	S J P N Trust's		Institute
	Hirasugar Institute of Technology, Nidasoshi.		Civil Department
	Inculcating Values, Promoting Prosperity		Extensive Survey Project
	Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi Recognized under 2(f) & 12B of UGC Act, 1956 Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE & ECE		2022-23

S.J.P.N Trust's Hirasugar Institute of Technology

List of Students Extensive survey project done

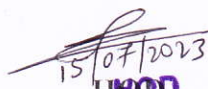
Branch : Civil Engineering

Year : 2022-23

Sl.No	Name of the Student	USN	Place of Extensive survey project done
1	Chetan.M.Alagur	2HN20CV001	Haragapur
2	Nayana.B.Patil	2HN20CV002	Haragapur
3	Pankaj.Ankale	2HN20CV003	Haragapur
4	Praveen.A.Daddannavar	2HN20CV004	Haragapur
5	Rohan.R.Devamane	2HN20CV005	Haragapur
6	Ruksar.V.Jambhai	2HN20CV006	Haragapur
7	Sunilgouda.I.Patil	2HN20CV007	Haragapur
8	Vijayakumar.I.Imedar	2HN20CV008	Haragapur




PRINCIPAL
Hirasugar Institute of Technology
Nidasoshi-591 236


15/07/2023
HOD
Civil Engineering
S.J.P.N.T's HIT, Nidasoshi



ಹಿರಾಸುಗರ ತಾಂತ್ರಿಕ ಮಹಾವಿದ್ಯಾಲಯ. ನಿದಸೋಸಿ

Hirasugar Institute of Technology

Nidasoshi - 591 236, Karnataka State

Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi, Recognized under 2(f) & 12B of UGC Act, 1956

Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE & ECE

Phone: (08333) 278887(0)

Fax: (08333) 278886

Ref. No: HSIT/NDS/Civil/2022-23/

Date: 21/03/2023

To

The Secretary

Gram Panchayat

Hargapur Village, Sankeshwar

Taluk: Hukkeri

Dist: Belagavi - 591313

Dear Sir/Madam,

As a part of Visveswaraya Technological University, Academic Curriculum 2018 Scheme, the students and faculties of Department of Civil Engineering have visited Hargapur Village for the purpose of "Extensive Survey" from 10th to 21st March, 2023 (except 13th & 20th). The students were able to learn valuable technical aspects from the features of the village, hence students comprehended and appreciated.

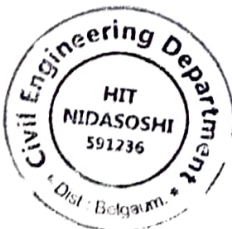
Please accept our sincere thanks for the excellent support provided by your office and villagers for permitting us to carry out the survey. The success of this survey was due, in no small part, to the support provided by your office.

Thank you for your gracious hospitality and professionalism.

The visit was purely for the academic purpose.

