



SWARNANDHRA

COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

Accredited by National Board of Accreditation, AICTE, New Delhi, Accredited by NAAC with "A" Grade – 3.32 CGPA, Recognized under 2(f) & 12(B) of UGC Act 1956, Approved by AICTE, New Delhi, Permanent Affiliation to JNTUK, Kakinada Seetharampuram, W.G.DT., Narsapur-534280, (Andhra Pradesh)

DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

TEACHING PLAN

Course Code	Course Title	Semester	Branches	Contact Periods /Week	Academic Year	Date of commencement of Semester
20AD7E04	HUMAN COMPUTER INTERACTION	VII	AI&DS	5	2025-26	09-06-2025

COURSE OUTCOMES

- CO1. Apply the Human Computer Interaction (HCI) principles while developing software.[K3]
- CO2. Identify the appropriate design model for HCI.[K1]
- CO3. Understand the importance of interaction styles.[K2]
- CO4. Postulate appropriate interaction styles Design a web interface for HCI[K4]
- CO5. Apply HCI in real time systems[K3]

UNIT	Outcomes / Bloom's Level	Topics No.	Topics/Activity	Text Book / Reference	Contact Hour	Delivery Method
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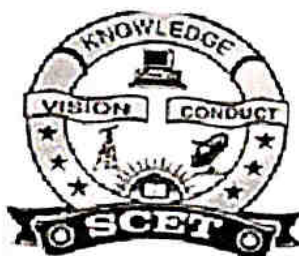
INTRODUCTION AND DESIGN PROCESS

I	CO1. Apply the Human Computer Interaction (HCI) principles while developing software.[K3]	1.1	Interaction design basics	T1	1	Chalk and Talk
		1.2	process of design	T1	1	
		1.3	user focus –navigation	T1	1	
		1.4	screen design and layout	T1	1	
		1.5	Iteration and prototyping	T1	1	
		1.6	HCI in the Software process	T1	1	
		1.7	Software life cycle	T1	1	
		1.8	Usability engineering	T1	1	
		1.9	Iterative design and prototyping	T1	1	
		1.10	Design Focus	T1	1	
		1.11	Design rationale	T1	1	
		1.12	Design Rules	T1	1	Chalk and Talk
	CBS	Real-World Applications			1	PPT

Total 13

MODELS

II		2.1	Cognitive models	T1	1	Chalk and Talk
		2.2	Goal and task hierarchies	T1	1	
		2.3	Linguistic models	T1	1	
	CO2. Identify the appropriate design model for	2.4	Challenge of display-based systems	T1	1	
		2.5	Physical and device models	T1	1	
		2.6	Cognitive architectures	T1	1	
		2.7	Socio-organizational issues and stakeholder requirements	T1	1	



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	HCI	2.8	Organizational issues	T1	1	
		2.9	Capturing requirements	T1	1	
		2.10	Communication and Collaboration models	T1	1	
		2.11	Face-to-face communication	T1	1	
		2.22	Conversation – Text-based communication – Group working	T1	1	
	CBS	Social Media Interaction Design			1	PPT
TOTAL				13		

INTERACTION STYLES

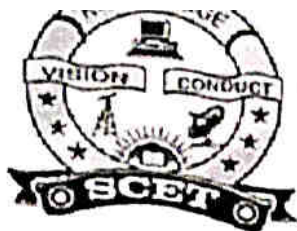
III	CO3. Understand the importance of interaction styles	3.1	Dialog notations and design	T1	1	Chalk & Talk
		3.2	Dialog design notations	T1	1	
		3.3	Diagrammatic notation	T1	1	
		3.4	Textual dialog notations	T1	1	
		3.5	Dialog semantics	T1	1	
		3.6	Dialog analysis and design	T2	1	
		3.7	Models of the system	T2	1	
		3.8	Standard formalisms	T2	1	
		3.9	Interaction models	T2	1	
		3.10	Continuous behavior and Modeling rich interaction	T1	1	
		3.11	Status-event analysis – Rich contexts	T1	1	
	CBS	Emotion Recognition in Dialogs				1
TOTAL					12	

WEB INTERFACE DESIGN - I

IV	CO4. Postulate appropriate interaction styles Design a web interface for HCI	4.1	Designing Web Interfaces	T1	2	Chalk & Talk
		4.2	Drag & Drop	T1	1	
		4.3	Module, List, Object,	T1	2	
		4.4	Action & Collection	T1	1	
		4.5	Direct Selection	T1	1	
		4.6	Toggle & Collected	T1	2	
		4.7	Contextual Tools	T1	1	
		CBS -	Loading and Performance Optimization			1
TOTAL					11	

WEB INTERFACE DESIGN - II




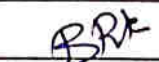
V	CO5. Apply HCI in real time systems	5.1	Overlays – Dialog	T1	1	Chalk & talk
		5.2	Detail, Input – Inlays	T2	1	
		5.3	Dialog, List	T1	1	
		5.4	Detail – Virtual Pages	T1	1	
		5.5	Virtual Scrolling	T1	1	



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		5.6	Inline Paging	T1	1	PPT, Videos
		5.7	Scrolling Paging	T1	1	
		5.8	Virtual Panning	T2	1	
		5.9	Zoomable User Interface	T1	1	
		5.10	Process Flow	T1	1	
		5.11	Transitional Patterns	T1	1	
		5.12	Purpose of Transitions	T1	1	
	CBS	Responsive Typography				1
				TOTAL	13	
CUMULATIVE PROPOSED PERIODS					60	
Text Books:						
S.No	AUTHORS, BOOK TITLE, EDITION, PUBLISHER, YEAR OF PUBLICATION					
T1	Rogers Interaction Design: Beyond Human-Computer Interaction, Sixth Edition Paperback – Import, 1 June 2023					
T2	Bill Scott and Theresa Neil, —Designing Web InterfacesI, First Edition, O'Reilly, 2019.					
Reference Books:						
S.No.	AUTHORS, BOOK TITLE, EDITION, PUBLISHER, YEAR OF PUBLICATION					
R1	Julie A. Jacko (Ed), —The Human-Computer Interaction HandbookI, 3rd edition, CRC Press, 2012.					
R2	M.G. Helander, —Handbook of Human-Computer InteractionI, Elsevier, 2014					
R3	Andrew Sears, Julie A. Jacko, —Human-Computer Interaction: Design Issues, Solutions, and ApplicationsI, CRC Press, 2009.					
Web Details						
	https://onlinecourses.nptel.ac.in/noc19_cs86/preview					
	https://psu.pb.unizin.org/ist110/chapter/5-1-introduction-to-design/					
	https://www.youtube.com/watch?v=cWhL7YsAqbg					
	https://dribbble.com/tags/web-interface-design					
	https://hcibook.com/e3/chapters/ch16					

		Name	Signature with Date
i.	Faculty-I	B.Harita	
ii.	Course Coordinator	Dr.G.Sudhakar	
iii.	Module Coordinator	Mr V. Subrahmanyam	
iv.	Program Coordinator	Dr.B.RamaKrishna	


Principal