Dr. Janet Liou-Mark

The 37th Semi-Annual

HONORS & UNDERGRADUATE

RESEARCH SCHOLARS POSTER PRESENTATION

WEDNESDAY, NOVEMBER 30, 2022
VIRTUAL POSTER PRESENTATION
(POSTER JUDGING)

THURSDAY, DECEMBER 1, 2022
VIRTUAL POSTER PRESENTATION
(AWARD CEREMONY)

openlab.citytech.cuny.edu/37thposterpresentation/

ORGANIZED BY CITY TECH'S HONORS SCHOLARS PROGRAM

GREETINGS

Russell K. Hotzler
President

Pamela Brown
Provost & Vice President for Academic Affairsa

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

RECOGNITION OF UNDERGRADUATE RESEARCHERS

Honors Scholars
Reneta D. Lansiquot
Director of the Honors Scholars Program

CUNY Research Scholars & Louis Stokes Alliances for Minority Participation
Hamidreza Norouzi
Director of Undergraduate Research

Emerging Scholars
Hamidreza Norouzi

Grant-Funded Projects
Hamidreza Norouzi

Interdisciplinary Projects
Reneta D. Lansiquot
Founding Chair of the Interdisciplinary Committee

BEST POSTER AWARDS

Amanda Almond
Assistant Director of the Honors Scholars Program

HONORS IN A REGULAR COURSE

What is the Immune Response to a Dental Implant?

Aneeza Hussain
Prof. Peter Spellane
CHEM 2323: Organic Chemistry II

Technology & Law: Cybersecurity, Privacy and Data Protection

Denise Jeffers
Prof. Marissa Moran
LAW 4704: Legal Technology

Employee Wellness Programs in the Hospitality Industry

Elaine Suarez
Prof. John Akana
HMGT 3501: Hospitality Work Force Management in a Global Marketplace

Radio Frequency Identification (RFID), Passive Tag-to-Tag Communication, and Phase Cancellation

Eudes Lelaj
Prof. Li Geng
EET 4202: Digital Signal Processing

Halawa House

Fareda Elsherif
Prof. Robert Rothlatt
ARCH 1231: Building Technology I

Essays on Human Resource Management (HRM)

Isory Santana
Prof. Lynda Correa
PSY 2404: Personnel and Organizational Psychology

Exploring Different Interpretations of Quantum Mechanics

Jianning Luo
Prof. Gelman Boris
PSY 2607: Introduction to Quantum Mechanics

The Pandemic & Foodservice

Kemoya McLeod
Prof. Jean Claude
HMGT 2303: Culinary Arts II

Cybersecurity & Data Privacy

Kerri Greaves
Prof. Marissa Moran
LAW 4704: Legal Technology

Developing a Progressive Web Application

Myra James
Prof. Marcos Pinto
CST 240: Web Programming II

Energy & Environmental Simulation: Smart Technology Project

Najwan Kased
Prof. Masato Nakamura
MECH 3550: Stimulation & Visualization

Energy & Environmental Simulation: Smart Technology Project

Jenan Bajraktarevic
Prof. Masato Nakamura
MECH 3550: Stimulation & Visualization

CUNY RESEARCH SCHOLARS PROGRAM (CRSP) & LOUIS STOKES ALLIANCES FOR MINORITY PARTICIPATION (LSAMP)

Analysis of Web Traffic Based Upon Content & Paid Advertising Campaigns

Frank Lema & Abdullah Momin
Prof. Daniel Wong

Animal Research & Mother Cells

Fernando Santana Perez
Prof. Lubie Alatriste

Bird Identification via DNA Extraction

Jaden Burke
Prof. Olufemi Sodeinde

Business Information Security Office (BISO)

Hudda Siddique
Prof. Patrick Slattery

Code Cyber: Using an AI model to Analyze the Rate of Inflation in the United States within a Statistical & Data Science Context

Kazi Tasin
Prof. Patrick Slattery

X-Ray & MRI Theory for Mineral-Rich Fruits Affected by Heat Waves During Climate Change

