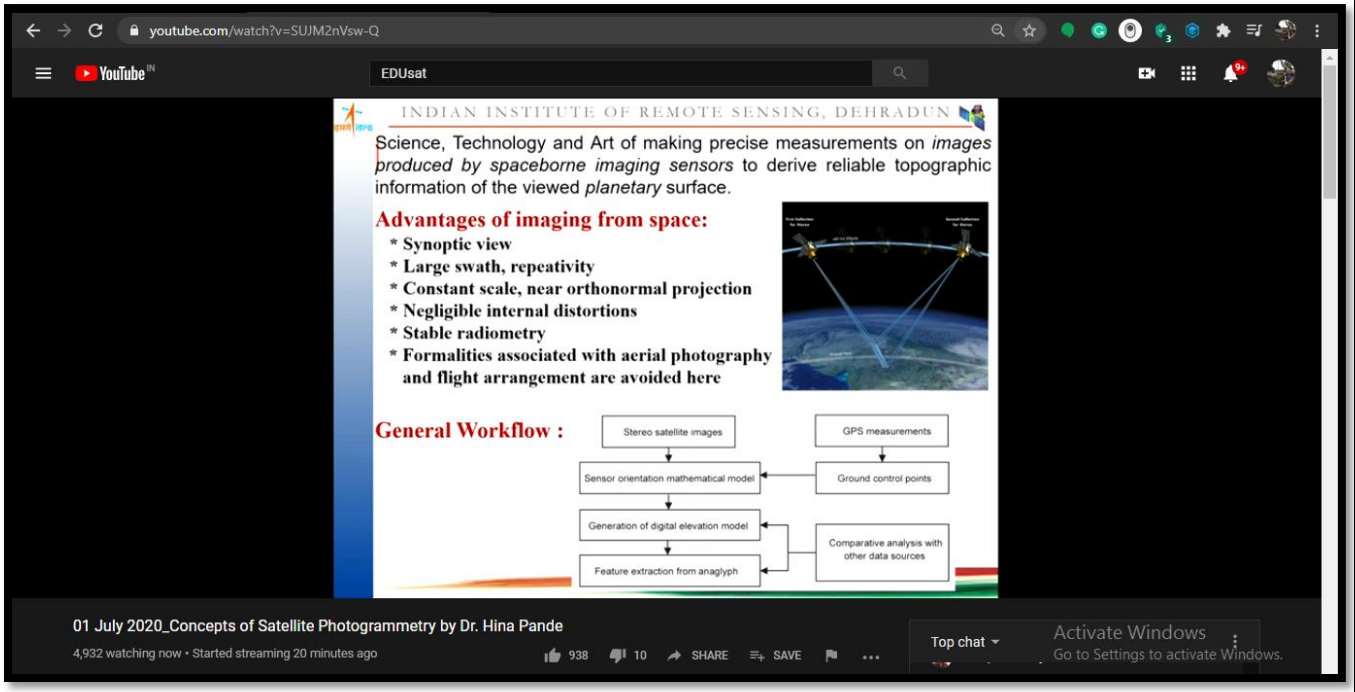
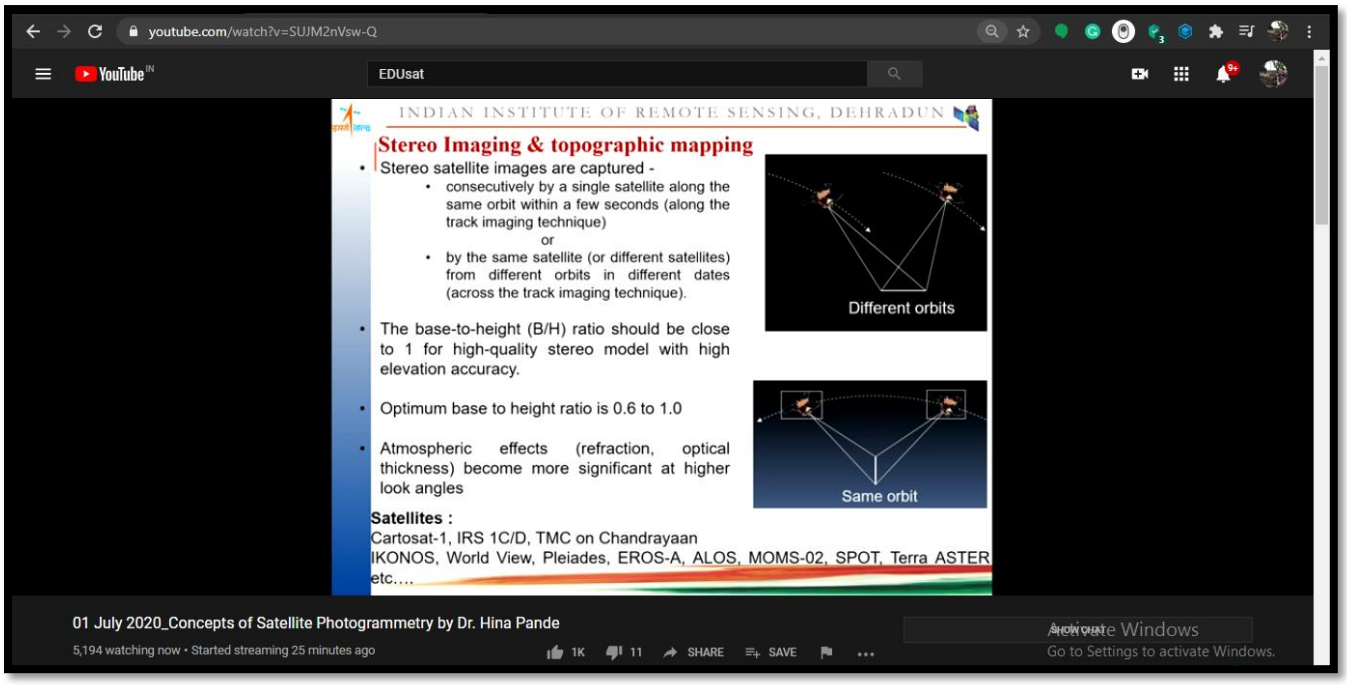
DAILY ASSESSMENT

