



ENGINEERS WITH  
SOCIAL RESPONSIBILITY

Duration of Workshop:  
26.07.2024 to 31.08.2024

*Workshop on “Human  
Experiences through  
Interaction Design”*

(UNDER THE ANCHOR INSTITUTE PROGRAM)

Anchor Institute Programme Office  
DHIRUBHAI AMBANI INSTITUTE OF INFORMATION AND  
COMMUNICATION TECHNOLOGY, GANDHINAGAR, GUJARAT

- ❖ **Supported by:** The Centre for Entrepreneurship Development ([CED](#))-A Government of Gujarat Organization funded Anchor Institute DA-IICT.
- ❖ **Organized by:** Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat, India ([DA-IICT](#)).

<b>Course Start Date</b>	26.07.2024 to 31.08.2024
<b>Mode</b>	<ul style="list-style-type: none"> <li>• Online</li> <li>• Please note that we will conduct sessions on Fridays and Saturdays.</li> </ul>
<b>Program Schedule</b>	We will provide it soon
<b>Course Duration</b>	The duration of the course will be 35 hours, consisting of 23 hours of theory sessions and 12 hours of laboratory sessions.
<b>Target Audience</b>	UI/UX Professionals, Faculties, PG students, Senior UG students
<b>Course Fee</b>	<ul style="list-style-type: none"> <li>• Participants from Gujarat state are charged a <b>fully refundable</b> upfront course fee of 5,000 INR. Please note that this fee is non-refundable for candidates from other states.</li> <li>• <b>Refund Policy:</b> Maintain a 75% minimum attendance to be eligible for the refund.</li> <li>• <b>Please note that we are not collecting the course fee of Rs. 5,000 during the registration period. Once we reach the expected number of participants, we will commence the collection of fees and provide a separate Google form to collect the unique transaction identifier or reference ID associated with your fee payment and bank details for the refund. At that time, we will also share the bank account details for fee payment.</b></li> </ul>
<b>Refund Policy</b>	Maintain a 75% minimum attendance to be eligible for the refund.
<b>Certificate</b>	A participation certificate will be conferred to individuals who maintain an attendance record of at least 75%.

❖ **Registration on the following link after the payment:**

To enroll, please complete the registration form by [clicking here](#). Once you open the registration form, you will find further instructions and details.

The last day of registration is **16th July, 2024**

- ❖ For more details, please visit <https://www.daiict.ac.in/courses-through-aip-cep>

## 1. Course Objective

This course on Human Computer Interaction Design consists of two fundamental modules. One being the basic human computer interaction which will dive into the fundamentals of how man machine interaction happens and the principles behind that. We will learn the three components of HCI namely, human, machine and interface. The module will cover human capabilities, design principles and models of interaction. The second module focusses on the Interaction design which can be understood as the design of interactions between users and their artefacts. While it is often thought of in terms of software products, interaction design is a broad field that includes elements such as motion, space, sound, image and more. The goal of interaction design is to enable the user to achieve their objective in the best possible way. The module will cover design strategies, research methods in interactive design, evaluating design research, prototyping and evaluation techniques.

The course has been structured as a mix of lectures followed by a stand-alone exercise or an assignment that challenge the students to apply the concepts they have been taught towards solving live problems. Emphasis will be given on learning and developing prototypes of various software modules, products etc.

## 2. Expected Outcome

- Understand the fundamental principles of human-computer interaction and the components involved, including human capabilities, machines, and interfaces.
- Apply design principles and models of interaction to create effective HCI designs.
- Develop interaction designs that enable users to achieve their objectives efficiently, incorporating elements such as motion, space, sound, and image.
- Employ various design strategies and research methods in interactive design.
- Evaluate design research effectively and apply prototyping and evaluation techniques to assess design solutions.
- Solve real-world problems by applying the concepts learned through lectures and assignments.
- Create and develop prototypes of software modules and products that demonstrate their understanding of HCI and interaction design principles.

## 3. Organizers and Course Instructors:

- [Dr. P.S.Kalyan Sasidhar, Associate Professor, DAIICT](#)
- [Dr. Nikita Desai, Adjunct Professor, DAIICT](#)

## 4. Address for Correspondence:

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## TENTATIVE COURSE OUTLINE

Module	Topic	Number of lectures	Number of lab hours	Instructor
1	INTRODUCTION	2		
	1.1 History of HCI and Interactive design			P.S.Kalyan
	1.2 HCI and elements of Interactive design			
2	USER CENTERED DESIGN PROCESS OF HCI	2		
	3.1 PRINCIPLES OF HCI			P.S.Kalyan
	3.1.1. Don Norman's principles			
	3.1.2 Jacob Nielsen's principles			
	<i>Lab_1: Mapping of HCI principles to everyday things</i>		1	
3	USER CENTERED DESIGN PROCESS OF HCI	2		
	3.2 Approaches to Interaction Design			Nikita Desai
	3.3 Methods and Procedures in User Centric Design			
	3.3.1 Design Strategy			
	3.3.2 Project and Product Planning			
	3.3.3 Design Research (Quantitative vs Qualitative)			
	3.3.4 Research Planning, Observations, Interviews and Activities			
	<i>Lab_2: Ideation and Framing of Design Strategy</i>		1	
4	INTERACTIVE DESIGN	2		
	4.1 MODELS OF INTERACTION			P.S.Kalyan
	4.1.1 Mental vs Conceptual model			
	4.1.1 Gulf of Execution and Gulf of Evaluation			
5	TASK ANALYSIS	2		
	5.1 Differences between task analysis and & other techniques			P.S.Kalyan
	5.2 Types of Task analysis techniques			
	5.3 Uses of Task analysis			
	5.4 Use case examples of task analysis			
	<i>Lab_3: Creating task analysis for hierarchical interactions</i>		2	
6	EVALUATING DESIGN RESEARCH	2		
	4.2.1 Patterns, Phenomenon and Personas			Nikita Desai
	4.2.2 Creating Scenarios and Use Cases			
	<i>Lab_4: Creating conceptual models and comparing with user mental model</i>		2	
7	MODELS IN HCI	2		
	6.2.1 Simple models of human information processing – KLM, GOMS			P.S.Kalyan

	6.2.2 Individual models of human factors: Fitts' law, Hick-Hyman Law, Feedback			
	<i>Lab_5: Analysing tasks through KLM and GOMS</i>		1.5	
	<i>Lab_6: understanding individual models of human factors</i>		1.5	
<b>8</b>	<b>PROTOTYPING</b>	<b>2</b>		
	6.2.4 UX tools (Moodboards, Storyboards, Wireframes and Functional Cartography)			Nikita Desai
	5.2.2 Working with Non Traditional Inputs (Voice, Gesture, Presence)			
	<i>Lab_7: prototyping session</i>		2	
<b>9</b>	<b>EVALUATION TECHNIQUES</b>	<b>2</b>		
	6.1 Why evaluation?			Nikita Desai
	6.2 Evaluation through user participation			
	6.3 Evaluation through heuristic analysis			
	<i>Lab_8: Applying heuristic evaluation techniques to designs</i>		1	
<b>10</b>	<b>SCOPE OF HCI</b>	<b>4</b>		
	7.1 VR AND AR			P.S.Kalyan, Nikita Desai
	7.2 Smart Spaces: Using Voice, Presence, Proximity and Gesture			
	7.3 Immersive Experiences in Public Spaces			
	7.4 Retail, Healthcare, Broadcasting and Automobiles			
<b>11</b>	<b>Discussions and Feedback</b>	<b>1</b>		
	<b>TOTAL</b>	<b>23</b>	<b>12</b>	