SRI KRISHNA INSTITUTE OF TECHNOLOGY

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#29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bengaluru- 560090

Department of Computer Science and Engineering

Academic Year	:	2023-24	Course Name	:	User Interface Design
Semester	:	VII	Course Code	:	18CS734
Scheme	:	2018	L: T: P: C	:	3:0:0
Total Contact hours	:	40	CIE Marks	:	40
Course Plan Author	:	SUSHMA.M	SEE Marks	:	60
Date	:	15/09/2023	Total Marks	:	100

Course Prerequisites:

- Knowledge about different operating systems.
- Knowledge about different types of networks.
- Knowledge of how Data transfer will takes place in the network.

Learning Objectives:

- To study the concept of menus, windows, interfaces
- To study about business functions
- To study the characteristics and components of windows and the various controls for the windows.
- To study about various problems in windows design with color, text, graphics a and To study the testing methods

Course Outcomes:

CO		At the end of the course, student should be able to . . .	Blooms' Level
CO1	:	Understand Importance and Characteristics of User interface design.	L2
CO2	:	Understand User Interface Design process and Business functions.	L2
CO3	:	Apply System menus , navigation schemes and windows characteristics.	L3
CO4	:	Understand screen based controls and device based controls.	L2
CO5	:	Design the prototypes and test plans of user interface	L4

Blooms' Taxonomy:

L1	L2	L3	L4	L5	L6
Remembering	Understanding	Applying	Analyzing	Evaluating	Creating

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Program Outcomes:

PO1	:	Engineering knowledge	**PO7**	:	Environment and sustainability
PO2	:	Problem analysis	**PO8**	:	Ethics
PO3	:	Design/development of solutions	**PO9**	:	Individual and team work
PO4	:	Conduct investigations of complex problems	**PO10**	:	Communication
PO5	:	Modern tool usage	**PO11**	:	Project management and finance
PO6	:	The engineer and society	**PO12**	:	Life-long learning

Program Specific Outcomes:

PSO1:	Model computational problems by applying mathematical concepts and design solutions using suitable data structures & algorithmic techniques.
PSO2:	Demonstrate basic knowledge of computer science in efficient design of problem solutions of varying complexity.
PSO3:	Create career path to become a successful computer science professional, entrepreneur and relish for higher studies.

CO-PO-PSO Mapping:

CO	Program Outcomes														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO12	PSO 1	PSO 2	PSO 3
CO1	2	1	-	-	1	-	-	-	2	2	-	1	-	-	1
CO2	2	1	-	-	2	-	-	1	3	2	-	-	2	1	-
CO3	2	-	-	1	2	-	-	-	2	2	-	2	2	1	-
CO4	3	1	-	-	-	-	-	-	1	1	-	1	-	-	1
CO5	3	3	2	3	2	-	-	-	1	1	-	2	2	-	2
Target	**2.4**	**1.5**	**2.0**	**2.0**	**1.75**			**1.0**	**1.8**	**1.60**		**1.50**	**2.00**	**1.00**	**1.33**

Course Content (Syllabus)

Module 1	CH
The User Interface-Introduction, Overview, The importance of user interface – Defining the user interface, The importance of Good design, Characteristics of graphical and web user interfaces, Principles of user interface design **Textbook 1: Ch. 1,2** **RBT: L1, L2**	**08**

Module 2	
The User Interface Design process- Obstacles, Usability, Human characteristics in Design, Human Interaction speeds, Business functions-Business definition and requirement analysis, Basic business functions, Design standards.	**08**

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Textbook 1: Part-2	**RBT: L1, L2**	
Module 3		
System menus and navigation schemes- Structures of menus, Functions of menus, Contents of menus, Formatting of menus, Phrasing the menu, Selecting menu choices, Navigating menus, Kinds of graphical menus. **Textbook 1: Part-2** **RBT: L1, L2**		**08**
Module 4		
Windows - Characteristics, Components of window, Window presentation styles, Types of window, Window management, Organizing window functions, Window operations, Web systems, Characteristics of device based controls **Textbook 1: Part-2** **RBT: L1, L2**		**08**
Module 5		
Screen based controls- Operable control, Text control, Selection control, Custom control, Presentation control, Windows Tests-prototypes, kinds of tests **Textbook 1: Part-2** **RBT: L1, L2**		**08**

