



**PERIYAR
MANIAMMAI**
INSTITUTE OF SCIENCE & TECHNOLOGY
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Established Under Sec. 3 of UGC Act, 1956 • NAAC Accredited
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PROGRAMME REPORT ON

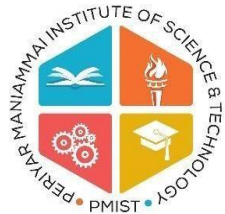
VALUE ADDED COURSE-Mechanical, Electrical, and Plumbing (MEP)

Resource Person

**Er.Imran Sherif , MEP Project Manager , Unique MEP ,
Er.Mohammed Sajid , MEP Design Engineer, Unique MEP**

Organized by

MECH- PMIST



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REPORT ON VALUE ADDED COURSE

Mechanical, Electrical, and Plumbing (MEP)

**ORGANISED BY
DEPARTMENT OF MECHANICAL ENGINEERING**

DATE: 17.02.2025 - 21.02.2025

TIME: 9.30 am - 12.30 pm & 1.30 pm - 4.00 pm

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1. OBJECTIVE

After completion of this course, the learners will be able to:

- Understand the fundamentals of MEP systems, including HVAC, electrical, and plumbing components.
- Perform heat load calculations using E-20 Sheet and HAP software for HVAC system design.
- Create 3D HVAC models using Revit software, including duct system selection and air terminal placement.
- Apply industry-relevant skills in MEP engineering, enhancing their employability in core industries.

2. BROCHURE





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VALUE ADDED COURSE MEP



RESOURCE PERSONS



Er. A. Imran Sheriff,
MEP project manager
Unique MEP engineering academy pvt.ltd.,



Er. S. Mohammed Sajid
MEP design engineer,
Unique MEP engineering academy pvt.ltd.,



17.02.2025 - 21.02.2025

**Periyar Maniammai Institute of
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**Organized by
Department of Mechanical
Engineering
For info:
headmech@pmu.edu**

**Convenors
Mr. A. Pugazhenth, HOD / Mech.
Co-ordinators
Dr.C.M.Vivek, AP (SG)/ Mech
Mr.S.P.Manikandan AP (SS)/ Mech**

3. COURSE CONTENT

MEP Introduction

Overview of Mechanical, Electrical, and Plumbing (MEP) systems - Fundamentals of HVAC systems

Heat Load Calculation

Basics of heat types and calculations - Refrigeration cycle and psychrometric charts - Hands-on training in heat load calculations using: E-20 Sheet -HAP (Hourly Analysis Program) software

HVAC 3D Modeling using Revit

Introduction to Revit software- Selection and placement of air terminals - Duct system modeling in 3D - Hands-on practice with Revit tools.

4. SESSION SCHEDULE

S.No.	Course Module	Hours
1	Introduction to MEP Systems	4 Hours
2	Basics of HVAC & Refrigeration Cycle	2 Hours
3	Heat Load Calculation (E-20 Sheet)	4 Hours
4	Heat Load Calculation (HAP Software)	2 Hours
5	Introduction to Revit Software & Tools	4 Hours
6	Air Terminal Placement & Duct Sizing	2 Hours
7	Duct System Modeling using Revit 3D	4 Hours
8	Hands-on Practice with Revit HVAC	2 Hours
9	Electrical & Plumbing Essentials in MEP	4 Hours
10	Case Study & Real-time Application	2 Hours

5. LIST OF ENROLLED STUDENTS

<u>S.No</u>	Register Number	Student Name
1	1210120151447	KRISHNARAJ S
2	1210120151449	RATHISHKUMAR T
3	1210120151450	SARAN B
4	1210120151451	SETHU R
5	1210120151452	VIGNESH K
6	1210120151453	VIMAL V
7	1210120151454	DINESHKUMAR P
8	1210120151455	THENILAVAN T
9	122012065591	AHAMATH BASHA N
10	122012065592	AKASH C
11	122012065593	AKILAN T
12	122012065594	AL AMEEN S
13	122012065595	ANANDHAMA HESHBABU
14	122012065597	ARUL KUMAR R
15	122012065598	ASWIN M
16	122012065599	BALAJI S
17	122012065600	BEER MOHAMED T
18	122012065601	BHARANIDHARAN S
19	122012065603	DEEPAK R
20	122012065604	DIYANESHWARAN J
21	122012065605	EDWIN B
22	122012065606	FARAS KASSIM A M
23	122012065607	GOKULVARATHAN S
24	122012065608	HAJAMOIDEEN H
25	122012065609	HARIS RAGAVAN B
26	122012065610	JANARTHANAN S
27	122012065611	KALAIVANAN K
28	122012065612	KAMALESH K
29	122012065613	KARTHIGAN C
30	122012065615	MADHAN BALAJI S

