

## CE331 Group Project: Surveying & Mapping

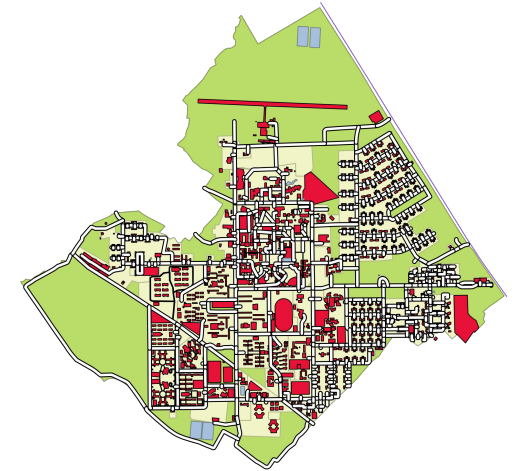


**Aman Kumar Singh**  
Teaching Assistant  
Department of Civil Engineering  
Indian Institute of Technology Kanpur

## Objective

### Group Project : Surveying & Mapping

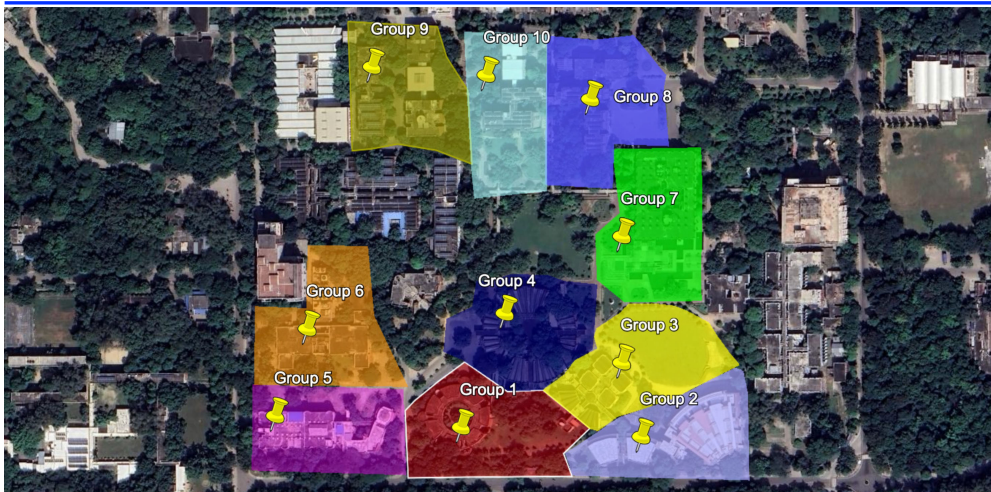
- Surveying
- Making Map
- Project Report
- Project Presentation



CE331 Principles of Geoinformatics

Aman Kumar Singh | Civil Engineering | IIT Kanpur | 2024 | 2

## Survey Area

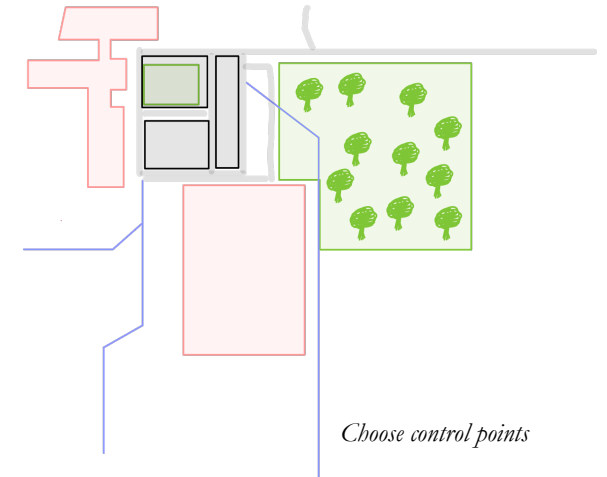


CE331 Principles of Geoinformatics

Aman Kumar Singh | Civil Engineering | IIT Kanpur | 2024 | 3

## Mapping the Area

- Reconnaissance
- Control Points  
*(This we'll do for 2 CPs of your choice)*
- GPS Observations
- Traversing
- Levelling
- Feature Mapping
- Topographic Map



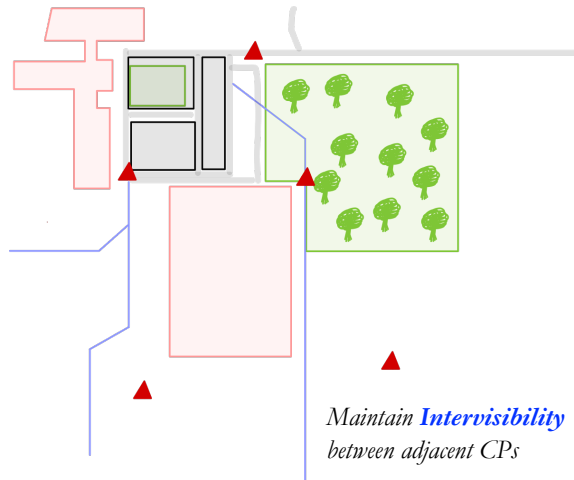
CE331 Principles of Geoinformatics

Aman Kumar Singh | Civil Engineering | IIT Kanpur | 2024 | 4

(Strictly for students registered in CE331, IIT Kanpur, 2024)

## Mapping the Area

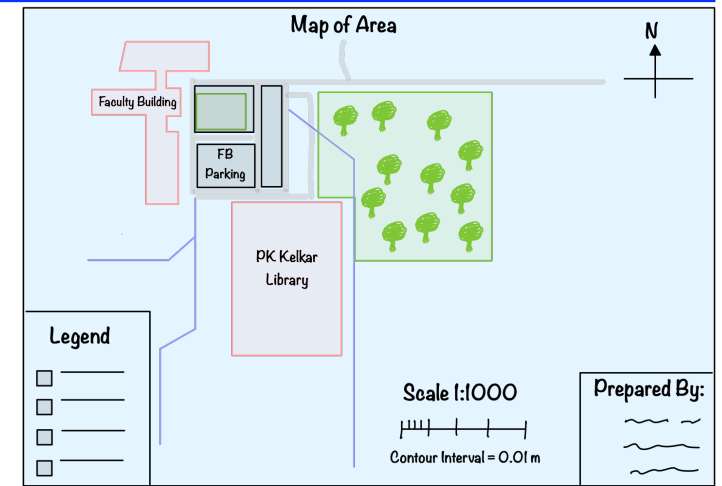
- Reconnaissance
- Control Points
- GPS Observations  
*(This we'll do for 2 CPs of your choice)*
- Traversing
- Levelling
- Feature Mapping
- Topographic Map



## Preparing a Map

### Map Layout

- Map
- Title
- Legend
- Scale
- North Direction
- Prepared By
- Contour Interval
- Coordinate Axis



## Mapping Software (GIS Software)

- **QGIS:**
  - Free and open-source
  - Download QGIS from <https://qgis.org/download/>
- **ArcGIS Pro:**
  - Paid software developed by ESRI
  - Educational License available with us (*National Center for Geodesy, IIT Kanpur*)

*Note: If you prefer to use ArcGIS Pro, please let us know, and we will provide you with a license for this semester on your IITK email.*
- **Tutorial:**
  - A tutorial for making a map can be found at : <https://youtu.be/KZEarg3ta-0>

