

HUMAN COMPUTER INTERACTION (Professional Elective-II)

Course Code: 15CS1102

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Course Outcomes :

At the end of the Course, the Student will be able to:

- CO 1** Discuss the importance of user interface
- CO 2** Explain the concept of graphical user interface and the screen design principles.
- CO 3** Illustrate screen designing goals and technological consideration in interface design
- CO 4** Demonstrate components and software tool specification methods.
- CO 5** Specify different interaction devices.

UNIT-I (10 Lectures)

INTRODUCTION:

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

UNIT-II (10 Lectures)

THE GRAPHICAL USER INTERFACE :

Popularity of graphics, the concept of direct manipulation, graphical system, Characteristics, Web user – Interface popularity, characteristics- Principles of user interface. DESIGN PROCESS – Human interaction with computers, importance of human characteristics human consideration, Human interaction speeds, and understanding business junctions.

UNIT-III**(10 Lectures)****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 – presenting information simply and meaningfully – information retrieval on web – statistical graphics – Technological consideration in interface design.

WINDOWS – New and Navigation schemes, selection of window, selection of devices based and screen based controls..

UNIT-IV**(10 Lectures)**

COMPONENTS – Text and messages, Icons and increases – Multimedia, colors, uses problems, choosing colors.

SOFTWARE TOOLS – Specification methods, interface – Building Tools.

UNIT-V**(10 Lectures)**

INTERACTION DEVICES – Keyboard and function keys – pointing devices – speech recognition digitization and generation – image and video displays – drivers.

TEXT BOOK:

Ben Shneidermann, Designing the User Interface, 3rd Edition, Pearson Education Asia, 2007.

REFERENCES:

1. Alan Dix, Janet Finclay, “Human Computer Interaction”, 3rd Edition, Pearson, 2003.
2. Rogers, Sharps, Interaction Design, PRECE, 1st Edition, Wiley Dreamtech, 2002
3. Soren Lauesen, “User Interface Design”, 1st Edition, Pearson Education, 2005

4. Willbert O Galitz, “The Essential guide to User Interface design”, 3rd Edition, Wiley Dreamtech, 2007.

WEB RERENCE:

<http://nptel.ac.in/courses/106103115/>