Creating the next generation of skilled geospatial technicians

The BGCCCI seeks to educate, train and prepare BCC students to enter the workforce or pursue advanced studies in geospatial technology. The Center seeks to achieve this goal by engaging in the following activities:

- Design, develop and introduce new and multidisciplinary courses/programs in geospatial technology at BCC.
- Conduct scholarly activities and cutting-edge research in areas of national priority.
- Design and develop training programs for middle and high school students and educators.
- Train BCC students, faculty, staff and local residents.
- Organize summer institutes for high schools and undergraduate students.
- Seek grants from private and federal entities.
In 2001, a proposal led by the City College of New York was submitted to the NOAA-CREST program for funding. Bronx Community College was one of the partners on the proposal, which was funded by NOAA. From 2001 and 2010 no significant collaborative activities took place between BCC and NOAA-CREST Institute.

However, since 2010 Dr. Sunil Bhaskaran spearheaded efforts in the development of geospatial technology at BCC leading to the formation of the first ever CUNY Geospatial Center. Seminars, workshops and demonstrations to build campus wide awareness were followed by submission of grant funding and design of new geospatial courses. Many students were mentored in cutting-edge research, which was published in peer-reviewed journal and in proceedings of conferences. Today BGCCCI is an ecosystem of affiliated faculty, students, researchers, interns, and collaborators (national and international). It has sustained its growth by receiving series many grants from federal and private agencies including major grants from the Environmental Systems Research Institute, Federal Highway Administration and US Department of Transportation (FHWA-USDOT), and the National Science Foundation’s Advanced Technological Education (NSF-ATE).

“The Geospatial Technology program started being developed since 2010 and is still in progress”

Growth of the BCC Geospatial Center of the CUNY CREST Institute throughout the years
Opening of the BCC Geospatial Center of the CUNY CREST Institute

The BCC Geospatial Center of the CUNY CREST Institute (BGCCCI) is a collaboration between Bronx Community College of The City University of New York and CUNY Remote Sensing Earth System (CREST) Institute.

The center was created after a Memorandum of Understanding (MoU) was signed between Bronx Community College (Senior Vice President and Provost Dr. Claudia Schrader) and Director of CUNY-CREST Institute Dr. Reza Khanbilvardi on the 3rd October, 2014.

“The BCC Geospatial Center of the CUNY CREST Institute was officially opened on October 3rd, 2014”

Click here to see the entire gallery
The first course *Introduction to Geographic Information Systems (GIS 11)* was designed by the Director of BGCCCI and submitted for approval to the college wide curriculum committee. This course will be located in the Pathways bucket (Scientific World – E) and will be writing intensive. The course was approved by the college wide curriculum committee, senate, university and pathways steering committee and offered to the students in fall 2015.

**INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEM (GIS 11)**

Pathways Writing Intensive Course in summer and fall 2018 (3 Credits; 4hrs)

**INTRODUCTION:**
The 3 credit 4 hr. new course will introduce you to the world of Geographic Information System or GIS. GIS is an emerging technology that provides an environment to analyze geographic data for modeling spatial relationships between different objects and people on the earth. A GIS enables us to ask important questions such as: How far is a River from residential areas? How many houses may be exposed to the danger of flooding in case the river overflows its banks? How many people in New York City may be exposed to air pollution? The course will be of interest to science and social studies students and all others who have a need to analyze data and visualize patterns for making informed decisions. GIS is an emerging discipline in the US and the Geospatial Industry is growing exponentially. However, the GIS industry is facing critical shortage in skilled labor and there are many job opportunities that are yet to be filled. A well trained GIS student can easily find employment in the exponentially growing geospatial industry.

