WORKSHOP

ON

Surveying using Total Station

Registration Form

From 19/03/2018 to 23/03/2018

1	**Name**	:
2	**Roll No**	:
3	**Year & Branch**	:
4	**Name of the College**	:
5	**Mobile**	:
6	**E-Mail**	:

Place :

Date : **Signature of the Candidate**

Bonafide Certificate :

Mr./Ms. .....is a Student of our Institute and studying ..... B.Tech. If selected, the Student may be permitted to participate in the above programme.

Date : Signature of the HOD/
Head of the Institution with Seal

(*Photostat copy of this form can be used if necessary*)

Chief Patron
Dr. K. Chandrasekhar Naidu
Chairman

Patron
Dr. K.V.N.N Rao
Principal

Convener
Dr. V M SOUNTHARARAJAN
HOD, CE

Co-ordinator
Mr. B Krishna Moorthy
Asst. Prof. in CE Dept.

Organizing Committee

Mr. Y Giridhar Reddy, M.Tech., Asst. Prof.
Mr. M. Vinod kumar , M.Tech., Asst. Prof.
Mr B. Ramu, M.Tech., Asst. Prof.
Mr. N Mohan Reddy M.Tech., Asst. Prof.
Ms. M. Nohitha, M.Tech., Asst. Prof.
Mr. M Saritha , M.E., Asst. Prof.
Mr. P. Jagadeesh , M.Tech., Asst. Prof.
Mr. J Hema Latha, M.Tech., Asst. Prof.

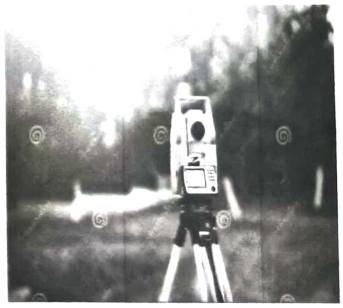
PRINCIPAL
Vemu Institute of Technology
P.KOTHAKOTA - 517 112

WORKSHOP

ON

Surveying using Total Station

From 19/03/2018 to 23/03/2018



Organized by

DEPARTMENT OF CIVIL ENGINEERING

VEMU INSTITUTE OF TECHNOLOGY
P.KOTHAKOTA, NEAR PAKALA
CHITTOOR-517112
www.vemu.org

About our College:

Vemu Institute of Technology has been started in Chittoor District by an eminent educationist cum philanthropist- Dr. K.C. Naidu, retired Professor of Andhra University with excellent infrastructural facilities catering to the educational needs of rural and semi-urban students. VEMU is one of the few ISO 9001-2015 certified premier Engineering/Management colleges in the Rayalaseema region of A.P. (located in the Chittoor – Tirupati Highway) approved by AICTE and affiliated to JNTUA. Our college is accredited with A-Grade by Department of Technical Education, Govt. of AP., which is key performance indicator of our college in the year 2016 and accredited by NAAC in the year 2017.Vemu offers B.Tech programs in 5 disciplines viz, ECE, EEE, ME, CE, CSE and PG Programmes - MBA & M.Tech. The college is established in a serene atmosphere of 16 acres sprawling campus facilitated with spacious classrooms, modern laboratories, computer systems, seminar halls and e-training rooms, an exclusive well furnished placement cell with GD Rooms and Interview chambers and a huge library with 40,000 volumes.

About the Civil Engineering Department:

The department of civil engineering was established in the year 2009 at VEMU Institute of technology with an intake of 60. The department also offers a full time three years of Diploma and four years B.Tech program. Many of them are placed in Ultratech, L & T, NCC Mayur Group, Sri Venkateshwara Developers, Saishuit builders Pvt ltd., etc. Guiding the students with the best facilities, resources and opportunities, the Department of Civil Engineering has been fruitful in developing the outlook, employability skills and competencies of the students that help them cater to the needs of the changing world.

