

42<sup>nd</sup> semi-annual Dr. Janet Liou-Mark

# HONORS SCHOLARS & UNDERGRADUATE RESEARCH

## Poster Presentation

— 2025 —

### **Wednesday, May 7**

Poster Presentation  
(Poster Judging)  
10:00am - 4:00pm  
Academic Complex Lobby

### **Thursday, May 8**

Poster Presentation  
(Award Ceremony)  
12:45pm - 2:15pm  
Amphitheater LG30



Organized by City Tech's Honors Scholars  
& Undergraduate Research Programs



In Remembrance of  
Prof. Janet Liou-Mark





## GREETINGS

**Russell K. Hotzler**  
President

**Pamela Brown**  
Provost & Vice President  
for Academic Affairs

**Reginald A. Blake**  
Associate Provost and Dean of  
Curriculum and Research

## RECOGNITION OF UNDERGRADUATE RESEARCHERS

### Honors Scholars

Reneta D. Lansiquot-Panagiotakis  
Director of the Honors Scholars Program  
& Co-Director of the Interdisciplinary Design  
Game-Based Learning Lab

### CUNY Research Scholars Program (CRSP), Louis Stokes Alliance for Minority Participation (LSAMP), & CUNY Immersive Research Experience (CIRE)

Susan Davide  
Associate Director of Undergraduate Research

### Emerging Scholars


Hamidreza Norouzi  
Director of Undergraduate Research

### Grant-Funded Projects

Hamidreza Norouzi  
Director of Undergraduate Research

### Best Poster Awards

Tamrah D. Cunningham  
Assistant Director of the Honors Scholars  
Program & Co-Director of the Interdisciplinary Design  
Game-Based Learning Lab



# HONORS IN REGULAR COURSES

## A Fast Inverse Square Root Algorithm

Christopher Chow  
Prof. Johann Thiel  
MAT 2630: Numerical Methods

## The Petal Chair- Modular Furniture Upgrade to Ursula C. Schwerin Library

Leah C. Jerome  
Prof. Eugene Park  
ARCH2312: Architectural Design III

## Computational Fluid Dynamics (CFD) Analysis of a Turbine Blade

Luis Luna  
Prof. Masato R. Nakamura  
MECH 4700: Fluid Mechanics

## Working drawings: Preliminary Design Development

Fareda Elsherif  
Prof. Ramsey Dabby  
ARCH 2381: Structure I

## Re-purposed Whole Textile Reinforced Clay to Enhance Bearing Capacity of Pavement Soils

Roland Guevara  
Prof. Ivan Guzman  
CMCE 2456: Soil Mechanics

## Empirical Study on the Correlation Between Social Media Usage and Self Esteem

Parbatti Boodhoo  
Prof. Roriann Smith  
PSY 1101: Introduction to Psychology

## Pedestrian Truss Bridge

Munyaradzi Nyabonde  
Prof. Maeve Manfredi  
CMCE 1115: Statics

## Bayesian Statistics: Origins and Applications

Evelyn Pulla  
Prof. Satyanand Singh  
MAT 2572: Probability and Statistics I  
Grant Number: MSEIP Grant # P120A220033

## AI-Driven Best Practices for Soil Evaluation and Sustainable Small-Scale Agriculture

Jessica Gomez Parral  
Prof. David Smith  
MTEC 3501: Culmination Project Development

## The Unclaimed Dead- Homelessness, Structural Inequality, and Social Responsibility in NYC

Kristine Rakowsky  
Prof. Renate Reimann  
SOC 1101: Elements of Sociology

## The Bulletin Board

Noor Raj  
Prof. Jean Boulet  
CST 2409: Web Programming II

## Cost analysis for implementing local 97 in building: Cheapest Fuel vs Lowest Cost Penalty

Rashiek Barber  
Prof. Robert Polchinski  
FMGT 4902: Special Projects

## Noto Earthquake Disaster: Impact and Recovery

Kingston Ditsch  
Prof. Yanna Chen  
PHYS 1002ID: An Introduction to the Physics  
of Natural Disasters