Thanking You

Yours faithfully

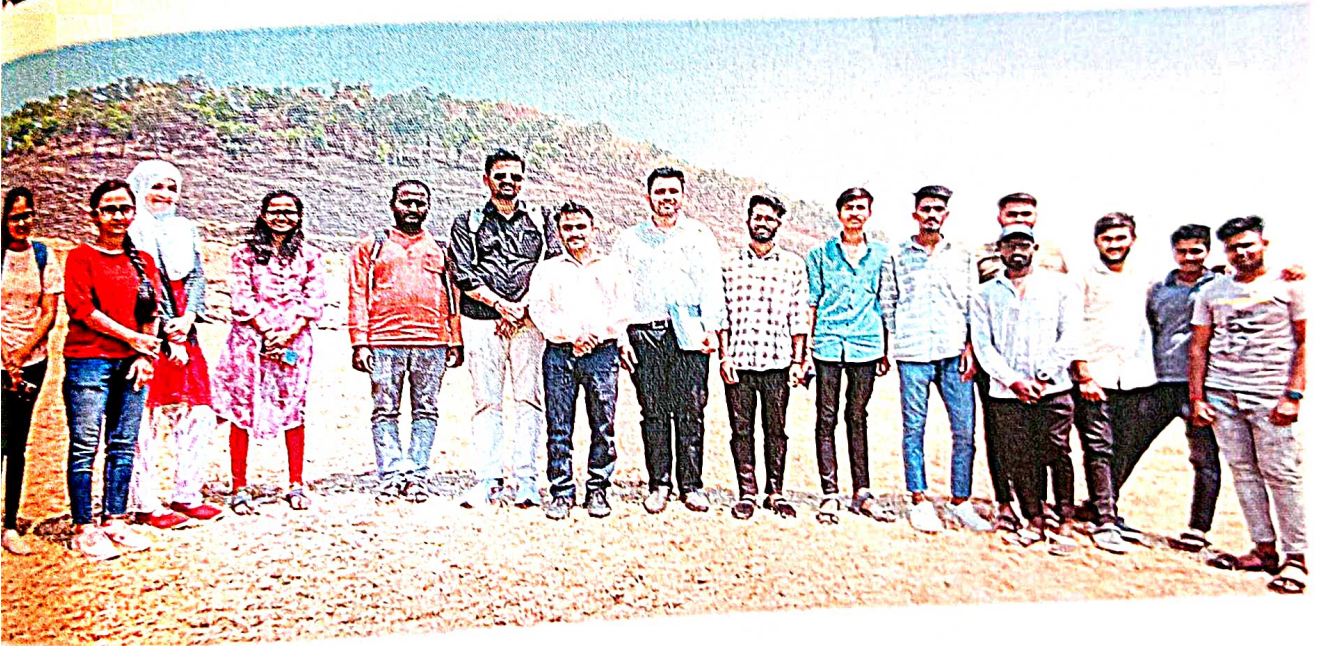


21/03/2023
HOD
Department of Civil Engineering
Hirasugar Institute of Technology
Nidasoshi 591236

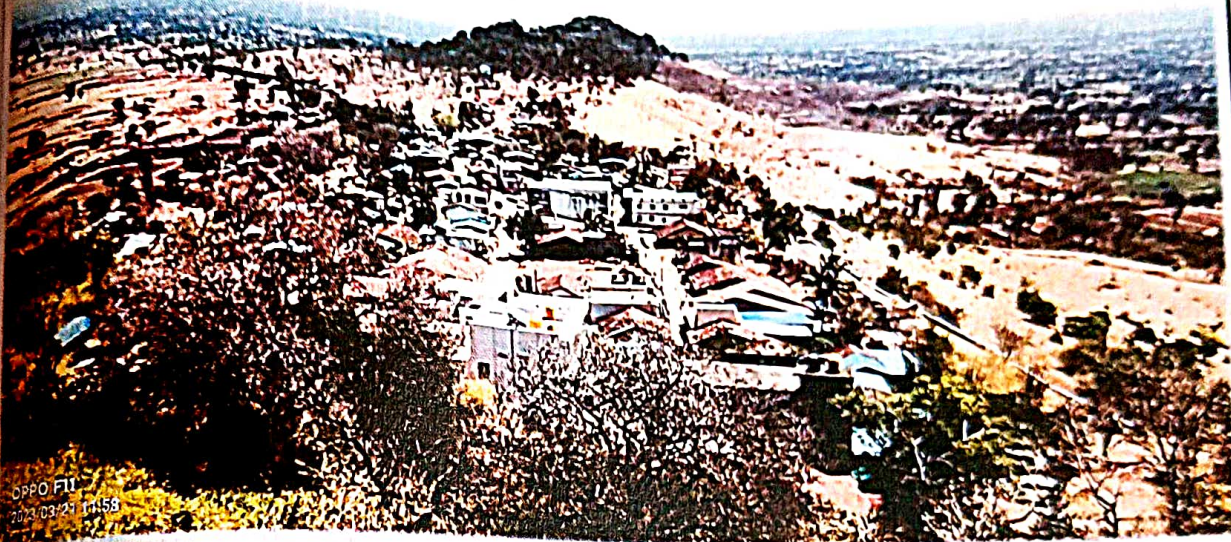
Received
21/03/2023

ಸುಲಗಾದುಮಿ
ಪಂಚಾಯತ್ ಅಧಿಕಾರಿ
ಹರಗಾಪುರ ಗ್ರಾಮ ಪಂಚಾಯತ್
ಹಿರಾಸುಗರ ತಾ. ಹುಕ್ಕೇರಿ ಜಿ. ಬೆಲಗಾವಿ