Somdat Kissoon
Profs. Subhendra Sarkar, Zoya Vinokur & Lillian Amann

Deep Learning Application: Voice Recognition

Jesus Reyes
Prof. Marcos Pintos

Development of Practical Method to Quantify Infiltration Rate Through Building Entrance

Steven Boodram, Louidelson Deguerre & Ferasuddin Siddiqui
Prof. Daeho Kang

Monitoring Absorbed Dose Changes in Parent/ Caregiver in the X-Ray Room Using the Principles of Radiation Protection

Lauren Gordon, Ollana John & Liana Reid
Prof. Anthony DeVito

Global Radiologic Technologist Licensing Requirements

Wilmary Alberto
Prof. Patrick J. Slattery

Green and Passive Architecture Prototyping

Mohammed Jalloh
Prof.Alexander Aptekar

Green Roof System Integrated Soil Methods

Yehya Elfgeeh
Prof. Ivan Guzman

City Prime: A Heteromorphism Robot

Iqra Khan
Prof. Xiaohai Li

How Will Climate Change Affect the Future

Ashanti Belone
Prof. Farruhk Zia

Mechanical Engineering Technology

Husnain Khan
Prof. Akm Samsur Rahman

Importance of Incorporating Computer Ethics in Computer Curriculum

Tiya Williams
Prof. Elizabeth Milonas

Classifying Public Companies by Sector Using a Machine Learning Tree Model in R

Shahat Alam
Prof. Nan Li

Heat Shocked Porous Media: X-ray Experiments to Reveal Abnormal Nutrient Distribution in Mineral-Rich Fruits

Aravis McBroom, Aaliyah Salmon & Joanna Syska
Profs. Subhendra Sarkar & Eric Lobel

Is Bilingualims Helping CUNY Students Succeed

Romy Robielos
Prof. Lubie Alatriste

Lookism: An Investigation Into Discrimination in Workplace Practices

Shana Ramnarain
Prof. Alyssa Adomaitis

Natural Language Processing: Sentiment Analysis

Daysean Mensah
Prof. Marcos Pinto

The Impact of Climate Change

Junxi Chen
Prof. Ann Ngana Mundeke

Studying Factors of Environmental Injustice & Ways to Achieve Equity

Arham Hussain
Prof. Marzi Azarderakhsh

STEM or Social Studies: Online Education Preference Based on Subject Area

Fatimah Asad
Prof. Lubie Alatriste

A Study of the Environmental, Social, & Governance of Electric Battery Technologies

Rex Wong & Qingqing Zhuo
Prof. Patrick Slattery

Text Categorization of Newsgroups using Naive Bayes Algorithm

Rahinur Miah
Prof. Marcos Pinto

The Impact of Polio onto the Modern US Healthcare System

Gabriel Martinez
Prof. Jose Martinez

The Motivating Factor Towards a Career in Radiologic Technology & Medical Imaging at New York City College of Technology

Makadeer Kassim
Prof. Jennett Ingrassia

Designing of X-ray Beams to Assess Mineral Loss in Dehydrated Fruits - Radiology Readiness During Climate Change

Angela Moore & Katie Tam
Profs. Subhendra Sarkar & Evans Lespinasse

EMERGING SCHOLARS

A Study of the Environmental, Social, & Governance of Electric Battery Technology

Rex Wong & Qingqing Zhuo
Prof. Patrick Slattery

A Survey Based Study Reviewing the Career Oportunities for Students in Radiological Technology

Peber De Jesus, Mikhail Kun & Tatiana Ryzhakova
Prof. Zoya Vinokur

Analysis of Stroboscopic Instruments

Keven Logrono
Prof. Mars Podvorica

Students as Fellows & Mentors: Strategies for Success

Isory Santana
Prof. Lubie Alatriste

ARCscholars

Kaylynn Daoud, Erickson Diaz & Tylee Rivera
Prof. Naomi Langer-Voss

Autonomous Construction Using Geopolymer Composite

Kevindra Ghamandi
Prof. AKM Rahman

Building an Automated Robotics System

Tahsinur Rahman
Prof. Muhammad Ummy

Business Information Security Office (BISO) Responsibilities & Role Development

Kaung Myat Thu
Prof. Patrick Slattery

Can Cool Cosmic Filaments Protect Galaxies from the Hot Gas in Clusters

Ena Chia
Prof. Charlotte Welker

Climate Change

Markate Williams
Prof. Anne Mundeke

Climate Change & Community Preparedness & Well-being Using a Social Justice Framework