Date:	01-July-2020	Name:	Swastik R Gowda
Course:	Satellite Photogrammetry and its Applications	USN:	4AL17EC091
Topic:	❖ Concepts of Satellite Photogrammetry	Semester & Section:	6th Sem 'B' Sec
Github Repository:	swastik-gowda		

FORENOON SESSION DETAILS

Image of session





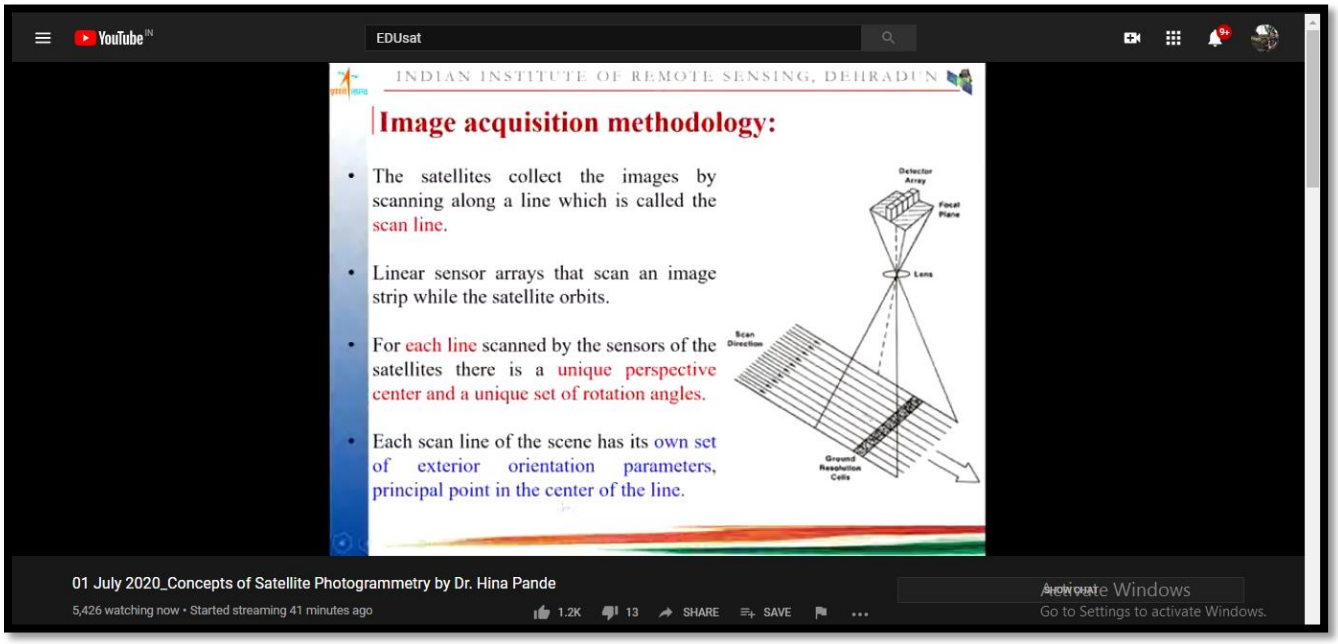
Report – Report can be typed or hand written for up to two pages.

