



#### Welcome to the NYC Future Energy Conference!

In the face of a changing climate, how does a city meet the twin challenges of obtaining energy sustainably and distributing that energy efficiently to its citizens? Our unreliable future demands innovation now to ensure the continued resiliency of energy infrastructure. The NYC Future Energy Conference at the City College of New York (CCNY) brings together diverse researchers studying sustainable energy generation and storage, flexible infrastructure for efficient energy distribution, and means for securing energy justice in the face of climate change.

We hope to work with you to build collaborative networks within the NYC region and nationally capable of addressing these looming challenges. Sessions today will focus on technical aspects of energy research but will challenge the audience to think about how these technological elements can be brought together to achieve energy justice.

Please find enclosed in this conference booklet:

- the conference schedule;
- a list of speakers and panelists;
- conference resources and contact information, including information about our quiet space in SH250;
- a list of gender neutral restrooms on CCNY campus;
- a map of the emergency evacuation route for the conference venue; and
- our code of conduct, which applies to all conference attendees.

We are committed to creating a safe, inclusive, and equitable conference space that welcomes and supports our diverse attendees. Please do not hesitate to reach out to conference staff about any issues, or with any requests that would improve your conference experience.

#### Sincerely,

The NYC Future Energy Conference Organizing Committee

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## **Conference Schedule**

8:00AM-9:00AM	Registration & Breakfast
9:00-9:10	Welcome
9:10-9:50	<b>Keynote: Rohit Aggarwala</b> , Commissioner of the New York City Department of Environmental Protection and NYC's Chief Climate Officer
9:50-10:00	Break
10:00-11:30	<b>Session 1:</b> Energy in a Changing Climate (Chair: Marta Gutman, Spitzer School of Architecture)
10:00-10:30	Talk 1A: Damon Bolhassani, Assistant Professor of Architecture, CCNY
10:30-11:00	Talk 1B: Tria Case, Director of Sustainable CUNY
11:00-11:30	Talk 1C: Jane Atkinson Gajwani, Office of Energy and Resource Recovery
11:30-11:45	Flash Talks (by selected poster presenters)
11:45AM-12:30PM	Lunch & Collaborative Brainstorming Activity
12:30-1:30	Poster Session
1:30-3:00	<b>Session 2:</b> A Resilient Harlem Microgrid (Chairs: Michael Bobker, Building Performance Lab, CUNY Energy Institute; Sanjoy Banerjee & Alexander Couzis, Grove School of Engineering)
1:30-2:00	Talk 2A: Mark Evlyn, Director II of Advanced Energy, DER, Resiliency, Grid Modernization & Michael D'Ambrose, Project Engineer, TRC Companies
2:00-2:30	Talk 2B: Clayton Banks, Co-Founder and CEO of Silicon Harlem & Kat Sibel, Community Climate Resiliency Coordinator, NYC Department of Health & Mental Hygiene
2:30-3:00	Talk 2C: Shawn Rickenbacker, Director of the Max J. Bond Center for Urban Futures and Associate Professor of Architecture, CCNY
3:00-3:15	Break
3:15-4:45	<b>Session 3:</b> Resilient and Efficient Distribution & Infrastructure (Chair: Ahmed Mohamed Grove School of Engineering)
3:15-3:45	Talk 3A: Nelson Yip, Director of Strategic Planning, Con Edison
3:45-4:15	Talk 3B: Mohamed Kamaludeen, Director of Energy Storage Validation, U.S. Department of Energy
4:15-4:45	Talk 3C: Ahmed Mohamed, Associate Professor of Electrical Engineering, CCNY
4:45-5:30	Student Career Panel & Faculty Funding Panel



### **OUR SPEAKERS**

#### Damon Bolhassani, Assistant Professor of Architecture, CCNY



Dr. Damon Bolhassani is an assistant professor of architecture in structural design, at Spitzer School of Architecture at the City College of New York (CCNY). He is the director of the Advanced Building Construction Lab (ABC Lab) at CCNY. His research focuses on sustainable construction and geometric form-finding of compression-only minimal surface structures. Dr. Bolhassani is a Professional Engineer (PE) and holds an M.S. and Ph.D. in Structural Engineering with a focus on the seismic enhancement of masonry structures. He has held appointments at Drexel University, Bucknell University, and the University of Pennsylvania.

