



MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



Department of Civil Engineering
Innovative Teaching Method – Self Learning

Name of Faculty – Mr. R. C. Patil
Academic Year– 2024-25

Class – BE
Semester I

Name of Subject: *Transportation Engineering*

Objectives of Methodology:

1. To carry out the traffic survey.
2. To carry out the traffic volume flow.

Details of Activity/Method:

Activity – To carry out the traffic survey and traffic volume flow for the specified area.

1. Students shall carry out the traffic survey.
3. Students shall carry out traffic volume flow.
2. Prepared report on same.

Assessment Tools & Rubrics:

Roll No.	Name of Student	4	4	2	10
1	BAGUL SOMNATH POPAT	4	4	2	10
2	BEDIS TEJAS ANIL	4	4	2	10
3	BEZEKAR PRATIK SOMNATH	4	4	2	10
4	BHARITKAR YASH SOMNATH	-	-	-	0
5	BHAWANA SUNIL KOTWAL	4	4	2	10
6	BODKE VIVEK VIJAY	4	4	2	10
7	BURKUL SAURABH SANJAY	4	4	0	8
8	CHAUDHARI ANIKET SAVALIRAM	4	4	2	10
9	DAGALE JAYA SANTOSH	4	4	2	10
10	DATIR ADITYA RAJENDRA	4	4	2	10
11	DEORE YAMINI ANIL	3	3	0	6
12	GAIKWAD KETAN DEELIP	4	4	2	10
13	HANDGE SHLOK VILAS	-	-	-	-



MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik



Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622

14	JADHAV MANOJ DEELIP	4	4	2	10
15	KAKAD RAMESHWAR SUNIL	4	4	2	10
16	KATORE BHUSHAN GANPAT	4	4	2	10
17	KOLPE AKSHADA SAHEBRAO	4	4	2	10
18	KORDE OM DEEPAK	4	4	2	10
19	KOTHULE SAHIL PRABHAKAR	3	2	0	5
20	PAGAR PRATIK SANDIP	4	4	2	10
21	PATIL BHAGYASHRI RAVSAHEB	4	4	2	10
22	PATIL MANDAR ANIL	4	4	2	10
23	PAWAR ANANDRAJ GAJENDRA	4	4	1	9
24	SAKSHAM MAGOTRA	-	-	-	-
25	SAMRUDDHI AVINASH SHIRSATH	4	4	2	10
26	SHAIKH UMME AMMARAH IMRAN	4	4	2	10
27	SIDDHI MANOHAR PATIL	4	4	2	10
28	SONAR PRATHMESH GIRISH	3	3	0	6
29	TEJAS SOPAN KHADE	-	-	-	0
30	THETE RUSHIKESH SANTOSH	4	4	2	10
31	UGALE ADITYA DHANANJAY	-	-	-	-
32	VISPUTE LOKESH KAMALAKAR	4	4	2	10
33	WAGH ATUL VISHNU	4	4	2	10
34	WAGH SIDDHI BABASAHEB	4	4	2	10
55	MHASKE GAURAV PRAKASH	-	-	-	-
56	TAMBE RAHUL KAILAS	-	-	-	-
35	AHER PARTH DEEPAK	3	3	0	6
36	AHIRE HARSHAL DAYANAND	4	4	2	10
37	BACHHAV RUCHIR DAMODAR	3	2	0	5
38	BACHHAV SIDDHARAJ MAHENDRA	4	4	2	10
39	BHAMARE RUTUJA PRADIP	4	4	2	10
40	CHAVAN HARSHALI SANJAY	4	4	2	10
41	DESHMUKH ROHIT VIJAY	1	4	0	5
42	JADHAV SAYALI VINOD	4	4	2	10
43	KATAD DEEPAK DATTATRAY	4	4	2	10
44	KHODE KIRTI KISHOR	4	4	2	10



MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



45	KUMAVAT DHANASHREE DNYANESHWAR	4	4	2	10
46	MURKUTE TEJASWINI SANJAY	4	4	2	10
47	NAGAPURE POOJA DNYANESHWAR	4	4	2	10
48	PAGAR ARCHIES SUDARSHAN	4	4	2	10
49	PATHADE JAHNAVI VIJAY	4	4	2	10
50	PATHAK MANASI MUKESH	4	2	0	6
51	PINJARI ARBAJ FIROJ	4	4	2	10
52	SONAR SOHAM SUNIL	4	4	2	10
53	SONAWANE SAKSHI SHASHIKANT	4	4	2	10
54	THAKUR NIKHIL PRAMOD	4	4	2	10

Course Outcomes (Related to Methodology)

After the completion of this activity students will be able to:

	Course Outcome	BTL
CO2	Discuss the traffic engineering and control methods.	2

POs (Related to Methodology)

After the completion of this activity students will be able to:

PO1	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO12	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



PSOs (Related to Methodology)

After the completion of this activity

PSO1	Graduates will apply technical knowledge, engineering skills, and competencies necessary for entering civil engineering career.
PSO2	Graduates will demonstrate knowledge and techniques in engineering fields for effective management and professional development.
PSO3	Graduates will apply technical and professional skills to be nationally competitive for employment/self employment thereby benefit the society.

Evidences:

 MARATHA VIDYA PRASARAK SAMAJ'S Karmaveer Adv. Baburao Ganpatrao Thakare College of Engineering, Nashik DEPARTMENT OF CIVIL ENGINEERING <table border="1"><tr><td>Class: BE Civil</td><td>Pattern: 2019</td></tr><tr><td>AY: 2024-25</td><td>Semester VII (I)</td></tr></table> <table border="1"><tr><td>Name of Student - Padi Bhagyashree Ramababu</td><td>Roll No. - 21</td></tr><tr><td>Course - Transportation Engineering (C-402)</td><td>Date - 23/10/24</td></tr><tr><td>Assignment No. - E</td><td></td></tr><tr><td>Title of Assignment -</td><td></td></tr></table> Rubrics: <table border="1"><thead><tr><th>Criteria</th><th>Outstanding</th><th>Good</th><th>Inadequate</th></tr></thead><tbody><tr><td>R1 - Comprehension</td><td>Excellent level of understanding (3-4)</td><td>Average level of understanding (1-2)</td><td>Low level of understanding (0)</td></tr><tr><td>R2 - Accuracy/ Appropriateness/ Presentation</td><td>Correct, appropriate and organized answer with almost no mistakes (3-4)</td><td>Satisfactory appropriate and organized answer with some mistakes (1-2)</td><td>Inappropriate and non-organized answer with many mistakes (0)</td></tr><tr><td>R3 - Punctuality</td><td>Within time (2)</td><td>Late (1)</td><td>Very late (0)</td></tr></tbody></table> Evaluation: <table border="1"><thead><tr><th>Criteria</th><th>Marks</th></tr></thead><tbody><tr><td>R1 - Comprehension</td><td>5 / 04</td></tr><tr><td>R2 - Accuracy/ Appropriateness/ Presentation</td><td>5 / 04</td></tr><tr><td>R3 - Punctuality</td><td>5 / 02</td></tr><tr><td>Total</td><td>15 / 10</td></tr></tbody></table> <i>Mr. R. C. Padi</i> Mr. R. C. Padi Course In-charge	Class: BE Civil	Pattern: 2019	AY: 2024-25	Semester VII (I)	Name of Student - Padi Bhagyashree Ramababu	Roll No. - 21	Course - Transportation Engineering (C-402)	Date - 23/10/24	Assignment No. - E		Title of Assignment -		Criteria	Outstanding	Good	Inadequate	R1 - Comprehension	Excellent level of understanding (3-4)	Average level of understanding (1-2)	Low level of understanding (0)	R2 - Accuracy/ Appropriateness/ Presentation	Correct, appropriate and organized answer with almost no mistakes (3-4)	Satisfactory appropriate and organized answer with some mistakes (1-2)	Inappropriate and non-organized answer with many mistakes (0)	R3 - Punctuality	Within time (2)	Late (1)	Very late (0)	Criteria	Marks	R1 - Comprehension	5 / 04	R2 - Accuracy/ Appropriateness/ Presentation	5 / 04	R3 - Punctuality	5 / 02	Total	15 / 10	MVP Samaj's, KBT COE, NASHIK <u>Innovative Teaching Time</u> <u>Title :- Traffic Volume Survey.</u> <u>Traffic Volume Flow</u> <u>General Detail of Survey</u> 1 Location :- Shahid Circle to Prasad Circle Gangapur Road. 2 Time :- 11:45 AM to 12:45 PM 3 Date :- 23/10/2024 4 Guided by :- Mr. R.C.Padi 5 No. of groups :- 10 6 Type of Vehicle which are consider for Survey - Passenger cars “SAVE ENERGY & PROTECT ENVIRONMENT”	MVP Samaj's, KBT COE, NASHIK <u>Traffic Volume Flow (q)</u> - Traffic Volume Flow refers to the scale at which vehicles pass a specific point on a roadway over a given period. Typically measured in vehicles per hour. <u>Traffic Density (k)</u> - Traffic density refers to the number of vehicles occupying a specific length of roadway, usually expressed in vehicles per mile or per kilometer. - It provides insight into how "crowded" a section of road is and is a crucial factor in determining congestion levels and roadway capacity. <u>Relationship between Traffic Volume Flow & Traffic Density.</u> $q = k \times v$ where, q - Traffic volume flow in vehicle per hour k - Traffic density in vehicle per unit length v - Average speed of vehicle. “SAVE ENERGY & PROTECT ENVIRONMENT”
Class: BE Civil	Pattern: 2019																																							
AY: 2024-25	Semester VII (I)																																							
Name of Student - Padi Bhagyashree Ramababu	Roll No. - 21																																							
Course - Transportation Engineering (C-402)	Date - 23/10/24																																							
Assignment No. - E																																								
Title of Assignment -																																								
Criteria	Outstanding	Good	Inadequate																																					
R1 - Comprehension	Excellent level of understanding (3-4)	Average level of understanding (1-2)	Low level of understanding (0)																																					
R2 - Accuracy/ Appropriateness/ Presentation	Correct, appropriate and organized answer with almost no mistakes (3-4)	Satisfactory appropriate and organized answer with some mistakes (1-2)	Inappropriate and non-organized answer with many mistakes (0)																																					
R3 - Punctuality	Within time (2)	Late (1)	Very late (0)																																					
Criteria	Marks																																							
R1 - Comprehension	5 / 04																																							
R2 - Accuracy/ Appropriateness/ Presentation	5 / 04																																							
R3 - Punctuality	5 / 02																																							
Total	15 / 10																																							



MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



MVP Samaj's, KBT COE, NASHIK

Procedure of Survey

1) All the students of class are divided in 10 groups.

2) Every group is assigned to 10 different position & to count the vehicle their direction are specified as follows:-

a) Group 1

- Location - At Shahid Circle Entry point of vehicle travel from Shahid circle to prasad circle.
- Direction of vehicle to be counted.
- Straight travelling
- Diverting to Nandekar road.

b) Group 2

- Location - At abhay an intersection
- Direction - Straight travelling
- Diverting to abhyday.

c) Group 3

- Location - At ST colony to Intersection
- Direction - Straight travelling on gangapur road
- Diverting to ST colony Ln

"SAVE ENERGY & PROTECT ENVIRONMENT"

