

## 4/4 B.Tech - FIRST SEMESTER

**IT7T6A****HUMAN COMPUTER INTERACTION****Credits:3****Lecture: 3 Periods/week****Internal assessment: 30 marks****Practice/Interaction: 1Period/week****Semester end examination: 70 marks****Objectives:**

- To provide awareness on interface design methods and characteristics of GUI.
- To explain different considerations in design process.
- To know the various issues in screen design.
- To discuss about the GUI components design.

**Outcomes:**

Students will be able to

- Understand the GUI design and its characteristics.
- Analyze human physical and mental limitations to use computers and provide solutions.
- Understand the techniques of presentation of screen design components.
- Gain knowledge on the concepts of windows.
- Understand the selection of various screen design components.

**Syllabus:****UNIT -I**

Introduction: Importance of user Interface, definition, importance of good design. Benefits of good design. A brief history of Screen design

The graphical user interface: Popularity of graphics, the concept of direct manipulation, graphical system, Characteristics, Web user –interface popularity, characteristics- Principles of user interface.

**UNIT -II**

Design process: Human interaction with computers, importance of human characteristics human consideration, Human interaction speeds, understanding business functions.

**UNIT -III**

Screen Designing : Design goals, Screen planning and purpose, organizing screen elements, ordering of screen data and content, screen navigation and flow, Visually pleasing composition, amount of information, focus and emphasis, presentation information simply and meaningfully, information retrieval on web, statistical graphics, Technological consideration in interface design.

**UNIT -IV**

Windows: Develop System Menus and Navigation schemes selection of window, selection of devices based and screen based controls.

**UNIT- V**

Components: Clear text and messages, Icons, Multimedia, colors, users problems, choosing colors.

**Text Book:**

1. The Essential Guide to User Interface Design, 2<sup>nd</sup> Edition, Wilbert O Galitz, Wiley DreamTech.

**Reference Books:**

1. Human Computer Interaction, Dan R.Olsan, Cengage, 2010.
2. Designing the user interface. 4<sup>th</sup> Edition, Ben Shneidermann, PEA.
3. Human Computer Interaction. 3<sup>rd</sup> Edition, Alan Dix, Janet Finlay, Goryd, Abowd, Russell Beal, PEA, 2004.

**e-Learning Resources:**

1. <http://iiscs.wssu.edu/drupal/node/4607>
2. [https://www.interaction-design.org/encyclopedia/human\\_computer\\_interaction\\_hci.html](https://www.interaction-design.org/encyclopedia/human_computer_interaction_hci.html)