

02

ISRO :

## Notes

Work to do

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- Topography map:
- Schematic map.

→ Vertical → Oblique.

- Photos - light.
- Grammar - To draw.
- Metron - To measure.

→ Interpretative Photogrammetry: Angle, area, size example of metric.

- Interpretative can be done by Aerial or Remote sensing.

- Branches of Photogrammetry.

- Based on platform.

→ Ground Based. } close Range

→ UAV / drone based

→ Aerial Photogrammetry.

- ) Aerial photogrammetry.
- ) satellite photogrammetry } Far Range.



Based on processing techniques:

→ Analogue System.

→ Analytical System.

→ Digital photography.

Nowadays digital photography is used.

Basic concept.

→ The 1<sup>st</sup> objective of the technique is to derive precise co-ordinates of a point.

→ This is done by viewing the area from different angles, thereby recreating the same conditions as it existed at the time of photography.

Photogrammetry Vs laser scanning.

The product by photogrammetry is orthomosaic.

Types of aerial photograph.

→ Vertical. - 90°, Horizon is seen.

→ Low oblique - optical axis is tilted. Horizon is seen.

→ High oblique - Distortion increases.

→ Photography as a Central projection:

→ Scale of Aerial photograph:

$$RF = MD / GD.$$

$$RG = PD / GD.$$



2020

## DEMS: Digital Elevation Model.

WEDNESDAY

DAY (064-302)

10th Week

04

Appointment

Notes

Work to do

$$\text{scale} = f \div H$$

- Sources of Distortions And Displacement.
- Relief Displacement:

Shift or displacement in the photographic position of an image caused by the relief of the object.

- Relief Displacement for Nadir Imagery:

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

- Displacement Due to Tilt:

→ Tilt:

→ Swing:

→ Azimuth:

$$\text{Tilt displacement} = ra^2.$$

- Parallax: Apparent shift in the position of object due to shift in the position of observation.

$$\text{Height of object} = \frac{H \cdot dp}{p + dp}$$

- Swirl time.

① → ②

② → ② Point of position in the photograph

③ → ④

> 60% overlap can be.

APR '20