#### Tria Case, University Executive Director of Sustainability and Energy Conservation, CUNY



Tria Case has served for more than a decade as the University Executive Director of Sustainability and Energy Conservation and launched Sustainable CUNY to support the adoption of renewable energy, energy efficiency practices, innovations in clean technology and behavioral changes on CUNY's campuses and in NYC. In addition to working with faculty, staff and students on research and in traditional sustainability areas, Ms. Case directs the

CUNY Conserves Energy Efficiency Operations and Maintenance (O&M) Program and secures and manages multi-millions in funding for O&M projects including the Sustainable Investment Revolving Loan Fund, which supports energy savings projects on CUNY campuses. Ms. Case formed the Smart Distributed Generation (DG) Hub, with City, State, and Federal participation, in an effort to integrate storage and distributed renewable energy resources into emergency power and resiliency deployment. Her office is responsible for the NYC Solar and Storage Ombudsman program established in partnership with NYC as a result of these efforts.

#### Jane Atkinson Gajwani, Office of Energy and Resource Recovery, NYC DEP



Jane Gajwani is a Professional Engineer with over 25 years of experience working in the intersection of water and energy. As the Director of the Office of Energy and Resource Recovery Programs and the Agency Chief Decarbonization Officer for the New York City Department of Environmental Protection, she and her group are tasked with plotting the course for the Agency to achieve both carbon and energy neutrality. Prior to joining DEP, she

developed greenhouse gas and energy reduction strategies on the municipal, regional, and national levels within the water and waste sectors. She has both Master's and Bachelor's degrees in Chemical Engineering from The Cooper Union.

#### Clayton Banks, Co-Founder and CEO of Silicon Harlem



Clayton Banks is a technologist, social entrepreneur and pragmatic visionary with expertise and deep experience in smart, tech-enabled infrastructures, including broadband, advanced wireless connectivity, digital and data literacy, virtual incubator development, technology hub design, network deployment and web production. He founded and directs Silicon Harlem with the intention of bringing advanced skills in the emerging digital economy to benefit

communities nationally. Under his leadership, Silicon Harlem has attracted over \$50 million dollars into upper Manhattan for advanced infrastructure research and test bedding. Clayton has been recognized as one of New York Cities "Tech Power 50" leaders. He has established critical science, technology, engineering, and mathematics (STEM) programs & non-profits in Upper Manhattan to prepare citizens for 21st century careers.

#### Kat Sibel, Community Climate Resiliency Coordinator, NYC Department of Health & Mental Hygiene



Kat Sibel is a passionate, bilingual climate resiliency planner and former emergency manager. She is dedicated to Silicon Harlem's mission, "everyone needs a connection," but strongly believes that they are the key in preparing the community to stay connected, safe and informed during future climate emergencies. She is currently the Community Climate Resiliency Coordinator with the NYC Department of Health & Mental Hygiene's Bureau of Environmental Surveillance and Policy, which researches climate health topics such as extreme

heat, air quality, flooding, built environment, and energy insecurity and its impact on the community. Fridays after work, visiting the HOPE community and East Harlem with Silicon Harlem's BetterB program is the highlight of her week.

#### Mark Evlyn, Senior Director of Advanced Energy, DER, Resiliency and Grid Modernization, TRC Companies



Mark Evlyn is senior director of the Advanced Energy, DER, Resiliency and Grid Modernization group at TRC Companies, a global engineering firm. Through multiple industry positions Mark has successfully demonstrated an ability to conceptualize, plan, direct and execute complex engineering applications in utility scale advanced power solutions. Based on this, his group has been aggressively advancing the fields of renewable energy integration, grid energy storage,

and microgrid development through multiple projects around the country. Mark holds Bachelors and Masters degree in Electrical Engineering from CCNY.