**COURSE SYLLABS:**
The course will be taught by lectures and lab work. Key concepts in GIS will be taught by lectures and hands-on training will be provided in the state-of-the-art GIS computer lab. Assessment will be by a combination of quizzes, written assignments and term paper.
Prerequisites: RDL 2 and ENG 2 and MTH 5, if required

- GIS Layers
- Remotely Sensed Data
- Global Positioning Systems

Emerging Discipline
High Growth Industry
Many Job Opportunities
Many Scholarships and Internship Opportunities

For any questions on the course please contact Director of BCC Geospatial Center of the CUNY CREST Institute. Prof. Sunil Bhaskaran – Sunil_director@bcc.cuny.edu/Sunil.Bhaskaran@bcc.cuny.edu

Get hands-on training at the State-of-the-Art Geospatial Computing Center (ME 330)
Design of new pathways GIS courses: Part II

The second new course **Introduction to Remote Sensing (GIS 12)** was designed by the Director of BGCCCI and submitted for approval to the college wide curriculum committee. This course will be located in the Pathways bucket (Scientific World – E) and will be writing intensive. The course was approved by the college wide curriculum committee, senate, university and pathways steering committee and offered to the students in fall 2015.

![Introduction to Remote Sensing (GIS 12) course description](image-url)
Associate in Applied Sciences — Geospatial Technology

A sixty (60) credit Associate degree in geospatial technology designed by the director of BGCCCI was submitted to the Office of Academic Affairs for review and comments. The draft program proposal is currently being reviewed and refined. The program (if approved) will provide BCC and CUNY student foundation level skills in Geospatial Technology an emerging technology with critical shortage in skilled labor. The courses in the proposed A.A.S. program are designed with inputs from the BGCCCI Industry advisory board.

This competency-based curriculum provides state-of-the-art training for careers in geospatial technology. Geospatial Technology refers to equipment used in visualizations, measurements, and analysis of earth’s features, typically involving such systems as GPS (Global Positioning Systems), GIS (Geographical Information Systems), and RS (Remote Sensing). Its use is well-known and widespread in the military and in homeland security, but its influence is pervasive everywhere, even in areas with a lower public profile, such as land use, flood plain mapping and environmental protection.
Cutting-edge Research Collaborations

National Cutting-edge Research Collaboration

Research collaboration with the department of Math and Computer Science, University of Missouri and University of Nebraska Lincoln: Project members: Faculty – Profs. Sunil Bhaskaran, Sanjiv Bhatia and Ashok Samal and Students – George Walter Gerules, Sharmila Mukherjee (University of Missouri); Leroy Brown (York College) and from BCC - Sutanya Waul, Modu Sene and Melissa Mitchell. Dr. Sunil Bhaskaran is collaborating with Profs. Sanjiv Bhatia and Ashok Samal from Missouri and Nebraska Lincoln universities respectively. The collaboration features two research projects a) Mapping shadows in very high-resolution satellite data using HSV and edge detection techniques” and b) Integration of airborne hyperspectral and multispectral datasets.

International Cutting-edge Research Collaboration

BCC has also been actively involved in projects with the City of Townsville, Australia. The projects centered on Smarter Cities and applications of geospatial technology for mapping smarter cities initiatives. Joint submissions were made to the Rockefeller Foundation. Exchange visits to Australia were sponsored by the Mayor of Townsville’s office in Australia and President of BCC. The Smarter Cities initiative led by Professor Neal Phillip has been growing in strength since 2012. A one-day Smarter Cities convention was held at the Historic Gould Memorial Hall on the 2nd October, 2014. The conveners of the event were Professors Neal Phillip and Sunil Bhaskaran.

The Smarter Cities convention at the famous Gould Memorial Hall was attended by key institutes, centers, and students from NYC.
BCC President Dr. Carole Berotte Joseph and visiting delegation of Mayors from Australia.
BGCCCI Workshops

A GIS summit was hosted by the Office of Research (Interim Vice Provost for Research Dr. Mark Hauber, Professors Glen Johnson, Andrew Moroko and Sunil Bhaskaran). The event attracted the cream of GIS faculty and students across CUNY and was a roaring success. It facilitated an open discussion about different GIS approaches and enabled participants to network and brainstorm collaborations. The event was held at the CUNY LAW school’s Dave Field auditorium.

