

Dr. Asaram S. Jadhav  
Head, Department of Geography,  
Tiljaram Chaturchand College, Baramati.

Date -25/03/2022

To,  
The Principal,  
Tiljaram Chaturchand College,  
Baramati.

**Subject: - Completion report of Three days Hands on Training on Advance Surveying Techniques (Total Station & DGPS)**

Respected Sir,

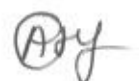
As mention above the subject, we have successfully conducted three days hands on training on advance surveying techniques (Total Station & DGPS). Total 132students were enrolled for this training program out of these 50 students has been selected and successfully completed. This program held on 21<sup>st</sup>, 22<sup>nd</sup> and 23<sup>rd</sup> March 2022. Total 6 sessions were conducted for more than 20 hours.

On Monday, 21<sup>st</sup> March 2022 two sessions we conducted, first session was an introductory session of Total Station survey and in the second session did hands on exercise in the field.

Third and fourth sessions we conducted on Tuesday, 22<sup>nd</sup> March 2022, of resectioning and special functions (staking out) and hands on exercise of Differential Global Positioning System/ Global Navigation Satellite System in the field.

On the last day of this program session five and six were conducted about TS data exporting, DGPS data exporting and post processing using AUTOCAD software.

Thank you.



Head

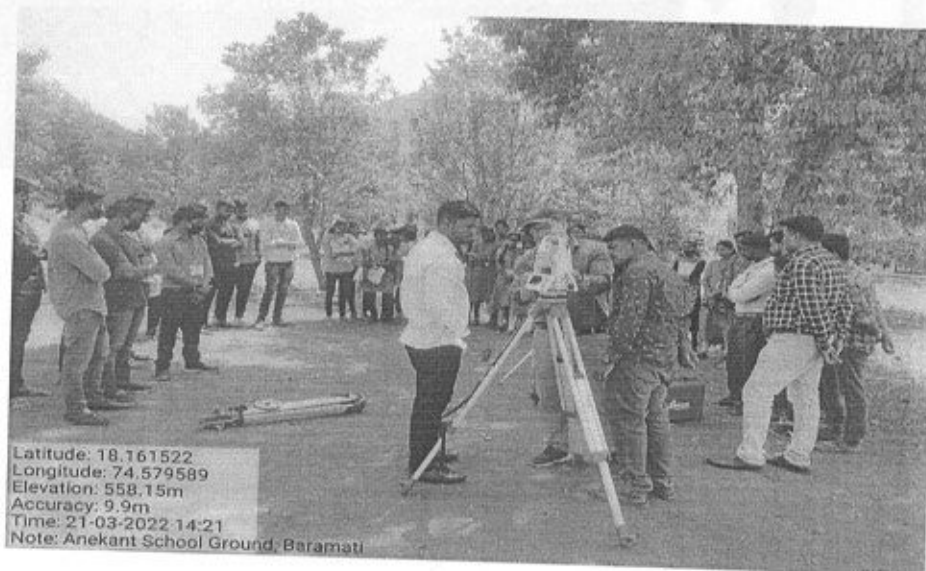
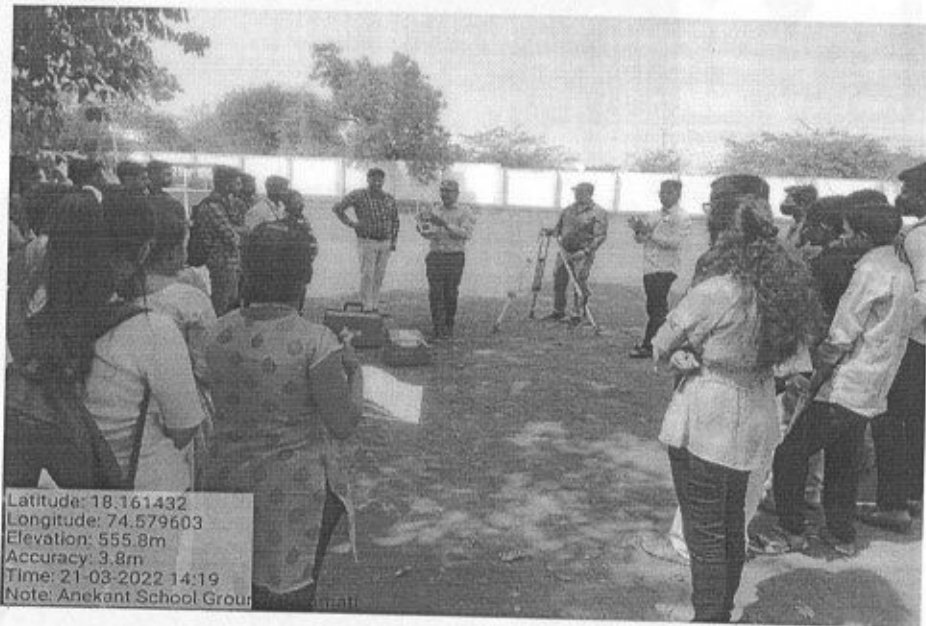
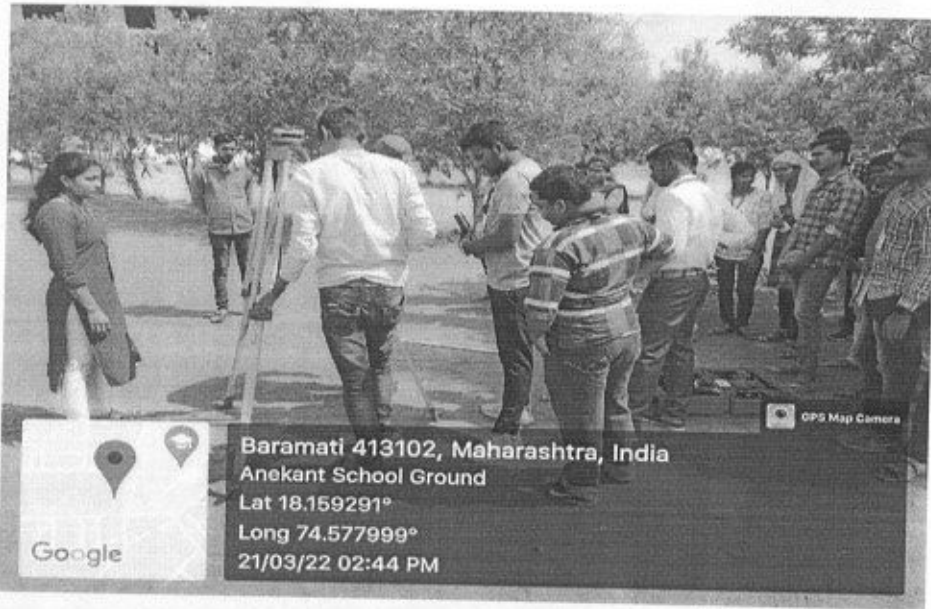
Department of Geography