MVP Samaj's, KBT COE, NASHIK

d) Group 4

- Location - At Rajgad Ln Intersection
- Direction - Straight travelling
- Diverting to Rajgad Ln

e) Group 5

- Location - At Prasad circle near sangam sweet
- Direction - Straight travelling
- Diverting to Nandekar road.

f) Group 6

- Location - At prasad circle opposite to sangam sweet
- It is exit point of vehicle travelling from Shahid circle to prasad circle.
- Direction - Straight travelling

g) Group 7

- Location - At prasad circle near mantra fine dine
- Direction - straight travelling toward Shahid circle
- Diverting towards Den Bosco

"SAVE ENERGY & PROTECT ENVIRONMENT"

MVP Samaj's, KBT COE, NASHIK

h) Group 8

- Location - At D'Souza colony Intersection
- Direction - Straight travelling towards Shahid circle
- Diverting toward D'Souza colony road.

i) Group 9

- Location - At Shahid circle left to Gajanan Janardhan More Marg
- Direction - Straight travelling toward Shahid circle.
- Diverting toward Gajanan Janardhan Marg

j) Group 10

- Location - At Shahid Circle Right to Gajanan Janardhan More Marg
- Direction - Straight travelling on gangapur road.

3) As per location the groups started the survey sharp at 11:45 AM

4) Groups recorded the number of vehicle travelling on assign direction

5) The process continue upto 12:45 PM

6) All the groups recorded the last four digit of PC with time & direction.

"SAVE ENERGY & PROTECT ENVIRONMENT"

MVP Samaj's, KBT COE, NASHIK

7) After 1hr of survey, all the data of group is compare & analysis is done.

"SAVE ENERGY & PROTECT ENVIRONMENT"

MVP Samaj's, KBT COE, NASHIK

Vehicle No	Time of observation	Direction
2563	11:45	←
5920	11:45	←
6065	11:45	←
604	11:45	←
6080	11:45	←
7920	11:46	←
1530	11:46	←
8599	11:47	←
1535	11:47	←
1756	11:47	←
3182	11:47	←
✓ 2904	11:47	←
✓ 5196	11:47	←
✓ 7170	11:47	←
✓ 1577	11:47	←
✓ 5005	11:47	←
8289	11:47	←
3080	11:48	←
0146	11:48	←
✓ 3283	11:49	←
7855	11:49	←
✓ 9902	11:49	←
✓ 1944	11:50	←
✓ 0909	11:50	←

"SAVE ENERGY & PROTECT ENVIRONMENT"

MVP Samaj's, KBT COE, NASHIK

Vehicle No	Time of observation	Direction
✓ 2077	11:50	←
8362	11:50	←
✓ 0712	11:50	←
999	11:50	←
0597	11:50	←
✓ 3061	11:50	←
✓ 8955	11:51	←
✓ 2690	11:51	←
✓ 8817	11:51	←
✓ 7109	11:51	←
✓ 8066	11:51	←
✓ 3921	11:51	←
✓ 9119	11:51	←
✓ 8065	11:52	←
0289	11:52	←
✓ 4004	11:52	←
✓ 4008	11:52	←
✓ 6070	11:52	←
✓ 0710	11:53	←
✓ 8388	11:53	←
✓ 2611	11:53	←
✓ 6546	11:53	←
✓ 4266	11:53	←
✓ 2166	11:53	←
✓ 4219	11:54	←
✓ 7788	11:54	←
✓ 7153	11:54	←

"SAVE ENERGY & PROTECT ENVIRONMENT"



MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



MVP Samaj's, KBT COE, NASHIK		
8047	11:57	←
11844	11:58	←
1395	11:58	←
9657	11:58	←
6636	11:58	←
9256	11:58	←
8972	11:59	←
8386	11:59	←
8354	11:59	←
9909	11:59	←
7547	11:59	←
7724	12:00	←
5016	12:00	←
6195	12:00	←
5829	12:00	←
✓ 6237	12:01	←
✓ 9969	12:01	←
6057	12:01	←
✓ 2104	12:01	←
5202	12:01	←
✓ 3219	12:01	←
✓ 3285	12:01	←
✓ 3020	12:02	←
0015	12:02	←
2509	12:02	←
✓ 1185	12:02	←
9227	12:02	←
"SAVE ENERGY & PROTECT ENVIRONMENT"		