BGCCCI representatives attend the Opportunity Fair hosted by the Fannie Lou Hammer High School in the Bronx.
Focused undergraduate research: Students were invited to participate in focused cutting-edge research that included satellite image analysis, geostatistical analyses, imaging spectroscopy etc. They were informed about these potential projects in the classrooms during teaching sessions. Many students at BCC face difficult and challenging circumstances at the social and domestic front, which affects their state of mind and also impacts on their availability for participating in research projects. One of the most important issue they faced is finding time for out-of-class activities. Affiliated faculty got around these challenges in a major way by working flexibly around their times and providing flexible hours for research participation. They were trained by customized tutorials for hands-on geospatial exercises. The students were able to engage in research activities throughout a major part of the semester. They prepared technical reports, participated in CUNY conferences, Science Fairs, Symposia and even published articles in peer-reviewed journals as co-authors with their faculty mentors.

Geospatial students with their research posters at the Annual BCC Science Fairs (2011-2015).
Workshops

Defense and Intelligence Research Forum
April 20th, 2018

Building Smart, Resilient and Sustainable Cities Workshop
October 2, 2014 8:30am-5:40pm

GISMO Career Fair
March 3rd, 2017
Applications of Geospatial Technology for Business Projects
Students of Professor Harini Mittal
March 28, 2017 11:00am-11:25am

Geospatial technology has become a fast growing, emerging field. Its broad range implications can be used to answer many real world questions. Here at the BCC Geospatial Center, the bright students of Dr. Harini Mittal had the wonderful opportunity to discuss how Geospatial Technology can be implemented in defining and achieving the goals of their business projects. Below is a summary of the student groups and their goals of their business projects. Students are encouraged to define their products and project ideas to better direct them in the use of geospatial technology.

Group 1: Lady, Christopher, Juan, Kimberly
Business Goal: Produce an app for customer service to customers and businesses while ensuring safe transactions to occur between clients in the Bronx location.

Geospatial Questions
- What is the demographics to build the customer profile?
- Where are the locations of all local businesses?

Group 2: Pablo, Andy, Jamie, Leslie, Daphne
Project Goal: Market self-charging case for cell phones relying on solar power and magnetical technology

Geospatial Questions
- Where are all the retail locations to market this charging case?
- What are the proximities of the retail locations to major highways?
- What are the demographics build customer profile?

Group 3: Stephanie, Tahmesha, Patrick, Damiesa
Project Goal: Market specialized mats that uses disposal sheets to collect disposed hair to salons.

Geospatial Questions
- How many salons in NYC? What are the locations?
- What is geographic and spatial distribution of Private/Public Ownership of salons?
- What are the non-spatial data of interest associated with salons?

Geospatial Technologies for Health and Human Services
May 4, 2017 10:30am-11:30 am, BGCCCI Geospatial Computing Center, Meister Hall 330

The Public Health Students of Professor Soza. Reader were cordially invited to attend an important health workshop at the BCC Geospatial Center. The workshop introduced Professor Reader and her students to GIS and its implication to Public Health. Adjunct Faculty Asif Zaman of BGCCCI provided a crash course in GIS to the students. Later, the students mapped Hypothetical Lead Concentrations of Public Schools in New York. Students learned the GIS process of drafting and sharing open source data and importing the data into ESRI ArcMap program. Students also understood the perks of using open source in terms of reliability. For most of Professor Reader’s students, GIS was entirely a new concept. However, by the end of the workshop, students recognized how the understanding of health issues can be enhanced with the aid of GIS.

What is a Geographic Information System?