Nilda Orellana
Prof. Smita Ekka Dewan

Code Cyber: Using an AI Model to Analyze the Rate of Inflation in the United States Within a Statistical & Data Science Context

Jason Lin & Tanvir Rahman
Prof. Patrick Slattery

Augmented Reality With Membit

Katherine Alas & Daniel Greene
Prof. Jenna Spevack

Computer Controlled System Design

Divya Kaushal
Prof. Farrukh Zia

Control of the VEX robots using Raspberry PI

Justin Bartholomew
Prof. Lili Ma

Convoluted Neural Network – Image Classification

Sisiame Sakasamo
Prof. Marcos Pinto

Country Tech: The Rebirthing of a Windswept Dairy Barn in the Catskill Mountains

Felix Alvarado, Dahrel Cadore & Rokhaya Ndiaye
Prof. Kenneth Conzelmann

X-ray & MRI Theory for Mineral-Rich Fruits Affected by Heat Waves During Climate Change

Daler Djuraev, Nino Jvarishvili & Robert O'Brien
Profs. Subhendra Sarkar, Zoya Vinokur & Lillian Amann

Cross-Plateform CriptoCurrency Application

Andres Avila
Prof. Marcos Pinto

Culinary Applications of Underutilized Native New York Plants in Hydroponic Media

Joshua Moton
Prof. Tracy Zimmermann

Job Search Skills that Needed for Data Roles

Svetlana Idrovo Shindler
Prof. Patrick Slattery

Deforestation

Mohammed Hossain, Abdullah Shovan & MD Uddin
Prof. Patrick Slattery

Design & Manufacturing of a Prosthetic Leg Aesthetic Cover

Maria Hashmi
Prof. Gaffar Gailani

Reviewing the Curricular Content of the Communication Design Program & Determining the Pathways to Industry Careers

Bilal Badar
Prof. Daniel Wong

Development of Practical Method to Quantify Infiltration Rate Through Building Entrance

Satesh Mahabir & Eric Reed
Prof. Daeho Kang

Discovering Kepler's Third Law from Planetary Data

Hamely Jose Taveras
Prof. Satyanand Singh

Discrimination in New York City's Housing Voucher Program

Tashana Brooks
Prof. Jeannette Espinoza

Do Cosmic Filaments Protect Galaxies From Gas Stripping in SAMI Clusters?

Lianys Feliciano
Prof. Charlotte Welker

Echo - Study Aid for Individuals with Attention Disorders

Patrick Richardson
Prof. Noreen Whysel

Radiobiology & Radiation Benefits in Alzheimer's From CT: A Physics Assessment

Guito Charles & Lin Mousa
Prof. Subhendra Sarkar

Employment Restrictions & Psychosocial Distress Among Immigrant Women in the US

Denasia Kerr
Prof. Smita Ekka Dewan

Enrollment Trends at New York City College of Technology for Radiologic Technology & Other Imaging Modalities

Bich Tram Pham
Prof. Lillian Amann

Ethics in Computer Curriculum

Malachi Bacchus
Prof. Elizabeth Milonas

EV Battery System

Samuel Appiah
Prof. Yu Wen Chen

Finding Inhibitor of the Phosphodiester Type 5 for the Treatment of Alzheimer's Disease

Adrian Guin Rizzo
Prof. Mai Zahran

Girls Who Code Make Chat-Bots

Joan Beatrice Ladaban
Prof. Farrukh Zia

Global Radiological Technologist Licensing Requirements

Katelyn Lopez & Aigul Sharipova
Prof. Patrick Slattery

Green & Passive Architecture Prototyping

Tasif Taher
Prof. Alexander Aptekar

Green Roof Media Parametric Study

Victor Arenzana
Prof. Ivan Guzman

Importance of Incorporating Computer Ethics in Computer Curriculum

Kimberly Ramgopal
Prof. Elizabeth Milonas

Heat Shocked Porous Media: X-ray Experiments to Reveal Abnormal Nutrient Distribution in Mineral-rich Fruits

