

A cityscape background with a blue tint, featuring modern buildings and a street scene. The text is overlaid on the image.

2ND ANNUAL CELEBRATING RESEARCH EXCELLENCE - Symposium at City Tech -

PROGRAM

Thursday, August 8, 2024
9:30AM - 3:00PM

CELEBRATING RESEARCH EXCELLENCE

8:30 AM – 9:15 AM	REGISTRATION CHECK-IN & COFFEE
9:30 AM – 9:35 AM	OPENING REMARKS Dr. Reginald Blake, Dr. Hamid Norouzi, Dr. Diana Samaroo – New York City College of Technology Emcee: Dr. Shakila Merchant – City University of New York Remote Sensing Earth Systems Institute (CUNY CREST)
9:35 AM – 9:40 AM	GREETINGS FROM THE PRESIDENT Dr. Russell Hotzler – New York City College of Technology
9:40 AM – 9:45 AM	GREETINGS FROM THE PROVOST Dr. Pamela Brown – New York City College of Technology
9:45 AM – 10:00 AM	KEYNOTE ADDRESS Dr. Amanda Adams – National Science Foundation (NSF)
10:05 AM – 10:15 AM	Mr. Matthew Pearce – National Aeronautics and Space Administration (NASA)
10:15 AM – 10:25 AM	Ms. Sarah Fernald and Mr. Chris Bowser – New York State Department of Environmental Conservation (DEC)
10:25 AM – 10:35 AM	Ms. Louisa Koch – National Oceanic and Atmospheric Administration (NOAA)
10:35 AM – 10:45 AM	Dr. Robin Bell – Columbia University
10:45 AM – 11:05 AM	COFFEE BREAK
11:05 AM – 11:15 AM	Dr. Alexander Couzis – Dean of The Grove School of Engineering, – City College of New York

- 11:15 AM - 11:25 AM Dr. Reza Khanbilvardi – City University of New York
Remote Sensing Earth Systems Institute (CUNY CREST)
- 11:25 AM - 11:30 AM CUNY CREST VIDEO
- 11:30 AM - 11:35 AM STUDENT INTERNS
Eric Coronado, Oliver Palmgren, and Sally Awuku (HIRES)
- 11:35 AM - 11:40 AM STUDENT RESEARCHERS
Cesar Vasquez (NSF-IUSE) and Isaac Morel (NSF-REU)
- 11:45 AM - 11:50 AM STUDENT INTERNS
Shirley Rincon Padilla and Jonathan Pierre (INSPIRE)
- 11:50 AM - 11:55 AM STUDENT RESEARCHERS
Jillian Greene, Andrew Levine, Erin Foley and Leonid Metlitsky (NASA CCRI)
- 11:55 AM - 12:00 PM STUDENT RESEARCHERS
Ilya Lebedev (NSF S-STEM), Hope Li, Franchesca Salas,
(Dr. Janet Liou-Mark RISE Program)
- 12:00 PM - 12:30 PM RECOGNITION OF STUDENT RESEARCHERS
- CUNY High School Initiative in Remote Sensing of the Earth Systems Engineering and Sciences (HIRES)
 - CUNY Research Scholars Program (CRSP) and NSF Louis Stokes Alliance for Minority Participation (LSAMP)
 - CUNY Remote Sensing Earth Systems Institute (CUNY CREST) Summer Bridge Program
 - Connected Communities for Smart Mobility towards Accessible and Resilient Transportation for Equitably Reducing Congestion (C2SMARTER)
 - Dr. Janet Liou-Mark RISE Program (Robinhood)
 - NASA Climate Change Research Initiative (CCRI)
 - NSF Implementing Novel Solutions for Promoting Cultural Change in Geoscience Research and Education (INSPIRE) program
 - NSF Research Experiences for Undergraduates (REU)
 - NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Program

- NSF IUSE Pathways into the Earth, Ocean, Polar and Atmospheric & Geospace Sciences (GEOPATHs)
- NYS Collegiate Science & Technology Entry Program (CSTEP)