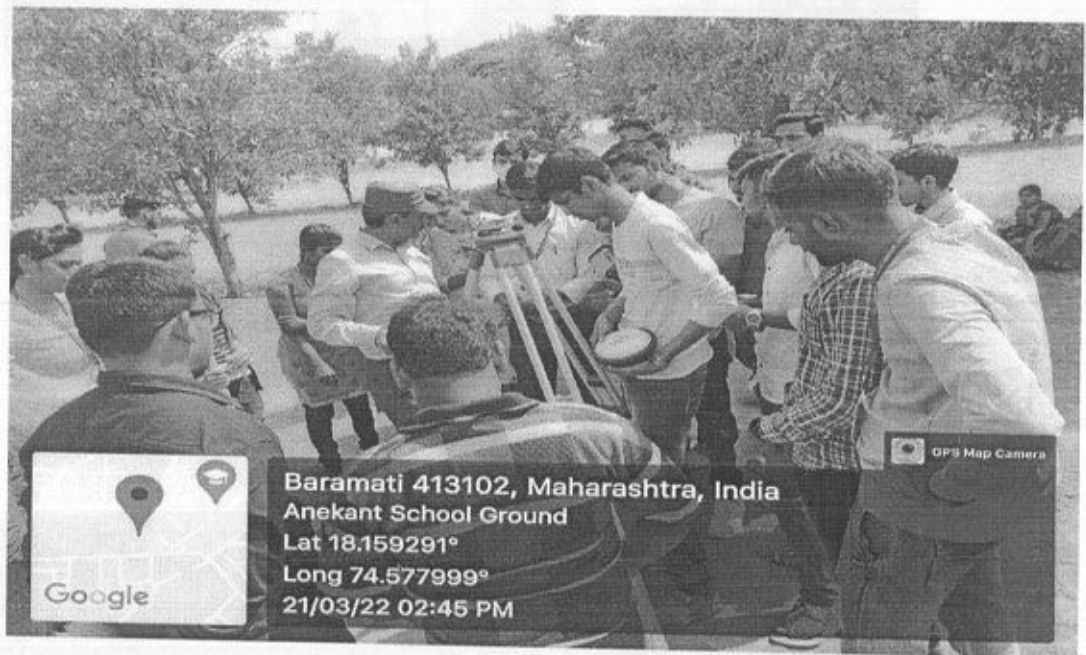
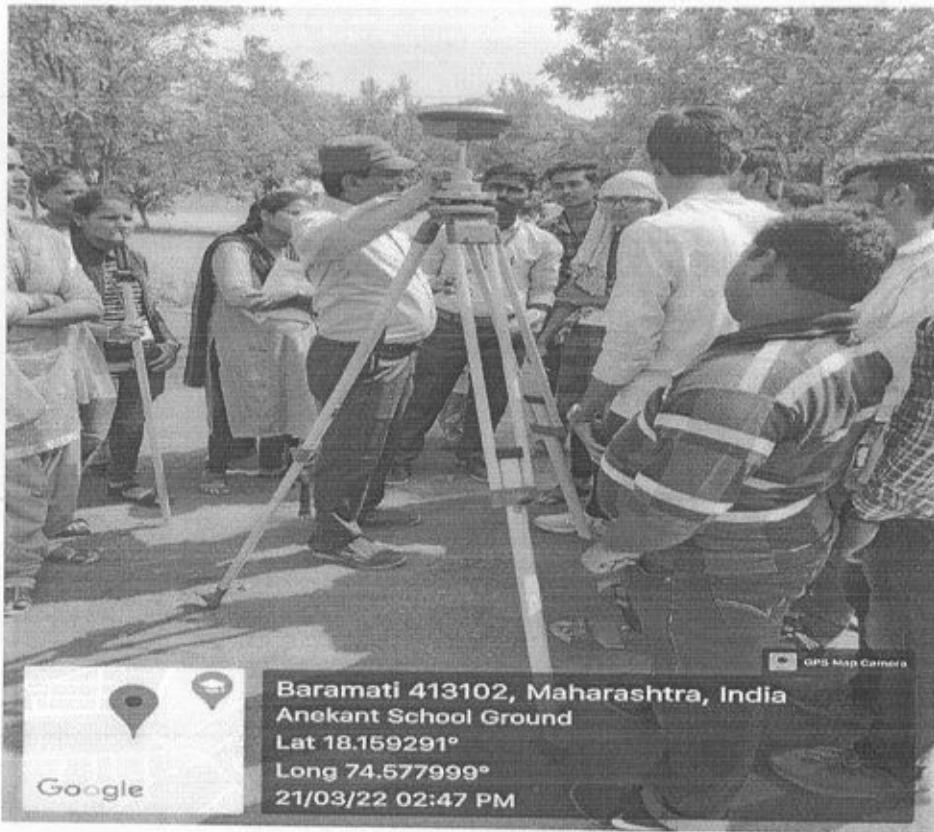


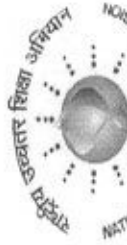
## List of Students

Sr. No.	Student Name	Emai ID
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51	BoradeAarti Mohan	boradeartim@gmail.com