## Project Panels

### The Legal and Ethical Consideration in Managing Diversity in the Workplace

Nardia Anglin Taylor

Prof. John Akana

HMGT 3601: Hospitality Management  
Legal Environment

### Accessible Gaming for Visually Impaired: The Use of Deep Learning Model for Real-Time Card Detection

Parviz Subkhankulov

Prof. Larry Ryan

CST 3502: Data Mining

### Facilitating Comprehension of Complicated Formulas in Calculus II

Daniel Flores de Valgaz

Prof. Toufik Ayoub

MAT 1575: Calculus II

### The History of the Brooklyn Bridge

Cindi Eve Sosa

Prof. Patricia Hickey

ENG 1101: English Composition I

### Articulating Empathy in Healthcare

Sabahat Moughal

Prof. David Lee

COM 3403: Health Communication and Education

### Biotechnological Advancement and Posthumanism: a Study of Cloning and CRISPR

Feriyal Khan

Prof. Daniel Wagnon

PHIL 2203: Health Care Ethics

### Reimagining Site Models in Architectural Education

Caetana Filipa Abreu de Castro Matos Megre

Prof. Elisabeth Martin

ARCH 2412: Architectural Design IV

### Poetic Codes- Emphasizing the fusion between poetry and computational analysis

Norm Miller II

Prof. Robert Ostrom

ENG 2142: Writing Poetry

### Stress Under Surveillance: The Psychological and Social Impact of Shelter Security in NYC

Kristine Rakowsky

Prof. Annie Ngana-Mundeke

ANTH 1101: Introduction to Anthropology

# SPECIAL PROJECTS

## Grid-Lock: Escape from the singularity

Mariame Aghailas  
Profs. Tamrah D. Cunningham  
& Reneta D. Lansiquot-Panagiotakis

## Mythic Math: Scrolls & Beasts of the Forgotten Academy

Evelyn Pulla  
Profs. Tamrah D. Cunningham  
& Reneta D. Lansiquot-Panagiotakis

## Community All Stars

*Street Homelessness Advocacy Project (SHAP)*, Ruth Marie Charles; *American Red Cross*, Sunita Cheddiel; *New York Police Department (NYPD)*, Ejegul Bayramova; *Council of Peoples Organization (COPO)*, Adham Alshaif; *Gobind Sarvar*, Aastha Momi; *8 Ball Community*, Amir Kamal Gamble; *Chinese-American Planning*, Ruizheng Huang; *Blerd City Convention: A Safe Space for Nerds*, Ebony Cumbo Grant & Angelina Mateo

## PHYS 1002ID: Introduction to Physics of Natural Disasters

Prof. Yanna Chen

## Growing Threat of Hurricanes in Global Warming

Luis Cespedes, Kiran Maharjan, Diego Reyes,  
Rean Shahidullah, Yesna Sorwor,  
& Jun Tong (Adam) Zhang

## Climate Change and the Human Health

TianBao Chen, Ousmane Diallo,  
Arkadiy Mardakhaev, Nearcisse Maynard,  
& Vishal Ramkhelawan

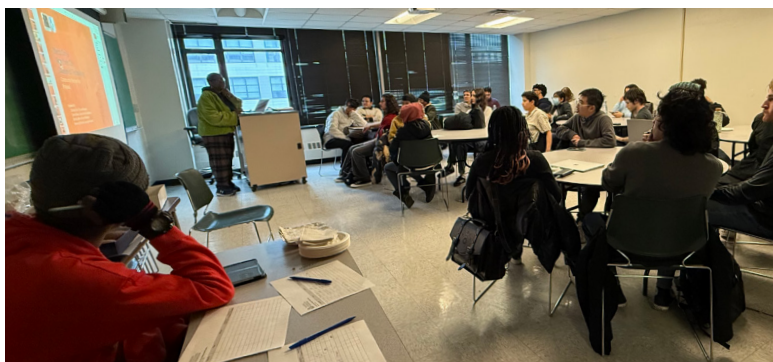
## Global Aftershock

Shahd Abdalla, Jean-Pierre Damani, Robert Francis,  
Aida Nouri, Andreus Pollard, & Norman Zhen