Geospatial Technologies for Health and Human Services
May 4, 2017 10:30am-11:30 am, BGCCCI Geospatial Computing Center, Meister Hall 330
Workshops by the Industry

Interactions with Industry: Michelle Ho from CARTO
April 5, 2017 9:45am-10:45am, BGCCCI Geospatial Computing Center, Meister Hall 330

At the BCC Geospatial Career Spring-Up! GIS students had the delightful opportunity to meet an expert from the geospatial industry. The expert was Michelle Ho, a GIS specialist from the web mapping company CARTO. CARTO is a growing start-up company that specializes in cloud computing for interactive web-based GIS mapping. In other words, CARTO enables users of all types to do GIS and share thematic maps on the internet through the web browser. For the GIS students, this was our typical lecture GIS student workshop for a free online course with CARTO and within our core GIS classes. Michelle Ho gave an informative introduction to GIS principles and showed the ropes of the CARTO website to our curious GIS students.

Interactions with Industry: Michael Georgalas from LANGAN
May 3, 2017 9:45am-10:45am, BGCCCI Geospatial Computing Center, Meister Hall 330

GIS students at BCC Geospatial Center had a rare and wonderful opportunity to connect with an industry expert. This time, it was Michael Georgalas, a Senior GIS Analyst from LANGAN, an environmental engineering company. Michael spoke to our students about LANGAN, his role in the company, the types of GIS applications and how it is shaping the industry, and how LANGAN uses Michael’s GIS expertise in its various engineering projects. Michael also showed the students some of the projects he has worked on related to GIS. Some of the projects included Stormwater Management and Building Design. He met with attention, excitement and curiosity from the GIS students. The GIS students asked several questions regarding GIS projects. By the end of the event, the GIS students were left with a greater appreciation for the versatility of GIS and how valuable it can be for companies like LANGAN. They were also able to connect with the upcoming internship opportunities available at LANGAN.

Geospatial Technologies for Health and Human Services
May 4, 2017 10:30am-11:30 am, BGCCCI Geospatial Computing Center, Meister Hall 330

The Public Health Students of Professor Zuzka Reader were cordially invited to attend an important health workshop at the BCC Geospatial Center. The workshop introduced Professor Reader and her students to GIS and its implication to Public Health. Professor Reader of BGCCCI provided a workshop to the students. Later, the students mapped Hypothetical Lead Concentrations of Public Schools in New York. Students learned the GIS process of mapping and creating maps with data and importing the data into ESRI’s ArcGIS project. Students also undertook the task of using open source software in terms of sustainability. For most of Professor Reader’s students, GIS was entirely a new concept. However, by the end of the workshop, students imagined how the understanding of health issues can be enhanced with the aid of GIS.
The BGCCCI Advisory Board Meeting — Visit by the representatives from the Industry

BGCCCI a center driven by Industry Inputs and Advisory board

The center thrives on inputs from the Industry and holds meeting with them under the auspices of the BGCCCI Advisory board. The meetings themselves are supported by the Office of Academic Affairs and Job Linkages grant program. The meeting focuses on creating innovative career pathways with middle-high schools, 2 and 4-year colleges and employers. The advisory board consists of representatives from the Geospatial Industry, CUNY Collaborative program, NOAA-CREST and others.

Director of BGCCCI with members of the Geospatial industry at the Hall of Fame for Great Americans

Members of the BGCCCI Advisory Board at the Geospatial Computing Center
Peer-reviewed publications


Books


In proceedings of conferences/symposium/summit

2017


2016


2015

Invited Lectures, Seminars, and Honors

2017

- Invited speaker – International Research Conference – Graduate Center – CUNY, 8th November, 2017
- Invited to speak at the GeoStac (Geospatial Seminar), BMCC-CUNY, 10/27/2017, 1-5pm
- Invited to attend the Falling Walls Lab New York, Thursday, September 14, 8:30am - 11:00am at the German House, 871 United Nations Plaza, New York, NY 10017.
- Invited on the 2nd August, 2017 by CUNY to serve as a member of a university wide implementation team for ‘Knowledge creation and Innovative Research’ – one of the 5 major areas of the Connected CUNY Strategy Framework http://www1.cuny.edu/sites/connected/overview/ led by Chancellor James B. Milliken, Provost Vita Rabinowitz and Associate Vice Chancellor Amy McIntosh.
- Invited to attend the ENVI Analytics Symposium (EAS) 22-24 August, Denver.
- Nominated by SVP and Provost Dr. Claudia Schrader to on the to serve on the CUNY’s Inaugural Research Advisory Board chaired by Associate Vice chancellor and University Vice Provost for Research (7th April, 2017).
- Invited to co-host CUNY’s first ever Geographic Information System (GIS) summit (3rd March, 2017) at CUNY Law School
- Geospatial Technology and Data Visualization, Department of Art and Music, Bronx Community College, City University of New York, 2155, University Avenue, Bronx 10453, New York.
- Invited to serve as a Scientific Committee member for International Geosciences and Remote Sensing Symposium (IGARSS) 2017, Texas, USA.