Stereo photogrammetry:

- **Stereo photogrammetry is the general team applied to the science of measurement from photographs when an overlapping stereo pair of photograph is used.**
- **In contrast to single photographs which can only extract 20 information. Stereo photogrammetry allows 3D information to be extracted.**
- **An overlapping stereo pair is a pair of photographs on which the same object or area of terrain is pictured, but from different views or perspectives.**

Photogrammetry:

- **Photogrammetry, as its name implies, is a 3-dimensional coordinate measuring technique that uses photographs as the fundamental medium for metrology (or measurement).**
- **The fundamental principle used by Photogrammetry is triangulation or more specifically called Aerial Triangulation. By taking photographs from at least two different locations, so-called "lines of sight" can be developed from each camera to points on the object.**
- **These lines of sight (sometimes called rays owing to their optical nature) are mathematically intersected to produce the 3-dimensional coordinates of the points of interest.**
- **The expression photogrammetry was first used by the Prussian architect Albrecht Meydenbauer in 1867 who fashioned some of the earliest topographic maps and elevation drawings.**
- **Photogrammetry services in topographic mapping is well established but in recent years the technique has been widely applied in the fields of architecture, industry, engineering, forensic, underwater, medicine, geology and many others for the production of precise 3D data.**



Branches of photogrammetry:

There are two broad based branches in photogrammetry

- **Metric Photogrammetry : Deals with the precise measurements and computations on photographs regarding the size, shape, and position of photographic features and/or obtaining other information such as relative locations (coordinates) of features, areas, volumes, These photographs are taken using a metric camera and is mostly used in the engineering fields e.g. surveying**
- **Interpretive Photogrammetry: Deals with recognition and identification of the photographic features on a photograph such as shape, size, shadow, pattern etc to add value and intelligence to information seen on the photograph (annotation).**
- **Remote sensing data provides much essential and critical information for monitoring many applications such as image fusion, change detection, and land cover classification.**
- **Remote sensing is an important technique to obtain information relating to the Rarth's resources and environment.**
- **What popularized satellite data are the easily accessed online mapping applications like Google Earth and Bing Maps.**
- **From being simply able to find "where is my house" these applications have helped the GIS community in project planning, monitoring disasters and natural calamities, and guiding civil defense people.**
- **Remotely sensed satellite images and data are comprised of spectral, spatial and temporal resolution. Spectral statistics is the substance of remotely sensed image classification.**
- **The main aspect which influences the accuracy of ground object is spatial resolution.**
- **Temporal resolution will help in generation of land cover maps for environmental planning, land use change detection and transportation planning.**
- **Data assimilation and analysis of urban areas using medium resolution remote sensing imagery is mainly concentrated on documentation of built up areas or for judgement between residential, commercial and industrial zones.**
- **There are hundreds of applications for satellite imagery and remotely sensed data.**
- **From the pioneering Landsat and SPOT imagery and when nations used to use information derived from the satellite imagery for spying on each other under the guise of scientific experiments, industry has grown in leap and bounds and today every sphere of life, government decision making, civil defense operations, police, you name the sphere of life, every one of which is influenced by satellite imagery in particular and Geographic Information Systems (GIS) in general.**
- **SBL has been active in the field of satellite imagery processing and has got in-house expertise to handle any kind of sensor and product demands.**
- **Our projects have helped clients world over to help in having a better say in sustainability management and environmental assessment and management. To illustrate the benefits, here are five uses of satellite imagery and data.**