

DAILY ASSESSMENT FORMAT

Date:	30-06-2020	Name:	BINDUSHRI
Course:	Satellite photogrammetry and its application	USN:	4AL17EC011
Topic:	STEREOPHOTOGRAMMETRY		6th A
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FORENOON SESSION DETAILS

20/06/2020

Stereophotogrammetry

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

Depth perception

- methods of judging depth:
 1. Monoscopic
 2. Stereoscopic

Monoscopic Method

1. Relative size of object
2. Hidden objects
3. Shadows
4. Difference in focusing of eye.

Stereoscopy / Stereovision

- Stereoscopy is based on stereoscopic or binocular vision.
- When the eyes are focused on an object, the optical axes of the two eyes converge on that point intersecting at an angle called - Parallactic angle.
- Nearer the object - greater the parallactic angle & vice versa.
- Stereoscopy is name given to the phenomenon of an apparent three dimensional "model" created by viewing two photographs of the same objects, one photograph with each eye simultaneously.

Depending on

viewing position, viewing distance, magnification,

viewing stereophotographs in analog environment

• pocket

• mirror

• scanning

→ viewing stereophotographs in digital env:

A display which produces an effect of depth for the viewer by means of stereo image pairs & active or passive glasses/monitors.

Basic requirement for 3D stereo-viewing:-

- observer's left eye must see the left image only of the two overlapping image &
- the right eye, should see the corresponding part of the right image only

Methods

- Split screen view
- Anaglyph view
- Separation by Polarization
- Alternating image

Stereophotogrammetry: It is the general term applied to science of measurement from photographs taken, an overlapping stereopair of photographs used.

* It allows 3D information to be extracted

Relative orientation:-

Purpose:- allow reconstruction of a geometric model of the terrain

Method:- make corresponding rays intersect

