

DAILY ASSESSMENT REPORT

Date:	03 July 2020	Name:	Gagan M K
Course:	Satellite Photogrammetry and its applications	USN:	4AL17EC032
Topic:	<ul style="list-style-type: none"> Programmetric products from satellite stereo images 	Semester & Section:	6 th sem & 'A' sec
GitHub Repository:	Alvas-education-foundation/Gagan-Git		

FORENOON SESSION DETAILS

Image of session

DEM

- Triangular Irregular Network (TIN)
- Grid (regular spaced)
- Contours
- Gray scale image
- Shaded relief image
- Perspective view
- 3-d view

Grid Contours TIN

Top chat ▼

- surajit rui present sir
- Rahul Bodha present sir
- Tarun Rankawat present sir
- Lohi Lohith present sir
- Rishikesh Gupta K. Good evening sir.
- Games-o-Pedia present sir
- ANAND KUMAR JHA present sir
- KOTA VAISHNAVI present sir
- knowledge unlimited present sir
- ASHWINI CHINCHOLKAR present sir
- Jahanara Begum present sir
- Yenderi Naga Sai Likhitha present sir
- Rakshita Devi present sir
- Pavithran S

Say something... (slow mode is on)

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

Stereo photogrammetry:

- Stereophotogrammetry is the general term applied to the science of measurement from photographs when an overlapping stereopair of photograph is used.
- In contrast to single photographs which can only extract 2D information. Stereophotogrammetry allows 3D information to be extracted.
- An overlapping stereopair is a pair of photographs on which the same object or area of terrain is pictured, but from different views or perspectives.
- Digital Elevation Models (DEMs) are raster files with elevation data for each raster cell.
- DEMs are popular for calculations, manipulations and further analysis of an area, and more specifically analysis based on the elevation.
- ArcGIS has several built-in functions that are very easy to use and will turn the DEM into a derivative map.
- There are several basic manipulations that can be done with ArcMap.
- This involves tools under Spatial Analyst > Surface (the Spatial Analyst extension needs to be turned on in order for this to work properly).
- **Slope:** The DEM can easily be transformed into a slope map with the Slope tool. This map describes the slope for each raster cell in degrees based on the elevation at each point.
- **Aspect:** Another derivative is the aspect map. This map displays the aspect of each raster cell grouped into compass directions (north, northwest, etc.).
- **Hillshade:** This tool creates a map with a shade-effect (fig. 2.3) based on the input parameters that are entered in the tool. The resulting map is easier to interpret than the original DEM, because some topographic features are better visible (on small scale especially).
- **Curvature:** The curvature map is calculated by using the curvature tool. This basically calculates the relative change in slope, could be seen as a second order DEM derivative.
- **Contour:** Topographic contour lines can be plotted with the contour tool. Based on the user defined parameters the new map will display (elevation based) contour lines. These tools are used to calculate a (set of) positions relative to a user defined (point) feature. This is useful to determine the visibility of a location.
- Another useful way to display a DEM is to use the “Select attribute” feature (fig. 2.8). By inserting a query and selecting a threshold, it is possible to select certain elevations on the map and display the location of these points.
- If you want to go a step further, maybe in order to classify the DEM based on elevation, you could use the reclassify tool.
- With the reclassified map it is possible to do a raster calculation in order to calculate a function for each raster cell (with each variable having its own map with values).
- Other possibilities with a DEM include interpolations.
- With certain tools it is possible to calculate unknown values based on known values that surround these unknown values.

present sir Agastya

Garimella Anil 4:25 PM
present sir

DI Richard Poole
Join telegram channel (type 'airs' on TG search) for updates, notes, past session
[UNOFFICIAL]

Sundharan Kumar Rout 4:25 PM
present sir

sanjeev kumar 4:25 PM
present sir

vidya kalbhorr 4:25 PM
present

aravani kadavala 4:25 PM
present sir

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Inputs for generating an Orthophoto

The input data required for orthophoto generation

al photographs (Hardcopy/Digital):

- Low distortion
- Fiducial marks
- Coordinates
- Ground Control points
- Digital Elevation Model

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Advantages and uses of Digital Orthophotos

- Orthophoto which can be readily interpreted like a photograph
- on which true distances, angles & areas can be measured and mapped – in a digital format

Gather coordinates from imagery

Integrate imagery into larger projects

Mosaics