31	122012065616	MADHU VIJAYAKARAN R
32	122012065617	MANIKANDAN J
33	122012065618	MATHESH M
34	122012065619	MOHAMMED ISMAIL S
35	122012065620	MUKESH K
36	122012065621	NAVEEN U
37	122012065622	NIKILARASAN R
38	122012065623	RAJESH R
39	122012065624	RAMESH KUMAR M
40	122012065625	REXRUBAN K
41	122012065626	SABARISH A
42	122012065627	SAKTHIVEL T
43	122012065629	SELLAIYAN K
44	122012065630	SELVA KUMAR S
45	122012065631	SELVAKUMAR S
46	122012065632	SHEIK THAWOOD B
47	122012065633	SIVA SANTHOSH A
48	122012065634	SURIYA PRASANNA A
49	122012065635	VASANTHA KUMAR G
50	122012065636	VENISH RAJ W
51	122012065637	VIGNESH BALAJI M
52	122012065638	VINOTH T
53	122012065639	YUVARAJ R
54	122012065641	JEEVAN S
55	122012065642	JERISAN CROSS P M
56	122012065644	AJITH L
57	122012065645	MOHAMED ARSATH M

6. ATTENDANCE

S.No	Register Number	Student Name	17.2.25		18.2.25		19.2.25		20.2.25		21.2.25	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	1210120151447	KRISHNARAJ S	P	P	P	P	P	P	P	P	P	P
2	1210120151449	RATHISHKUMAR T	P	P	P	P	P	P	P	P	P	P
3	1210120151450	SARAN B	P	P	P	P	P	P	P	P	P	P
4	1210120151451	SETHU R	P	P	P	P	P	P	P	P	P	P
5	1210120151452	VIGNESH K	P	P	P	P	P	P	P	P	P	P
6	1210120151453	VIMAL V	P	P	P	P	P	P	P	P	P	P
7	1210120151454	DINESHKUMAR P	P	P	P	P	P	P	P	P	P	P
8	1210120151455	THENILAVAN T	P	P	P	P	P	P	P	P	P	P
9	122012065591	AHAMATH BASHA N	P	P	P	P	P	P	P	P	P	P
10	122012065592	AKASH C	P	P	P	P	P	P	P	P	P	P
11	122012065593	AKILAN T	P	P	P	P	P	P	P	P	P	P
12	122012065594	AL AMEEN S	P	P	P	P	P	P	P	P	P	P
13	122012065595	ANANDHAMAHESHBABU	P	P	P	P	P	P	P	P	P	P
14	122012065597	ARUL KUMAR R	P	P	P	P	P	P	P	P	P	P
15	122012065598	ASWIN M	P	P	P	P	P	P	P	P	P	P
16	122012065599	BALAJI S	P	P	P	P	P	P	P	P	P	P
17	122012065600	BEER MOHAMED T	P	P	P	P	P	P	P	P	P	P
18	122012065601	BHARANIDHARAN S	P	P	P	P	P	P	P	P	P	P
19	122012065603	DEEPAK R	P	P	P	P	P	P	P	P	P	P
20	122012065604	DIYANESHWARAN J	A	A	P	P	P	P	P	A	P	P
21	122012065605	EDWIN B	P	P	P	P	P	P	P	P	P	P
22	122012065606	FARAS KASSIM A M	P	P	P	P	P	P	P	P	P	P
23	122012065607	GOKULVARATHAN S	P	P	P	P	P	P	P	P	P	P
24	122012065608	HAJAMOIDEEN H	P	P	P	P	P	P	P	P	P	P
25	122012065609	HARIS RAGAVAN B	P	P	P	P	P	P	P	P	P	P
26	122012065610	JANARTHANAN S	P	P	P	P	P	P	P	P	P	P
27	122012065611	KALAIVANAN K	P	P	P	P	P	P	P	P	P	P
28	122012065612	KAMALESH K	P	P	P	P	P	P	P	P	P	P
29	122012065613	KARTHIGAN C	P	P	P	P	P	P	P	P	P	P
30	122012065615	MADHAN BALAJI S	P	P	P	P	P	P	P	P	P	P
31	122012065616	MADHU VIJAYAKARAN R	P	P	P	P	P	P	P	P	P	P
32	122012065617	MANIKANDAN J	P	P	P	P	P	P	P	P	P	P

