



Department of Automobile Engineering	LP: <b>AE18612</b>
B.E/B.Tech/M.E/M.Tech : <b>Automobile Engineering</b>	Rev. No: 00
PG Specialisation : Not Applicable	Date: 11/01/2021
Sub. Code / Sub. Name : <b>AE18612 / Simulation of Engine and Chassis Components Laboratory</b>	

Session No*	List of Experiments
<b>CYCLE-I</b>	
1	Mathematical modeling and simulation of a simple vehicle system considering tractive effort and inertia force only.
2	Mathematical modeling and simulation of a vehicle considering various forces such as rolling resistance, air resistance, gradient resistance, acting on the vehicle during acceleration.
3	Mathematical modeling and simulation of simple transmission system by using Newton's second law.
4	Modeling and analysis of piston with different loads in the top end.
5	Modeling and analysis of connecting rod with different loads in the bigger and smaller ends.
<b>CYCLE-II</b>	
6	Modeling and analysis of crank shaft with different loads in the both the ends.
7	Modeling and analysis of Engine cylinder head with different temperature in inner side of the cylinder.
8	Modeling and analysis of clutch plate with different loads in the contact surface.
9	Modeling and analysis of gear box with different loads in the contact surface.
10	Modeling and analysis of chassis frame with different loads on the surface and fixed points.
Content beyond syllabus (if any):	

\* Session Duration: 150 minutes



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	Prepared by	Approved by
Signature		
Name	RAMANJANEYULU KOLLA	Dr. J. VENKATESAN
Designation	ASSISTANT PROFESSOR	PROFESSOR & HOD
Date	11/01/2021	11/01/2021
Remarks*	The same lesson plan can be followed for this Academic year 2021-22 [Even semester]. 24/12/2021	
Remarks*	The same lesson plan can be followed for this Academic year 2022-23 [Even semester]. 24/12/2022	

\* If the same lab plan is followed in the subsequent semester/year it should be mentioned and signed by the Faculty and the HOD

The same lesson plan can be followed for this Academic year 2023-24 [Even Semester].