Aravis McBroom, Aaliyah Salmon & Joanna Syska
Profs. Subhendra Sarkar & Eric Lobel

Use of AI & Machine Learning for Engineering Applications

Max Rios Carballo
Prof. Andy Zhang

Smart Home Automation System

Fahmeda Khanom & Touheda Khanom
Prof. Farrukh Zia

Machine Learning App: Automated Home Loan Approval

Prashant Sah
Prof. Marcos Pinto

Machine Learning for Credit Decisions

Julio Rayme Villavicencio
Prof. Boyan Kostadinov

Medical Illustrations of Neuroplasticity in Response to Developmental Events

Jhoanna Dimapanat
Prof. Daniel Capruso

Mobile Robot for Educational Robotics Competitions

Elizabeth Gonzalez
Prof. Farrukh Zia

Natural Language Processing for Disaster Tweets - A Kaggle Competition

Akinyemi Apampa
Prof. Nan Li

Converting Polluting Greenhouse Gas Carbon Dioxide to Useful Chemicals

Le Van La
Prof. Vishwas Joshi

Novel Composite Polymer-Ceramic Electrolyte for Li-ion Batteries

Itay Rubin
Prof. Jay Deiner

Open Educational Resource (OER) Textbook Update Process & Tools

Shaquan Larose
Prof. Patrick Slattery

Polyethylene Glycol Diacrylate Degradation Rate Studies

Owen Diaz, Najwan Kased, Aaryan Nair & Raisa Ratri
Prof. Ozlem Yasar

Radiomics of Neurodegeneration in Alzheimer's: MRI, MRS & PET

Analia Basilicata, Jennifer Padilla, Anjalee Rabbani & Anam Riaz
Prof. Subhendra Sarkar

Research on Benjamin Franklin's Inventions & Research on the Discovery of the Placebo Effect

Leyssili Ball
Prof. Suzanne Miller

Sjogren's Syndrome & Dental Caries

Shivani Jagadish Acharya
Prof. Dora Ann Oddo

Building an Automated Robotics System

Agha Akram & Tahsinur Rahman
Prof. Muhammad Ummy

The Chemistry of Teeth & Dental Care

Aneeza Hussain
Prof. Alberto Martinez

The Effect of Atypical Antipsychotics on Pupillary Reactivity to a Complex Scene

Kazi Abdul Ahad
Prof. Daniel Capruso

The Living Breakwaters PDR Efforts: ECOncrete Resource Analysis

Guianina Ferrari, Diana Minchala, Shervon Stephen & Calvin Walters Jr
Prof. Anne Sowder

The Relationship Between Social Media Sentiment Analysis & Its Effect on the Value of Financial Instruments

Wadud Khan
Prof. Patrick Slattery

GRANT-FUNDED PROJECTS

Characterizing a Calpain Gene, TTHERM_01108610, Belonging to Tetrahymena Thermophila

Eva Tse
Prof. Ralph Alcendor

Characterizing a Calpain Gene, TTHERM_00486970, Belonging to Tetrahymena Thermophila

Derbie Desir & Olorundamilola Okemeta
Prof. Ralph Alcendor

Tissue Changes & Biomolecular Adaptability from Simulated Stressors of Climate Change: X-ray & MRI Correlation Study

Christopher Austin
Prof. Subhendra Sarkar

Using an AI model to Analyze the Rate of Inflation in the United States Within a Statistical & Data Science Context

Ethan Pruzhansky
Prof. Patrick Slattery

What is The Hoopla about Progressive Web Apps?