12:30 PM - 1:15 PM LUNCH AND NETWORKING

1:00 PM - 2:30 PM POSTER PRESENTATIONS

2:30 PM - 2:45 PM RAFFLE PRIZES AND CLOSING REMARKS

POSTER PRESENTATIONS

CUNY High School Initiative in Remote Sensing of the Earth Systems Engineering and Sciences (HIRES) and CUNY Remote Sensing Earth Systems Institute (CUNY CREST) Summer Bridge Program

Title: MAQ-NYC using LCAMs: Mapping Air Quality in NYC using Low-Cost Air Quality Monitors

Authors: Safia Jahan, TriNahum Jones, Jonathan Rubinov, Narjis Sabar and Prash Naidu

Title: Laser Radar System for Agricultural Applications

Authors: Sebastian Avram, Dante Jikia, Andrii Iarmolenko, Andrii Golovin, Morann Dagan

Title: Estimation of Water Parameter from Ocean Remote Sensing

Authors: Seeger Berman-Rossi-Kempner, Raphael Vendome, Rosa Pavlak, Eder Herrera, Alex Gilerson

Title: Evaluating Design Capacity of New York City Sewer System through Rainfall Conditioning of Flash Flood

Authors: Siddharth Ganti-Agrawal, Jasmine Chaitkin, Naureen Asha, Seon-Ho Kim and Naresh Devineni

Title: Studying Temperature Variability in New York City Subway Stations

Authors: Cheikh Seck, Cybele Leydon, Matilda Leydon, Alex Feroso III, Husnain Khan, Tyler Ayala, Cesar Pascal, Isaac M. Morel Lopez, Joseph Moise, Abdou Bah, Reginald Blake and Hamid Norouzi

Title: Spatial Gradients of Key Meteorological and Air Quality Variable in NYC

Authors: Adriana St. Clair, Larymar Santos La Paz, Brandon Aleman, Leandro Menchu-Sajche, Keba-Amady Nelson, Omar Addasi and Prathap Ramamurthy

Title: Assessing New York City Living Shorelines - An Ecosystem, Remote Sensing and Community-based Learning Approach

Authors: Charlotte Smith, Vanessa Martinez, Natasha Sheriff, Aneliz Rodriguez, Shamima Ruhi, Jair Ruiz, Anais Ortega, Nadia Samaroo, Shakila Merchant and Tarendra Lakhankar

Title: Asset-Based Collaboration for Effective Engagement of Nuclear Wastes in Consent-Based Siting

Authors: Julian Bonilla, Abigail Matewos, Chloe Wu, Natalia Huesa, Angelina Ashie Benjamin Kreitzer, Tracey Zheng, Emely M Nunez, Julia A Golovina, Paniz Peiravani Ali Haider, Shima Kamali, Faraz Merchant, Liubov Kreminska and Reza Khanbilvardi

Title: RESCUE: Resilience and Engagement for Sustainable Climates in Urban Environments

Authors: Eric Coronado, Oliver Palmgren, Sally Awuku, Alijah Anyagwosi, Kazi Tasin, Richard Rivera, Miguel Johnson, Andrew Dixon and Tarendra Lakhankar

CUNY Research Scholars Program (CRSP) and NSF Louis Stokes Alliance for Minority Participation (LSAMP) Programs

Title: Advancement of the Measurement of the Indoor Environment in Building Entrance

Authors: Abdellah Gessra (CRSP), Rashiek Barber (LSAMP), Daniel Mohamed (LSAMP) and Daeho Kang

Title: Bridging Language Gaps in Healthcare

Authors: Hailah Nagi (CRSP) and Farrukh Zia

Title: Cloud Computing and Beyond

Authors: Yassine Chahid (CRSP) and Patrick Slattery

Title: Costumed Culture: Influences and Preservation on Broadway

Authors: Amanda Padilla (CRSP) and John Mccullough

Title: Cutting-Edge Differential Absorption LiDAR Solutions for Urban Ozone Analysis