2016

- ‘Geospatial applications for managing trauma and emergencies’ - Hackensack Medical University Foundation, Dec 1, Hackensack University Medical Center Foundation, A member of Hackensack Meridian Health, 360 Essex Street, Suite 301, Hackensack, NJ
- ‘Mapping career pathways in geospatial technology’ - GeoNYC MeetUp, Monday, October 10, 2016, 6:30 PM, Mapzen, 30 W 26th Street, 7th floor, New York, NY.
- Invited by the Interim Vice- Provost for Research - City University of New York on the 6th October, 2016, to discuss Geospatial project collaborations with National Geospatial Intelligence Agency (NGIA), Participants – Senator Bob Kerrey, Director of Technology Ernie Reith (NGIA), Dr. Vita Rabinowitz (Provost – City University of New York, Chancellor of City University of New York, James B. Milliken, Interim University Vice Provost Dr. Mark E. Hauber and Professor Glen Johnson, CUNY School of Public Health.
2016

- ‘Evolution of the BCC Geospatial Center of the CUNY CREST Institute - Delivered a presentation on the development of Geospatial Technology at Bronx Community college at CARTO, 201, Moore Street, Brooklyn, New York.
- ‘Cutting-edge research at the BCC Geospatial Center of the CUNY CREST Institute’ – Presentation at the BCC Geospatial Center of the CUNY CREST Institute.
- ‘Imaging spectroscopy for mapping Urban Environment’ - Invited by the Mayor’s Office City of Dubuque, Iowa to deliver keynote address – Annual Sustainability conference, 5th October.
- Honored by CUNY - For outstanding contributions in research, education and service. Special Grants Reception hosted by Chairperson of CUNY Board of Trustees – Benno Schmidt, Chancellor James B. Milliken, and Provost Vita Rabinowitz. 5/12/2016
- ‘Model for collaboration between BGCCCI and NASA, Goddard Flight Center’, Delivered a presentation to a team from NASA educational office (Goddard Flight Center), New York on 10/26/2015
- ‘Research in emerging technologies’, NASA Space Grant program – American Museum of Natural History. 3:30pm. 19th February, 2016
- Invited to serve as a Scientific Committee member for International Geosciences and Remote Sensing Symposium (IGARSS) 2016, Beijing, China.
- Invitation from The Sustainable Development Goals Fund at the United Nations Development Program (UNDP) to participate in an online event on fostering Business and United Nations engagement.

2015

- Member of panel discussion – Annual Sustainable Energy and Design (SED) conference, Bronx Community College.
- ‘Research in Geospatial Technologies (Invited Lecture), NASA Space Grant program – Borough of Manhattan Community College, 2015
- Honored by CUNY - For outstanding contributions in research, education and service. Special Grants Reception hosted by Chairperson of CUNY Board of Trustees – BennoSchmidt, Chancellor James B. Milliken, and Provost Vita Rabonawitz. 12/08/2015
- Honored by CUNY - For outstanding contributions in research, education and service. Special Grants Reception hosted by Chairperson of CUNY Board of Trustees – Benno Schmidt, Chancellor James B. Milliken, and Interim Provost Julia Wrigley. 05/14/2015
- Honored by CUNY – For outstanding contributions in research, education and service. Special Grants Reception hosted by Chairperson of CUNY Board of Trustees – Benno Schmidt, Chancellor James B. Milliken, and Interim Provost Julia Wrigley. 05/08/2014.
Fall 2017 NSF Events

