



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

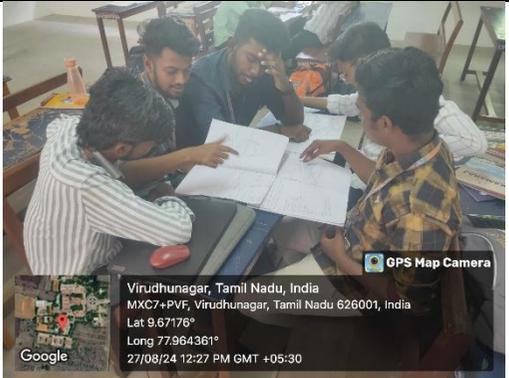
**DEPARTMENT OF MECHATRONICS ENGINEERING
(Accredited by NBA, New Delhi)**

Academic Year 2024-2025 ODD & EVEN Semester

Innovations and ICT Tools/Activity Based Learning following in Class Room Teaching

S. No.	Year/ Sem	Name of the Subject	Name of the faculty	Name of the Topic	Type of activity (group activity/ Quiz/models/etc)	Proof(photos)
2024-2025						
1	IV/VI I	OMT703-Sensors and Actuators	Mr. A. Arulkumar	Load Cell & Strain Gauge	Hands on Practice	

2	IV/VI I	OMT703-Sensors and Actuators	Mr. A. Arulkumar	Displacement Measurement using LVDT & Characteristics of Load Cell	Demo	 <p>Tennamanallur, Tamil Nadu, India MXF7+6V6, Tennamanallur, Tamil Nadu 625701, India Lat 9.673175° Long 77.964798° 23/09/24 04:10 PM GMT +05:30</p>
3	IV/VI I	OMT703-Sensors and Actuators	Mr. A. Arulkumar	Hydraulic actuators & Pneumatic actuators	Field Visit	 <p>Chittoor, Tamil Nadu, India MXC7+WVM, Chittoor, Tamil Nadu 625701, India Lat 9.672302° Long 77.964572° 30/09/24 04:08 PM GMT +05:30</p>
4	III/ V	MT2302- Kinematics and Dynamics of Machinery.	Dr. P. Balasundar	Seminar on Force Analysis	Seminar Presentation	 <p>Virudhunagar, Tamil Nadu, India MXC7+PVJ, Virudhunagar, Tamil Nadu 626001, India Lat 9.671522° Long 77.984418° 31/07/24 10:37 AM GMT +05:30</p>

5	III/ V	MT2302- Kinematics and Dynamics of Machinery.	Dr. P. Balasundar	Gears and Gear Trains	Peer Learning	
6	III/ V	VMT325- Advanced Manufacturing.	Dr. P. Balasundar	Seminar on Design and Selection of Grinding Wheel & CNC Programming	Seminar Presentation	

7	III/ V	VMT325- Advanced Manufacturing.	Dr. P. Balasundar	Laminated Object Manufacturing	Virtual Lab Demonstration	
8	II/III	ME2201- Enigneering Mechanics	Dr. S. MuthuNatarajan	Problem Solving	Think Pair Share	
9	II/ IV	MA2254 - Probability, Statistics and Numerical Methods.	Mrs. M. Geetha	Latin Square Design	Seminar Presentation	

10	II/ IV	MT2252 – Manufacturing Technology.	Dr. P. Balasundar	Green Sand Molding Process	Seminar Presentation	
11	II/ IV	MT2252 – Manufacturing Technology.	Dr. P. Balasundar	Injection Molding Machine & Compression Molding Machine	Demonstration of machines	
12	II/ IV	MT2252 – Manufacturing Technology.	Dr. P. Balasundar	Metal Forming	Industrial Visit	

