Course Code	18DCC003J	Course Name	TECHNOLOGY DESIGN FOUNDATION	Course Category	E	Minor	L	T	P	C
							2	0	4	4

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department	SRM Innovation and Incubation Center	Data Book / Codes/Standards	Nil		

Course Learning Rationale (CLR):	The purpose of learning this course is to:
CLR-1 :	Designed to explores mindset, skill set and toolset associated with design
CLR-2 :	Designed to work with guided applications to framing and solving problems from the perspectives of both business and engineering writing
CLR-3 :	Exposing students diverging to generate solutions and converging to select among them
CLR-4 :	Design methods to create concept generation methods, concept selection methods, imagining alternative futures

Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:	Learning		
		1	2	3
		LevelofThinking (Bloom)	ExpectedProficiency (%)	ExpectedAttainment(%)
CLO-1 :	Students will be able to learn and understand technology design concepts	1	80	85
CLO-2 :	Students will be able to learning mindset, skillset and toolset associated with design	2	75	80
CLO-3 :	Students will be able to identify the best solutions and converging to select among them.	2	85	80
CLO-4 :	Students will be able to understand concept generation methods, concept selection methods, imagining alternative futures	2	80	75

Program Learning Outcomes (PLO)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
EngineeringKnowledge	ProblemAnalysis	Design&Development	Analysis,Design,Research	ModernTool Usage	Society&Culture	Environment& Sustainability	Ethics	Individual & TeamWork	Communication	ProjectMgt.&Finance	LifeLongLearning	PSO-1	PSO-2	PSO– 3
H	-	-	-	-	-	-	H	-	-	-	-	-	-	-
H	H	-	-	H	-	-	H	-	-	H	-	-	-	-
H	-	-	H	-	-	-	H	-	-	-	-	-	-	-
H	H	-	-	H	-	-	-	-	-	-	-	-	-	-

Duration (hour)		6	6	6	6	6
S-1	SLO-1	Introduction to Design Methodology	Prototyping	User Assessment	Value Proposition Design	Business Model
	SLO-2					
S-2	SLO-1	Design Frameworks	Prototyping Planning	Usability Test	Value Proposition Design and Mapping,	Business Model Canvas
	SLO-2					
S-3	SLO-1	Engineering Design Problem Solving	Concept Refinement and Storyboard	Understanding Users	Prototyping & Competitor Study	Business pitch
	SLO-2					
S-4	SLO-1	Developing Design Solutions	Envisioning Future	Learning about Customer	Competitors/ Complementors Map	*Pitching strategies*
	SLO-2					
S-5	SLO-1	Making Design Solutions	Conceptual design	Clustering & Abstract Laddering	Design Methodologies	IP and Partnerships
	SLO-2					
S-6	SLO-1	Evaluating Design Solutions	Creative Matrix, Morphological Synthesis, Concept Poster	User Testing	Capital Budgeting: Risk Analysis with Scenarios	Forecasting Financial Statements
	SLO-2					
S-7	SLO-1	Project Introduction and Team formation	Basic Presentation	Project Discussion with Teaching Team	Project Discussion with Teaching Team	Project Discussion with Teaching Team
	SLO-2					
S-8	SLO-1	Stakeholder Map	Project Discussion with Teaching Team	Project Discussion with Teaching Team	Project Mini-showcase	Final Project Presentation
	SLO-2					
S-9	SLO-1	Brainstorming	Usability Test Demo	Project Discussion with Teaching Team	Project Discussion with Teaching Team	Design Showcase
	SLO-2					

Learning Resources	3. Foundations of Engineering & Technology, 7th Edition by Dr. R. Thomas Wright, Dr. Greg J. Strimel, and Dr. Michael E. Grubbs	4. Innovation Engineering ; a practical guide to creating anything new by ikhlaqsidhu

	Bloom's Level of Thinking	Continuous Learning Assessment (100% weightage)							
		CLA – 1 (25%)		CLA – 2 (25%)		CLA – 3 (20%)		CLA – 4 (30%)	
		Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice
Level 1	Remember Understand	*40 %*	-	*30 %*	-	-	*30 %*	-	*30 %*
Level 2	Apply Analyze	*40 %*	-	*40 %*	-	-	*40 %*	-	*40 %*
Level 3	Evaluate Create	*20 %*	-	*30 %*	-	-	*30 %*	-	*30 %*
	Total	100 %		100 %		100 %		100 %	