33	122012065618	MATHESH M	P	P	P	P	P	P	P	P	P	P	P
34	122012065619	MOHAMMED ISMAIL S	P	P	P	P	P	P	P	P	P	P	P
35	122012065620	MUKESH K	P	P	P	P	P	P	P	P	P	P	P
36	122012065621	NAVEEN U	P	P	P	P	P	P	P	P	P	P	P
37	122012065622	NIKILARASAN R	P	P	P	P	P	P	P	P	P	P	P
38	122012065623	RAJESH R	A	A	A	P	P	P	P	P	P	P	P
39	122012065624	RAMESH KUMAR M	P	P	P	P	P	P	P	P	P	P	P
40	122012065625	REXRUBAN K	P	P	P	P	P	P	P	P	P	P	P
41	122012065626	SABARISH A	P	P	P	P	P	P	P	P	P	P	P
42	122012065627	SAKTHIVEL T	P	P	P	P	P	P	P	P	P	P	P
43	122012065629	SELLAIYAN K	P	P	A	P	P	A	P	P	P	P	P
44	122012065630	SELVA KUMAR S	P	P	P	P	P	P	P	P	P	P	P
45	122012065631	SELVAKUMAR S	P	P	P	P	P	P	P	P	P	P	P
46	122012065632	SHEIK THAWOOD B	P	P	P	P	P	P	P	P	P	P	P
47	122012065633	SIVA SANTHOSH A	P	P	P	P	P	P	P	P	P	P	P
48	122012065634	SURIYA PRASANNA A	P	P	P	P	P	P	P	P	P	P	P
49	122012065635	VASANTHA KUMAR G	P	P	P	P	P	P	P	P	P	P	P
50	122012065636	VENISH RAJ W	A	P	P	P	P	A	P	P	P	P	P
51	122012065637	VIGNESH BALAJI M	P	P	P	P	P	P	P	P	P	P	P
52	122012065638	VINOTH T	P	P	P	P	P	P	P	P	P	P	P
53	122012065639	YUVARAJ R	P	P	P	P	P	P	P	P	P	P	P
54	122012065641	JEEVAN S	P	P	P	P	P	P	P	P	P	P	P
55	122012065642	JERISAN CROSS P M	P	P	P	P	P	P	P	P	P	P	P
56	122012065644	AJITH L	P	P	P	P	P	P	P	P	P	P	P
57	122012065645	MOHAMED ARSATH M	P	P	P	P	P	P	P	P	P	P	P


21/2/25

Course Coordinator
(Dr.C.M.Vivek, AP(SG)/Mech.)


21/02/25

(A. Pugazhenth, AP(SS)/Mech.)

HEAD
Department of Mechanical Engineering
Pariyar Maniammai Institute of Science & Technology
Vallam, Thanjavur - 613 403.