13	II/ IV	MT2252 – Manufacturing Technology.	Dr. P. Balasundar	Non-traditional Machining Processes	Peer learning	 <p>Virudhunagar, Tamil Nadu, India Mxc7+pvf, Virudhunagar, Tamil Nadu 626001, India Lat 9.671922° Long 77.964414° 28/04/2025 10:23 AM GMT +05:30</p>
14	III/ VI	MT2351 – Fluid Power Systems.	Dr. P. Balasundar	Cascade method	Seminar Presentation	 <p>Virudhunagar, Tamil ... Mxc7+pvf, Virudhunagar, Tamil Nadu 626001, India Lat 9.671737° Long 77.964477° 26/03/2025 10:29 AM GMT +05:30</p>
15	III/ VI	MT2351 – Fluid Power Systems.	Dr. P. Balasundar	Valve symbols. 3/2 DCV, 4/2 & 5/3 DCV	Demo	 <p>Virudhunagar, Tamil Nadu, India Mxc7+pvf, Virudhunagar, Tamil Nadu 626001, India Lat 9.671888° Long 77.964444° 19/02/2025 10:11 AM GMT +05:30</p>

16	III/ VI	MT2351 – Fluid Power Systems.	Dr. P. Balasundar	Hydraulic Power Pack	Industrial Visit	
17	III/ VI	MT2351 – Fluid Power Systems.	Dr. P. Balasundar	Design of Pneumatic Circuits	Peer learning	 <p data-bbox="1675 699 2040 802"> <small>Google</small> <small>Virudhunagar, Tamil Nadu, India</small> <small>Mx07-zpv7, Virudhunagar, Tamil Nadu 626001, India</small> <small>Lat: 9.677743° Long: 77.564488°</small> <small>30/04/2025 10:31 AM GMT +05:30</small> </p>

KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY

S.P.G. Chidambara Nadar - C. Nagammal Campus,
S.P.G.C. Nagar, K.Vellakulam - 625 701, Near Virudhunagar, Madurai District.