Authors: Julissa Mendez (LSAMP) and Viviana Vladutescu

Title: Developing an Attitudinal Model of Collaborative Consumption: Moderating Effects of Consumer Traits and Situational Factors: Part II

Authors: Juan Del Pozo Severino (CRSP) and Alyssa Dana Adomaitis

Title: Enrollment Trends at CUNY and SUNY

Authors: Mohammed Nabid (CRSP) and Ezra Halleck

Title: Fraudulent Transaction Detection: Exploring the Role of Machine Learning Algorithms

Authors: Muhammad Jaffery (CRSP) and Patrick Slattery

Title: Harnessing AI for Smart Parking Lot Solutions

Authors: Ousmane Diallo (CRSP) and Marcos Pinto

Title: Impact Of Artificial Intelligence in Healthcare
Authors: Farian Shahzad (CRSP) and Muyessser Topcuoglu

Title: Landmark Proposal: Tracey Towers Pt. 2
Authors: Mohammed Jalloh (CRSP) and Michael Duddy

Title: Language Bias in AI Systems
Authors: Sumiya Jahan (CRSP) and Lubie Grujicic-Alatriste

Title: Language Bias on Campus: Dealing with English Language Bias
Towards International Students
Authors: Masuma Begum (CRSP) and Lubie Grujicic-Alatriste

Title: MRI and X-ray Investigation of Bio-mineral Redistribution in Apples
Over Time
Authors: Achlyn Genao (CRSP), Ishaak Olougodi (CRSP) and Subhendra Sarkar

Title: Numerical Calculation of the Fully Differential Semileptonic B-Quark
Authors: Yitao Li (CRSP) and Andrea Ferrogli

Title: Polyethylene Glycol Diacrylate Degradation Rate
Studies-Inverse Photolithography
Authors: Arda Taha Battaloglu (CRSP), Andy Moposita (CRSP) and Ozlem Yasar

Title: Porous Media, Gadolinium Agents and Halide Salts Can Induce Image
Distortion and Observable Contrast in X-ray and MRI due to Photon and
Field Heterogeneity at Internal Surfaces
Authors: Jasper Cheung (CRSP), Somdat Kisson (CRSP) and Subhendra Sarkar

Title: Radiologic Technology Students' Perception of Stress Causing Factors in
Both the Didactic and Clinical Environment
Authors: Fatima Kassim (CRSP), Makadeer Kassim (CRSP) and Jennett Ingrassia

Title: Review of Altered Cerebrospinal Fluid Flow in Brain Stem after
Mild-to-Moderate
Traumatic Brain Injury
Authors: Vanessa Robinson (CRSP) and Subhendra Sarkar

Title: Scaffold Design Using Lindenmayer Systems for Tissue
Engineering Applications
Authors: Obinna Jeremy Duru (CRSP), Destiny Erhunmwunse (CRSP) and
Ozlem Yasar

Title: Should Acetazolamide be Added to Loop Diuretic Therapy in Patients with
Decompensated Heart Failure?
Authors: Simran Puri (CRSP) and Vishwas Joshi

Title: Solving Special Linear Diophantine Equations
Authors: Emmanuel Oitamong (LSAMP) and Satyanand Singh

Title: The Application and Absence of Aesthetics and Functionality A Deep Dive into the Utilization of Visuals and Practical Construction of Product Design and the Effects on Consumer Preferability
Authors: Ze Huang (CRSP), Michael Lester (CRSP) and Maria Giuliani

Title: The Effects of Age, Psychopathology, and Neuropathology on Memory
Authors: Willcare Desmornes (CRSP), Lauren Lopez (CRSP) and Daniel Capruso

Title: The Role of Linguistics in Education
Authors: Laiba Zia (CRSP) and Lubie Grujicic-Alatriste

Title: The Use of Repurposed Whole Textiles to Modify the Mechanical and Hydrogeological Properties of Green Roof Media and Granular Soils
Authors: Yehya Elfgeeh (CRSP) and Ivan L. Guzman

Title: Vital Signs in Medicine and Dentistry
Authors: Rebeca Philiass (CRSP) and Susan Davide

