



Kalyanii Charitable Trust's

## LATE G. N. SAPKAL COLLEGE OF ENGINEERING

(Accredited with Grade 'B' by NAAC)

- Affiliated to > Savitribai Phule Pune University (ID. No.PU/NA/Engg./152/2009 Ref.No.-CA/6501 Dated- 18/11/2009)  
Approved by > A.I.C.T.E., New Delhi (F.N: 06/07/MS-Engg/2008/O-17, Dated- 11th June 2009)  
> Govt. of Maharashtra (No. GEC-2009/(67/09)/T.E.- 4, Dated- 15th June 2009)  
> D.T.E., M.S., Mumbai (No.2/NGC/Engg./Approval/2009/535, Dated - 23rd July 2009)  
> AISHE CODE : C-42196

**Dr. Sahebrao B. Bagal**  
M.E. (E & TC), Ph.D. (E & TC)  
Principal



**Dr. Ravindra G. Sapkal**  
Chairman & Managing Director  
Kalyanii Charitable Trust

Ref: KCT's/LGNSCOE/2022-23/599

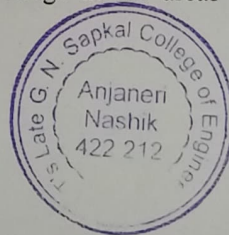
Date: 27/4/2023

## MEMORANDUM OF UNDERSTANDING

We the "Abhishek Consultancy" Malegaon, Nashik & Department of Civil Engineering from KCT's Late G. N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nashik, Maharashtra hereby signing the MoU with the following terms and conditions.

### Objectives of the Collaboration:-

1. To provide employable skills to the students of Department of Civil Engineering Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri, Trimbak Road, Nashik.
2. To make the students aware of the latest surveying instruments and techniques in order to keep them industry ready at the end of their course.
3. To plan and utilize resources like staff and infrastructure for Industry based joint consultancy work.
4. To conduct entrepreneurship development program for staff and students of Department of Civil Engineering Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nasik.
5. To arrange industrial training program on various trends and technologies for the staff and student of Department of Civil Engineering Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nasik.
6. To conduct expert lectures and workshops to the faculty of either side on state of the art technology.
7. Developing and contributing in curriculum development of Department of Civil, Engineering Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nasik.
8. Outsourcing consultancy project to the college in the areas of mutual interest on mutually decided commercial terms.

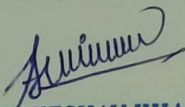


- **CAMPUS** : Sapkal Knowledge Hub, Kalyanii Hills, Anjaneri-Wadholi, Trimbakeshwar Road, Nashik - 422 213. (India)  
Tel.: + 91- 2594 - 220168/69/70 | Mob.: +91 9922252699 | Toll Free No.: 1800 233 2999 | **E-mail** : gns\_engineering@sapkalknowledgehub.org
- **CORPORATE OFFICE** : Sapkal Knowledge Hub, 'Parag' 46, Ashwin Sector, Opp. Hotel Sai Palace, Mumbai-Agra Highway, Nashik - 422 009.  
Tel.: +91 - 253 - 2392450 / 51 | **E-mail** : head.marketing@sapkalknowledgehub.org | **Website** : www.sapkalknowledgehub.org
- **MUMBAI OFFICE** : Sapkal Knowledge Hub, Unit No. 22, 1<sup>st</sup> Floor, Shubhada Tower Shopping Centre, Sir Pochkhanwala Road, Near R.T.O. Office, Worli, Mumbai - 400 030. Tel.: + 91 - 22 - 24938914 / 15 | **E-mail** : cmd@sapkalknowledgehub.org, ravi.sapkal@gmail.com

9. Assign and Allot the project work to students of Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nashik, Maharashtra final year student, which are industry need based.
10. Sponsoring the technical event/symposiums conducted at Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nashik, Maharashtra.
11. Allowing Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nashik, Maharashtra staff and student for training.
12. To provide training and sharing the expert knowledge to develop various laboratories for the department of Civil of Late G.N. Sapkal College of Engineering, Kalyani Hills, Anjaneri Trimbak Road, Nashik, Maharashtra.
13. The undersigned MoU will be valid for 3 Academic years i.e.2022-23, 2023-24, 2024-25.

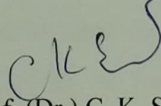
#### Terms and condition

1. Allowing the activity shall be planned and arranged at the discretion and with the prior consent of both parties.
2. Both the parties reserve the discretion of deciding their area of interest. This understanding between the two parties is non-exclusive.
3. Either party may terminate this agreement with a notice of 60 days to other party.
4. The MoU may be reviewed at the end of 3 Years from the date of signing.
5. The infrastructural arrangement for conducting training program workshop and guest lecture will be made by the host organization at the time of event.