Accredited by NAAC with "A" Grade



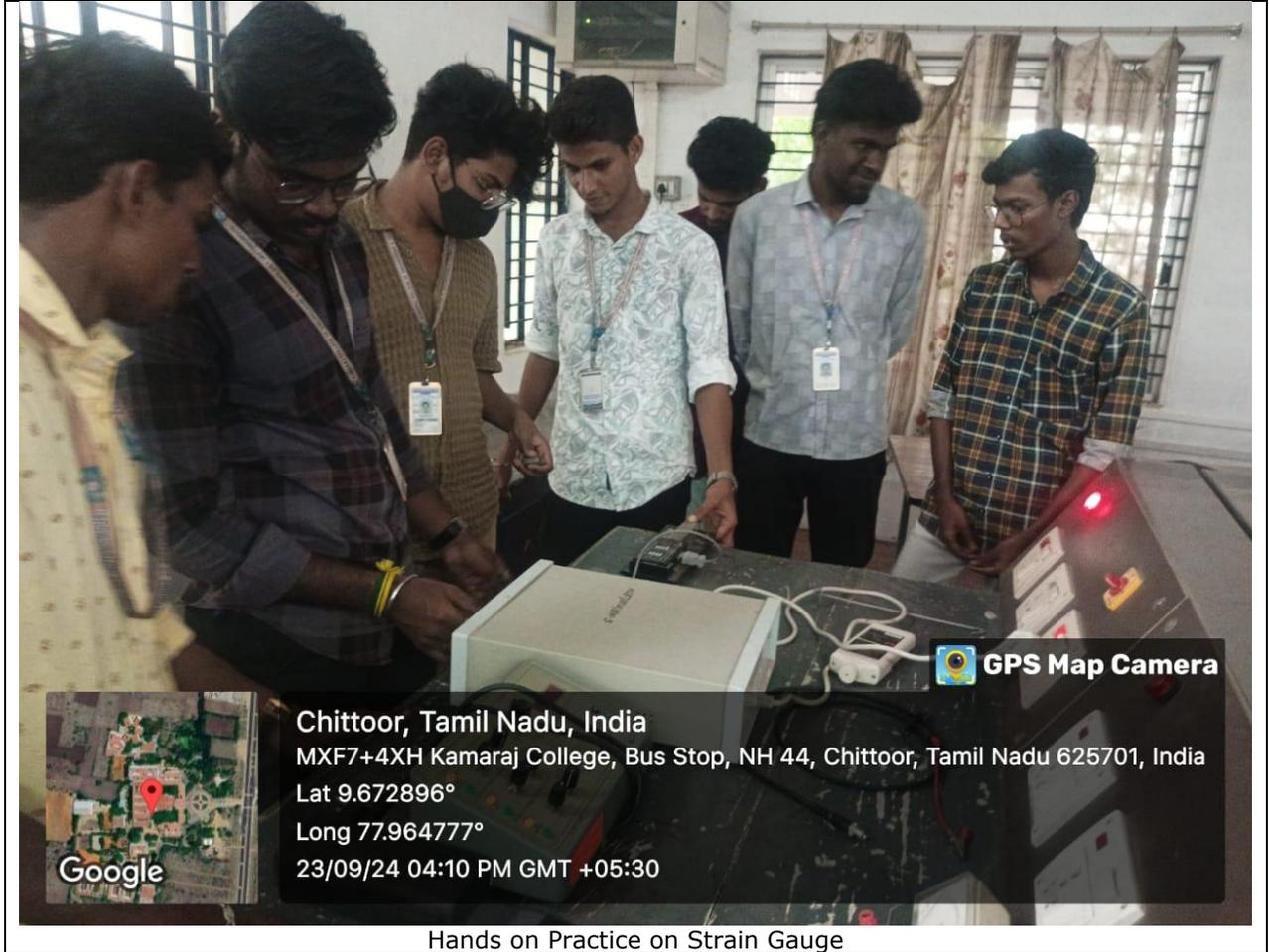
OMT703-Sensors and Actuators

Teaching Learning Methods Followed in Class Room Teaching

DEPARTMENT OF MECHATRONICS ENGINEERING

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Chittoor, Tamil Nadu, India
MXF7+4XH Kamaraj College, Bus Stop, NH 44, Chittoor, Tamil Nadu 625701, India
Lat 9.672896°
Long 77.964777°
23/09/24 04:10 PM GMT +05:30

Hands on Practice on Strain Gauge



(Demo on – Displacement Measurement using LVDT)



 GPS Map Camera



Tennamanallur, Tamil Nadu, India
MXF7+6V6, Tennamanallur, Tamil Nadu 625701, India
Lat 9.673175°
Long 77.964798°
23/09/24 04:10 PM GMT +05:30

(Demo on – Characteristics of Load Cell)