## Harnessing the Waters: Analyzing the Ecological and Societal Benefits of Flood Events

Brigette Alejandro, Seckin Arsoy, Kingston Ditsch,  
Dante Iannelli, Julian Ruiz & George Salazar





Prof. Clairea Clay, Founder, Blerd City Con  
Game Jam: Storytelling in board games, February 27, 2025



Game Jam: Playtesting, April 24, 2025



Honors Scholars Program  
Brooklyn Landmark Elementary School  
Textile Lab, March 21, 2025



Honors Scholars Program  
Graduate School Fair, April 10, 2025



Game Jam: Playtesting, April 24, 2025

# **CUNY RESEARCH SCHOLARS PROGRAM (CRSP) & LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION (LSAMP)**

## **A Geospatial Analysis of the Intersection of Livability and Sustainability in NYC**

Arianna Dilillo  
Prof. Anne Leonhardt

## **Abnormal Molecular Involvement and Fluid Behavior Post-TBI: Chemical and Mathematical Biology of Brain Tissue**

Vanessa Robinson  
Prof. Subhendra Sarkar

## **Adaptive Reuse of Historic Buildings Amidst Gentrification**

Natalie Simons  
Prof. Shelly Smith

## **Building an R Library of Financial Functions**

Manahill Arshad  
Prof. Ossama Elhadary

## **Can Graphic Design Help Improve Overall Communication?**

Ze Huang and Michael Lester  
Prof. Maureen Neuringer

## **Classifying Galaxies by Color in the Legacy Survey of Space and Time (LSST)**

Samiya Shamsur  
Prof. Charlotte Olsen

## **CyberSecurity Products Comparison**

India Barker  
Prof. Ossama Elhadary

## **Effects of Electric Field and Heat on X-ray Absorption by Biological Media**

Jasper Cheung  
Prof. Subhendra Sarkar

## **Identify a specific area of Cyber Security**

Carl-Handy Abraham  
Prof. Ossama Elhadary

## **MR Diffusion Databases to Identify Common, Vulnerable Regions in Various Neurological Diseases**

Daler Djuraev and Xionghui Wu  
Prof. Subhendra Sarkar

## **Optical Prediction of Personality Characteristics**

Tamara Tugulashvili  
Prof. Daniel Capruso

## **Pandemic to Present Ozone Analysis Comparison: LiDAR's Role in Urban Air Quality Monitoring**

Julissa Mendez  
Prof. Viviana Vladutescu

## **Parameters for Entanglement Between Various Qubits Used for Quantum Computers**

Elizabeth Frias  
Prof. Oleg Berman

## **Remixing and Adapting Virtual and Non-virtual Manipulatives in the Teaching and Learning of High School Mathematics: Incorporating Computational Thinking in Preservice Mathematics Teachers' Preparation**

Alyssa Johnson and Yadira Vazquez  
Profs. Nadia Kennedy and Ariane Masuda

## **Study and Analysis of the Design of a Robot Manipulator**

Kimberly McLaurin  
Prof. Farrukh Zia

## **The Standard Model of Particle Physics**

Christopher Osorio  
Prof. Andrea Ferroglia



### **Transforming Computer Technology into Green Technology**

Ruth Orlanne Gaboton  
Prof. Farrukh Zia

### **Understanding the Impact of Climate Change and Building Energy Consumption**

Rashiek Barber, Abdellah Gessra, Takoda Nestor,  
Christopher Sanchez, and Ferasuddin Siddiqui  
Prof. Daeho Kang