⇒ Director of BCC Geospatial Center invited to attend the Falling Walls Lab in New York at the German House, 871 United Nations Plaza New York, NY 10017.
    Date: Thursday, September 14
    Time: 8:30am - 11:00am

⇒ Director of BCC Geospatial Center invited to deliver a talk titled: “Pioneering Activities in Geospatial Education, Research and Outreach at the BCC Geospatial Center of the CUNY CREST Institute” at the Fund for the City of New York.
    Date: September 27
    Time: 11:30am - 1:00pm

⇒ BGCCCI Coordinator and GIS Instructor represent BGCCCI at the Opportunity Fair hosted by the Fannie Lou Hammer School in the Bronx.
    Date: October 7th - December 9th, 2017

⇒ GISMO cordially invited students to participate in the Job Fair, which was held at Hunter College (695 Park Avenue).
    Date: October 24, 2017
    Time: 2:00pm - 6:00pm

⇒ BCC Geospatial Center Director and Principal Investigator of NSF-ATE program to participate in the 2017 ATE Principal Investigators Conference at Washington, D.C.
    Date: October 23-25, 2017

⇒ BCC Geospatial Center discusses new pipelines with BMCC's Criminal Justice Program
    Date: October 27, 2017
    Time: 11:00am

⇒ Geography & Spatial Thinking Across the Curriculum (GeoSTAC).
    Date: Fri, October 27, 2017
    Time: 1:00 PM – 5:00 PM
    Location: Room S341 (Main Campus), BMCC, CUNY

⇒ Director of BGCCCI invited to present at the International Research and Education Forum
    Date: November 8, 2017
    Location: The City University of New York (CUNY) Graduate Center, 365 Fifth Avenue at 34th Street, New York City.
Spring 2018 Events

⇒ Director of BGCCCI delivers a talk on 'Managing Earth from Space' at the Wycoff Chamber of Commerce.
  Date: 3/15/2018
  Time: 8:00am

⇒ Director of BGCCCI to attend the Defense and Intelligence Research Forum
  Date: Friday, April 20th, 2018
  Time: 11:00am - 5:00pm

⇒ Thirty (30) members from the Geospatial Information Systems and Mapping Organization (GISMO) the largest not-for-profit Geospatial Association in New York State will be visiting the BCC Geospatial Center of the CUNY CREST Institute (BGCCCI).
  Date: April 20th, 2018
  Time: 3:30pm

⇒ Director of BGCCCI invited to talk about Urban Sensing at a seminar by New York University-Kavli Futures
  Date: 25th April, 2018

⇒ Director of BGCCCI invited to sit on a panel discussion about application of remote sensing for Smarter Cities
  Date: 26th April, 2018

⇒ TTD event
  Bev Corwin of the Technology Transfer Delivery (TTD) Team will visit the Geospatial Center of the CUNY CREST Institute in the month of May, 2018. Bev is the founder of TDD. Technology Transfer Days are diverse collaborative learning events where invited speakers, guest participants, attendees, subject matter experts, thought leaders, researchers, advisors, entrepreneurs, innovators and inventors gather from industry, business, academia, research, government, and community organizations to problem solve, learn, mentor, and collaboratively explore needs and opportunities in emerging technology transfer ecosystems.
Summer 2018 Geospatial Workshops

The BGCCCI offered Summer Geospatial Workshops for Middle and High Schools and Undergraduate Students.

Geospatial Workshop for Middle Schools

Geospatial Workshop for High Schools

Geospatial Workshop for Undergraduate Students
The BGCCCI offered Summer Workforce Internship Programs (SWIP) for High School and Undergraduate Students.