Resource Person: Mr. Subramanyam,
DSNM Global Solutions,
Tenali

About the Workshop:

Surveying or land surveying is the technique, profession, and science of determining the terrestrial or three-dimensional position of points and the distances and angles between them. A surveying professional is called a surveyor. These points are usually on the surface of the Earth, and they are often used to establish land maps and boundaries for ownership, locations like building corners or the surface location of subsurface features, or other purposes required by government or civil law, such as property sales. Surveyors work with elements of mathematics (geometry and trigonometry), physics, engineering and the law. They use equipment like total stations, robotic total stations, GPS receivers, prisms, radios, handheld tablets, digital levels, and surveying software.

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GUIDELINES:

- ✓ All III Year B.Tech Civil Engineering Students of Vemu Institute of Technology should attend to this workshop .
- ✓ Participants have to take the test after completion of the workshop.
- ✓ Participants will be selected on first come first served basis

For further Details Click on to

www.vemu.org

Address for Communication:

Convener,
VEMU Institute of Technology
P.Kothakota, Near Pakala

Chittoor-517112
Andhra Pradesh

For Details Contact:

Dr.V.M. Sounthararajan - 8886661101
Mr. B. Krishna Moorthy - 9486202395

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Chittoor – Tirupathi National Highway, Near Pakala, Chittoor(Dt.), AP – 517112
Department of Civil Engineering

Schedule for Workshop on "Surveying using total station" from 19/03/2018 to 23/03/2018

S.No	Date	Topics to be covered
1	**19/03/2018**	INTRODUCTION Basics of surveying -History of surveying and Fundamentals of surveying – Knowledge on coordinates-Area calculation-Graf method coordinate extraction. INTRODUCTION OF TOTAL STATION INSTRUMENT About the Total Station Instrument-Operations-Applications-Advantages-Disadvantages. - Types of surveys.
2	**20/03/2018**	SETTING UP OF THE INSTRUMENT Fixing the station point-Setting the instrument-Checking the plate level-Instrument Level-Tilt-Northing-Observation.
3	**21/03/2018**	SURVEYING Project 1 : Surveying the site without any instruments. Project 2 : Surveying the site with the TOTAL STATION instrument Back site Boundary survey-Layout survey-Road Survey-Topographical survey, every batch will be given a project in the college.
4	**22/03/2018**	SURVEYING Road survey-Topographical survey, every batch will be given a project REAL TIME, that is the students will be surveying their own college.
5	**23/03/2018**	LEVELS Bench mark setting, Spot Levels, Contour survey REAL TIME MARKING / SETTING OUT / STAKE OUT Layout marking-Pile Marking-Column Marking Assesment

Total duration of the Course: 35 Hours

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Department of Civil Engineering

List of Enrolled Students for

Workshop on "Surveying using total station" from 19/03/2018 to 23/03/2018

Year/Sem: III-II **Academic Year: 2017-18**

S. NO	Roll No	Name of the Student
1	154M1A0101	Audulapuram Rohith
2	154M1A0102	A Santhosh Kumar
3	154M1A0103	Bhaskaran Vignesh Kumar
4	154M1A0104	Boddu Muni Prasad
5	154M1A0105	Bodigutta Sateesh
6	154M1A0106	Bottu Nagendra Prasad
7	154M1A0107	C Thulasi
8	154M1A0109	Dasari Siva Sankara
9	154M1A0110	Goduguchintha Sasikumar
10	154M1A0111	Gollapalle Hemakumar
11	154M1A0112	Gudimallam Sampath
12	154M1A0113	Guttha Dinesh
13	154M1A0114	Irugu Reddy Sekhar
14	154M1A0115	K Naresh
15	154M1A0116	K S Jagadeesh
16	154M1A0117	Kanipakam Harika
17	154M1A0118	Karanam Sunil
18	154M1A0120	M Vanaja
19	154M1A0122	Murari Ranjith Kumar
20	154M1A0123	N Mahidhar
21	154M1A0126	P Sudheer
22	154M1A0127	Pakala Venkataramana
23	154M1A0128	Pallapu Mohan Krishna
24	154M1A0129	Pamula Mounika
25	154M1A0130	Pitchika Pavan Kalyan
26	154M1A0132	Pulielukala Pavan Kalyan
27	154M1A0133	R Sandeep
28	154M1A0135	S Murugavel
29	154M1A0136	Pilarikuppam Hema Sai