 **GPS Map Camera**

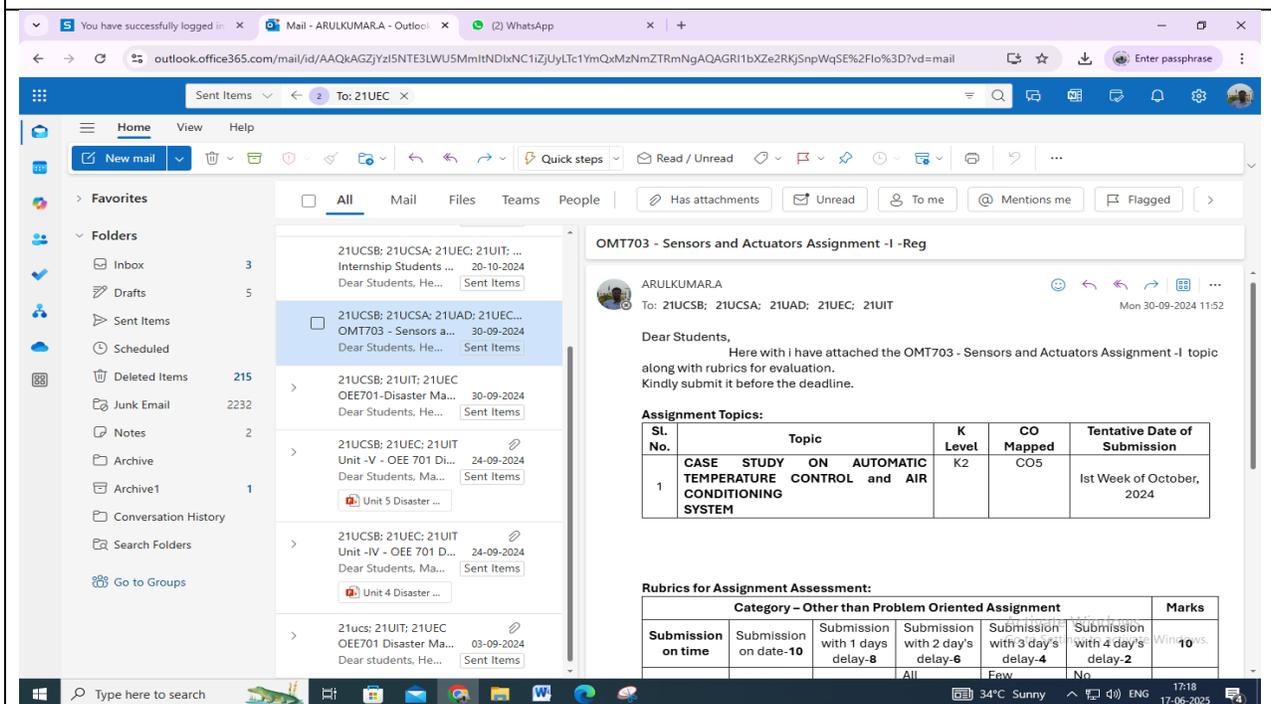


Chittoor, Tamil Nadu, India
MXC7+WVM, Chittoor, Tamil Nadu 625701, India
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Long 77.964572°
30/09/24 04:08 PM GMT +05:30

Field Visit to Kamaraj SMC Pneumatics Lab – Hydraulic actuators



Field Visit to Kamaraj SMC Pneumatics Lab – Pneumatic actuators



(Soft Copy of Text book and Unit wise PPT Materials shared with the Students)

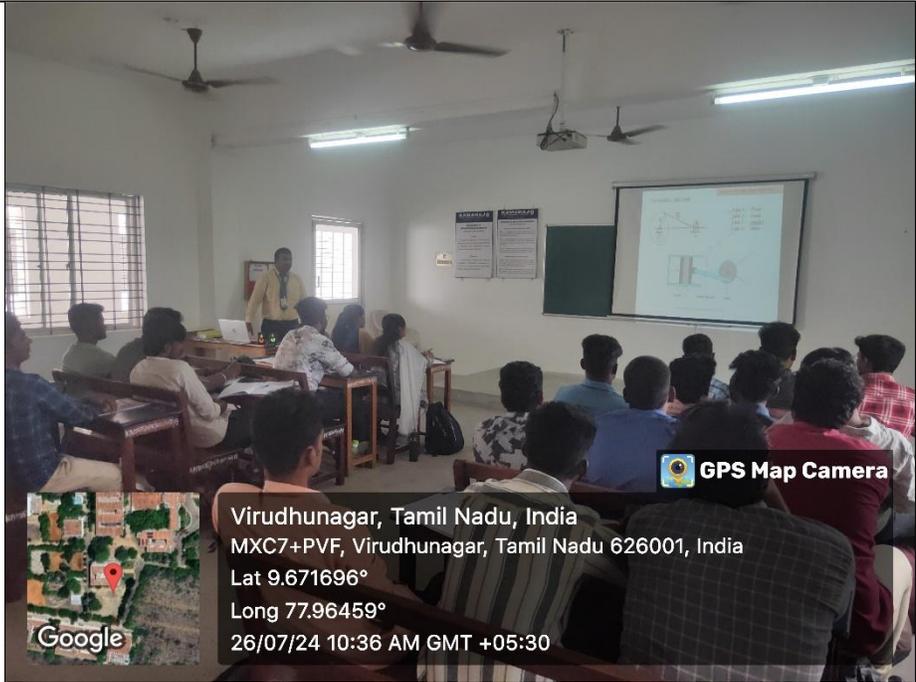
DEPARTMENT OF MECHATRONICS ENGINEERING

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ACADEMIC YEAR: 2024 – 2025 (ODD)