Connected Communities for Smart Mobility towards Accessible and Resilient Transportation for Equitably Reducing Congestion (C2SMARTER)

Title: Climate Change Impacts on Bridge Scour Risk in New York State
Authors: Alexis Torres and Samaneh Gholitabar

Title: How can Augmented Reality contribute to Engagement and Orientation on the College Campus?
Authors: Bryan Estevez, Anissa Ramadini and Anne Leonhardt

Title: Can Assistive Technology Help Solve Mobility and Congestion Challenges?
Authors: Divya Kaushal, Maharin Khondoker and Farrukh Zia

Dr. Janet Liou-Mark RISE Program (JLM RISE – Robin Hood)

Title: Exploring Engineering Technology: A Multi-Disciplinary, Project-Based Introduction to Engineering Technology
Authors: Adenike Vallon, Christian Diaz and Benito Mendoza

Title: Pratt's Center for Climate Adaptation
Authors: Fary Sarr, Tshari Yancey, Afroza Aktar and David Erdman

Title: AquaSteady in Architecture: Enhancing Urban Sustainability by Integrating Seaweed-Based Hydrogel
Authors: Fareda Elsherif, Cindie Kehlet, Anna Collette and Baillie Vensel

Title: There is No Governor: Community, Art, Climate, and Change on Governors Island
Authors: Ilya Lebedev, Hope Li, Franchesca Salas, Donna Bilak and Farzad Mahootian

Title: Marty The Robot V2 for K-12 Learners of the Future
Authors: Diana Algazali and Megan Aebi

Title: Exploring the Viability of Recycled and New Filaments in Classroom 3D Printing: Methods and Applications
Authors: Thomas Alarcon Ali and Megan Aebi

Title: Are the Alternatives for 3D Printing/Pens Easier to Learn than the Printer Itself?
Authors: Ruth Lovely Joseph and Megan Aebi

NASA Climate Change Research Initiative (CCRI) Program

Title: Deciphering Changing Probabilities of Extreme Climate Events in Climate Models and Measurements
Authors: Lily Donaldson, Sangmin Pak, Theo Schiminovich, Timothy Groisman, and Allegra Legrande

Title: Accounting for Blue Carbon Storage on Long Island
Authors: Storm Heidinger, Carol Wang-Mondaca, Alex Ignatiev, Zoe Chen, and Dorothy Peteet

Title: How Can We Predict Snow Water Equivalent (SWE) Measurements Using Data from the SWESARR Instrument with Machine Learning?
Authors: Gabriela Himmele, Ryan Miller, Nicholas Pinder, Aditya Jain, and Alicia Joseph

Title: Characterizing the Urban Land Surface Temperature via an Innovative, Multi-Platformed Suite of Satellite and Ground-Based Remote Sensing Technologies
Authors: Kip Neilsen, Celina Wong, Miamuna Muntaha, Shaunak Sharma, Reggie Blake, and Hamid Norouzi

Title: Monitoring and Studying Lakes from Space in a Changing Climate
Authors: Jillian Greene, Andrew Levine, Erin Foley, Leonid Metlitsky, Marzi Azarderakhsh, Reggie Blake, and Hamid Norouzi

Title: A Machine Learning Framework for Comprehensive Thermal Imagery Analysis: An Application for Urban Heat Studies
Authors: Shaunak Sharma, Kip Neilsen, Celina Wong, Miamuna Muntaha, Reggie Blake, and Hamid Norouzi

Title: Parametrization of Phytoplankton Absorption for NASA/PACE Retrievals
Authors: Sebastian Park, Jacek Chowdhary, Matteo Ottaviani, Kendra Herweck, Anna Wadhwa, Toshiro Tokunaga

NSF Research Experiences for Undergraduates (REU) Program

Title: Mapping Air Quality in New York City Using Low-Cost Air Quality Monitors
Authors: Keba-Amady Nelson, Jonathan Rubinov, Safia Jahan, Brandon Aleman, TriNahum Jones, Adriana St. Clair, Leandro Menchu-Sajche, & Larymar Santos, Omar Addasi, Narjis Sabar and Prathap Ramamurthy