  
**ABHISHEK KESHAV KHAINAR**  
 Civil Engineer & Surveyors

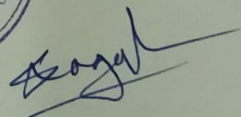
Mr. Abhishek K. Khairnar  
 Civil Engineer and Land Surveyor  
 Mob- +917767074160  
 Abhishekhconsultants03@gmail.com



  
 Prof. (Dr.) C. K. Sridhar

Principal  
 Head  
 DEPARTMENT OF CIVIL ENGINEERING  
 LGNSCOE, Nashik

Late G.N.Sapkal College of Engineering  
 Anjaneri, Nashik

  
 Prof. (Dr.) S. B. Bagal  
 Principal  
 LGNSCOE, Nashik



Kalyani Charitable Trust's  
**Late G. N. Sapkal College of Engineering**

Kalyani Hills, Anjaneri, Trimbakeshwar Road,  
Nashik – 422 213



### FDP REPORT

**Title:** Modern Survey Training Programme using GPS and Total Station

**Number of Day :** 5 days

**Date of Conduction :** 08/05/2023 to 12/05/2023

**Number of Participants:** 23

**Time:** 10am to 04pm

#### **Program Objectives:**

1. To set up and use of Total Station equipment.
2. To learn how to interpolate survey data and create maps using electronic surveying software.

#### **Name & Details of the Resource Person:**

**Mr. Abhishek Khairnar**, Civil Engineer and Surveyors, Malegaon (Nashik)

#### **Course overview:**

The Late G. N. Sapkal College of Engineering, Anjaneri, Nashik's department of civil engineering organised a training session on "Advanced Survey Training using GPS and Total Station." Prof. Tushar Shinde coordinated the training program from May 08 to 12 May 2023. Total 10 faculty members and 13 PG students participated in this training program. The training was delivered by Mr. Abhishek Khairnar and his technical team, who also explored the many features of the Total Station.

Total station and E-surveying software, which are widely used in civil engineering and other industries, are covered in this course with the goal of giving participants adequate practical knowledge. Two groups of training faculties each carried out the task of using a Total Station in the campus.

#### **Course Highlights:**

1. Introduction on Total Station.
2. Data Management & Boundary survey.
3. Column Marking, Stake Out, Curve Setting and Road Survey Offset method.
4. Topo graphical Maps, Contour generation, Earth work quantity.
5. Cross Section and longitudinal sections, Interpolation, Grid etc.





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**Course structure:**

1. Lecture Session - 12 hrs.
2. Practical Session (session on Total Station operation) - 18 hrs.
3. Inauguration and valedictory Session – 30 minutes.

**Topics covered:**

**i) Lecture Session**

1. Surveying
2. Introduction
3. Methodologies adopted and instruments used presently and in earlier days
4. Coordinate System and Projections
5. Traverse Surveying
6. Open Traverse & Closed Traverse
7. Bowditch Adjustment Method
8. Theory of errors in observations

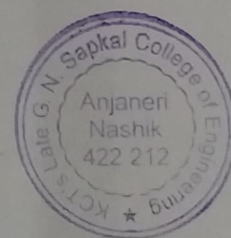
**ii) Practical Session**

1. Control Point establishment & Error adjustment
2. Boundary Survey & Topographic survey
3. Topo Map & Contour Map generation
4. Earth work (Land Quantity Calculation)
5. Area and Volume calculations
6. Generations of Cross & Longitudinal section for Road work.

