

Design Thinking Lab

Offering Branches	Common to all Branches		
Course Category:	Engineering Science	Credits:	2
Course Type:	Practical	Lecture-Tutorial-Practical:	0-0-2
Prerequisites:	-Nil-	Continuous Internal Evaluation:	25
		Semester End Evaluation:	50
		Total Marks:	75
Course Outcomes			
Upon successful completion of the course, the student will be able to:			
CO1	Develop a mind maps for design thinking process		L3
CO2	Prepare empathy maps and journey maps for problems.		L3
CO3	Construct mock-up models through ideation and innovation techniques		L3
CO4	Use software for design thinking problems		L3
Course Content			
Expt.No.1	Design a mind map of design thinking		CO1
Expt.No.2	Thirty circle Exercise ---ideation		CO3
Expt.No.3	Prepare a toothpick bridge (mock-up model)		CO1,CO3
Expt.No.4	Prepare a marble maze (mock up model)		CO1,CO3
Expt.No.5	Build a wind power car (mock up model)		CO1,CO3
Expt.No.6	Make a hydraulic elevator (mock up models)		CO1,CO3
Expt.No.7	Construct empathy maps for a given case study-1		CO2
Expt.No.8	Develop customer journey map for a given case		CO2
Expt.No.9	Construct empathy maps for a given case study-2		CO2
Expt.No.10	Develop customer journey map for a given case -2		CO2
Expt.No.11	Make a paper prototype for user testing (mock-up model)		CO2
Expt.No.12	Design and development of cell phone wallet (mock-up model)		CO1,CO2, CO3
Expt.No.13	Design thinking-1 using sprintbase software		CO4
Expt.No.14	Design thinking-2 using sprintbase software		CO4
Learning Resources			
Text Books	1. Design Thinking for Strategic Innovation, Idris Mootee, 2013, John Wiley & Sons. 2. Change by design, Tim Brown, 2009, Harper Collins. 3. Design Thinking-The Guide Book – Facilitated by the Royal Civil service Commission, Bhutan 4. Engineering design, George E Dieter, 4th Revised edition, 2009 McGraw Hill.		
Reference Books			

e- Resources & other digital material	<ol style="list-style-type: none"><li data-bbox="344 212 1091 239">1. https://www.interaction-design.org/literature/topics/design-thinking<li data-bbox="344 254 1451 317">2. https://www.interaction-design.org/literature/article/how-to-develop-an-empathic-approach-in-design-thinking
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