### **Use of Repurposed Whole Textile for Enhancement of Pavement Soils**

Yoselin Sarita  
Prof. Ivan L. Guzman Pena

### **Visualization and Analysis of Environmental Data OR Natural Capital Accounting**

Hasib Mahmood  
Prof. Ossama Elhadary

### **AI-Driven Web Development: Enhancing User Experience with Intelligent Automation**

Kazi Islam  
Prof. Patrick Slattery

### **CyberSecurity Products Comparison**

India Barker  
Prof. Ossama Elhadary

### **Cybersecurity: The Future of User Access Controls**

Gina Leon Serna  
Prof. Patrick Slattery

### **Decrypting Data with AI**

Daniel Wang  
Prof. Patrick Slattery

### **Enhancing Dental Care Access for Veterans: Addressing Gaps in Insurance and Oral Health Services**

Stefanie Rivera  
Prof. Susan Davide

### **Fixtures for Automated Light Bulb Testing using a Robot Arm**

Anthony Lai and Simon Lin  
Prof. Angran Xiao

### **Leveraging Blockchain for High-Integrity Carbon Trading: Feasibility, Scalability, and Impact in Latin America**

Darien Mendez  
Prof. Heather Eliezer

### **Mathematical Modeling and Experimentation to Design Surface Filters for Magnetic and Optical Properties Useful in Medical Industries**

Ali Al-Gemsh and Taro Suzuki  
Prof. Subhendra Sarkar

### **Modern Full-Stack Web Development Technologies**

Yassine Chahid  
Prof. Patrick Slattery

### **Monitoring Heat in NYC Subway System**

Alexander Abreu Ramirez, Damilola Babs-Ogundeji, Lou Kale, Abdoul Mohaimine Nana, and Malique Paul  
Prof. Abdou Bah

### **MR Diffusion Databases to Identify Common, Vulnerable Regions in Various Neurological Diseases**

Daler Djuraev and Xionghui Wu  
Prof. Subhendra Sarkar

# CUNY IMMERSIVE RESEARCH EXPERIENCE (CIRE)

## Scheduling Applications using Graph Theory and Graph Coloring

Mariame Aghailas  
Prof. Kayla D. Davie

## Study and Analysis of the Design of a Robot Manipulator

Kimberly McLaurin  
Prof. Farrukh Zia

## The Evolution of Drug Discovery

Saba Alkobadi  
Prof. John Lonie

## Utilizing PEGDA for Sustainable Seed Growth: Microgreens in Space

Artur Abramyan, Gabriel Antigua, Luis Luna & Kelly Wu  
Prof. Ozlem Yasar

## X-ray and MRI of Transition Metals in 2D Porous Media: Quantum and Classical Optics

Achlyn Genao, Andre Ngono & Natalya Tomskikh  
Prof. Subhendra Sarkar

## Artificial Intelligence - Machine Learning, Mobility - Mobile (phones, iPads, watches, etc) apps, Web apps

Joel Mejia  
Prof. Marcos Pinto

## Exploring the Idiosyncratic Volatility Puzzle

ZiHan Cao  
Prof. Ossama Elhadary

## Incorporating AI in the Teaching and Learning of School Mathematics: Design and Assessing Activities with AI for the Mathematics Classroom

Rachel Dawidowicz  
Prof. Nadia Kennedy

## MR Diffusion Databases to Identify Common, Vulnerable Regions in Various Neurological Diseases

Daler Djuraev and Xionghui Wu  
Prof. Subhendra Sarkar

## NMR Investigations of Ion Transport in Novel Electrolytes

Elizabeth Brandwein  
Prof. Steve Greenbaum

## Remixing and Adapting Virtual and Non-virtual Manipulatives in the Teaching and Learning of High School Mathematics: Incorporating Computational Thinking in Preservice Mathematics Teachers' Preparation

Alyssa Johnson and Yadira Vazquez  
Profs. Nadia Kennedy and Ariane Masuda

## The Solar Shed: From Schematic Design to Design Development to Construction Documents

Andrew Aucanzhala, Javier Espinal Paniagua, and Kevin Hernandez  
Prof. Kenneth Conzelmann

# EMERGING SCHOLARS PROGRAM

## AI in Daily Life by 2025

Sumiya Jahan  
Prof. Anne Chen

## Understanding the Impact of Climate Change and Building Energy Consumption

Rashiek Barber, Abdellah Gessra, Takoda Nestor,  
Christopher Sanchez, and Ferasuddin Siddiqui  
Prof. Daeho Kang

