UTKAL GOURAV MADHUSUDAN INSTITUTE OF TECHNOLOGY, RAYAGADA

Academic Lesson Plan for 1st Semester – 2024 (Winter)

Name of teaching faculty: Sri Premanjan Padhi
GF (Civil)
Discipline/Deptt: Mathematics & Science
Semester & Branch: 1st Sem., Eelctronics Engg.,
1st Sem., Electical Engg.
Subject (Practical): PR 4(b): Engineering Mechanics Lab
No. of periods per week: 2, Total Periods: 30
Sessional: 25 Marks,

Week	Date	Period	List of Practical to be performed
1st		2	To study various equipments related to Engineering Mechanics.
2nd		2	To find the M.A., V.R., Efficiency and law of machine for Simple Screw Jack.
3rd		2	Determine support reactions for simply supported beam.
4th		2	Verify Lami's theorem.
5th		2	Determine resultant of concurrent force system applying Law of Polygon of forces using force table.
6th		2	Determine resultant of concurrent force system & parallel force system graphically.
7th		2	Obtain support reactions of beam using graphical method.
8th		2	Determine coefficient of friction for motion on horizontal and inclined plane.
9th		2	Determine centroid of geometrical plane figures.
10th		2	To find the M.A., V.R., Efficiency and law of machine for Differential Axle and Wheel.
11th		2	Study forces in various members of Jib crane.
12th		2	Derive Law of machine using Single purchase crab.
13th		2	Derive Law of machine using double purchase crab.
14th		2	Derive Law of machine using Worm and worm wheel.
15th		2	Derive Law of machine using Weston's differential or wormed geared pulley block.

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