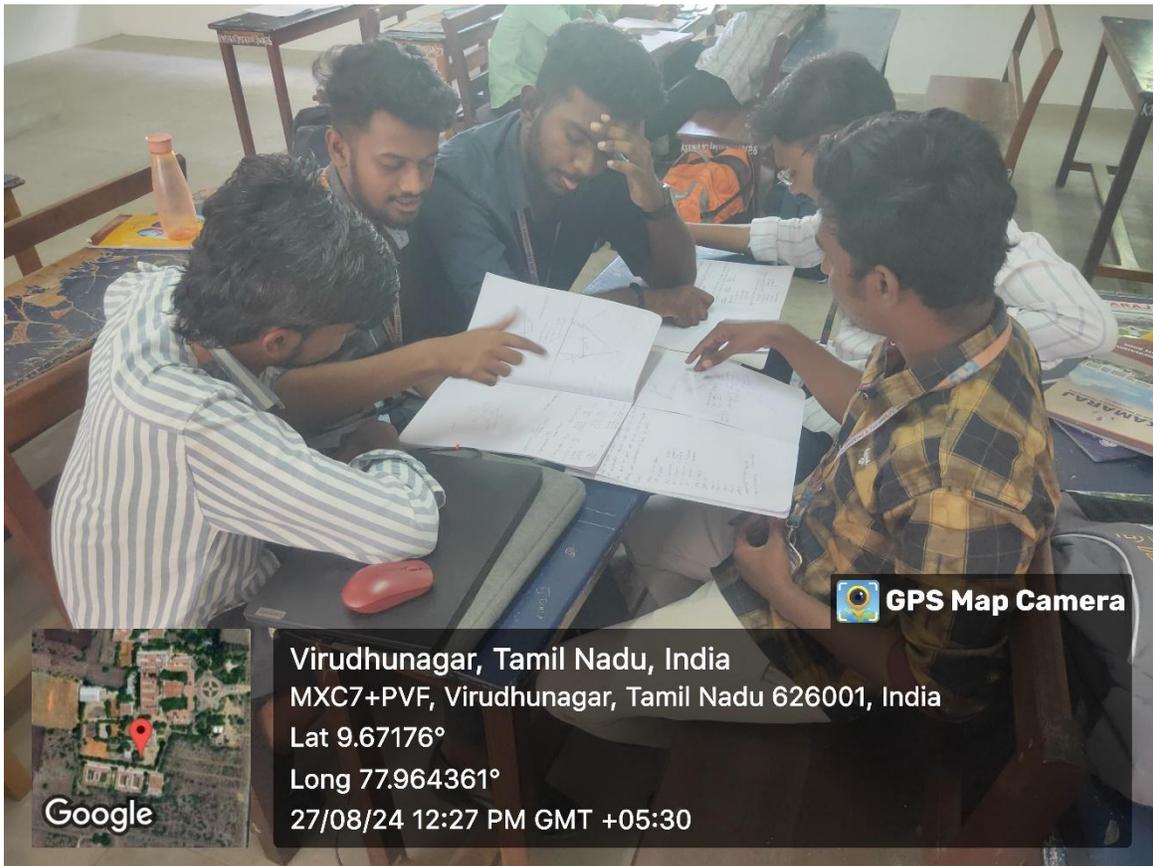
ACTIVE LEARNING METHODS FOLLOWED IN CLASS ROOM TEACHING

Name of the Faculty	Dr. P. Balasundar
Sub Code / Name	MT2302 Kinematics and Dynamics of Machinery
Year / Branch	III MTRE
Pedagogic Tool used	Seminar, Peer learning and Additional Coaching Classes for Problem solving
Purpose of the Tool used	To encouraging them to articulate orally in the class & providing more chances for classroom participation and to recall the important working of Mechanisms.
Remarks	The students are eagerly participated and explained their topics in the Seminar and easily understanding the construction and working of Mechanisms and improve their presentation and communication skills.
Topic: Force Analysis	 <p>Virudhunagar, Tamil Nadu, India MXC7+PVF, Virudhunagar, Tamil Nadu 626001, India Lat 9.671522° Long 77.964418° 31/07/24 10:37 AM GMT +05:30</p>