## X-ray and MRI of Transition Metals in 2D Porous Media: Quantum and Classical Optics

Achlyn Genao, Andre Ngono & Natalya Tomskikh  
Prof. Subhendra Sarkar

## A Model to Classify Face Emotion

Angie Navarro  
Prof. Marcos Pinto

## Advanced Assistive Technology Facilitates Hands-on Service Learning

Majida Naz  
Prof. Farrukh Zia

## AI/ML Accelerator Science and Technology

Parviz Subkhankulov  
Prof. Li Geng

## An Exploration of Combining a Traditional Chinese Musical Genre with the Contemporary “Wave” Style

Demitri Cameron  
Prof. David Smith

## Apply Machine Learning to Detect and Predict Fraud in Credit Card Transactions

Bartlomiej Gralak  
Prof. Marcos Pinto

## ARCscholars

Bryant Ariza, Nouman Arshad, Danielle Gibson,  
Diana Luna-Garcia & Elijah Walker  
Prof. Naomi Langer-Voss

## Arduino-Based Obstacle Avoidance Electric Vehicle

Ndibmouwem Umanah  
Prof. Ahmed Hassebo

## Are New Yorkers prepared for Coastal and Riverine Flooding? An analysis of 2023 National Household Survey on Disaster Preparedness

Suzana Edmond, Karen Fung & Kashfia Raisa  
Prof. Sanjoy Chakraborty  
& Smita Ekka Dewan

### **Augmented Reality Research and Design**

Sally Chen and Alan Jaquez  
Prof. Jenna Spevack

### **Automated Control System for Javanese Shadow Puppets and Dynamic Set Manipulation**

Kristian Rice and Yinson Tso  
Prof. David Smith

### **Blended Shadow Puppet**

Samuel Cheung  
Prof. David Smith

### **Bridging the Financial Literacy: Impact on Children's Future**

Ruizheng Huang  
Prof. Shakira Henry

### **CAD to Illustrate Deficits in 3D Constructional Ability**

Ivy Li  
Prof. Daniel Capruso

### **Comparative Gene Expression Analysis in Disease and Normal States Using Public RNA-Seq Data**

Noor Ahamed, Guadalupe Gonzalez  
& Bansari Patel  
Prof. Evgenia Giannopoulou

### **Control of Electro-Mechanical Systems with Assistive Technology Devices**

Shiou Ching Chen  
Prof. Farrukh Zia

### **Design and Fabrication of 3D Printed Computer Based Assisted Technology Device**

Amber Ocasio  
Prof. Farrukh Zia

### **Dried blood sampling (DBS) for at-home testing of viral load among youth living with HIV**

Cynthia Wen  
Prof. Sitaji Gurung

### **Early Childhood Caries**

Shahd Abdalla  
Prof. Dora-ann Oddo

### **Eco-Effective Housing**

Fareda Elsherif, Mohamed Hassan,  
Fatima Ikhmais & Mariam Selim  
Prof. Alexander Aptekar

