

22MCIN02		INNOVATION SPRINTS				SEMESTER III					
PRE-REQUISITE:					CATEGORY		L	T	P	C	
					EE		0	0	2	1	
Course Objectives:											
1.	To understand the fundamentals of Design thinking & apply in ideating solutions for real-world problems.										
2.	To solve challenges through problem curation, problem validation and customer discovery problems.										
UNIT I							CHALLENGE CURATION	3	0	0	3
Introduction: Design Thinking Principles - Design Thinking Values - Design Thinking Methods - Challenge impact setting - Framing the design challenge.											
UNIT II							CUSTOMER-CENTRIC INNOVATION	3	0	0	3
Understanding Customer needs - Empathy building techniques - gap analysis - adoption barriers - observations and insights - Translating Insights into Innovation Opportunities											
UNIT III							IDEA GENERATION	3	0	0	3
Identifying pains & gains - crafting value proposition - Ideation - Divergent Thinking - Ideation methods- Rules of brainstorming - Managing risks - Concept of minimum usable prototypes - Generating solution concepts											
UNIT IV							PROTOTYPING	3	0	0	3
Prototyping concepts -- Palm Pilot Experiment - Fake it before make it - Prototyping - The Law of Failure - Building a Prototype - Testing the Prototypes											
UNIT V							PITCH & PRESENTATION	3	0	0	3
Science of Storytelling - the blueprint for storytelling - Pitch Script - Pitch Presentations - Best practices to creating a compelling pitch - communication fundamentals											
Total (15L) = 15 Periods											
Text Books:											
1.	Tim Brown (2019), "Change by Design: How design thinking transforms organizations and inspires innovation"										
2.	Jan Chipchase& Simon Steinhardt(2013), "Hidden in Plain Sight: How to Create extraordinary Products for Tomorrow's Customers", Harper Business 2013										
3.	Christian Madsbjerg&Mikkel B. Rasmussen(2014), "The Moment of Clarity", Harvard Business Review Press										
4.	IdrisMooete(2013), Design Thinking for Strategic Innovation,Wiley										
5.	Alexander Osterwalder, Value Proposition Design: How to Create Products and Services Customers Want (Strategyzer) - John Wiley & Sons, 2014										
Reference Books:											
1.	Avoia. Alberto, 2009 The Pretotyping Manifesto -										
2.	https://sites.google.com/a/pretotyping.org/www/the-pretotyping-manifesto										
3.	Jazz Factory, All about Presentations - http://blog.jazzfactory.in/										
4.	Pretotyping Methodology - https://www.pretotyping.org/methodology.html										

COURSE OUTCOMES:		Bloom's Taxonomy Mapped
Upon completion of the course, the students will be able to:		
CO1	Identify real-world problems	Understand
CO2	Apply the challenge curation techniques to real-world problems.	Apply
CO3	Analyze the problems and generate solutions to address the challenges	Analyze
CO4	Build solutions using prototyping tools & techniques	Apply
CO5	Develop an innovation pitch to effectively communicate the idea to solve the identified problem	Analyze

COURSE ARTICULATION MATRIX															
CO/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	0	3	0	0	0	2	1	0	2	0	0	0	0	0	2
CO2	0	3	0	2	0	0	0	0	2	0	0	0	0	0	2
CO3	0	0	3	2	0	0	0	0	2	0	0	0	0	0	2
CO4	2	0	3	0	0	0	0	1	2	0	0	0	0	0	2
CO5	0	0	0	0	0	0	0	0	2	3	0	0	0	0	2
Avg	0.4	1.2	1.2	0.8	0	0.4	0.2	0.2	2	0.6	0	0	0	0	2
3 / 2 / 1 – indicates strength of correlation (3 – High, 2 – Medium, 1 – Low)															