**Outcomes of the FDP:**

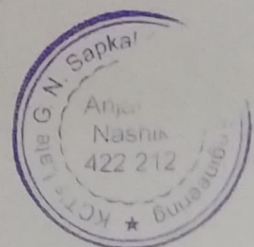
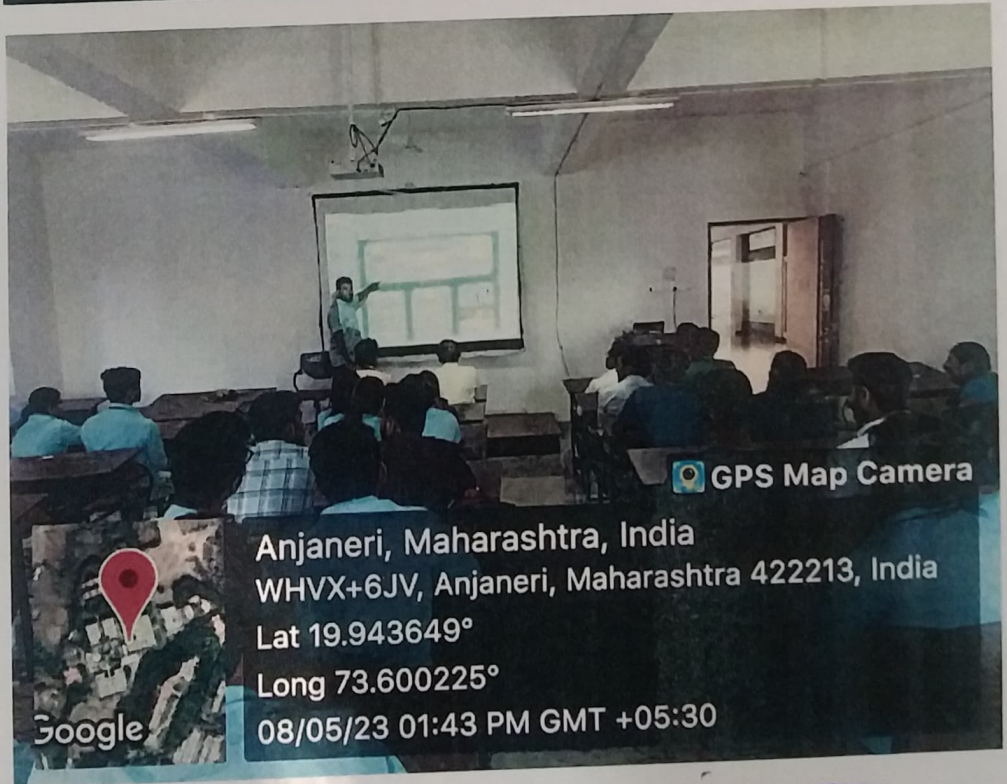
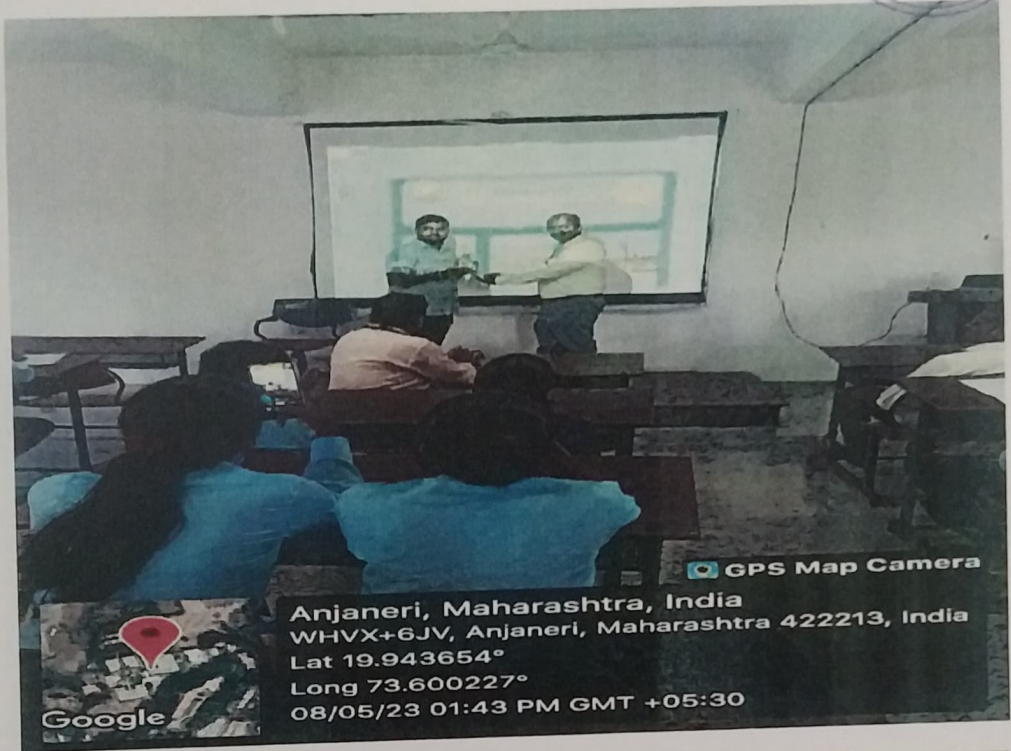
In this Training Faculties will be able to:

- Set up and use Total Station equipment for establishing control, detail surveying, setting out and coordinate checks.
- Generate and extract field survey data using specialized E survey software. Interpret the drawings and maps for calculating different physical quantities like length, area, volume, elevations etc.