#### Michael D'Ambrose, Project Engineer, TRC Companies



Michael D'Ambrose, Ph.D., recently joined TRC's DER team as a subject matter expert on energy storage. As a Project Engineer he employs a system-wide approach to the technical and economic viability of energy storage technologies and innovations for applications that support increased renewable electricity generation and enable the transformation to a clean, resilient, and distributed electric power system. Michael completed his doctorate in Chemical

Engineering at CCNY in 2021, specializing in battery energy storage at the CUNY Energy Institute.

#### Shawn Rickenbacker, Director of the Max J. Bond Center for Urban Futures, CCNY



Shawn Rickenbacker, Ph.D. is an Associate Professor and the Director of the Max Bond Center for Urban Futures at CCNY's Spitzer School of Architecture. A native New Yorker, he is deeply engaged with community planners, bringing data and data-analysis to bear on decision-making and design. An experienced problem-solver, he has particular interests in the future of urban housing, urban data policy analysis, urban form and innovation and is committed to creating transformative change by bringing together and managing cross

disciplinary leaders and integrative design research teams representative of academia, industry, the non-profit sector, government agencies and communities to effectively collaborate and respond to complex equitable and sustainable design and urban challenges. Previously, Shawn held positions at Cornell, the University of Pennsylvania, and Tulane.

#### Nelson Yip, Director of Strategic Planning, Con Edison



Nelson Yip is the Director of Strategic Planning at Con Edison, where he is currently shaping the company's climate change resilience plans and clean energy future strategy. He has a wide range of experience within Con Edison, having worked for over 20 years on policy, sustainability, electric operations, and emergency management. Nelson has developed Con Edison advocacy positions for climate change, cybersecurity, the Regional Greenhouse Gas Initiative, and Renewable Portfolio Standards. He also played a central role in Con Edison's efforts to restore and improve electrical systems after Superstorm Sandy. Nelson holds a

bachelor's degree and a master's degree in electrical and computer engineering from Cornell University, and a Master of Business Administration from New York University.

#### Mohamed Kamaludeen, Director of Energy Storage Validation, U.S. Department of Energy



Mohamed Kamaludeen is the Director of Energy Storage Validation at the Office of Electricity (OE), U.S. Department of Energy. His team in OE leads the nation's energy storage effort by validating and bringing technologies to market. This includes designing, executing, and evaluating a RD&D portfolio that accelerates commercial adoption of next-generation grid storage technologies. Mohamed has more than 15 years of experience in the electric utility industry, specifically the electric system planning process, including engineering and design, forecasting, substation planning, and energy storage. He is a change management leader with

a record of building energy storage businesses in a regulated utility environment. With a portfolio of utility-owned and third-party projects exceeding 120MW, Mohamed positioned Con Edison of New York to advance energy storage development. Mohamed is known for developing novel clean energy projects at scale through strong private sector-led, government-enabled innovation and collaboration framework. He holds a Ph.D. in Electrical Engineering from CUNY and is currently an Adjunct Professor at Columbia University.

#### Ahmed Mohamed, Associate Professor of Electrical Engineering, CCNY



Ahmed Mohamed is the Associate Professor and Advisor of the Ph.D. Program at the Department of Electrical Engineering (EE), City College of the City University of New York (CUNY). He is the Director of the CUNY Smart Grid Interdependencies Laboratory (<u>http://smartgrid.ccny.cuny.edu</u>) and Site Director of the National Science Foundation (NSF)

IUCRC Building Energy Smart Technologies (BEST) Center. Prof. Mohamed's research interests include power grid resiliency and decarbonization, critical infrastructure interdependencies, and transportation electrification. He has over 100 publications in these fields as books, book chapters, and articles in journals and conference proceedings. Professor Mohamed's research work has been supported via funds from various entities, including federal funding agencies, utility and private companies, and city and state governments. He is the recipient of various awards, including the NSF CAREER Award and several best-paper awards from the Institute of Electrical and Electronics Engineers (IEEE), to list a few.

