

RAPID PROTOTYPING LAB COURSE

Course Name	:	Rapid Prototyping – FDM
Course Code	:	
Credits	:	
L T P	:	
Course Objective		
After successful completion of this course, user will be able to successfully create a 3D model of any component.		
Total No. of Lectures = 16		
Lecture wise breakup		Number of Lectures
1.	Introduction to Additive Manufacturing ; Additive manufacturing methods: Stereo lithography(SLA)-Digital Light processing(DLP)- Selective Laser Sintering(SLS)-Selective Laser Melting(SLM or LPM)-Fused deposition Modelling(FDM)	2
2.	FDM; FDM Materials and Applications: Standard Plastics-Engineering Plastics-High performance Plastics Preprocessing Slicers and servers-CAD import-Layer settings-filling pattern-orientation-Scaling. FDM printers: Core XY-Core XZ-Printer Hardware’s and working principle.	5
3.	Demonstration; Demonstration with Stratasys F270: Slicing the model-Material Loading-Part placement- Printing.	1
Course Outcome		
<ul style="list-style-type: none"> • Student will be able to clear the basic concepts of additive manufacturing. • Student will be able to convert cad file into a 3D product. • Student will learn about industrial standards related to design and they convert their ideas into virtual products. 		