7. SUMMARY

- The Value-Added Course on MEP Systems was conducted for the Final Year B.Tech. Mechanical Engineering students to enhance their skills in Mechanical, Electrical, and Plumbing (MEP) engineering, complementing their academic curriculum with industry-oriented training in HVAC system design, heat load calculations, and 3D modeling using Revit software.
- The course was handled by resource persons from Unique MEP Engineering Pvt. Ltd., who provided an interactive and hands-on training experience. The sessions covered theoretical concepts, practical applications, and industry-relevant exercises using E-20 Sheet, HAP software, and Revit 3D modeling. The students actively participated in all sessions and successfully completed the assigned exercises and project work.
- The course was conducted at New Computer Lab, PKC, from 17.02.2025 to 21.02.2025, every day from 9:00 AM to 12:30 PM (Morning - 3.5 Hours) and 1:30 PM to 4:00 PM (Afternoon - 2.5 Hours), with a total duration of 30 hours. About 57 Final Year B.Tech. Mechanical Engineering students attended and benefitted from the industry-focused training.
- The course was organized by the Department of Mechanical Engineering, PMIST. It was conducted under the guidance of Mr. A. Pugazhenth, HOD / Mech., as the Convenor, with Dr. C. M. Vivek, AP (SG) / Mech., and Mr. S. P. Manikandan, AP (SS) / Mech., serving as Coordinators.



Introductory class on HVAC System



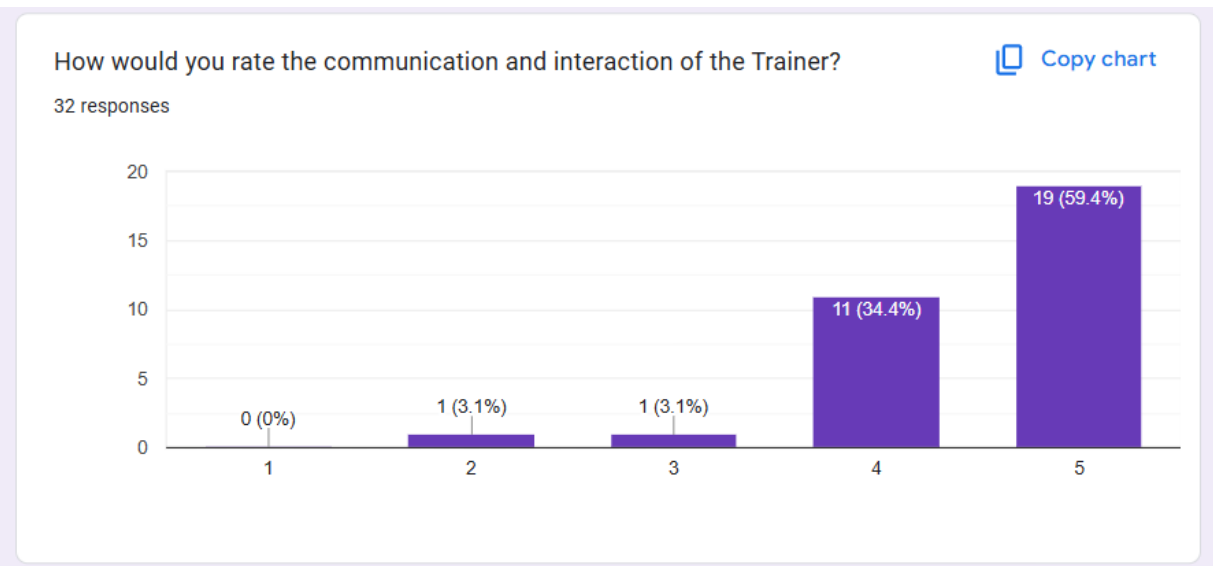
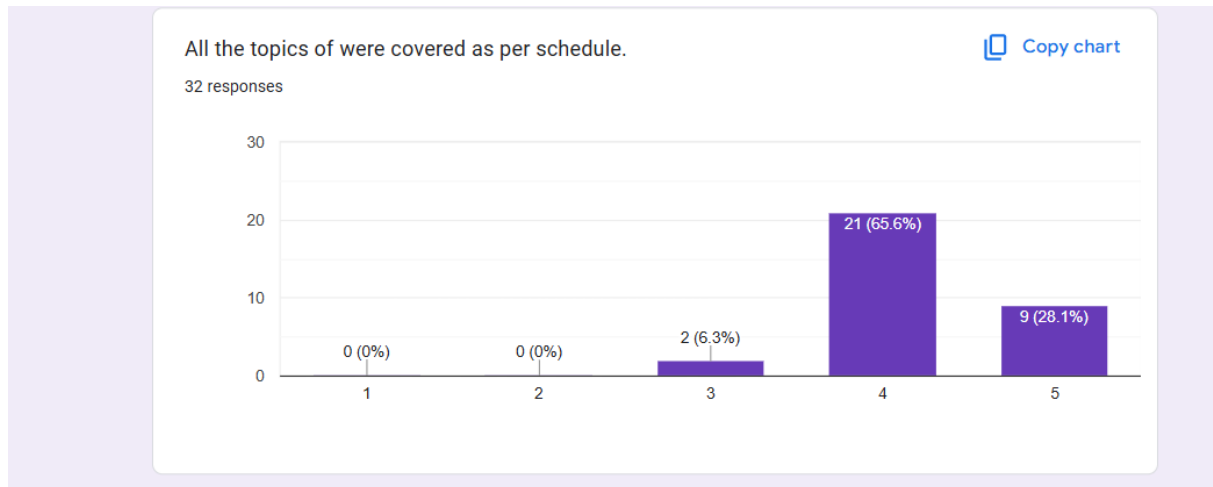
Students attending the Session