Virudhunagar, Tamil Nadu, India
MXC7+PVF, Virudhunagar, Tamil Nadu 626001, India
Lat 9.671696°
Long 77.96459°
26/07/24 10:36 AM GMT +05:30

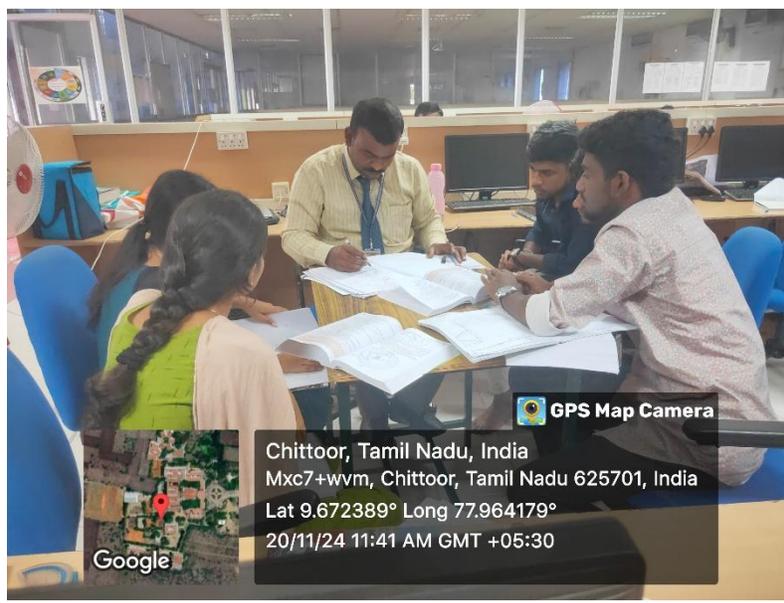
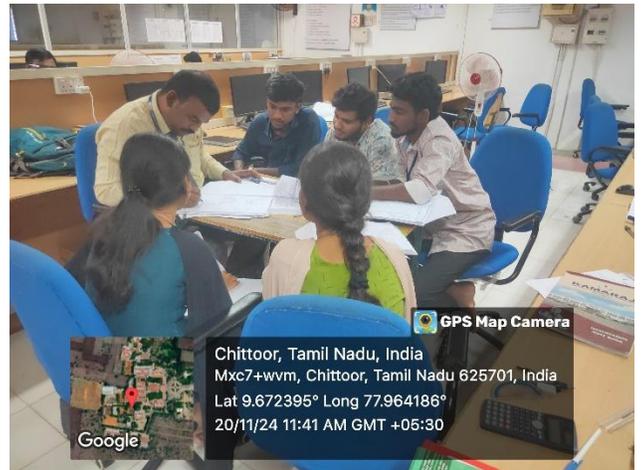
PEER LEARNING



Virudhunagar, Tamil Nadu, India
MXC7+PVF, Virudhunagar, Tamil Nadu 626001, India
Lat 9.67176°
Long 77.964361°
27/08/24 12:27 PM GMT +05:30



Additional Coaching Classes for Effective Problem solving



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ACADEMIC YEAR: 2024 – 2025 (ODD)

ACTIVE LEARNING METHODS FOLLOWED IN CLASS ROOM TEACHING

Name of the Faculty	Dr. P. Balasundar
Sub Code / Name	VMT325 Advanced Manufacturing
Year / Branch	III MTRE
Pedagogic Tool used	Seminar and Additional Coaching Classes for Effective Learning
Purpose of the Tool used	To encouraging them to articulate orally in the class & providing more chances for classroom participation and to recall the important working of Mechanisms.
Remarks	The students are eagerly participated and explained their topics in the Seminar and easily understanding the construction and working of Mechanisms and improve their presentation and communication skills.
Topic: Design and Selection of Grinding Wheel	