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30	154M1A0137	T Aravind
31	154M1A0139	Thalari Varaprasad
32	154M1A0140	Thenepalle Venu
33	154M1A0142	V Malini
34	154M1A0143	Y Sandeep
35	164M5A0101	D Balachandra Naidu
36	164M5A0102	G Sowjanya
37	164M5A0103	Goori Sambasiva
38	164M5A0104	K Prabhakar Reddy
39	164M5A0105	Kalakata Greeshma
40	164M5A0106	N Chiranjeevi
41	164M5A0107	Pratapaneni Balaji
42	164M5A0108	S Muneesh
43	164M5A0109	Seeninarappagari Anilkumar
44	164M5A0110	Talari Kishore
45	164M5A0111	Veluru Roopesh
46	164M5A0112	Venkiteela Kumar
47	144M1A0110	J Dhanush
48	144M1A0119	K Hari

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Department of Civil Engineering

ATTENDANCE SHEET- Workshop on "Surveying using total station" from 19/03/2018 to 23/03/2018

Year/Sem: III-II **Academic Year: 2017-18**

S. NO	Roll No	Name of the Student	19/03/2018	20/03/2018	21/03/2018	22/03/2018	23/03/2018	Signature
1	154M1A0101	Audulapuram Rohith	✓	✓	✓	✓	✓	A. Rohith
2	154M1A0102	A Santhosh Kumar	✓	✓	✓	✓	✗	
3	154M1A0103	Bhaskaran Vignesh Kumar	✓	✓	✓	✓	✓	Vignesh Kumar
4	154M1A0104	Boddu Muni Prasad	✓	✗	✓	✓	✓	Muni Prasad
5	154M1A0105	Bodigutta Sateesh	✓	✓	✓	✓	✓	B. Sateesh
6	154M1A0106	Bottu Nagendra Prasad	✓	✓	✓	✓	✓	B. Nagendra
7	154M1A0107	C Thulasi	✓	✓	✓	✗	✓	C. Thulasi
8	154M1A0109	Dasari Siva Sankara	✓	✓	✓	✓	✓	D. Siva
9	154M1A0110	Goduguchintha Sasikumar	✓	✓	✓	✓	✓	
10	154M1A0111	Gollapalle Hemakumar	✓	✓	✓	✓	✓	Hem
11	154M1A0112	Gudimallam Sampath	✓	✓	✗	✓	✓	G. Sampath
12	154M1A0113	Guttha Dinesh	✓	✓	✓	✓	✗	G. Dinesh
13	154M1A0114	Irugu Reddy Sekhar	✓	✓	✓	✓	✓	I. Reddy Shekar
14	154M1A0115	K Naresh	✓	✓	✓	✓	✓	K. Naresh
15	154M1A0116	K S Jagadeesh	✓	✓	✓	✓	✓	K.S. Jagadesh
16	154M1A0117	Kanipakam Harika	✓	✓	✓	✓	✓	K. Harika
17	154M1A0118	Karanam Sunil	✓	✓	✗	✓	✓	Sunil
18	154M1A0120	M Vanaja	✓	✓	✓	✓	✓	M. Vanaja
19	154M1A0122	Murari Ranjith Kumar	✗	✓	✓	✓	✓	M. Ranjith
20	154M1A0123	N Mahidhar	✓	✓	✓	✓	✓	N. Mahidhar
21	154M1A0126	P Sudheer	✓	✓	✓	✓	✗	Sudheer
22	154M1A0127	Pakala Venkataramana	✓	✗	✓	✓	✓	Venkataramana
23	154M1A0128	Pallapu Mohan Krishna	✓	✓	✓	✓	✓	P. Mohan Krishna
24	154M1A0129	Pamula Mounika	✓	✓	✓	✓	✓	P. Mounika

