



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal - 500 043, Hyderabad, Telangana

EXPERIENTIAL ENGINEERING EDUCATION (EXEED) – PROTOTYPE / DESIGN BUILDING

III Semester: AE / ME / CE / ECE / EEE / CSE / CSE (AI & ML) / CSE (DS) / CSE (CS) / IT								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
ACSD12	Skill	L	T	P	C	CIA	SEE	Total
		0	0	2	1	40	60	100
Contact Classes: NIL	Tutorial Classes: NIL	Practical Classes:45			Total Classes: 45			
Prerequisite: Essentials of Innovation.								

I. COURSE OVERVIEW:

This course provides an overall exposure to the various methods and tools of prototyping. This course discusses Low- Fidelity, paper, wireframing and tool-based prototyping techniques along with design principles and patterns.

II. COURSES OBJECTIVES:

The students will try to learn

- I. The basic principles and design aspect of prototyping.
- II. The various techniques, design guidelines and patterns.
- III. The applications of prototyping using various tools and platforms.

III. SYLLABUS:

WEEK 1: An Introduction to Prototyping

WEEK 2: Low - Fidelity Prototyping and Paper Prototyping

WEEK 3: Wireframing And Tool Based Prototyping

WEEK 4: Physical Low- Fidelity Prototyping

WEEK 5: Tool Based Prototyping

WEEK 6: Design Principles and Patterns- Graphic Design

WEEK 7: Design Principles and Patterns- Interaction Design

WEEK 8: Commercial Design Guidelines and Standards

WEEK 9: Universal Design: Sensory and Cognitive Impairments

WEEK 10: Universal Design: Tools, Limitations and Standards

WEEK 11: Introduction Platforms and Context : Mobile Ui Design, Wearable

WEEK 12: Introduction Platforms and Context : Automotive User Interface

WEEK 13: Introduction Platforms and Context : Iot and Physical Computing

WEEK 14: Assessment