Anekant Education Society's

**Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati**

(Autonomous)

NAAC Accredited 'A+', CGPA 3.55 ISO 9001-2015, Green Audit Certified, Religious Minority Institute

## Department of Geography

Organizes

### Three Days "Hands on Training on Advance Surveying Techniques (Total Station and DGPS)"

Under the scheme of ED Cell funded by RUSA

#### Resource Person

**Mr. Sheetal Varur**

Assistant Professor, K. I. T. College of Engineering, Kolhapur

- Duration: 21/03/2022 to 23/03/2022
- Time: 10:00am to 05:00pm
- Venue: Seminar Hall (Prerana Building)
- No Registration fees • Enrolling capacity 50 participants
- Registration link: <http://forms.gle/uYHen3bdhejfaCMT8>
- Certificates: Certificate will be provided after attending all the sessions.

#### Organizing Committee

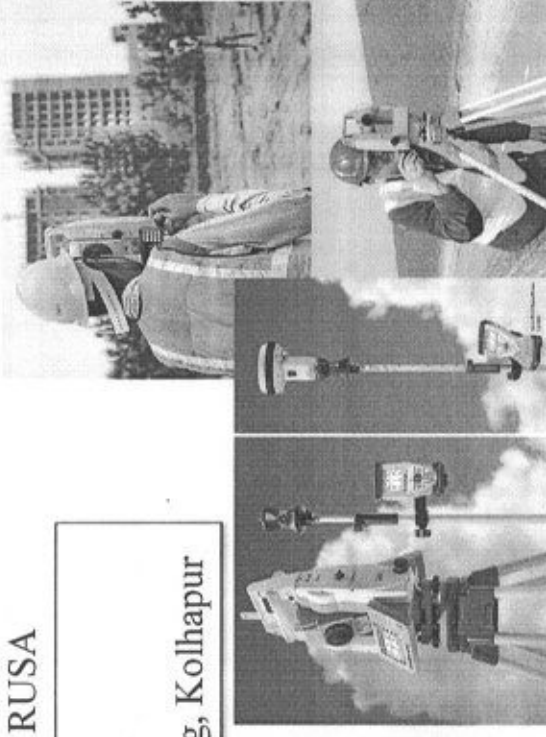
Ms. Nayan D. Zagade  
Coordinator

Dr. Asaram S. Jadhav  
Head of Department

Dr. Vikas C. Kakade  
ED Cell Coordinator

Dr. Ajit B. Telave  
RUSA Coordinator

Dr. Chandrashekhar V. Murumkar  
Principal & Convener







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#### Three Days Schedule

DAYONE (21/03/2022)				
TIME	SESSION TYPE	TOPIC	VENUE	RESOURCE PERSON
10:00am-11:00am	<b>INAUGURATION</b>			
11.00-11.15am	<b>TEABREAK</b>			
11:15am-01:00pm	<b>Theory Session-1</b>	<p><b>Introduction to Total Station</b> History of EDM technology Principle of Total Station Study of the Instrument and its parts: <u>Instrument features:</u> Job creating, Selecting Storing, View and editing, deletion etc. Temporary adjustments &amp; Measurement functions</p> <ul style="list-style-type: none"> <li>➤ <u>Basic Measurement functions:</u> (Quick Survey)</li> <li>➤ Horizontal &amp; Vertical Angle, Horizontal &amp; sloping Distance</li> <li>➤ Measure Topo-polar and rectangular Coordinate</li> </ul>	Lecture Hall	<b>Prof.S.S.V arur</b>
01:00-2:00p.m	<b>LUNCHBREAK</b>			
02:00pm-06:00pm	<b>Practical Session-1</b>	<p><b>Handson Exercise in field:</b></p> <ul style="list-style-type: none"> <li>➤ Instrument setup-temporary adjustments</li> <li>➤ Job Setup &amp; Job Manage</li> <li>➤ Function keys &amp; parts of Instruments</li> </ul> <p><b>Basic Measurement/Quick Survey</b></p> <ul style="list-style-type: none"> <li>➤ Station Setup-Orientation with Angle (known azimuth)</li> <li>➤ Station Setup-orientation with coordinates (known Back Sighting)</li> <li>➤ Distance measurement (HD) &amp; Vertical distance (V)</li> <li>➤ Angle-Horizontal &amp; Vertical Angle measurement</li> </ul>	Field	<b>Prof.S.S.V arur &amp; team</b>