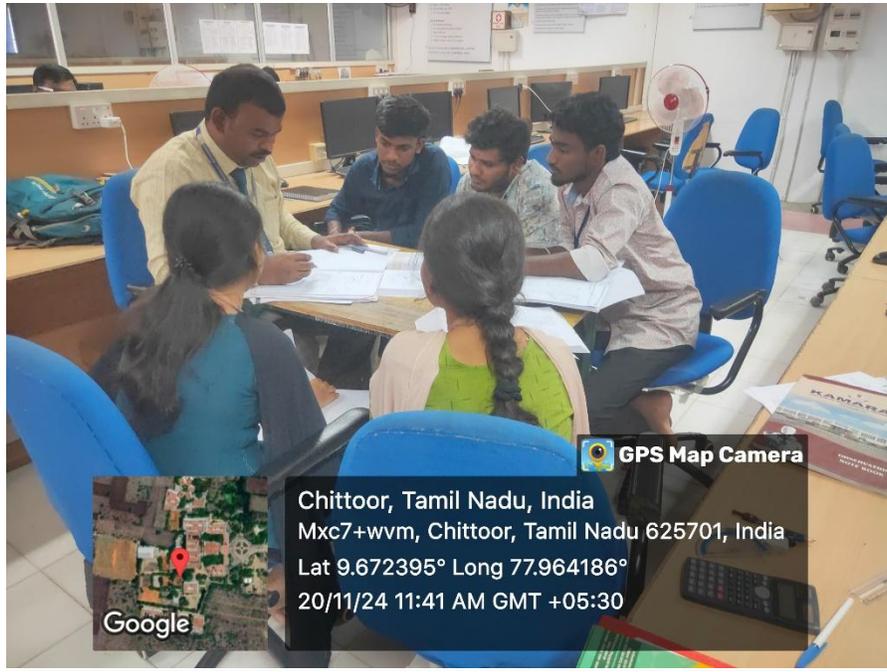
Topic: CNC
Programming



Virtual Lab Demonstration – Laminated Object Manufacturing (LoM)



Additional Coaching Classes for Effective Learning





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ACTIVITY BASED LEARNING REPORT

Activity Conducted : Think Pair Share
Name of the course instructor : Dr.S.Muthu Natarajan
Subject Name : Engineering Mechanics
Subject Code : ME2201
Academic Year : 2024-2025
Class & Sec : IInd Mtre

Proof (Photo\document\any Other)

Conducted Date: 13.09.2024

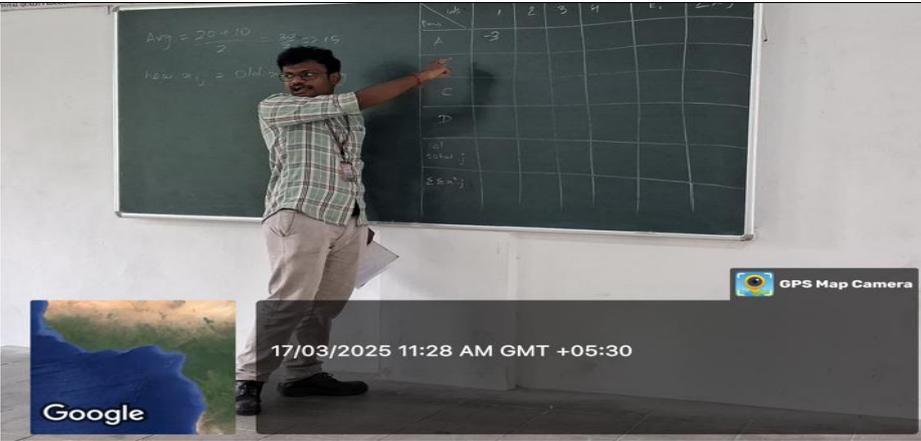




Summary:

- The students were grouped into a team consisting of 4 to 5 members and each team has been assigned with specific problems.
- Each team members were discussed among themselves and solved their assigned problems.
- Then one member from each team was made to change into another team and explain their solved problem to the new team, so that the remaining team can also learn other problems.