Summer Workforce Internship Program (SWIP) for High Schools

Click on the links below to get an inside on the High School Interns’ research projects:

- Avishek Mojumdar: [Comparing the effects of chemical elements in Freshwater Soil and Wetland Soil](#)
- Joshua Tsai: [The Effects of Dissolved Nitrogen on Seasonal Hypoxia in the Long Island Sound](#)
- Brianna Barrera: [Antibiotic resistance in bacteria from animal origin vs non animal origin foods](#)
- Timothy Foley: [Studying the environmental factors influencing particulate matter concentration](#)
- Ousmane Sow: [Population Diversity of Miami, Florida](#)
- Mei Shin Lee: [The Correlation between Population Growth and Inhalable Particulate Concentration in New York City](#)
- Shohag Islam: [The Correlation between Household Income and Education Attainment in Different U.S. Regions](#)
- Elisa Tilley: [Food Deserts in NYC – America’s Silent Killer](#)
Summer Workforce Internship Program (SWIP) for Undergraduate Students

Click on the links below to get an inside on the Undergraduate Interns’ research projects:

- Navado Wray: [Raster Based Land Cover Classification of Multi-Resolution Satellite Data over the Bronx & Queens](#)
- Mike Tejada: [A Spatio-Temporal Study on Drug Overdose VS Elections in the United States](#)
- Shraman Sen: [Demographic Changes and Spatial Correlations in Socio-Economic in New York City](#)
- Camilo Martinez: [Spatial Analyses of Open Source Data for Health Services](#)
- Ality Aghedo: [Microbial Diversity in Urban Environments: Concern for Antibiotic Resistance](#)
- Jenat Fahima: [Effectiveness of New York State Department of Environmental Conservation (NYSDEC) Restoration Plantings](#)
- Lorena Pardo: [Using the AirBeam to Monitor Particulate Matter at a Public Transportation Hub in Jamaica, Queens (New York)](#)
- Luz Arely Cadavid: [Stormwater management Studies in New York City: How does flood affect the residents in South Jamaica, Queens?](#)
- Meem Mahmud: [Phosphate levels of water and sink of the Long Island Sound](#)
This program was designed to improve the educators’ disciplinary capabilities, teaching skills, and understanding of geospatial technologies, which will enable them to learn fundamental geospatial skills and integrate those skills into their classroom lessons.

Director's presentation: "Blending emerging technologies in teaching"
Grants and Funding

(2017) Training BCC students and faculty in 3D Geographic Information System Data Analysis and Modeling (Status - funded $16,000).

(2017) Teaching Early Childhood Students about Geospatial Faculty Mentor:

Sunil Bhaskaran (Status – Funded $2,500)

(2017) CUNY WIDE GIS research repository ($15,000)

(2016) Education, Research and Dissemination of Geospatial Technology at Bronx Community College [$300,000], submitted.


City University of New York BLOG - http://bit.ly/2sLQZ0F
NSF-ATE Central Website - https://atecentral.net/msites/bhaskaran

(2016) Mapping Air Quality in New York City using Geospatial Technology. Student Tech Fee [$7,000]

(2016) Interning to Careers in Geospatial Technology, Job Linkages Grant – BCC-OAA [$9,564.00]

(2015) NASA Space Grant faculty mentor release time [$6,000]


(2015) BCC Environmental Technology Program NYCDEP Internship Program. Approved for funding but not awarded [$13,500]

(2015) BCC STEM Majors participation in the 2015 Black Engineer of the year award (BEYA), Conference, Washington, DC (Grant from NOAA-CREST Institute [$5,500]

(2015) Student Technology Fee Grant, BCC-CUNY, [$5,000]

(2013 -2015) Workforce Development Initiative Grant – CUNY, [$38,000]
Mission

The mission of the BGCCCI is to educate, train and prepare BCC students to enter the workforce or pursue advanced studies in geospatial technology. The Center seeks to achieve this goal by engaging in the following activities:

- Design, develop and introduce new and multidisciplinary courses/programs in geospatial technology at BCC.
- Conduct scholarly activities and cutting-edge research in areas of national priority.
- Design and develop training programs for middle and high school students and educators.
- Train BCC students, faculty, staff and local residents.
- Organize summer institutes for high schools and undergraduate students.
- Seek grants from private and federal entities.