

FIRST SEMESTER 2020-2021**Lab Handout**

Date: 14-08-2020

Course No. : ME G532
Course Title : Machine Tool Engineering
Instructor-in-Charge : Dr. Kundan Singh
Lab Instructor : Wankhede Pankaj Rambhau

List of Experiments

Week	Experiment No.	Experiment details
1	1	E1: Explaining the different machine tools with specification through video
	2	E2: At least for three machines prepare a detailed report about the specification, capability, main parts, mechanism, involved, prime mover, type of control
2	1	E3: Detailed gear train observation/report for machine tools shown in video
	2	E4: Gear modeling: Theoretical Design, Solid modelling, Different materials
3	1	E5: Gear simulation: deflection and Stress values
	2	
4	1	E6: Modeling approach for lathe
	2	E7: Simulation for dynamic response for modeled lathe
5	1	E8: Analysis and selection of Lathe machine bed through dynamic simulation
	2	
6	1	E9: Analysis of milling machine bed
	2	
7	1	E10: Analysis of milling machine tool structure
	2	
8	1	E11: Optimizing the machine tool structure
10	1	E12: Analysis of Guideways-1 through modeling
	2	
11	1	E13: Analysis of Guideways-2 through modeling
	2	
12	1	E14: Analysis of Spindle through modeling
	2	
13	1	E15: Analysis of Lead screw
	2	
14	1	Makeup session
	2	Makeup session
14	1	End Sem Lab exam and viva
	2	Buffer slot

Evaluation scheme**Total Weightage: 20%****Evaluation method: Lab record & Viva-voce**