PROJECT MEMORIES




EXTENSIVE SURVEY — HARGARPURGAD, MARCH 2023



HARAGAPURGAD



*"Sometimes you never know the value of a moment
until it becomes a memory"*

	<p style="text-align: center;">S J P N Trust's Hirasugar Institute of Technology, Nidasoshi. <i>Inculcating Values, Promoting Prosperity</i></p>		Civil Engg. Dept
	<p style="text-align: center;">Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi Recognized under 2(f) & 12B of UGC Act, 1956 Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE & ECE</p>		Academic Course Plan
			2022-23 (Even)
			Rev: 00

Subject Title	EXTENSIVE SURVEY PROJECT		
Subject Code	18CVEP68	CIE Marks	40
Number of Lecture Hrs / Week	2	SEE Marks	60
Number of Credits	2	Exam Hours	03

FACULTY DETAILS:

Name: Prof. S. M. Chandrakanth	Designation: Asst. Professor	Experience: 12 Years
No. of times course taught: 03		Specialization: Highway Engineering

1.0 Prerequisite Subjects:

Sl.No	Branch	Semester	Subject
01	Civil Engineering	I/II	Elements of Civil Engineering and Mechanics.
02	Civil Engineering	III	Basic Surveying
03	Civil Engineering	III	Fluid Mechanics
04	Civil Engineering	III	Computer Aided Building Planning & Drawing
05	Civil Engineering	IV	Advanced Surveying
06	Civil Engineering	IV	Applied Hydraulics
07	Civil Engineering	IV	Water Supply & Treatment Engineering
08	Civil Engineering	V	Municipal Wastewater Engineering
09	Civil Engineering	V	Highway Engineering
10	Civil Engineering	V	Surveying Practice
11	Civil Engineering	V	Concrete and Highway Materials Laboratory

2.0 Course Objectives

1. Understand the practical applications of Surveying.
2. Use Total station and other Measurement Equipments.
3. Work in teams and learn time management, communication and presentation skills

3.0 Course Outcomes

After studying this course, students will be able to

	Course Outcome	Revised Bloom's Taxonomy Level	POs
C608.1	Apply Surveying knowledge and tools effectively for the projects	L1, L2, L3	1,2,3,6,8,9,12
C608.2	Understanding Task environment, Goals, responsibilities, Task focus, working in Teams towards common goals, Organizational performance expectations, technical and behavioral competencies.	L1, L2, L3	1,2,3,6,8,9,12
C608.3	Application of individual effectiveness skills in team and organizational context, goal setting, time management, communication and presentation skills.	L1, L2, L3, L4	1,2,3,6,8,9,12
C608.4	Professional etiquettes at workplace, meeting and general	L1, L2, L3, L4	1,2,3,6,8,9,12
C608.5	Establishing trust-based relationships in teams & organizational environment	L1, L2, L3, L4	1,2,3,6,8,9,12
C608.6	Orientation towards conflicts in team and organizational environment, Understanding sources of conflicts, Conflict resolution styles and techniques	L1, L2, L3, L4	1,2,3,6,8,9,12



S J P N Trust's
Hirasugar Institute of Technology, Nidasoshi.
Inculcating Values, Promoting Prosperity

Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi
 Recognized under 2(f) & 12B of UGC Act, 1956
 Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE & ECE

Civil Engg. Dept

**Academic
Course Plan**

2022-23 (Even)

