VII Semester

USER INTERFACE DESIGN			
Course Code	21IS733	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	3:0:0:0	SEE Marks	50
Total Hours of Pedagogy	40	Total Marks	100
Credits	03	Exam Hours	03

Course Learning Objectives:

CLO 1. To study the concept of menus, windows, interfaces.
CLO 2. To study about business functions.
CLO 3. To study the characteristics and components of windows and the various controls for the windows.
CLO 4. To study about various problems in windows design with color, text, graphics and
CLO 5. To study the testing methods.

Teaching-Learning Process (General Instructions)

These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes.

1. Lecturer method (L) needs not to be only traditional lecture method, but alternative effective teaching methods could be adopted to attain the outcomes.
2. Use of Video/Animation to explain functioning of various concepts.
3. Encourage collaborative (Group Learning) Learning in the class.
4. Ask at least three HOT (Higher order Thinking) questions in the class, which promotes critical thinking.
5. Adopt Problem Based Learning (PBL), which fosters students' Analytical skills, develop design thinking skills such as the ability to design, evaluate, generalize, and analyse information rather than simply recall it.
6. Introduce Topics in manifold representations.
7. Show the different ways to solve the same problem with different circuits/logic and encourage the students to come up with their own creative ways to solve them.
8. Discuss how every concept can be applied to the real world - and when that's possible, it helps improve the students' understanding.

Module-1

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

Teaching-Learning Process	Chalk and board, Demonstration, MOOC

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.

Textbook 1: Part-2

Teaching-Learning Process	Chalk and board, Active Learning

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

Teaching-Learning Process	Chalk and board, Demonstration

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

Teaching-Learning Process	Chalk& board, Problem based learning, Demonstration

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

Teaching-Learning Process	Chalk and board, Demonstration, MOOC

Course Outcomes:

At the end of the course the student will be able to:

CO 1. Understand importance and characteristics of user interface design
CO 2. Apply user interface design process on business functions
CO 3. Demonstrate system menus, navigation schemes and windows characteristics
CO 4. Analyze screen based controls and device based controls
CO 5. Design the prototypes and test plans of user interface

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course if the student secures not less than 35% (18 Marks out of 50) in the semester-end examination (SEE), and a minimum of 40% (40 marks out of 100) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together

Continuous Internal Evaluation:

Three Unit Tests each of **20 Marks (duration 01 hour**)

7. First test at the end of 5th week of the semester
8. Second test at the end of the 10th week of the semester
9. Third test at the end of the 15th week of the semester

Two assignments each of **10 Marks**

10. First assignment at the end of 4th week of the semester
11. Second assignment at the end of 9th week of the semester

Group discussion/Seminar/quiz any one of three suitably planned to attain the COs and POs for **20 Marks** (**duration 01 hours**)

12. At the end of the 13th week of the semester

The sum of three tests, two assignments, and quiz/seminar/group discussion will be out of 100 marks and will be **scaled down to 50 marks**

(to have less stressed CIE, the portion of the syllabus should not be common /repeated for any of the

methods of the CIE. Each method of CIE should have a different syllabus portion of the course).

CIE methods /question paper has to be designed to attain the different levels of Bloom's taxonomy as per the outcome defined for the course.

Semester End Examination:

Theory SEE will be conducted by University as per the scheduled timetable, with common question papers for the subject (**duration 03 hours)**

3. The question paper will have ten questions. Each question is set for 20 marks. Marks scored shall be proportionally reduced to 50 marks
4. There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub-questions), **should have a mix of topics** under that module.

The students have to answer 5 full questions, selecting one full question from each module

Suggested Learning Resources:

Textbooks:

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

Reference Books:

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

Web links and Video Lectures (e-Resources):

1. https://nptel.ac.in/noc/courses/noc19/SEM1/noc19-ar10/
2. https://www.vtupulse.com/cbcs-cse-notes/17cs832-user-interface-design-uid-notes/
3. https://www.brainkart.com/subject/User-Interface-Design_145/
4. https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-831-user-interface-design-and-implementation-spring-2011/lecture-notes/
5. https://lecturenotes.in/download/material/21405-user-interface-design

Activity Based Learning (Suggested Activities in Class)/ Practical Based learning