### **OUR PANELISTS**

### **Student Career Panel**

#### Moderator:

• Claude Brathwaite, Director of Student Resources and Services, CCNY

#### Panelists:

- Jennifer McDonnell, Assistant Commissioner of Solid Waste Management, NYC Department of Sanitation
- Mark Evlyn, Senior Director of Advanced Energy, DER, Resiliency and Grid Modernization, TRC
- Yasmeen Khan, Program Director, CUNY Building Performance Lab

## **Faculty Funding Panel**

#### Moderators:

- Alan Shih, University Executive Director of Research & Innovation, CUNY
- Brandon Begarly, Senior Director of Research Administration, Lehman College

#### Panelists:

- Mohamed Kamaludeen, Director of Energy Storage Validation, U.S. Department of Energy
- Carole Read, Program Director, Chemical, Bioengineering, Environmental and Transport Systems (CBET), National Science Foundation

# **Participant Resources**

### Location

The NYC Future Energy Conference will be held in the historic Great Hall inside of CCNY's Shepard Hall. For the conference, the main entrance of Shepard Hall (on Convent Ave) will be open and will be used to enter the building. Conference check-in will be set up near this entrance, before sending participants upstairs to the Great Hall. Elevators and ramps are available to all conference spaces, though please contact conference staff to discuss any additional accessibility needs. Campus is conveniently located to the A, C, B, D, and 1 subway lines and is serviced by a <u>campus shuttle</u>.

### Wifi

Participants will have access to CCNY Guest Wifi, which requires email registration but is free to all visitors, and eduroam.

### **Quiet Space**

Shepard Hall room 250 (SH250) will be available as a quiet work and rest space to participants for most of the day, except during 11AM-1PM (lunchtime brainstorming session and setup) and 4PM onward (funding panel and setup). We welcome participants to use this space to recharge, but ask that they refrain from conversation, playing audible music, etc.

### **Conference Contacts**

For safety concerns please contact <u>campus safety</u> at (212) 650-6911 (general) OR (212) 650-7777 (emergencies). In case of emergencies please contact emergency services at 911, though we recommend additionally reaching out to campus safety so they can guide those services (e.g., ambulances) to the appropriate location.

For any other questions during the conference please email Jackie Lee Weissman (<u>jweissman@ccny.cuny.edu</u>) or ask a member of the conference staff. The conference registration table near the entrance to Shepard Hall will be supervised all day by conference staff who can help you.





# **Emergency Evacuation Route**



# The NYC Future Energy Conference Code of Conduct

This document is adapted from guidelines written for <u>The Carpentries Handbook</u> and The <u>Bioinformatics Virtual</u> <u>Coordination Network</u>. Additional language was added under a CC BY 3.0 license.

Keep in mind that all conference activities must fall in line with CCNY's Title IX and non-discrimination policies. In particular:

"The City College of The City University of New York (CUNY) is committed to providing equal employment and educational opportunity to all persons without regard to race, color, religion, national or ethnic origin, age, gender, sexual orientation, transgender, disability, genetic predisposition or carrier status, alienage or citizenship, prior arrest record, or marital, military, or veteran status. It is a violation of this policy for any member of the college community to engage in discrimination or to retaliate against a member of the community for raising an allegation of discrimination, filing a complaint alleging discrimination, or for participating in any proceeding to determine whether discrimination has occurred."

For CCNY's full policy visit the <u>Office of Diversity and Compliance website</u>. You may <u>file a complaint of</u> <u>discrimination</u> directly to this office, and conference staff will not be made aware of such complaints. Similarly, you may <u>file a sexual misconduct allegation form</u> to this office. Counseling services can offer <u>confidential</u> <u>support</u>, and other <u>immediate services</u> are available to help victims of sexual misconduct. All policies stated below are in addition to, rather than in place of, college-wide policies.

### Summary

The NYC Future Energy Conference is dedicated to providing a welcoming and supportive environment for all people, regardless of background or identity. By participating in this community, participants accept to abide by this Code of Conduct and accept the procedures by which any Code of Conduct incidents are resolved. Any form of behaviour to exclude, intimidate, or cause discomfort is a violation of the Code of Conduct. In order to foster a positive and professional learning environment we encourage the following kinds of behaviours in all platforms and events:

- Use welcoming and inclusive language
- Be respectful of different viewpoints and experiences
- Gracefully accept constructive criticism
- Focus on what is best for the community



• Show courtesy and respect towards other community members

If you believe someone is violating the Code of Conduct, please contact conference staff or Dr. Jackie Lee Weissman (jweissman@ccny.cuny.edu) directly, who will take the appropriate action to address the situation.

