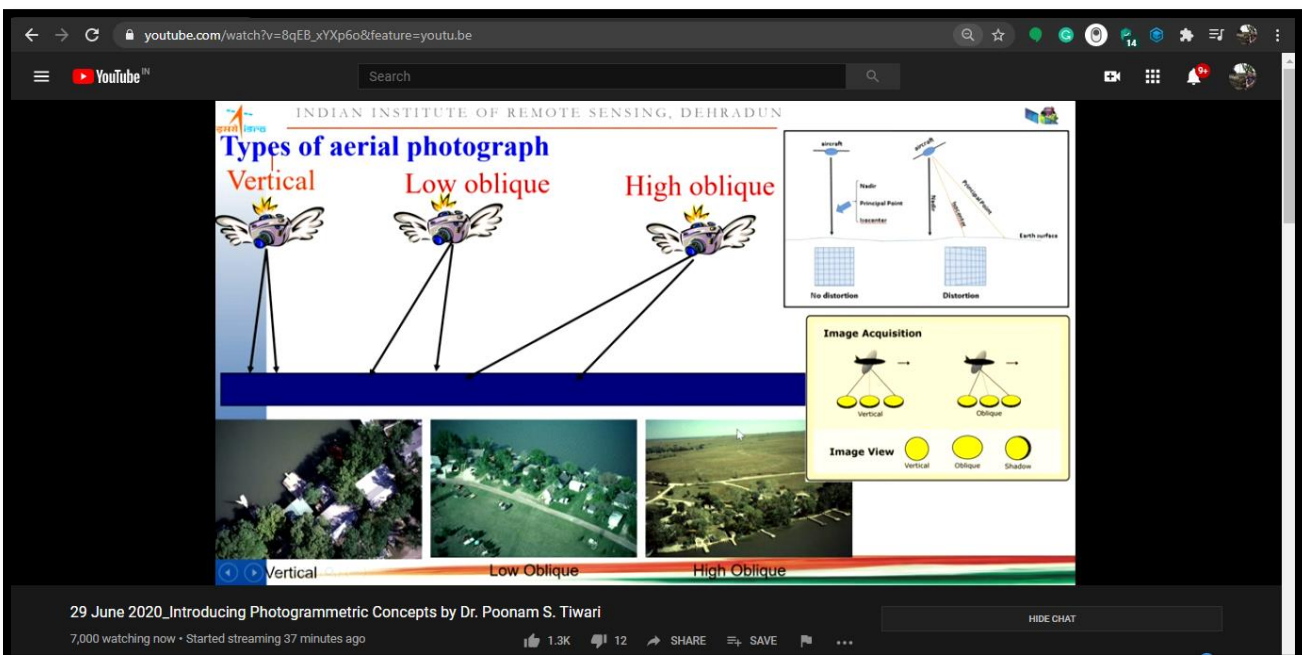
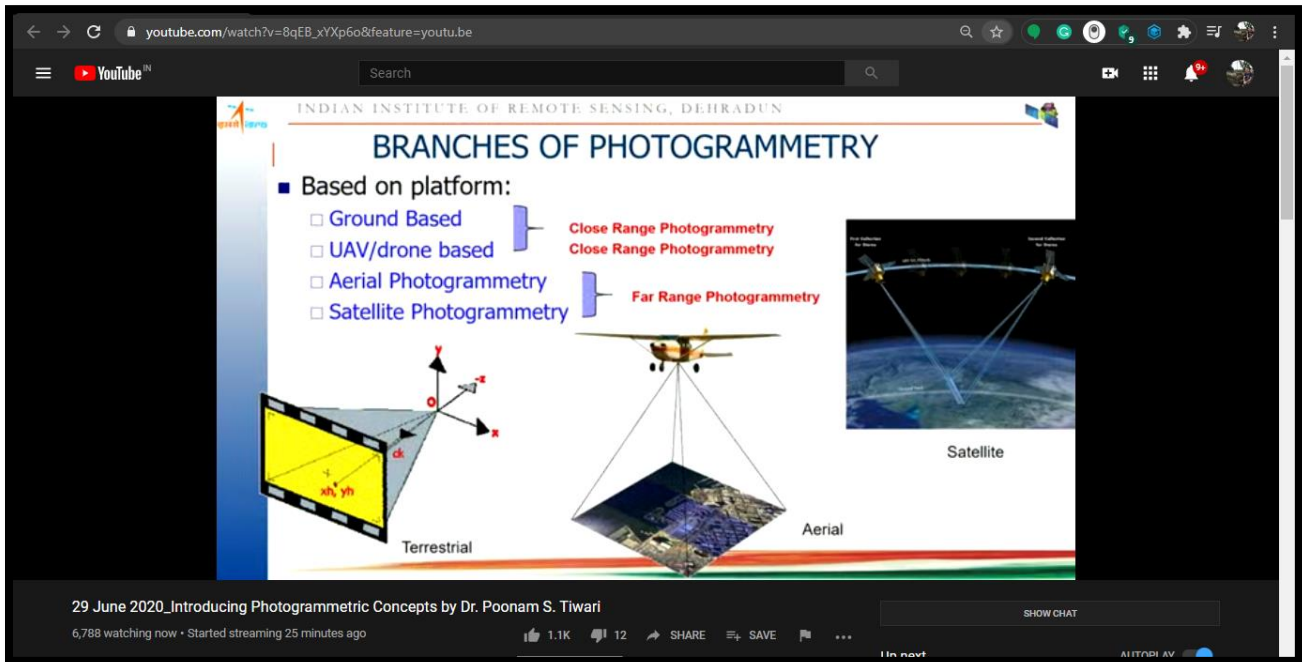