Title: Estimation of Water Parameters from Ocean Remote Sensing
Authors: Rosa Pavlak, Raphael Vendome, Seeger Berman-Rossi-Kempner, Eder Herrera Estrella and Alexander Gilerson

Title: Optical Extinction and Backscatter of Aerosols in an Urban Area
Authors: Tianyi Zhao, Tahsinur Rahman, Ayrton Cantos, Viviana Vladutescu, Yonghua Wu, Thomas Legbandt and Fred Moshary

Title: Wind Trajectories in an Urban Setting using Doppler LiDAR and Ancillary Ground based Remote Sensing Instrumentation
Authors: Joseph Rukaj, Nathan Booncharoen, Viviana Vladutescu, David A. Ligon, Melvin Felton, Huaqing Cai, Yonghua Wu, Thomas Legbandt and Fred Moshary

Title: Cross-instrument Validation of Aerosol Components Optical Properties Measurements
Authors: Tahsinur Rahman, Tianyi Zhao, Mary Ogunwale, Viviana Vladutescu, Yonghua Wu, Thomas Legbandt and Fred Moshary

Title: Cutting-Edge Differential Absorption LiDAR Solutions for Urban Ozone Analysis
Authors: Julissa Mendez, Jared Richey, Tianyi Zhao, Tahsinur Rahman, Viviana Vladutescu, Yonghua Wu, Thomas Ely, Thomas Legbandt and Fred Moshary

Title: We'll Fix It in Post: Deep Learning for Numerical Weather Prediction Post-Processing in Medium-Range Precipitation Prediction in the NE U.S.
Authors: Steven Aarons and Yanna Chen

Title: Analysis of Historical Rainfall Features of Flash Flood Events in New York City
Authors: Naureen Asha, Seonho Kim and Naresh Devineni

Title: Heat Monitoring in New York Subway System
Authors: Isaac M. Morel Lopez, César Pascal Vasquez, Tyler Ayala, , Joseph Moise, Husnain Khan, Cybele Leydon, Matilda Leydon, Cheikh Seck, Alex Feroso III, Abdou Rachid Bah, Hamid Norouzi and Reginald Blake

Title: Using Varioptic Liquid Lens Improving Laser Radar Accuracy in Insect Detection.

Authors: Andrii Iarmolenko, Dante Jikia, Sebastian Avram and Andrii Golovin

Title: Airborne Enemies: Narrative Review of the Association between Air pollution and Childhood Attention Deficit Hyperactivity Disorder

Authors: McKenna Cruz-Peace, Modou Lo, Jia Liu and Sarah O'Neill

Title: RESCUE [Resilience and Engagement for Sustainable Climates in Urban Environments]

Authors: Alijah Anyagwosi, Tasin Kazi, Eric Coronado, Oliver Palmgren, Sally Awuku, Miguel Johnson, Andrew Dixon, Richard Rivera and Tarendra Lakhankar

Title: Analyzing Atmospheric Correction Algorithms for Climate Change Impact on Water Quality in Clear Lakes Using Landsat

Authors: Aisha Malik and Marzieh Azarderakhsh

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Title: Analyzing Atmospheric Correction Algorithms for Climate Change Impact on Water Quality in Clear Lakes Using Landsat

Authors: Aisha Malik and Marzieh Azarderakhsh

NSF Implementing Novel Solutions for Promoting Cultural Change in Geoscience Research and Education (INSPIRE) Program

Title: Neurotoxins Unveiled: The Contamination of New York City's Waters Authors: Najat Hossain Subha, Rachel Cheng, Temur Rakhmatov, and Ryan Gomez

Title: Predicting Future Continental Shapes

Authors: Nazar Bondarenko, Mahin Kamal, Ayden Castellon, Aiden Mease, and Cayla Feaster

Title: How does Overfishing Affect the World?

