**DAILY ASSESSMENT FORMAT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date:** | **03/07/2020** | **Name:** | **Lavanya B** |
| **Course:** | **IIRS** | **USN:** | **4al17ec043** |
| **Topic:** | **Photogrammetric products from satellite stereo images** | **Semester & Section:** | **6th A** |
| **Github Repository:** | **Lavanya-B** |  |  |

|  |
| --- |
| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **Report**  **Photogrammetric products from satellite stereo image**  **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.**  **Stereo Satellite imaging also called stereoscopy or 3D imaging is a photography technique originally developed for creating the illusion of depth in an image or set of images. Two pictures of an object are taken from slightly different angles allowing for depth to be perceived when viewing the images. Several different techniques for viewing the images have been developed and 3D technology is quickly developing. The first stereo images were simply placed side by side and vied up-close, cross eyed, or through binoculars. Now stereo images are combined into one image and viewed through some sort of 3D glasses. In remote sensing applications photographs of the earth are taken and 3D topographic maps and computer models can be created using the stereo images.**  **Data access and acquisition**  **The satellite takes pictures of an area from two or more different angles. The data is used to create 3D images and DEMs.**  **Potential pitfalls**  **Cloud free images are sometimes difficult to obtain in regions with a high amount of cloud cover such as in the tropics or near an active smoking volcano.**  **Use in Geothermal Exploration**  **Stereo image pairs are used to make digital elevation models (DEMs). A DEM can be used to determine the boundary conditions of hydrothermal circulation and water budget analysis in a geothermal area. Geologic mapping can also be done more efficiently with the aid of Stereoscopy and other remote sensing techniques. Stereo image pairs can be useful for identifying and mapping structures and faults in a geothermal area.** |