Kevin Hernandez
Prof. Marcos Pinto

NSF REU Grant #1950629

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

Data Science Approach to Understanding Temperature Extremes in NYC Area

Stephanie Avila, Gabriella Garcia, Kaylen James, Sameeha Malikah, & Veebhu Shah
Mentors: Dr. Naresh Devineni & Dr. Tarendra Lakhankar

Sequence Divergence Within Putative bHLH and Otx2 Transcription Factor Binding Sites in the ThrbICR Retinal Enhancer Element

Laure Ouoba & Nafisa Tabassum
Mentor: Mykel Barrett

Effect of Varying Wind Exposure on Air Temperatures Within an Urban Heat Island

Pasquale Masullo & Neena Noble
Mentor: Dr. Brian Vant-Hull

Statistical approaches to measuring neighborhood based urban heat mitigation strategies via remote sensing

Lillian Ameling
Mentor: Carolien Mossel
Dr. Reginald Blake & Dr. Hamidreza Norouzi

INTERDISCIPLINARY PROJECTS

Detecting Harmful Algal Blooms over New York Lakes Using Remote Sensing and Google Earth Engine

Sulayman Baba Konateh
Mentor: Dr. Marzi Azarderakhsh
Dr. Reginald Blake & Dr. Hamidreza Norouzi

Understanding the Spatial Coherence of Floods in the United States, their Climate

Linkages and Predictability using Machine Learning
Stephen Rosario
Mentor: Ololade Alonge
Dr. Naresh Devineni

Designing a Narrative Game that Teaches Mathematics and Engineering

Qing Chen, Kimberly Ramgopal & Cindy Veliz
Profs. Tamrah D. Cunningham
& Reneta D. Lansiquot

PHYS1002ID : An Introduction to the Physics of Natural Disasters
Prof. Abdou Bah

New York City Flood of 2021

Bacchus Fareen, Chrzan Grzegorz,
Mendez Jenson & Faisal Mahir
Prof. Abdou Bah

Hurricane Sandy Destruction and Defeat

Joshurai Ginyard, Michael Kongsit, Johnny Lu,
Janrobert Paulino & Asra Pervaiz
Prof. Abdou Bah

Sea level Rising, and its Impacts on NYC

Whyte Andray, Knafo Angela, Humala Erick,
Valencin Filip, Mao Jeff, Carangui Jonathan,
& Alawdi Jubran
Prof. Abdou Bah

How Fukushima can Teach us about Earthquakes

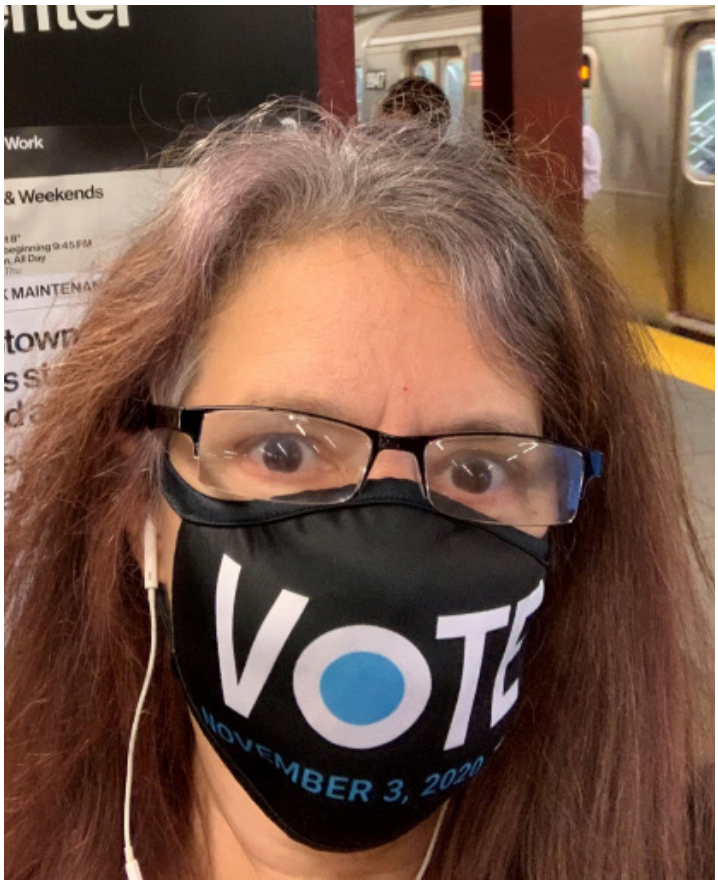
Alexwolfman Usungu, Bilal Akhtar, Nicole Lun
Lopez, Samuel Leriche, Maybelline Torres
& Nicholas Gray
Prof. Abdou Bah

