

Discipline: Mechanical Engineering	Semester : 6th Semester-2020-21	Name of the Teaching Faculty: Shri. SHEKHAR KUMAR SAHU
Subject: Project phase II	No. of Days/week Class Allotted: 60	Semester from date: 05/04/2021 to date: 30/06 /2021 No of weeks: 18
week	Class Day	Practical Topics
1 st	1 st	Building of structures of 3d printer
	2 nd	Base making
2 nd	1 st	Base making
	2 nd	Making Vertical column 1 &2
3 rd	1 st	Making Vertical column 3 & 4
	2 nd	Making horizontal beam 1 , 2 ,3 & 4
4 th	1 st	Making horizontal beam 5 ,6 , 7 & 8
	2 nd	Lead screw making
5 th	1 st	Lead screw making
	2 nd	Brass nut making
6 th	1 st	Brass nut making
	2 nd	Arduino coding to convert stl or obj file to 3d printer g-code
7 th	1 st	Arduino coding to convert stl or obj file to 3d printer g-code
	2 nd	Arduino coding to convert stl or obj file to 3d printer g-code
8 th	1 st	Arduino coding to convert stl or obj file to 3d printer g-code
	2 nd	Assembly of base , columns and beams
9 th	1 st	Extruder installation
	2 nd	Installation of stepper motor for x axis
10 th	1 st	Installation of stepper motor for y axis
	2 nd	Installation of stepper motor for z axis
11 th	1 st	Installation of feeder with stepper motor
	2 nd	Installation of Timing belt and pulley for x axis
12 th	1 st	Connect the z axis stepper motor with the bed
	2 nd	Bed heating element fitting with sensors
13 th	1 st	Making electrical connection between arduino , smps , all stepper motors and drivers , and heat sensors
	2 nd	Ardiono coding to control temperature of bed and extruder
14 th	1 st	Running the first stl file for smooth functioning and error finding
	2 nd	Checking of x , y and z axis movement and feeder feeding rate
15 th	1 st	Finding and Rectifying the error in feeder feeding rate
	2 nd	Running first stl code for a double threaded bolt and nut
16 th	1 st	Making a spur gear

	2 nd	Making a helical gear
17 th	1 st	Report writing
	2 nd	Report writing
18 th	1 st	Report writing
	2 nd	Viva