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Schedule of Instruction:

Class No	Topic	RBT	CO	Mode
1.	The User Interface- Introduction	L2	CO 1	L
2.	Overview, The importance of user interface	L2	CO 1	L
3.	Defining the user interface	L2	CO 1	L
4.	The importance of Good design	L2	CO 1	L
5.	The Benefits of Good design	L2	CO 1	L
6.	Characteristics of graphical	L2	CO 1	PPT
7.	web user interfaces	L2	CO 1	PPT
8.	Principles of user interface design.	L2	CO 1	L
9.	The User Interface Design process- Obstacles	L2	CO 2	L
10.	Usability	L2	CO 2	L
11.	Human characteristics in Design	L2	CO 2	PPT
12.	Human Interaction speeds	L2	CO 2	PPT
13.	Business functions	L2	CO 2	L
14.	Business definition	L2	CO 2	L
15.	Requirement analysis, Basic business functions	L2	CO 2	L
16.	Design standards	L2	CO 2	L
17.	System menus and navigation schemes	L2	CO 3	PPT

Class No	Topic	RBT	CO	Mode
18.	Structures of menus	L2	CO 3	PPT
19.	Functions of menus	L2	CO 3	L
20.	Contents of menus	L2	CO 3	L
21.	Formatting of menus	L2	CO 3	PPT
22.	Phrasing the menu	L2	CO 3	L
23.	Selecting menu choices	L2	CO 3	L
24.	Navigating menus, Kinds of graphical menus.	L2	CO 3	PPT
25.	Windows - Characteristics	L2	CO 4	L
26.	Components of window	L2	CO 4	L
27.	Window presentation styles	L2	CO 4	PPT
28.	Types of window, Window management	L2	CO 4	L
29.	Organizing window functions	L2	CO 4	L
30.	Window operations.	L2	CO 4	L
31.	Web systems	L2	CO 4	L
32.	Characteristics of device based controls	L2	CO 4	L
33.	Screen based controls	L2	CO 5	PPT
34.	Operable control, Text control	L2	CO 5	PPT
35.	Selection control	L2	CO 5	PPT

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Class No	Topic	RBT	CO	Mode
36.	Custom control	L2	CO 5	L
37.	Presentation control	L2	CO 5	PPT
38.	Windows Tests-prototypes	L2	CO 5	L
39.	kinds of tests	L2	CO 5	L
40.	kinds of tests	L2	CO 5	L

Textbooks:

T1	Wilbert O. Galitz, "The Essential Guide to User Interface Design", John Wiley & Sons, Second Edition 2002.

Reference books:

R1	Ben Sheiderman, "Design the User Interface", Pearson Education, 1998
R2	Alan Cooper, "The Essential of User Interface Design", Wiley- Dream Tech Ltd.,2002

Web links and Video Lectures (e-Resources):

1.	https://sites.google.com/skit.org.in/7-uid-2023-24/about-the-faculty
2.	https://archive.nptel.ac.in/courses/124/107/124107008/

Assessment Schedule:

S.N.	Assessment Type	Content	CO	Duration	Marks	Date
1.	CIE Test 1	M1,M2	1,2	1 hour 15 Mins	30	30/10/23
2.	CIE Test 2	M3,M4	3,4	1 hour 15 Mins	30	27/11/23
3.	CIE Test 3	M4,M5	4,5	1 hour 15 Mins	30	28/12/23
4.	Assignment 1	Assignment questions	1,2		10	
5.	Assignment 2	Certification course	5		10	
6.	Assignment 3	Mini project	5		10	
7.	Semester End Examination	M1,M2,M3,M4,M5				

RB – Text Book/Reference Book, *L – Lecture, V- Videos or any other mode, *RBT – Revised Blooms' Taxonomy, L: T: P: C – Theory/Lecture: Tutorial: Practical/Drawing: Credits, SEE: Semester End Examination, CIE: Continuous Internal Evaluation, Seminar: Group of 6-8 students, Module 1,2,3,4 & 5,

**The sum of total marks of three tests, two assignments, and seminar will be out of 100 marks and will be scaled down to 40 marks. (As per the scheme), CIE + SEE = 40 + 60 = 100 marks

Sushma.M   **Dr.Shantharamnayak**
Faculty In charge   **Course Coordinator**   **HoD**