Prasad.V.Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada

DESIGN THINKING LAB

(Common to all)

Course code	19ES1352	Year	II	semester	I
Course category	Engineering science	Branch	IT	Course Type	Lab
Credits	2	L-T-P	0-0-2	prerequisites	nil
Continuous Internal evaluation	25	Semester End Evaluation	50	Total marks	75

Contribution of course outcomes towards achievement of program outcomes & strength of correlation 1:Slight (low), 2: Moderate (medium) 3: Substantial (High)													
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2
CO 1			2	2					3				2	2
CO 2			2	2					3				2	2
CO 3			2	2					3				2	2
CO 4			2	2					3				2	2
CO 5			2	2					3				2	2

Syllabus		
Exp No	List of Experiments	Mapped CO
1	Design a mind map of design thinking	CO1
2	Thirty circle Exercise ---ideation	CO3
3	Prepare a toothpick bridge (mock-up model)	CO1,CO3
4	Prepare a marble maze (mock up model)	CO1,CO3

5	Build a wind power car (mock up model)	CO1,CO3
6	Make a hydraulic elevator (mock up models)	CO1,CO3
7	Construct Empathy maps for a given case study-1	CO2
8	Develop customer journey map for a given casestudy-1	CO2
9	Construct Empathy maps for a given case study-2	CO2
10	Develop customer journey map for a given case study -2	CO2
11	Make a paper prototype for user testing (mock-up model)	CO2
12	Design and development of cell phone wallet (mock-up model)	C01,C02,C03
13	Design thinking casestudy-1using sprint base software	CO4
14	Design thinking casestudy-2using sprint base software	CO4

Learning Resources
Text Books:
1. Idris Mootee, "Design Thinking for Strategic Innovation", John Wiley & Sons (2013).
2. "Change by design", Tim Brown, Harper Collins, 2009
3. "Design Thinking- The Guide Book" – Facilitated by the Royal Civil service Commission, Bhutan
4. Engineering design by George E Dieter
REFERENCE BOOKS
1. 101 Design Methods: A Structured Approach for Driving Innovation in Your Organization by Vijay Kumar
2. Human-Centered Design Toolkit: An Open-Source Toolkit To Inspire New Solutions in the Developing World by IDEO
ADDITIONAL LEARNING RESOURCES
https://www.interaction-desiqn.ora/literature/topics/desiqn-th/nkinq
https://www.interaction-desiqn.prq/literature/article/how-tq-<eve'op-an-empath\capproach-in-design-thinking