



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned				
		L	T	P	L	T	P	Total	
CPCL802	Human Machine Interaction Lab	--	--	2	--	--	1	1	
		Examination Scheme							Total
		ISE		ESE			Total		
				Practical	Oral				
		40	-		20		60		

Pre-requisite Course Codes	CPC802(Human Machine Interaction)
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At end of successful completion of this course, student will be able to		
Course Outcomes	CO1	To design user centric interfaces.
	CO2	To design innovative and user friendly interfaces.
	CO3	To apply HMI in their day-to-day activities.
	CO4	To criticize existing interface designs, and improve them.
	CO5	To Design application for social Task.
	CO6	To Design application for Technical Tasks.

Exp. No.	Experiment Details	Ref.	Marks
1	Know your client a. Design an app that can teach mathematics to children of 4-5 years age in schools in Rural Sector. b. Design an app that can teach mathematics to children of 4-5 years age in schools in Urban Sector. c. Design a site that can help people to sell their handmade products in metro cities. d. Design a site that can connect housewives and keep them engaged.	1-8	5
2	Goal oriented design - Design an experience for passengers whose flight /train is delayed.	1-8	5
3	Design Principles - Understand principles of good UI design by heuristic evaluation. Design UI that would connect all college students to the events happening on-campus during the college festival. User should be able to browse all events sorted on time, category and place. The user should also be able to subscribe to events and get notified about their start time and also be able to send invites to friends to attend an event with them	1-8	5
4	Menus & Navigation – Redesign of a user interface(Suggest and	1-8	5



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	implement changes in Existing User Interface		
5	Windows & Screen controls – a. Design a navigator for a student new in your Institute. b. Design a navigator for a person new in tourist city/ village. c. Motor paralysis for differently able people. d. ATM design with localization	1-8	5
6	Icons - Design appropriate icons pertaining to a given domain (Eg. Greeting cards)	1-8	5
7	Colors – Design a personal website for an Artisan. Use statistical graphics for better visualization.	1-8	5
8	To calculate screen complexity of existing Graphical User Interface and redesign the interface to minimize the screen complexity.	1-8	5
Total Marks			40

References:

- [1] Wilbert O. Galitz, “The Essential Guide to User Interface Design”, Wiley publication.
- [2] Alan Cooper, Robert Reimann, David Cronin, “About Face3: Essentials of Interaction design”, Wiley publication.
- [3] Jeff Johnson, “Designing with the mind in mind”, Morgan Kaufmann Publication.
- [4] Donald A. Normann, “ Design of everyday things”, Basic Books; Reprint edition 2002.
- [5] Brian Fling, “Mobile Design and Development”, First Edition , O’Reilly Media Inc., 2009.
- [6] Rogers Sharp Preece, ”Interaction Design: Beyond Human Computer Interaction”, Wiley.
- [7] Guy A. Boy “The Handbook of Human Machine Interaction”, Ashgate publishing Ltd.
- [8] Kalbande, Kanade, Iyer, ”Galitz’s Human Machine Interaction”, Wiley Publications.