Feature Extraction from Satellite Datasets

WORKSHOPS WILL BE OFFERED BY DISTANCE LEARNING MODE.
ALL PARTICIPANTS MUST HAVE A RELIABLE COMPUTER AT HOME.

Geospatial Technology Workshop For Middle School Students with stipends* [Funded by NSF-ATE]

*Stipends are only awarded to participants who attend all the (10) workshops and successfully complete all assignments.

Completed applications must be submitted to Dr. Sunil Bhaskaran by 09/10/2020

WHEN: 26th September to 28th November 2020 (Every Saturday – 10 days) 9:00am-12:00pm	BY DISTANCE LEARNING MODE

For additional information please contact:
Dr. Sunil Bhaskaran [Director of Bronx Community College Geospatial Center]
Email: Sunil.Bhaskaran@bcc.cuny.edu
Inquiries by phone may be made to 718-289-5233 or 718-262-2889

Workshop Highlights

Managing our environment is important for our well-being and sustainable growth. Information about the vegetation, water bodies, land development, planning may be extracted from satellite imagery. Feature extraction is a technique that enables us to extract vital information about our earth at different scales and time periods. The workshops will expose and train participants in feature extraction techniques using industry standard software. They will also provide participants the opportunity to interact and learn from experts in the field.

Brief Description of Workshop Program

Day 1	Introduction to Image Analysis and Feature Extraction	**Mode:** Presentation, Video, Hands-on exercise
Day 2	Image Classification – Creating an Attribute Image	**Mode:** Presentation, Video, Hands-on exercise
Day 3	Image Classification – Creating a Training Dataset	**Mode:** Presentation, Video, Hands-on exercise
Day 4	Image Classification – Unsupervised and Supervised	**Mode:** Presentation, Video, Hands-on exercise
Day 5	Image Classification – Unsupervised and Supervised	**Mode:** Presentation, Video, Hands-on exercise
Day 6	Image Classification – Challenge	**Mode:** Presentation, Video, Hands-on exercise
Day 7	Image Classification – Challenge	**Mode:** Presentation, Video, Hands-on exercise
Day 8	Anomaly Detection	**Mode:** Presentation, Video, Hands-on exercise
Day 9	Anomaly Detection – Challenge Task	**Mode:** Presentation, Video, Hands-on exercise
Day 10	Presentation	**Mode:** Presentation, Video, Hands-on exercise

FALL 2020 GEOSPATIAL WORKSHOP
HIGH SCHOOL APPLICATION

1. **Print Name** _____ _____ _____

                          LAST   FIRST   M.I.

2. **OSIS #** _____

3. **Age:** _____ **Sex:** Female   Male   **Race/Ethnicity:** _____

4. **Name of High School:** _____

   Address of High School: _____

   _____

   Grade Level: _____ **GPA:** _____

5. **Current Home Address:**

   _____

   _____ _____ _____ _____

         APT#   CITY   STATE   ZIP CODE

6. **Contact Information**

   _(____)_____ _____

                      MOBILE   EMAIL

7. **Emergency Contact**

   _____ _____ _(____)_____

                NAME   EMAIL   PHONE NUMBER

   _____ _____ _(____)_____

                NAME   EMAIL   PHONE NUMBER

1. **Questionnaire (Please answer the questions on the form)**

   How do satellite-based maps help us in our daily lives? Give one example and briefly explain.

   _____

   _____

   _____

   _____

   _____

   Give an example of how you used computers in a school project.

   _____

   _____

   _____

   _____

   _____

   Which careers interest you the most? Is this workshop aligned to your broad career interests?

   _____

   _____

   _____

   _____

   _____

   Can satellite images help us in any way? Explain briefly by giving an example.

   _____

   _____

   _____

   _____

   _____

2. **Comment by parent/guardian**: This technology workshop program is aligned to my daughter/son's specific interests and is in line with her/his broader career pursuits.

_____

_____

Signature of the Parent/Guardian: _____

Print Name: _____

Contact phone#: _(_____)_____

3. **Reference Information** (Provide a name, email, and phone number of a teacher who knows you very well and can send us a recommendation letter describing your character and discipline in learning)

Name: _____

Email: _____

Phone number: _____   **Work/Office number:** _____

Submit the completed application form (**as a scanned attachment**) to Dr. Sunil Bhaskaran, the director of the BCC Geospatial Center. His email is **Sunil.Bhaskaran@bcc.cuny.edu**

Note: Only those applicants who are shortlisted will be contacted. Unless you get a written email confirmation you must not assume you are selected for the workshop.

Participants Agreement Letter

You agree that you have a reliable Internet connection and working computer to complete the workshop.

Brief description of the program:

The workshops will provide selected participants with an opportunity to learn about Geospatial Technology and its applications. Carefully designed sessions will give them an opportunity to learn about spatial technology and get hands-on training online. Interactions with experts from the Industry will inform them about exciting courses and careers in geospatial industry. The workshop is designed to enthuse and inform the participants about spatial concepts, spatial thinking, and the world of Geospatial Technology. It will provide a rare opportunity for them to learn an emerging technology and earn a handsome stipend.

Participant Responsibilities:

I will work in a committed and diligent manner to deliver the tasks (given below) that are expected of me in this program. Additionally, I will do the following below:

1. Complete all workshop sessions on time.
2. Submit important documents such as DOs and DONT's, photo release, and data collection forms in a timely manner.
3. Submit all tasks assigned and answer all questions at the end of each exercise.
4. If for any reason, an emergency situation happens and a workshop session cannot be completed on time, I will communicate on time with my instructor and I will provide appropriate documentation of my excuse. I will also make up the exercise of that particular session in the next session either by working earlier or after the workshop session.
5. I will keep a good behavior for the workshop and talk and treat with respect my instructors and classmates.
6. Prepare a high-quality PowerPoint presentation with a topic assigned with input from my instructor, which I will present at the closing ceremony of the workshop.

*I understand that if I do not abide by the above, I may not be eligible for the stipend.

**I understand that if for any reason I withdraw from the workshops I will not be eligible for the stipend nor make any claims for it. [The stipends are only awarded to participants who attend all workshop sessions completely and finish their respective tasks and assignments]

Signature_____

Print your name_____