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25	154M1A0130	Pitchika Pavan Kalyan	✓	✓	✓	✓	✓	Pavan
26	154M1A0132	Pulielukala Pavan Kalyan	✓	✓	✓	✓	✓	P. Pavan Kalyan
27	154M1A0133	R Sandeep	✓	✓	✗	✓	✓	R Sandeep
28	154M1A0135	S Murugavel	✓	✓	✓	✓	✓	S. Murugavel
29	154M1A0136	Pilarikuppam Hema Sai	✓		✓	✓	✓	P. Hema
30	154M1A0137	T Aravind	✓	✓	✓	✓	✓	T. Aravind
31	154M1A0139	Thalari Varaprasad	✗	✓	✓	✓	✓	T. Varaprasad
32	154M1A0140	Thenepalle Venu	✓	✓	✓	✓	✓	Venu
33	154M1A0142	V Malini	✓	✓	✓	✓	✗	V. Malini
34	154M1A0143	Y Sandeep	✓	✓	✓	✓	✓	Y. Sandeep
35	164M5A0101	D Balachandra Naidu	✓	✓	✓	✓	✓	Balachandra
36	164M5A0102	G Sowjanya	✓	✓	✓	✓	✓	G Sowjanya
37	164M5A0103	Goori Sambasiva	✗	✓	✓	✓	✓	
38	164M5A0104	K Prabhakar Reddy	✓		✓	✓	✓	
39	164M5A0105	Kalakata Greeshma	✓	✗	✓	✓	✓	K. Greeshma
40	164M5A0106	N Chiranjeevi	✓	✓	✓	✓	✓	
41	164M5A0107	Pratapaneni Balaji	✓	✓	✓	✓	✓	P. Balaji
42	164M5A0108	S Muneesh	✓	✓	✓	✓	✓	S. Muneesh
43	164M5A0109	Seeninarappagari Anilkumar	✓	✓	✓	✓	✓	S. Anil Kumar
44	164M5A0110	Talari Kishore	✓	✓	✓	✓	✓	Kishore
45	164M5A0111	Veluru Roopesh	✓	✓	✓	✓	✓	
46	164M5A0112	Venkiteela Kumar	✓	✓	✓	✓	✓	
47	144M1A0110	J Dhanush	✓	✗	✓	✓	✗	
48	144M1A0119	K Hari	✗	✓	✓	✓	✓	K Hari

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Department of Civil Engineering

Assesment for Workshop on "Surveying using total station"

1. **What is maximum accuracy of ODM devices ?**
   (a) 1 in 100
   (b) 1 in 10000
   (c) 1 in 1000
   (d) None of abov
   Answer: Option **(b)**

2. **The accuracy of EDM devices are _____.**
   (a) 1 in 10000
   (b) 1 in 100000
   (c) 1 in 10
   (d) 1 in 100
   Answer: Option **(b)**

3. **Which of following is/are type of EDM instrument?**
   (a) Microwave
   (b) Visible light
   (c) Infrared
   (d) All of above

   Answer: Option **(d)**

4. **_____ was the first microwave based EDM developed in the world.**
   (a) Tellurometer
   (b) Total station
   (c) Distomats
   (d) None of above

   Answer: Option (a)

5. **Geodimeter was invented by _____.**
   (a) Dr. E. Bergstrand
   (b) Dr. T. L. Wadley
   (c) Both of them
   (d) None

   Answer: Option (a)

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6. **The first generation visible light instrument was developed in _____.**
   (a) USA
   (b) Sweden
   (c) India
   (d) South Africa

   Answer: Option (b)

7. **Total Station is combination of _____.**
   (a) Tacheometer and theodolite
   (b) Auto level and digital level
   (c) Dumpy level and compass
   (d) Electronic theodolite and EDM

   Answer: Option (d)

8. **Total station can be used for _____.**
   (a) Angular measurements
   (b) Linear measurements
   (c) Elevation measurements
   (d) All of above

   Answer: Option (d)

9. **Which of following are type/s of total station ?**
   (a) Manual total station
   (b) Robotic total station
   (c) autolock total station
   (d) All of above

   Answer: Option (d)