### Code of Conduct

#### Part 1. Introduction

The NYC Future Energy Conference values the involvement of everyone in our community, including those from academia, industry, government, community organizations, and the general public. We are committed to creating a friendly and respectful place for learning, teaching and contributing. All participants in our events and communications are expected to show respect and courtesy to others.

To make clear what is expected, everyone participating in the NYC Future Energy Conference is required to conform to the Code of Conduct. This Code of Conduct applies to all interactions related to the conference including, but not limited to, the in-person conference and online communications.

The Code of Conduct will be enforced by the conference organizing committee who can be contacted via email. All reports will be kept confidential, unless reporting to the university Title IX Office is required. Be aware that CUNY and CCNY faculty and staff are mandatory reporters of Title IX violations.

### Part 2. Code of Conduct

The NYC Future Energy Conference is dedicated to providing a welcoming and supportive environment for all people, regardless of background or identity. As such, we do not tolerate behaviour that is disrespectful to our teachers or learners or that excludes, intimidates, or causes discomfort to others. We do not tolerate discrimination or harassment based on characteristics that include, but are not limited to, gender identity and expression, sexual orientation, disability, physical appearance, body size, citizenship, nationality, ethnic or social origin, pregnancy, familial status, veteran status, genetic information, religion or belief (or lack thereof), membership of a national minority, property, age, education, socio-economic status, technical choices, percieved status of supporting institution, and experience level.



Everyone who participates in conference activities is required to conform to this Code of Conduct. It applies to all conference spaces, both physical and digital. By participating, participants indicate their acceptance of the procedures by which CCNY and the NYC Future Energy Conference resolves any Code of Conduct incidents, which may include storage and processing of their personal information.

#### Part 2.1 Expected behaviour

All participants are expected to show respect and courtesy to others. All interactions should be professional regardless of platform: either online or in-person. In order to foster a positive and professional learning environment we encourage the following kinds of behaviours in all events and platforms:

- Use welcoming and inclusive language
- Be respectful of different viewpoints and experiences
- Gracefully accept constructive criticism
- Focus on what is best for the community
- Show courtesy and respect towards other community members

Note: See the <u>four social rules</u> for further recommendations.

#### Part 2.2 Unacceptable behaviour

Examples of unacceptable behaviour by participants related to the NYC Future Energy Conference include:

- written or verbal comments which have the effect of excluding people on the basis of membership of any specific group causing someone to fear for their safety, such as through stalking, following, or intimidation
- violent threats or language directed against another person
- the display of sexual or violent images
- unwelcome sexual attention
- nonconsensual or unwelcome physical contact
- sustained disruption of talks, events or communications
- insults or put downs
- sexist, racist, homophobic, transphobic, ableist, or exclusionary jokes
- excessive swearing
- incitement to violence, suicide, or self-harm
- continuing to initiate interaction (including photography or recording) with someone after being asked to stop
- publication of private communication without consent
- publication or use of data without consent



### Part 2.3 Consequences of Unacceptable behaviour

Participants who are asked to stop any inappropriate behaviour are expected to comply immediately. This applies to all events and platforms, either online or in-person. If a participant engages in behaviour that violates this Code of Conduct, the organisers may warn the offender, ask them to leave the event or platform, or initiate an investigation of the Code of Conduct violation and impose appropriate sanctions, including removal from all future events or current platforms.

**About this document.** Contributors to this document: Adam Obeng, Aleksandra Pawlik, Bill Mills, Benjamin Tully, Carol Willing, Erin Becker, Hilmar Lapp, Jackie Lee Weissman, Kara Woo, Karin Lagesen, Pauline Barmby, Sheila Miguez, Simon Waldman, Tracy Teal.