MVP Samaj's, KBT COE, NASHIK		
8995	12:48	←
2995	12:48	←
2985	12:48	←
1322	12:48	←
2913	12:48	←
8986	12:48	←

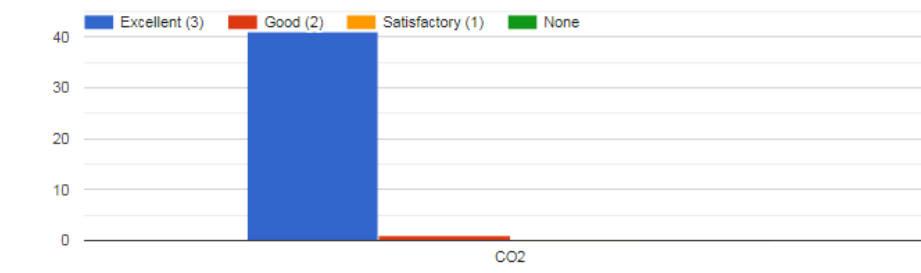
MVP Samaj's, KBT COE, NASHIK		
8995	12:48	←
2995	12:48	←
2985	12:48	←
1322	12:48	←
2913	12:48	←
8986	12:48	←

Impact Analysis for Outcomes (Based on Students Feedback):

Course Outcome

	Course Outcome	CO1
A	No. of Groups/Students Achieving CO	42
B	Total Rating	125
C	Average Rating (B/A)	2.98

Q6. Extent of COs covered





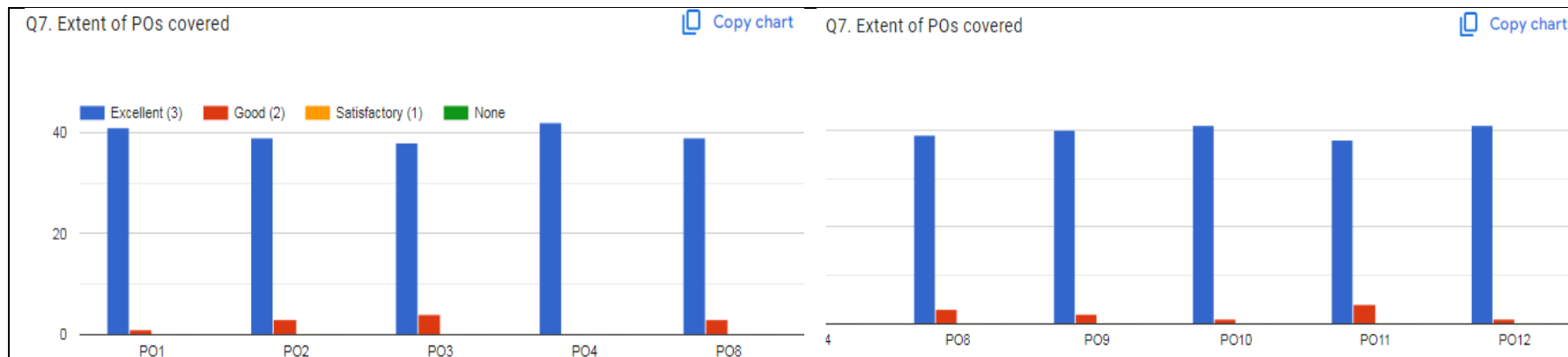
MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



