

Date:- 03 - July - 2020

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Course:- (61) Satellite photogrammetry
and it's application.

AAL18EC049

4th Sem, 'A' Sec

• DEM:-

1. Triangular irregular Network
2. Grid
3. Contours
4. Gray Scale Image
5. Shaded relief image
6. Perspective view
7. 3-d view.

• Automatic DTM point collection:-

1. Least square correlation:-

Correlation a search window to reference window, both radiometric (pixel gray values) and geometric (location, size and shape of the search windows) transformations are calculated.

• Feature Based Matching:-

→ determines the correspondence

between two image features.

* Most feature based techniques match extracted point features.

- Image pyramid:-

- Ortho rectification:-

- Advantages and uses of Digital orthophotos:-

→ product which can be readily interpreted like a photograph.

- Inputs for generating an orthophoto

1. Focal length
2. Lens distortions
3. Ground control points
4. Digital elevation model.
5. Fiducial marks co-ordinates

- Input data required for orthophoto generation using satellite images:-

1. Digital elevation model
2. ground control points.
3. Satellite ephemeris

Radiometrically Corrected geometrically
uncorrected raw image data

Errors removed during ortho
rectification;

1. Lense Distortion

2. Earth Curvature

Algorithms for digital ortho-
rectification

1. polynomial rectification

2. projective rectification

3. Differential rectification