Rev: 00

4.0 Course Content


1.	NEW TANK PROJECTS: The work shall consist of; a. Reconnaissance survey for selection of site and conceptualization of project. b. Alignment of center line of the proposed bund, Longitudinal and cross sections of the center line. c. Detailed survey required for project execution like Capacity surveys, Details at Waste weir and sluice points, Canal alignment etc. as per requirement d. Design and preparation of drawing with report.
2.	WATER SUPPLY AND SANITARY PROJECT: The work shall consist of; a. Reconnaissance survey for selection of site and conceptualization of project. b. Examination of sources of water supply, Calculation of quantity of water required based on existing and projected population. c. Preparation of village map by using total station. d. Survey work required for laying of water supply and UGD e. Location of sites for water tank. Selection of type of water tank to be provided. (ground level, overhead and underground) f. Design of all elements and preparation of drawing with report.
3.	HIGHWAY PROJECT: The work shall consist of; a. Reconnaissance survey for selection of site and conceptualization of project. b. Preliminary and detailed investigations to align a new road (min. 1 to 1.5 km stretch) between two obligatory points. The investigations shall consist of topographic surveying of strip of land for considering alternate routes and for final alignment. Surveying by using total station. c. Report should justify the selected alignment with details of all geometric designs for traffic and design speed assumed. d. Drawing shall include key plan initial alignment, final alignment, longitudinal section along final alignment, typical cross sections of road.
4.	RESTORATION OF AN EXISTING TANK: The work shall consist of; a. Reconnaissance survey for selection of site and conceptualization of project. b. Alignment of center line of the existing bund, Longitudinal and cross sections of the center line. c. Detailed survey required for project execution like Capacity surveys, Details at Waste weir and sluice points, Canal alignment etc. as per requirement d. Design of all elements and preparation of drawing with report.
5.	TOWN/HOUSING / LAYOUT PLANNING: The work shall consist of; a. Reconnaissance survey for selection of site and conceptualization of project. b. Detailed survey required for project execution like contour surveys c. Preparation of layout plans as per regulations e. Centerline marking-transfer of centre lines from plan to ground f. Design of all elements and preparation of drawing with report as per regulations

5.0 Relevance to future subjects

SL. No	Semester	Subject	Topics / Relevance
01	VII	Quality Surveying and Contract Management	Estimation of various structures
02	VII	Urban Transport Planning	Zoning and town planning
03	VIII	Bridge Engineering	CD works and alignments
04	VIII	Pavement Design	Geometric design for highways

6.0 Relevance to Real World

SL.No	Real World Mapping
01	Planning and drafting of various components of infrastructure Structures
02	Using of CAD Software for Drafting Building and landscaping Components
03	Development of various drawings, reports necessary for a project

	<p style="text-align: center;">S J P N Trust's Hirasugar Institute of Technology, Nidasoshi. <i>Inculcating Values, Promoting Prosperity</i> Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi Recognized under 2(f) & 12B of UGC Act, 1956 Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE & ECE</p>	Civil Engg. Dept
		Academic Course Plan
		2022-23 (Even)
		Rev: 00

7.0 Books Used and Recommended to Students

Text Books
<ol style="list-style-type: none"> 1. Dr. B. C. Punmia and Dr. Pande B. B. Lal "Irrigation and Water Power Engineering", Laxmi Publications, 2009. 2. Santosh Kumar Garg "Irrigation Engineering and Hydraulic Structures", Khanna Publications, 2006. 3. Dr. B. C. Punmia, "Surveying", Laxmi Publications, 2005. 4. Dr. B. C. Punmia "Soil Mechanics & Foundation Engineering", "Laxmi Publications, 2005. K. Subramanya "Engineering Hydrology", Tata McGraw-Hill Education, 2008. Dutt "Estimation and costing". 6. MG Shah, CM Kale, SY Patki, "Building drawing with an integrated approach to Built Environment Drawing", Tata McGraw Hill Publishing co. Ltd., New Delhi 7. Gurucharan Singh, "Building Construction", Standard Publishers, & distributors, New Delhi. 8. Malik R S and Meo G S, "Civil Engineering Drawing", Asian Publishers/Computech Publications Pvt Ltd.
Reference Books
<ol style="list-style-type: none"> 1. URDPFI Guidelines 2. BBMP Byelaws 3. BDA Master Plan 4. Karnataka Municipalities Model Building Bye Laws – 2017 5. National Building Code (NBC – 2016) 6. Indian Roads Congress (IRC) Code 37

10.0 Examination Note

CIE marks: Theoretical aspects as well as relevant circuits should be drawn neatly for questions asked in Internal Assessment.

Scheme of Evaluation for CIE (40 Marks)


- (a) Continuous Assessment on report writing: **30 marks**
- (b) Internal Assessment test in the same pattern as that of the main examination: **10 marks.**

Conduct of Practical SEE:

1. Students can pick one from the questions lot prepared by the examiners.
2. Change of question is allowed only once and 15% Marks allotted to the procedure part to be made zero.

