

## DAILY ASSESSMENT FORMAT

Date:	03 JULY 2020	Name:	HARSHITHA H
Course:	IIRS Outreach program on Satellite Photogrammetry and its Applications	USN:	4AL18EC020
Topic:	Photogrammetric products from Satellite stereo images(DEM and derivatives & orthoimage)	Semester & Section:	IV SEM & A SECTION
Github Repository:	harshithah		

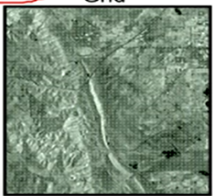
### Image of session

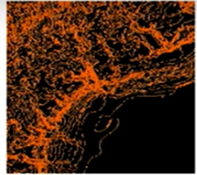
03 July 2020\_ Photogrammetric products from satellite stereo images by Dr. Anil Kumar
INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN

### DEM

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

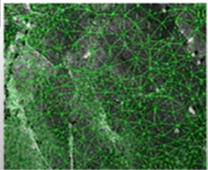
Grid





Contours

TIN



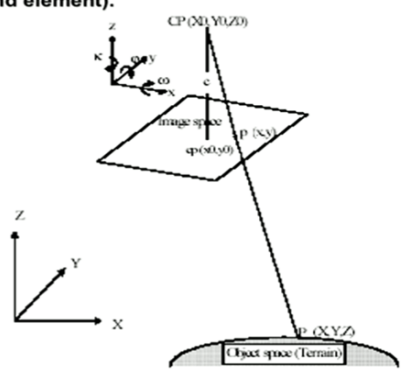
INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN

### Algorithms for Digital Ortho-rectification

The indirect method for digital differential orthorectification uses the collinearity principle to generate the digital orthoimage as follows:

The process starts from the object space, by taking the 3D ground coordinates of each orthoimage pixel center (or ground element).

See, for example, the ground element center represented by point "P" in figure. Point "P" is then projected backwards onto the image space through the collinearity equations; this operation determines its image coordinates (point "p" in figure).



REPORT:

## **IIRS OUTREACH PROGRAM ON SATELLITE PHOTOGRAMMETRY AND ITS APPLICATIONS**

**Photogrammetric products from Satellite stereo images(DEM and derivatives & orthoimage**

- **Inputs for generating an Orthophoto**
  - **The input data required for orthophoto generation using aerial photographs**
  - **Input data required for orthophoto generation using satellite images**
- **DEM**
- **Errors removed during ortho-rectification**
- **Algorithms for digital ortho-rectification**