Authors: Kayla Punin, Giorgi Abshilava, Christian Walker, and Emily Wang

Title: How are Hurricanes Warming the Oceans and What are the Implications?

Authors: Chloe Wu, Anthony Gonzalez, Mahnoor Shahzadi, Johanna Onofre, and Leah Mussington

Title: How can Renewable Energy Reduce the Urban Heat Island Effect

Authors: Cloe Fernandez, Aissatou Bah, Dylan Kim, and Nicholas Chen

Title: Why does low income housing in NYC flood so easily?

Authors: Jonathan Pierre, Garvey Grandchamps, Dana Michaud, and Shirley Rincon Padilla

Title: Warming of the Gulf of Maine and American Lobsters

Authors: Grace Sinhart, Javier Aguilar, Munika Sah, and Christ Augustin

NSF IUSE Pathways into the Earth, Ocean, Polar and Atmospheric & Geospace Sciences (GEOPATHS) Program

Title: Quantifying the Social Impact of Urban Heat Islands
Authors: Dan Hong Chen and Mary Zaradich

Title: Heat Monitoring in New York Subway System
Authors: César Pascal Vasquez, Tyler Ayala, Joseph Moise, Husnain Khan, Isaac M. Morel Lopez, Cybele Leydon, Matilda Leydon, Cheikh Seck, Alex Feroso III, Abdou Rachid Bah, Hamid Norouzi and Reginald Blake

NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Program

Title: Pratt's Center for Climate Adaptation
Authors: Fary Sarr, Tshari Yancey, Afroza Aktar and David Erdman

Title: There is No Governor: Community, Art, Climate, and Change on Governors Island
Authors: Ilya Lebedev, Hope Li, Franchesca Salas, Donna Bilak and Farzad Mahootian

Title: Smart Transport Robot Car
Authors: Nicholas Pillay and Ivan L. Guzman

Title: How can we use the Concepts of Engineering Technology to Innovate the Real World?
Authors: Eric Budhu and Muhammad Ummy

NYS Collegiate Science & Technology Entry Program (CSTEP)

Title: Three Contexts for Building, Dwelling, Thinking

Authors: Osaruyi Amadasun, Andrew Aucanzhala, Sara Fares, Kevin Hernandez, Christopher Lopez and Kenneth Conzelmann

Title: Assessing Home System Integration with Assistive Technology

Authors: Stephanie Pavon and Maharin Khondoker and Farrukh Zia

Title: Is Assistive Technology the Key to Solve Mobility and Congestion Challenges?

Authors: Jared Bowens and Erick Cabrera and Farrukh Zia

Title: Training Correlated Multi-Agent Policies in CartPole-v1 Environment Using Reinforcement Learning

Authors: Oluwakolade Obasa, Ruth Orlanne Gaboton, Afroza Aktar and Changkyu Kim

Title: Live Video and Still Image Face Recognition System Using Python and OpenCV

Authors: Mohammad Bahar, Nazia Mahmud, Sarah Saintilus, Isaac Gbondjin and Marcos Pinto

Title: Calculating Daily Idiosyncratic Volatility of Industry Stocks in R

Authors: Anton Smith, Alhagie Hydara, Noor Raj and Ossama Elhadary

Title: Use of Collaborative Robots for Manufacturing Applications with AI.

Authors: Steven Dahie, Christopher Sanchez, Aniza Flaquer, Diego Rivera and Andy Zhang

**New York City College of Technology- CUNY
New Academic Building (Auditorium and Lobby)
285 Jay St, Brooklyn, NY 11201**

2nd Annual CREST Symposium Organizing Committee: Reginald Blake, Hamid Norouzi, Diana Samaroo, Mary Zaradich, Abdou Bah, Shakila Merchant, Reza Khanbilvardi, Srishti Tyagi, Cesar Ortiz.

We acknowledge the assistance of Julia Rivera, Mary Anne Mollica, Monique Antoine, César Pascal Vasquez, Tyler Ayala, Joseph Moise, Isaac M. Morel Lopez, Danielle Blount and the Faculty Commons Design Team.