### **Edge Modes Created by a Domain Wall**

Tonatiuh Fitzgerald  
Prof. Roman Kezerashvili

### **BESP32 Weather Monitor**

Sherlyn Cruz  
Prof. Ahmed Hassebo

### **Exploring Current Data Wrangling Techniques and Tools**

Shazrim Farin  
Prof. Patrick Slattery

### **Exploring Properties Of Resolved Regions In Galaxies Through Cosmic Time**

Ena Chia  
Prof. Charlotte Olsen

### **Food Inspection Prediction**

Kevin Olivares  
Prof. Marcos Pinto

### **Foveal Fixations on Face, Fashion, and Jewelry**

Maggie Morales  
Prof. Daniel Capruso

### **From Kitchen to Medicine Cabinet: Ancient Remedies in Modern Nutraceuticals**

Ali Algemsh  
Prof. Sanjoy Chakraborty

### **Healthcare Policies That Work For Caribbean Immigrant Populations in NYC**

Kimora Toussaint  
Prof. Debarati Biswas

### **How Do South Asians Communicate in Healthcare Settings with Respect to their Cultural/Ethnic Backgrounds?**

Sabahat Moughul  
Prof. Sarah Price

### **Human Resource Policies Inclusive of Dress Amongst Genders within the Fashion Industry**

Najae Ricketts  
Prof. Alyssa Dana Adomaitiswecdx

### **Innovative gearbox for greener e-bike**

Harmony Divine and Mahmoud Elfalah  
Prof. Andrea Ferroglia

### **Integrating Ecological Design Principles into Urban Public Spaces for Community Well-Being**

Rayen Osorio  
Prof. Anne Chen

### **Micro:Bit Communication**

Doussouba Diakite and Nadia Khan  
Prof. Farrukh Zia

### **Monitoring Heat in NYC Subway System**

Alexander Abreu Ramirez,  
Damilola Babs-Ogundeji, Lou Kale,  
Abdoul Mohaimine Nana, & Malique Paul  
Prof. Abdou Bah

### **Optical Properties of Hybrid Quantum Dot / Transition-Metal Dichalcogenide Nanostructures**

Keven Cruz and Tomas Gonzalez  
Prof. Vitaliy Dorogan

### **Oral and Fecal Canid Microbiome Analysis**

Mariana Lucero  
Prof. Jeremy Seto

### **Photocataloging and DNA Barcoding of Yellowjackets**

Imarcy Marmol  
Prof. Jeremy Seto

### **PM2.5 and Its Impact on Our Lungs**

Hailah Nagi  
Prof. Farrukh Zia

### **Predicting Post Translational Modifications Using Protein Sequence**

Christopher Chow  
Prof. Shang-Huan Chiu

### **Probabilistic Simulations**

Rona Zhang  
Prof. Satyanand Singh

### **Quantum Diffusion for Option Pricing**

Sean Sinclair  
Prof. German Kolmakov

### **Re-Imagining an East Harlem Corner**

Terri Wright  
Prof. Elizabeth Parks

### Repurposed Whole Textile Reinforced Clay to Enhance Bearing Capacity of Pavement Soils

Jonathan Huerta Dolores and Ritika Talwar  
Prof. Ivan Guzman

### Redesigning the light testing center of the robotic system

Mohamed Ka  
Prof. Muhammad Ali Ummay

### Redistribution and Localization of Biometals in Apples Using X-Ray and MRI

Somdat Kissoon  
Prof. Subhendra Sarkar

### Roebeling's Bridges

Emmanuel Tejada  
Prof. Paul King

### Smart Lock Biometric & RF-Based MFA using Arduino

Ibraheem Esa, Kevin Balbuena Montes, and Francisco Zamora  
Profs. Suela Aalsberg and Mohammed Islam

### Teaching Multiethnic Stories in American Literature: Representation, Methods, and the Impact of School

Most Akter  
Prof. Caroline Hellman

### TECHNE 2023-2024

Alyssa Duran, Diego Lopez, Vladislav Molchanov & Elisabet Tolentino  
Prof. Jieun Yang

### The Effects of COVID-19 on the US Economy

Angelica Tellez  
Prof. Huseyin Yuce

### The Integration of Liveability and Sustainability in NYC Neighborhoods

Sonya Weinstock  
Prof. Anne Leonhardt

### The role of MRI in diagnosis of patients with conditions that affect the organs and tissues

Sebastien Louis  
Prof. Lillian Amann

### The Societal and Ethical Issues Related to AI

Jaquan Lasalle  
Prof. Elizabeth Milonas

### The Solar Shed: From Schematic Design to Design Development to Construction Documents

Andrew Aucanzhala, Javier Espinal Paniagua & Kevin Hernandez  
Prof. Kenneth Conzelmann

### Topics in Computational Number Theory

Evelyn Pulla  
Prof. Satyanand Singh

### Understanding the Impact of Climate Change and Building Energy Consumption

Rashiek Barber, Abdellah Gessra, Takoda Nestor, Christopher Sanchez, & Ferasuddin Siddiqui  
Prof. Daeho Kang

