Name of Department:- Computer Science and Engineering

1.   Subject Code: | TCS 756 | Course Title: | **Human Computer Interaction** |

2.   Contact Hours: L: | 3 | T: | - | P: | - |

3.   Semester: VII

4. Pre-requisite: Fundamentals of Computer architecture

5. Course Outcomes: After completion of the course students will be able to

1. Explain the capabilities of both humans and computers from the viewpoint of human information processing.
2. Describe typical human–computer interaction (HCI) models, styles, and various historic HCI paradigms.
3. Apply an interactive design process and universal design principles to designing HCI systems.
4. Describe and use HCI design principles, standards and guidelines.
5. Analyze and identify user models, user support, socio-organizational issues, and stakeholder requirements of HCI systems.
6. Discuss tasks and dialogs of relevant HCI systems based on task analysis and dialog design.

6. Detailed Syllabus

UNIT	CONTENTS	Contact Hrs
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	8
Unit - II	Design process – Human interaction with computers, importance of human characteristics human consideration, Human interaction speeds, understanding business junctions	8
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	9
Unit – IV	Windows – New and Navigation schemes selection of window, selection of devices based and screen based controls.	8

	Components – text and messages, Icons and increases – Multimedia, colors, uses problems, choosing colors	
Unit – V	Software tools – Specification methods, interface – Building Tools. Interaction Devices – Keyboard and function keys – pointing devices – speech recognition digitization and generation – image and video displays – drivers	8
	Total	41

.**Text Books :**

1. "The essential guide to user interface design", Wilbert O Galitz, Wiley DreamaTech.

2. "Designing the user interface". 3rd Edition Ben Shneidermann , Pearson Education Asia.

Reference Book:

1. "Human – Computer Interaction". ALAN DIX, JANET FINCAY, GRE GORYD, ABOWD, RUSSELL BEALG, PEARSON.