Photos:









 GPS Map Camera



Anjaneri, Maharashtra, India  
Trimbakeshwar Rd, Anjaneri, Maharashtra 422213, India  
Lat 19.94396°  
Long 73.601186°  
12/05/23 02:26 PM GMT +05:30



*T. Shinde*

**Prof. Tushar R. Shinde**  
Coordinator

*CKS*

**Prof. (Dr.) C. K. Sridhar**  
HOD/Chief Coordinator

*Sahebrao B. Bagal*

**Prof. (Dr.) Sahebrao B. Bagal**  
Principal





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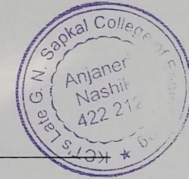
**Department of Civil Engineering**

One Week Faculty Development Program on

**"Modern Survey Training Programme using GPS and Total Station"**

May 08-12, 2023

*Certificate*



This is certified that Mr. Sachin Uttamrao Pagar

From Late. G. N. Sapkal College of Engineering.

Has participated in one Week Faculty Development Program on **"Modern Survey Training Program using GPS and Total Station"** organized by Department of Civil Engineering in collaboration with IQAC.

Mr. Abhishek Khairnar  
Civil Engg. & Land Surveyor

Prof. T. R. Shinde  
Programme Coordinator

Prof. (Dr.) C. K. Sridhar  
Head of Department

Prof. (Dr.) S. B. Bagal  
Principal



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This is certified that Mr. Bhushan Vilas Tatar

From Late. G. N. Sapkal College of Engineering.

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Mr. Abhishek Khairnar  
Civil Engg. & Land Surveyor

Prof. T. R. Shinde  
Programme Coordinator

Prof. (Dr.) C. K. Sridhar  
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Prof. (Dr.) S. B. Bagal  
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This is certified that Mr. Tushar Ramnath Shinde

From Late G. N. Sapkal College of Engineering.

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Mr. Abhishek Khairnar  
Civil Engg. & Land Surveyor

Prof. T. R. Shinde  
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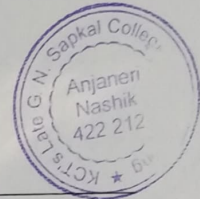
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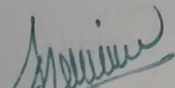
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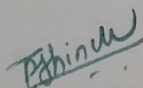
This is certified that Mr. Pradeep Tulshidas Kumavat

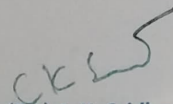
From Late. G. N. Sapkal College of Engineering.

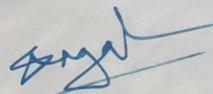
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Mr. Abhishek Khairnar  
Civil Engg. & Land Surveyor

  
Prof. T. R. Shinde  
Programme Coordinator

  
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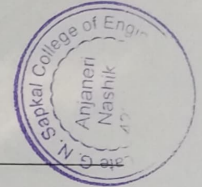
## Department of Civil Engineering

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May 08-12, 2023

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This is certified that Miss. Madhuri. Z. Khairnar

From Late. G.N. Sapkal College of Engineering

Has participated in one Week Faculty Development Program on **"Modern Survey Training Program using GPS and Total Station"** organized by Department of Civil Engineering in collaboration with IQAC.

Mr. Abhishek Khairnar  
Civil Engg. & Land Surveyor

Prof. T. R. Shirule  
Programme Coordinator

Prof. (Dr.) C. K. Sridhar  
Head of Department

Prof. (Dr.) S. B. Bagal  
Principal



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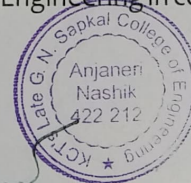
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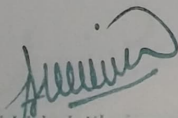
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This is certified that Mr. Shailesh. T. Pagar

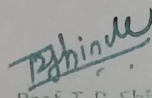
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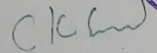


  
Mr. Abhishek Khairnar

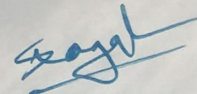
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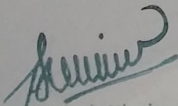
**"Modern Survey Training Programme using GPS and Total Station"**

May 08-12, 2023

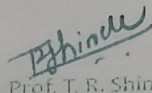
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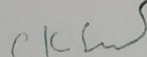
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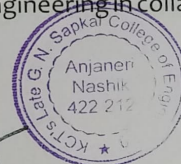
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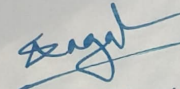
  
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