Honors Scholars Program

STUDENT ACADEMIC CONFERENCE

Environmental Justice and the Role for CUNY students in Building a Sustainable New York City

The Honors Scholars Student Academic Conference keynote address highlights our individual and collective capacities for change in environmental justice. Professor Rebeca Bratspies offers the legal perspective as to why a healthy environment is a human right. She calls on CUNY students to recognize the ways in which they can directly impact the health of NYC's natural environment. Her important body of work communicates, to all generations, the importance of constructing our environments with intention. This keynote will be followed by several student panels.



Keynote Address: Prof. Rebecca Bratspies

Rebecca Bratspies is a Law Professor at the City University of New York (CUNY) School of Law, where she is the founding Director of the Center for Urban Environmental Reform. She is an internationally recognized expert on environmental justice, and the human right to a healthy environment. Professor Bratspies has written scores of law review articles, op-eds, and other publications including four books. Her most recent book Environmental Justice: Law Policy and Regulation is used in schools across the country. Bratspies is perhaps best known for her environmentally-themed comic books Mayah's Lot, Bina's Plant, and Troop's Run, made in collaboration with artist Charlie LaGreca-Velasco. These widely-adopted comic books bring environmental literacy to the next generation of environmental leaders.

Professor Bratspies serves as an appointed member of the New York City's Environmental Justice Advisory Panel, and EPA's Children's Health Protection Advisory Committee. She is a scholar with the Center for Progressive Reform.

Thursday, December 1, 2022

Keynote: 9:00AM - 10:00AM, via Zoom

Student Panels: 10:00AM - 12:00PM, via Zoom

NEW YORK CITY COLLEGE OF TECHNOLOGY | WHERE CAN TECHNOLOGY TAKE YOU? | CUNY The City University of New York

Honors Scholars Program

GRADUATE SCHOOL FAIR

the NATIONAL SOCIETY of COLLEGIATE SCHOLARS

We are back on campus from the virtual world. Join us!

Over 100 programs from more than two dozen graduate schools will be represented!

Thursday, December 8, 2022

10:00AM - 3:00PM

New Academic Building Lobby

Organized by Dr. Reneta D. Lansiquot, Mr. Christopher A. Navarrete, and Prof. Tamrah D. Cunningham

NEW YORK CITY COLLEGE OF TECHNOLOGY

WHERE CAN TECHNOLOGY TAKE YOU?

CUNY The City University of New York

THE 37TH SEMI-ANNUAL
DR. JANET LIOU-MARK HONORS AND UNDERGRADUATE RESEARCH SCHOLARS POSTER PRESENTATION

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

SPECIAL THANKS TO

Mr. Abdou Bah
Mr. Ryan Chen
Prof. Tamrah D. Cunningham
Mr. Christopher Navarrete
Ms. Chioma Okoye

A SPECIAL THANK YOU TO THE DEDICATED POSTER JUDGES:

Fahiym Abdul-Wasi
Monica Berger
Gulgun Bayaz Ozturk
Yu-Wen Chen
Tamrah D. Cunningham
Susan Davide
Li Geng
Lili Grigorian
Brad Isaacson
Nanette Johnson
David Sanchez Jimenez
Ivana Jovanovic
Sean P. MacDonald
Alberto Martinez
Ariane Masuda
Elizabeth Milonas
Marissa J. Moran
Annie Ngana Mundeke
Asit Panja
Brittany Richards
Noemi Rodriguez
Satyanand Singh
David B. Smith
Taheefa Stephen
Claire Stewart
Khrystyna Vyprynyuk
Robert Walljasper
Noreen Whysel

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

ORGANIZED BY CITY TECH'S HONORS SCHOLARS PROGRAM