8. SAMPLE CERTIFICATES



9. FEEDBACK

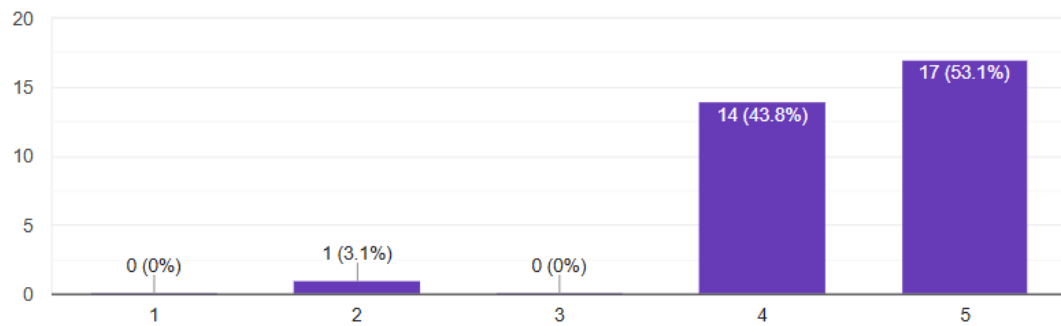
- The feedback was collected through Google Forms. The questionnaire and responses are given below. The overall feedback is good as evident from more responses recorded against score value of 4 and 5.



Have you got adequate practice for the exercises?

[Copy chart](#)

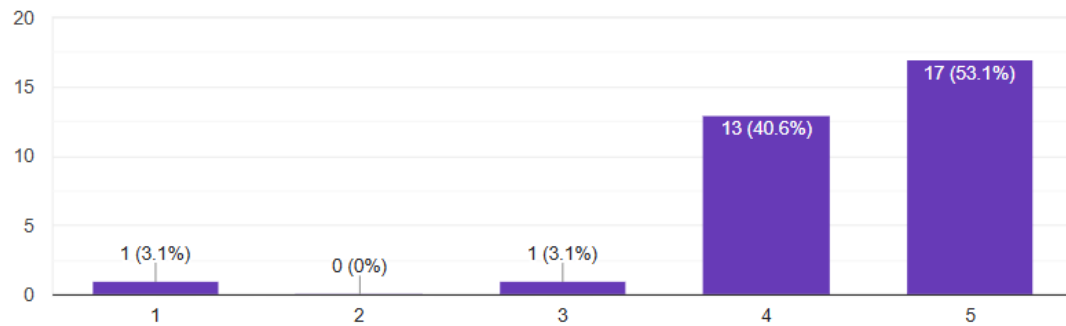
32 responses



How satisfied were you with the overall course?