10. **Digital levels can read _____ electronically.**
    (a) Bar code staff
    (b) Electronic staff
    (c) Prism square
    (d) None of above

    Answer: Option (a)

11. **The main function of GPS system is to provide _____.**
    (a) Global Coordinates
    (b) Elevation above MSL
    (c) Time
    (d) All of above

    Answer: Option (d)

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12. **The operational name given to Indian GPS system by ISRO for use in India is _____.**
    (a) IRNSS
    (b) GAGAN
    (c) NavIC
    (d) None

    Answer: Option (c)

13. **The GPS navigation code Reserved for defence use is _____.**
    (a) P - Code
    (b) C/A code
    (c) M - code
    (d) None

    Answer: Option (a)

14. **The minimum no. of orbits required for GPS constellation is _____.**
    (a) 6
    (b) 4
    (c) 3
    (d) 8

    Answer: Option (a)

15. **The first operational GPS system in world was _____.**
    (a) NAVSTAR GPS
    (b) IRNSS
    (c) SHENGHZEN GPS
    (d) None

    Answer: Option (a)

16. **The master control facility of NAVSTAR GPS is at _____.**
    (a) Washington D.C.
    (b) California
    (c) Colorado Springs
    (d) New york

    Answer: Option (c)

17. **The monitor station of NAVSTAR GPS in Indian ocean is at _____.**
    (a) Diego Garcia
    (b) Ascension Island
    (c) Madagascar
    (d) None of above

    Answer: Option (c)

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18. **To locate the GPS receiver with real time movement, it requires signals from _____ satellites.**

(a)4

(b)1

(c)5

(d)3

Answer: Option (a)

19. **To create a 3D visual model of any objects, the best technology available is _____.**

(a) Survey Scanner

(b) Total station

(c) Distomat

(d) None

Answer: Option (a)

20. **Modern day laser scanner can scan and collect details upto _____ points per second.**

(a) 5000

(b) 25000

(c) 50000

(d) 500

Answer: Option (c)

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Department of Civil Engineering

SUMMARY REPORT

On obtaining the permission from the honorable chairman Dr. K. Chandrasekhar Naidu who always is a source of inspiration and stands on top ranks for taking steps to promote academic and practical knowledge standards of students, the Department of Civil Engineering Vemu institute of Technology has organized workshop on 19/03/2018 to 23/03/2018, under the able leadership of Dr K V N V N Rao, Principal of Vemu Institute of Technology and with a good planning chalked out by Dr.V.M Sounthara Rajan, HOD, Dept. of Civil Engineering.

Lighting the lamp and a Prayer song rendered by the students marked the start of the workshop. In his Welcome address, Dr.V.M Sounthara Rajan said that the main objective of the workshop is to guide the students to decide the career opportunities through **Surveying using Total Station**.

Initially, the members of the DSNM team provided an outstanding overview of the career options available after completing undergraduation. Main purpose of Training Program was to make students aware of Modern surveying instruments as they have subject of Advanced surveying in their academics. Total station is advanced surveying instrument and largely used in field of civil engineering. Training Program on total station can give them practical operational exposure by experts. Expert shown students how total station works on field with all its function. All the students have participated and operated total station individually after understanding. In this last day session expert shown how to transfer total station data to PC, how to convert data to autocad file and from autocad file; how to measure area of that field survey.

The **outcomes** of the workshop are to gain an understanding of measurement of angles, vertical and horizontally, to describe use of correct surveying terminology when using a total station and to demonstrate how to use the total station in a practical situation

Finally, the team completed the lecture by answering to many queries put forth by the students and faculty present.

Sri Dr.V.M Sounthara Rajan proposed vote of thanks to DSNM team in the last session.

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Certificate

OF COMPLETION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

T. ARAVIND

Has actively participated in five days workshop on

SURVEYING USING TOTAL STATION

(From 19/03/2018 to 23/03/2018)

Organized by CE, Vemu Institute of Technology.

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Certificate

OF COMPLETION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

V. MALINI

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SURVEYING USING TOTAL STATION
(From 19/03/2018 to 23/03/2018)
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