DEPARTMENT OF MATHEMATICS
ACADEMIC YEAR: 2024 – 2025 (EVEN)
ACTIVE LEARNING METHODS FOLLOWED IN CLASS ROOM
TEACHING

Name of the Faculty	Mrs. M. Geetha
Sub Code / Name	MA2254 / Probability, Statistics and Numerical Methods
Year / Branch	II MECH & II MTR
Date	17.03.2025
Number of Participants	47
Pedagogic Tool used	Student Seminar on “Latin Square Design”
Purpose of the Tool used	To create interest towards the subject
Remarks	The students carefully listened and asked their doubts with full involvement
Proof	 

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ACADEMIC YEAR: 2024 – 2025 (EVEN)

ACTIVE LEARNING METHODS FOLLOWED IN CLASS ROOM TEACHING

Name of the Faculty	Dr. P. Balasundar
Sub Code / Name	MT2252 / Manufacturing Technology
Year / Branch	II MTRE
Pedagogic Tool used	Seminar presentation, Demonstration of machines, Industrial Visit and Additional Coaching Class for Peer learning .
Purpose of the Tool used	These active learning tools foster deeper understanding, practical exposure and collaborative engagement among students. They enhance academic performance by bridging the gap between theory and application.
Outcomes	Students gain conceptual clarity, improved technical communication, practical knowledge and industry awareness. Peer interaction enhances confidence, teamwork and deeper engagement with the subject.

Seminar Presentation.
 Topic: Green Sand Molding Process



Seminar Presentation.
Topic: Tools used in
Green Sand Molding
Process



**Demonstration of
machines.**

Injection Molding
Machine



**Demonstration of
machines.**

Blow Molding Machine



**Demonstration of
machines.**

Compression Molding
Machine



Demonstration of machines.

Green Sand Molding Process



Industrial Visit.

R. R. Industries,
Madurai.
Manufacture and Supply
of Pressed Metal
Components and
Precision Machined
Components like
Industrial Engine
Mountings, Engine
Mounting Brackets,
Industrial Engine Oil
Seals, Automotive
Pressed Components and
Anti-vibrating Mounting
Components.



Peer learning.

**Additional Coaching
Class for Peer learning.**



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ACADEMIC YEAR: 2024 – 2025 (EVEN)

ACTIVE LEARNING METHODS FOLLOWED IN CLASS ROOM TEACHING

Name of the Faculty	Dr. P. Balasundar
Sub Code / Name	MT2351 / Fluid Power Systems
Year / Branch	III MTRE
Pedagogic Tool used	Seminar presentation, Demonstration of ANSI Symbols, Industrial Visit and Additional Coaching Class for Peer learning .
Purpose of the Tool used	These active learning tools foster deeper understanding, practical exposure and collaborative engagement among students. They enhance academic performance by bridging the gap between theory and application.
Outcomes	Students gain conceptual clarity, improved technical communication, practical knowledge and industry awareness. Peer interaction enhances confidence, teamwork and deeper engagement with the subject.

Seminar Presentation.
Topic: Cascade method



Topic: Programmable Logic Circuits



Seminar Presentation.
Topic: Fluidics



Demonstration of Valve symbols.

3/2 DCV, 4/2 & 5/3 DCV



Industrial Visit.

R. R. Industries,
Madurai.
Manufacture and Supply
of Pressed Metal
Components and
Precision Machined
Components like
Industrial Engine
Mountings, Engine
Mounting Brackets,
Industrial Engine Oil
Seals, Automotive
Pressed Components and
Anti-vibrating Mounting
Components.



Peer learning.

Additional Coaching
Class for Peer learning.



GPS Map Camera
Virudhunagar, Tamil Nadu, India
Mxc7+pvt, Virudhunagar, Tamil Nadu 626001, India
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