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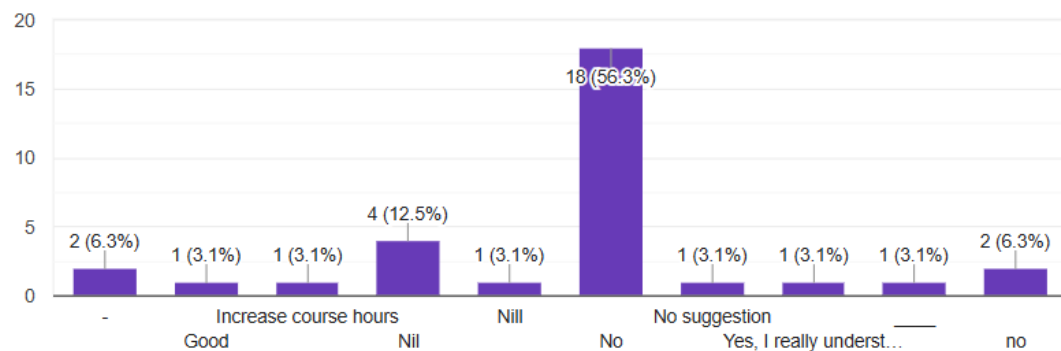
32 responses



Any other suggestions for further improvement?

[Copy chart](#)

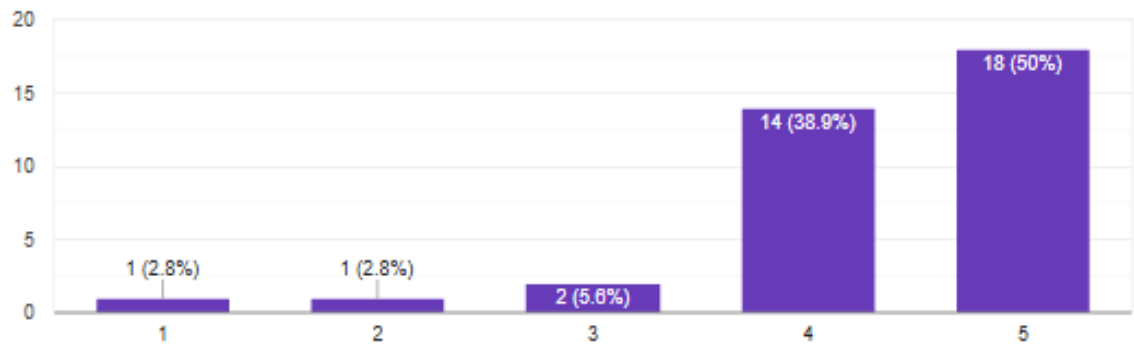
32 responses



Have you got adequate practice for the exercises?

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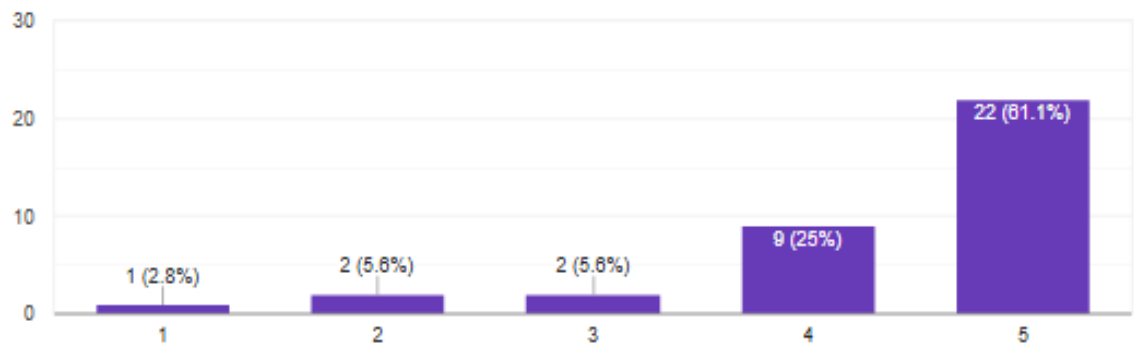
36 responses



How satisfied were you with the overall course?

 Copy chart

36 responses



10. OUTCOME

- All the students learned to design and analyze MEP systems, including HVAC components, ducting, and air distribution systems, using industry-standard tools such as E-20 Sheet, HAP software, and Revit 3D modeling. They successfully completed the assigned project work, covering heat load calculations, duct system modeling, and MEP layout design.

11. IMPACT

- Equips students with industry-relevant skills, increasing employability.
- Encourages practical exposure to real-world engineering applications.



21/2/25

Course Coordinator
(Dr.C.M.Vivek, AP(SG)/Mech.)



21/02/25

(A. Pugazhenth,
AP(SS)/Mech.)

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