11.0 Course Delivery Plan

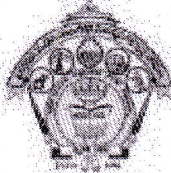
Expt No	Name of the Experiment	% of Portion
1	EXTENSIVE SURVEY FIELD WORK	7.14 %
2	NEW TANK PROJECTS	7.14 %
3	<i>Continued...</i>	7.14 %
4	<i>Continued...</i>	7.14 %
5	WATER SUPPLY AND SANITARY PROJECT	7.14 %
6	<i>Continued...</i>	7.14 %
7	HIGHWAY PROJECT	7.14 %
8	<i>Continued...</i>	7.14 %
9	<i>Continued...</i>	7.14 %
10	RESTORATION OF AN EXISTING TANK	7.14 %
11	<i>Continued...</i>	7.14 %
12	TOWN/HOUSING / LAYOUT PLANNING	7.14 %
13	<i>Continued...</i>	7.14 %
14	Preparation of detailed project reports	7.14 %

	<p style="text-align: center;">S J P N Trust's Hirasugar Institute of Technology, Nidasoshi. <i>Inculcating Values, Promoting Prosperity</i></p>		Civil Engg. Dept
	<p style="text-align: center;">Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi Recognized under 2(f) & 12B of UGC Act, 1956 Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE & ECE</p>		Academic Course Plan
			2022-23 (Even)
			Rev: 00





12.0

Viva Question Bank

1. Explain the basic principles of surveying.
2. Distinguish between plane surveying and geodetic surveying.
3. Mention the different methods of setting out right angles.
4. Mention the different methods of finding the foot of the perpendicular from a given point.
5. What are the common errors in chain surveying?
6. Enumerate the different obstacles encountered in chain surveying.
7. How would you establish a line parallel to the chain line in the field?
8. Draw a sample page of field book and show few entries.
9. Bring out the differences between prismatic compass and surveyor's compass.
10. What do you understand by declination and dip?
11. What is local attraction and how it affects the accuracy of compass?
12. Mention the different methods of plotting a Compass traverse.
13. What do you understand by consecutive coordinates & independent coordinates? What is importance of them?
14. What are the different types of errors in a compass traverse? How can these be minimized?
15. What do you understand by "closing error" of a compass traverse
16. Distinguish between level surface and horizontal surface.
17. What IS parallax with reference to a levelling instrument? How do you eliminate it?
18. Distinguish between the two methods of booking levels.
19. What is sensitiveness of a level lube? Write the relation between sensitivity & radius of tube.
20. Explain the different types of bench marks.
21. What do you understand by collimation error?
22. What are the permanent adjustments of a levelling instrument?
23. Mention the relationship between the fundamental axes of a level.
24. Mention the uses of contour maps.
25. What is mean by tacheometry?
26. What are the constants and their values of tacheometry?
27. Sketch different types of stadia diaphragm?
28. What are the various methods of finding tacheometric constant?
29. State all the systems (methods) of tacheometry?

	<p style="text-align: center;">S J P N Trust's</p> <p style="text-align: center;">Hirasugar Institute of Technology, Nidasoshi.</p> <p style="text-align: center;"><i>Inculcating Values, Promoting Prosperity</i></p> <p style="text-align: center;">Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi</p> <p style="text-align: center;">Recognized under 2(f) & 12B of UGC Act, 1956</p> <p style="text-align: center;">Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE & ECE</p>	<p>Civil Engg. Dept</p> <p>Academic</p> <p>Course Plan</p> <p>2022-23 (Even)</p> <p>Rev: 00</p>

30. Derive expression for horizontal distance, reduced level of staff station for the different cases of tacheometry?
31. What do you understand by gradient?
32. What is the formula to find the gradient?
33. Describe the procedure to find the elevation of a given point?
34. Describe the component parts of the tachometer?
35. Define: Radiation, Intersection, Orientation, and Resection.
36. What is two point and three-point resection?
37. What are the different forms of the Curve?
38. Define Degree of Curve?
39. What is relation between radius and Degree of Curve?
40. Sketch and give the properties Simple Circular Curve?
41. What are the methods of horizontal curve setting
42. What are the advantages and disadvantages of plane table surveying?
43. Mention the uses of; Planimeter, box sextant, clinometer, Ghat tracer.
44. What is mean by EDM?
45. Explain the component part of Total Station?
46. What are the applications of Total Station?
47. What are the advantages of using Total Station?
48. Explain the Use of GPS

Prepared by	Checked by	 HOD Civil Engineering HOD	 PRINCIPAL Hirasugar Institute of Technology Nidasoshi- 591 236
 Prof. S. M. Chandrakanth	 Prof. Preethi R. Patil		