DAILY ASSESSMENT

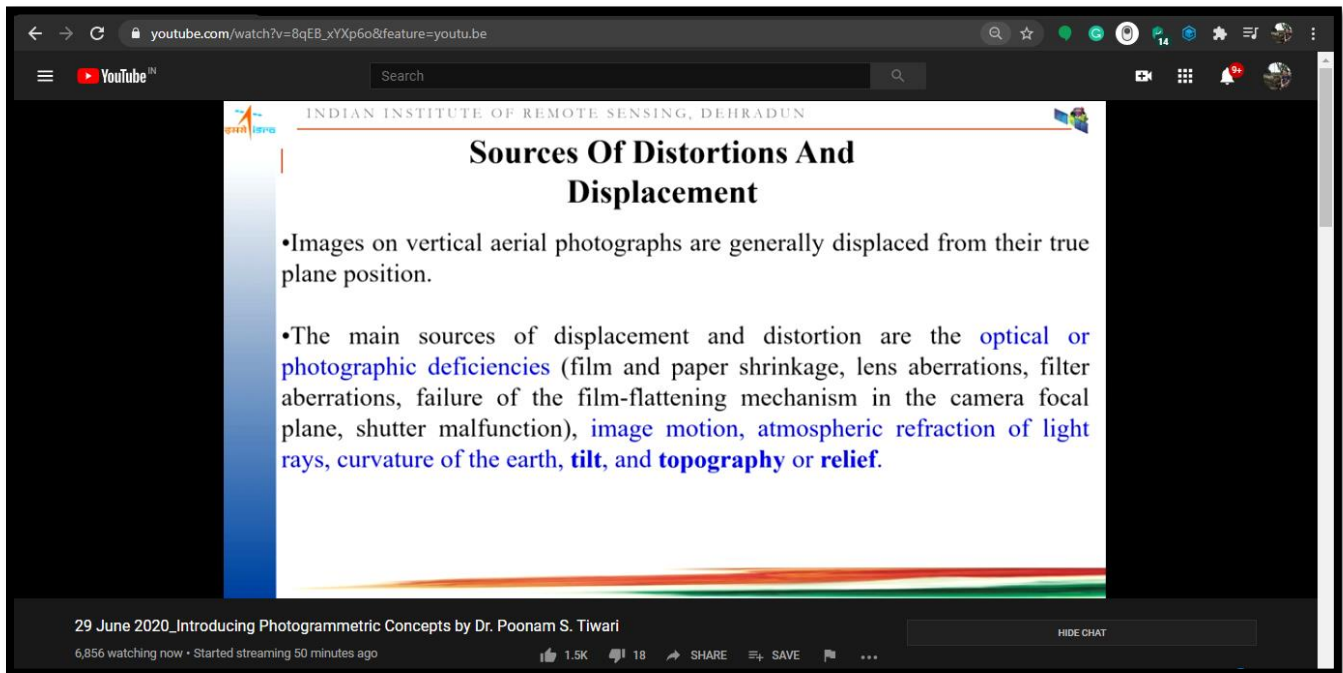
Date:	29-June-2020	Name:	Swastik R Gowda
Course:	Satellite Photogrammetry and its Applications	USN:	4AL17EC091
Topic:	❖ Introduction to Photogrammetry	Semester & Section:	6 th Sem 'B' Sec
Github Repository:	swastik-gowda		

