

DAILY ASSESSMENT REPORT

Date:	29 June 2020	Name:	Gagan M K
Course:	Satellite Photogrammetry and its Application	USN:	4AL17EC032
Topic:	<ul style="list-style-type: none"> Introduction to Photogrammetric courses 	Semester & Section:	6 th sem & 'A' sec
GitHub Repository:	Alvas-education-foundation/Gagan-Git		

FORENOON SESSION DETAILS

Image of session

The screenshot shows a YouTube video player interface. The video content displays a collage of satellite imagery and maps, including a city view, a river map, and a satellite image of a city. The presenter, Dr. Poonam S. Tiwari, is visible in the foreground. The video title is "29 June 2020_Introducing Photogrammetric Concepts by Dr. Poonam S. Tiwari". The chat window on the right shows several messages from viewers, including "poonam singh thank you ma'am", "ROJALIN MAHAKUL thank u mam", "Shreya Majumdar reg. no. 2020610157999 Shreya Majumdar Present", "Varsha shinde present mam", "Sumit Saha Thank you mam", "Rithvika Rai Why is everyone giving attendance here?", "Rupalee Kumari thank you mam", "ANUP DUBEY thank you maam", "M. SAI AAKASH", "ALOK verma thank you mam", and "Himani Bisht Thank you so much for nice presentation". The video player also shows a search bar, a play button, and a "Up next" button.

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

Introduction:

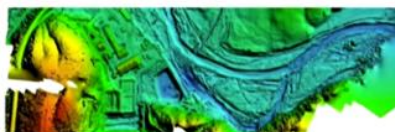
- Photogrammetry and Remote sensing Department, established in 1966 is one of the oldest departments of the institute imparting professional training in the field of photogrammetry, cartography, remote sensing, and image processing to varied course participants: university teachers, academicians, govt. 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 programmes 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 Photometrographie."
- 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.
- 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 stereoplotters used to plot contour lines on topographic maps, it now has a very wide range of uses such as sonar, radar, and lidar.
- 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 stereoplotters used to plot contour lines on topographic maps, it now has a very wide range of uses such as sonar, radar, and lidar.



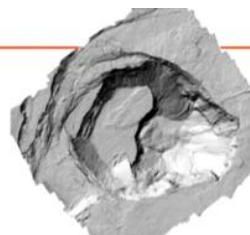
Photogrammetry Products



ORTHOMOSAIC: Aerial photograph modified so that its scale is uniform throughout



DIGITAL SURFACE MODEL

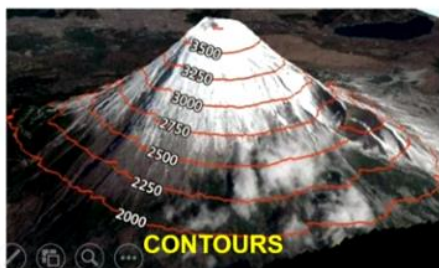


DIGITAL TERRAIN MODEL

An array of points in an area that have X, Y and Z coordinates determined



TOPOGRAPHIC MAPS: Detailed and accurate graphic representation of cultural and natural features



CONTOURS



Distinct Areas

Metric Photogrammetry

- making precise measurements from photos determine the relative locations of points.
- finding distances, angles, areas, volumes, elevations, and sizes and shapes of objects.
- Most common applications:
 1. preparation of planimetric and topographic maps
 2. production of digital orthophotos
 3. Military intelligence such as targeting

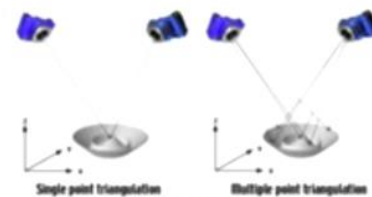
Interpretative Photogrammetry

Deals in recognizing and identifying objects and judging their significance through careful and systematic analysis.

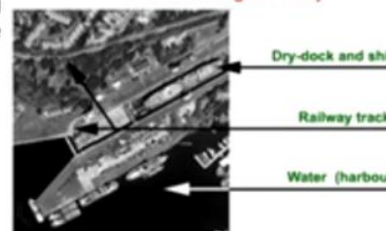
Photographic Interpretation

Remote Sensing

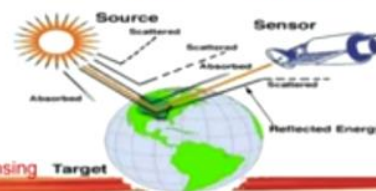
(Includes use of multispectral cameras, infrared cameras, thermal scanners, etc.)



Metric Photogrammetry



Interpretative Photogrammetry



Remote Sensing