Program Outcome

	Program Outcome	PO1	PO2	PO3	PO4	PO8	PO9	PO10	PO11	PO12
A	No. of Groups/Students Achieving PO	42	42	42	42	42	42	42	42	42
B	Total Rating	125	123	122	126	123	124	125	122	125
C	Average Rating (B/A)	2.98	2.93	2.90	3.00	2.93	2.95	2.98	2.90	2.98



Program Specific Outcome

	Program Specific Outcome	PSO1	PSO2	PSO3
A	No. of Groups/Students Achieving PSO	42	42	42
B	Total Rating	126	122	126
C	Average Rating (B/A)	3.00	2.90	3.00

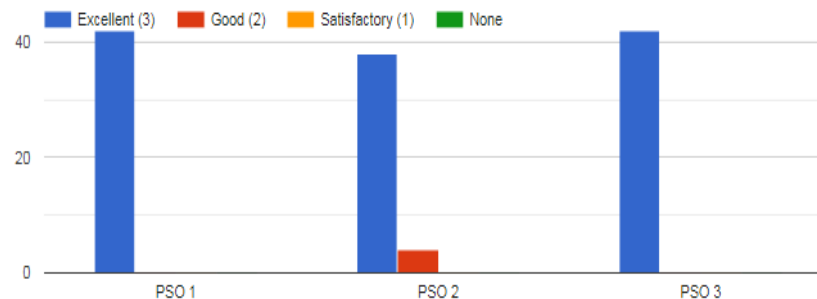


MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



Q8. Extent of PSOs covered



Impact Analysis for Methodology (Based on Students Feedback):

	Rating	Q1. Did you find the methodology helpful?	Q2. Is the content relevant?	Q3. Concept of the methodology.
A	No. of Students	42	42	42
B	Total Rating	126	123	125
C	Average Rating (B/A)	3	2.928571	2.97619

Q3. Did you find the methodology helpful?

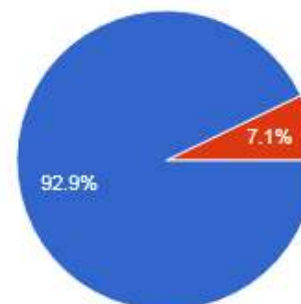
42 responses



● Excellent 3
 ● Good 2
 ● Satisfactory 1

Q4. Is the content relevant?

42 responses



● Excellent 3
 ● Good 2
 ● Satisfactory 1



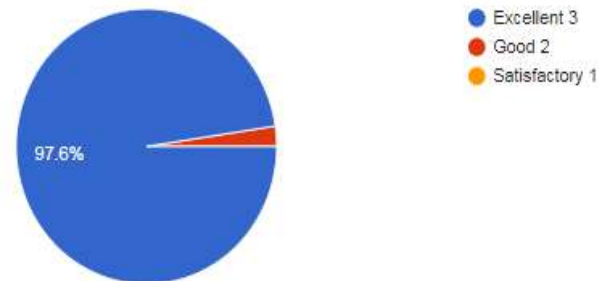
MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



Q5. Concept of the methodology.

42 responses



Link for Review and Critics:

<https://forms.gle/yc8CxDMWNucz3htDA>

Email: patil.rohan@kbtcoe.org

Mr. R.C. Patil
Course In-charge

Dr. P.D. Nemade
HOD Civil Engg.



MARATHA VIDYA PRASARAK SAMAJ'S
Karmaveer Adv. Baburao Ganpatrao Thakare
College of Engineering, Nashik

Department Affiliated to Savitribai Phule Pune University, Nashik. UAI 1943 & Approved by AICTE, New Delhi. Vaidic Letter No. 740-89-92 (E) C17/R. KISPE-C606-CG-41927



Q5. Concept of the methodology.

42 responses



- Excellent 3
- Good 2
- Satisfactory 1

Link for Review and Critics:

<https://forms.gle/yc8CxDMWNucz3htDA>

Email: patil.rohan@kbtcoe.org


Mr. R.C. Patil
Course In-charge


Dr. P.D. Nemade
HOD Civil Engg.