### Using AI to Control a Set of Drones

Shafique Khan  
Prof. David Smith



# GRANT-FUNDED PROJECTS

## Utilizing PEGDA for Sustainable Seed Growth: Microgreens in Space

Artur Abramyan, Gabriel Antigua, Luis Luna,  
& Kelly Wu  
Prof. Ozlem Yasar

## Virtual Meeting Space

Maurice Alexander  
Prof. Marcos Pinto

## X-ray and MRI of Transition Metals in 2D Porous Media: Quantum and Classical Optics

Achlyn Genao, Andre Ngono  
& Natalya Tomskikh  
Prof. Subhendra Sarkar

## Snack Quests and Circuses

Rona Zhang  
Profs. Satyanand Singh, Jonas Reitz, Kate Poirier,  
Ariane Masuda, & Darya Krym  
Grant Number: MSEIP Grant # P120A220033

## NSF REU Grant # 2150432

Drs. Reginald Blake, Hamidreza Norouzi,  
& Ms. Julia Rivera

## Characterizing the Urban Land Temperature via an Innovative, Multi-Platformed Suite of Satellite and Ground-based Remote Sensing Technologies

Raisa Atiq and Toluwa Jayeola  
Drs. Hamidreza Norouzi & Reginald Blake

## NSF IUSE Grant # 2327431

Drs. Reginald Blake, Hamidreza Norouzi,  
& Ms. Julia Rivera

## Transforming NYC's Waste into Energy: Researching Global Models for Sustainable Urban Systems

Rean Shahidullah  
Dr. Masato Nakamura

## Transforming Landfills from Environmental Liabilities into Energy Assets through Geological Engineering and WTE Innovation.

Rizwan Chowdhury, Harmony Divine,  
Babacar Sarr, & Rean Shahidullah  
Dr. Masato Nakamura

## Comparison of AERONET and MESONET Aerosol Optical Depth (AOD) Retrievals Using Sun Photometer Data in New York City

Shervan McLean  
Dr. Yanna Chen

## Heat Monitoring In Brooklyn Subway System CUNY – MTA

RKingston Ditsch, Maria Hashmi,  
& Shaquan Larose  
Drs. Abdou Bah, Hamidreza Norouzi,  
& Reginald Blake

# NOTES

## COOLING THE CONCRETE JUNGLE: POSITIVE IMPACT OF GREEN ROOFS AND GREEN MATERIALS ON THE UHI

Brigette Alejandro and Zohaib Khan  
Dr. Marzi Azarderakhsh

## The Heat We Breathe: Spatial Correlations Between Surface Temperature and Asthma in East New York

Hailah Nagi  
Dr. Marzi Azarderakhsh

Northeastern University-Department of  
Homeland Security Center of Excellence Institution  
Participants Engineering PLUS stEm PEER  
Academy Grant

## Criminal Data Network Analysis using Centrality Measures

Naselin Mendez  
Prof. Urmi Duttagupta

## Criminal Data Network Analysis using Spectral Clustering Method

John Estrella  
Prof. Urmi Duttagupta

The 42<sup>nd</sup> semi-annual  
Dr. Janet Liou-Mark Honors Scholars  
& Undergraduate Research Poster Presentation

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To all the dedicated professors for  
mentoring students. A heartfelt thank you  
for making this event a successful one.

**SPECIAL THANKS TO**

Ms. Chioma Okoye  
Mr. Michael Peterkin  
Ms. Julia Rivera  
Ms. Monisha Sooklall  
Ms. Mary Zaradich  
Ms. Rona Zhang

**A SPECIAL THANK YOU TO THE DEDICATED  
POSTER JUDGES:**

Ralph Alcendor  
Alexander Aptekar  
Navid Allahverdi  
Kayla Davie  
Vitaliy Dorogan  
Andrea Ferrogliia  
Ivan Guzman  
Ashrarul Haq  
Ahmed Hassebo  
Ivana Jovanovic  
Ellen Kim

Jeffrey Kroll  
Lyubava Kroll  
David Lee  
Tommy Li  
Elizabeth Milonas  
Laureen Park  
Jody Rosen  
Satyanand Singh  
Meagan Sylvester  
Tracy Zimmermann  
Zheng Zhu

A special recognition and appreciation to  
Or Szyflingier for designing this program.

Organized by City Tech's Honors Scholars  
& Undergraduate Research Programs