Positions in the Resilient Urban Networks Lab starting Fall 2024

### About the Resilient Urban Networks Lab @ NYU

Cities function as the main engines of productivity, innovation, and culture, driven by the intricate socioeconomic interconnections among individuals and institutions. Yet, cities face unprecedented challenges such as climate change, rising inequality, and the integration of novel technologies. *How will these compounded challenges impact cities and our lives?*

The mission of the Resilient Urban Networks (RUN) Lab at NYU Tandon is to develop computational tools to 1) understand the complex interplay between collective human behavior, novel technology, and the built environment, and 2) collaborate with practitioners to improve the resilience of communities and cities to such compounded shocks.

The Resilient Urban Networks Lab led by Dr. Takahiro Yabe, based in the Department of Technology Management and Innovation (TMI) and the Center for Urban Science and Progress (CUSP), seeks highly motivated candidates for **multiple openings as graduate research assistants starting in Fall 2024**, to explore the following subjects:

- Computational models of human mobility behavior during unprecedented shocks
- Resilience of complex urban socio-economic-technical networks
- Social, economic, and environmental impacts of urban mobility technology

Applicants with expertise and prior research experience in fields including applied statistics, network science, behavior modeling, urban science, and geospatial AI are strongly encouraged to apply. Proficiency in programming (Python, R, Java) and quantitative skills are essential. If interested, please send the following documents to [takahiroyabe@nyu.edu](mailto:takahiroyabe@nyu.edu), using the email subject "Ph.D. in RUN Lab". Successful students will receive full financial support from 2024 Fall onwards.

- Your CV (including a list of publications, academic/professional backgrounds, and skills)
- 1-page cover letter describing your research experience and interests. Please include a brief statement about your future academic or professional goals.
- Contact details for 2 references.

### Ph.D. Program in Human-Centered Technology, Innovation & Design + Urban Science

Candidates need to officially apply to the Ph.D. Program in TMI, adhering to the Tandon School of Engineering requirements. **The deadline for applications is December 1st, 2023.** The *Ph.D. in Human-Centered Technology, Innovation & Design* program offers an interdisciplinary experience that combines practical, theoretical, and research-based learning, aiming to comprehend and adapt to the societal and cultural impacts of modern urban technologies. Students are encouraged to augment the Ph.D. degree with the [Urban Science Track at CUSP](#) to specialize their research in urban science. Please visit the [TMI website](#) for more information. Please mention my name in your application documents, and feel free to keep me informed of your application.

### About Dr. Takahiro Yabe

Dr. Takahiro Yabe is an Assistant Professor at the Department of Technology Management and Innovation (TMI) and the Center for Urban Science and Progress (CUSP) at Tandon School of Engineering, New York University. His research focuses on computational social science and network science approaches to model the resilience of cities to disasters, pandemics, and disruptive mobility technology (e.g., [PNAS](#), [Nature Communications](#), [Nature Machine Intelligence](#)). Previously, he was a Postdoctoral Associate at the MIT Institute of Data, Systems, and Society (IDSS) and the MIT Media Lab with Dr. Alex 'Sandy' Pentland and Dr. Esteban Moro. He obtained his Ph.D. from Purdue University in 2021 (advisor: Dr. Satish V. Ukkusuri), and his MS and BS from University of Tokyo in 2017 and 2015 (advisor: Dr. Yoshihide Sekimoto). For more information, see [www.takayabe.net](http://www.takayabe.net).