|  |  |  |  |
| --- | --- | --- | --- |
| **Date:** | **29-06-2020** | **Name:** | **Vidul Sambhaji chavan** |
| **Course:** | **Satellite photogrammetry and its applications** | **USN:** | **4AL17EC095** |
| **Topic:** | **Introducing photogrammetry concepts** | **Semester & Section:** | **6th B** |
| **Github Repository:** | **Vidul-chavan** |  |  |

|  |
| --- |
| **FORENOON SESSION DETAILS** |
| **Report – Report can be typed or hand written for up to two pages.**  **Photogrammetry and Remote sensing Department, established in 1966 is one of the oldest**  **departments of the institute imparting professional training in the field of photogrammetry,**  **cartography, remote sensing, and image processing to varied course participants: university teachers,**  **academicians, govt. officials, and freshly graduated students. Initially it started with aerial data**  **interpretation, analysis and aerial photogrammetry with a gradual transition to satellite data**  **interpretation, analysis, satellite photogrammetry and its applications.**  **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.**  **Photogrammetry appeared in the middle of the 19th century, almost simultaneously with the**  **appearance of photography itself. The use of photographs to create topographic maps was first**  **proposed by the French surveyor Dominique F. Arago in about 1840.**  **The term photogrammetry was coined by the Prussian architect Albrecht Meydenbauer, which**  **appeared his 1867 article "Die Photometrographie.**  **There are many variants of photogrammetry. One example is the extraction of three-dimensional**  **measurements from two-dimensional data (i.e. images); for example, the distance between two points**  **that lie on a plane parallel to the photographic image plane can be determined by measuring their**  **distance on the image, if the scale of the image is known. Another is the extraction of**  **accurate color ranges and values representing such quantities as albedo, specular**  **reflection, metallicity, or ambient occlusion from photographs of materials for the purposes**  **of physically based rendering.**  **Close-range photogrammetry refers to the collection of photography from a lesser distance than**  **traditional aerial (or orbital) photogrammetry. Photogrammetric analysis may be applied to one**  **photograph, or may use high-speed photography and remote sensing to detect, measure and record**  **complex 2D and 3D motion fields by feeding measurements and imagery analysis into computational**  **models in an attempt to successively estimate, with increasing accuracy, the actual, 3D relative**  **motions.**  **From its beginning with the stereoplotters used to plot contour lines on topographic maps, it now has**  **a very wide range of uses such as sonar, radar, and lidar.**  **Methods**  **A data model of photogrammetry]**  **Photogrammetry uses methods from many disciplines, including optics and projective geometry.** |
|  |