		<ul style="list-style-type: none"> <li>➤ <b>Object/Point Measurement:</b></li> <li>➤ Byline and angle Measurement</li> <li>➤ Rectangular Coordinates (N, E, Z or X, Y, Z) measurements</li> </ul>		
6 HOURS		TOTAL		
<b>DAY TWO (22/03/2022)</b>				
TIME	SESSION TYPE	TOPIC	VENUE	RESOURCE PERSON
9:30am-11:15am	Theory Session-2	<b>Measuring</b> remote distance/Tie Distance/Area/Remote Elevation Measurement <b>Setting out (Staking out) Resectioning &amp; Special functions:</b> <ul style="list-style-type: none"> <li>➤ Re-sectioning (Free stationing)</li> <li>➤ Data Inputting for setting out</li> <li>➤ AUTOCAD coordinates preparation for computing coordinates</li> </ul>	Lecture Hall	Prof. S.S.V arur
11.15-11.30	<b>TEA BREAK</b>			
11:30am-1:00pm	Practical Session-2	<b>Field: Handson Exercise</b> <ul style="list-style-type: none"> <li>➤ Tie Distance/Remote Distance Measurement (RDM) Missing Line Measurement (MLM)</li> <li>➤ Inputting origin Coordinates and baseline determination</li> <li>➤ Resectioning to obtain unknown station coordinates.</li> </ul>	Field	Prof. S.S.V arur
1:00-2:00pm	<b>LUNCH BREAK</b>			
02:00pm-05:30pm	Practical Session-3	<b>Handson Exercise in field: (contd....)</b> <ul style="list-style-type: none"> <li>➤ Inputting Setting Out coordinates - Office and field inputs</li> <li>➤ Recalling &amp; Staking out points</li> <li>➤ Setting out/staking out Coordinates on field.</li> <li>➤ Storing stake out points with R.Ls</li> <li>➤ Saving in Memory field work data.</li> <li>➤ Area, Remote object/Remote height</li> </ul>	Field	Prof. S.S.V arur
7 HOURS		TOTAL		
<b>DAY THREE (23/03/2022)</b>				
TIME	SESSION TYPE	TOPIC	VENUE	RESOURCE PERSON

9:30am-11:15am	Lab Session-1	<b>DrawingWork:</b> > TSDataprogramexportingbyUSB/cable > PreparationofDrawingsfromTotal stationdatainAutoCADEnvironment. > DrawinginAutoCAD. <b>DGPS/GNSS-</b> Introduction&Principle,Projectionsystems <b>DGPS-basesettings</b> <b>Rover-RTKsettingsforradiofrequency</b>	Lab	Prof.S.S.V arur
11.15-11.30		<b>TEABREAK</b>		
11:30-1:00pm	Practicals Session-4	<b>DGPS/GNSS</b> > DGPS-BaseandRoverSettings > Skyplot,satelliteconfiguration,signalstrength	Field	Prof.S.S.V arur
01:00-02:00pm	<b>LUNCHBREAK</b>			
2:00-3:00	Practical Session-5	<b>DGPS/GNSS</b> > DGPS-BaseandRoverSettings > Fieldwork-MeasuringLat-Long,elevation > Long-Latrecordingandsaving.		
03:30-04:30 pm	Theory& Lab Session-2	<b>DGPS/GNSS</b> > DGPS-Dataexporting > Job&Long-Latinformationsaving. <b>Closing-in</b>	CadLab	Prof.S.S.V arur
6HOURS		TOTAL		