FORENOON SESSION DETAILS

Image of session



Report – Report can be typed or hand written for up to two pages.



Photogrammetry and Remote sensing Department established in 1966 is one of the oldest departments of the institute imparting professional training in the field of photogrammetry, cartography, remote sensing, and image processing to varied course participants: university teachers, academicians, govt. officials, and freshly graduated students.

Initially it started with aerial data interpretation, analysis and aerial photogrammetry with a gradual transition to satellite data interpretation, analysis, satellite photogrammetry and its applications. The training programs are regularly updated by incorporating the state of art technology. Photogrammetry is the science and technology of obtaining reliable information about physical objects and the environment through the process of recording, measuring and interpreting photographic images and patterns of electromagnetic radiant imagery and other phenomena. Photogrammetry appeared in the middle of the 19th century, almost simultaneously with the appearance of photography itself. The use of photographs to create topographic maps was first proposed by the French surveyor Dominique F. Arago in about 1840. The term photogrammetry was coined by the Prussian architect Albrecht Meydenbauer, which appeared his 1867 article "Die Photomicrography. "There are many variants of photogrammetry. One example is the extraction of three-dimensional measurements from two-dimensional data (i.e. images); for example, the distance between two points that lie on a plane parallel to the photographic image plane can be determined by measuring their distance on the image, if the scale of the image is known. Another is the extraction of accurate color ranges and values representing such quantities as albedo, specular reflection, metallicity, or ambient occlusion from photographs of materials for the purposes of physically based rendering.

youtube.com/watch?v=8qEB_xYXp6o&feature=youtu.be

INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN

radial displacement

Relief Displacement observed in aerial image

Relief Displacement observed in Satellite Image

Relief Displacement

29 June 2020_Introducing Photogrammetric Concepts by Dr. Poonam S. Tiwari

6,859 watching now • Started streaming 54 minutes ago

1.5K 17 SHARE SAVE ...

HIDE CHAT

Close-range photogrammetry refers to the collection of photography from a lesser distance than traditional aerial (or orbital) photogrammetry. Photogrammetric analysis may be applied to one photograph, or may use high-speed photography and remote sensing to detect, measure and record complex 2D and 3D motion fields by feeding measurements and imagery analysis into computational models in an attempt to successively estimate, with increasing accuracy, the actual, 3D relative motions.

From its beginning with the stereo plotters used to plot contour lines on topographic maps, it now has a very wide range of uses such as sonar, radar, and lidar.

youtube.com/watch?v=8qEB_xYXp6o&feature=youtu.be

INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN

Relief Displacement for Nadir Imagery

Ideal geometry: nadir imagery, flat terrain

r : radial distance from nadir point/principal point to top of object

By similarity of small triangle at lower right and the large triangle:

$$\frac{h}{H} = \frac{dR}{R}$$

By proportionality of segments when parallel lines cut a bundle of rays:

$$\frac{dr}{r} = \frac{dR}{R}$$

Rearrange for classic relief displacement formula:

$$h = \frac{\Delta r}{r} H$$

29 June 2020_Introducing Photogrammetric Concepts by Dr. Poonam S. Tiwari

6,742 watching now • Started streaming 56 minutes ago

1.6K 17 SHARE SAVE ...

HIDE CHAT