

Human Computer Interaction

Course Overview

Course Objectives

- Four basic objectives of the course
 - User interface design and development
 - Phenomena and theories of HCI
 - Human aspects of HCI design
 - Application domain of HCI

Course Objective (contd.)

- **User Interface Design and Development**
 - To stress the importance of **good interfaces** and the **relationship of user interface design to HCI**
 - Basic skills and knowledge for interface design
 - HCI requires additional **skills** and **basic knowledge**
 - Skills include interface variability
 - Basic knowledge include features of interaction styles and devices and their relationship to user characteristics

Course Objective (contd.)

- **Phenomena and theories of HCI**
 - To understand human psychological architecture and processing constraints
 - To cover new design methods and techniques available
 - To understand the new conceptual mechanism used in HCI

Course Objective (contd.)

- **Human aspects in HCI design**
 - To familiarize some of the basic human and machine related factors that influences the design and development of interactive computing systems

Course Objective (contd.)

- Application domain of HCI
 - User centered design for HCI
 - Who will be ultimately benefited from the HCI advantages

Topics to be Covered

- Introduction to HCI
- Interaction Design Basic
- Usability Engineering
- Design Rules and Universal Design
- User Support Knowledge
- Cognitive and Perception Models
- Communication and Collaboration Models
- Ubiquitous Computing
- HCI Applications

Evaluation Plan

- Mid-Semester Test 30%
- End-Semester Test 50%
- Teacher's Evaluation 20%
 - Project A 05%
 - Project B 10%
 - Attendance 05% **(Minimum 75% is must)**

Course Calendar

- Mid-Semester Test 19-25 February, 2008
- End-Semester Test 23 April – 01 May, 2008
- Teacher's Evaluation
 - Term paper As per announcement
 - Project As per announcement
- All dates are tentative.... Subject to change with prior notification

Course Materials: Books

Sl.No.	Title	Author(s)	Publisher
01.	Human Computer Interaction (3 rd Ed.)	Alan Dix, Janet Finlay, Gregory Abowd, Russel Beale	Prentice Hall, NJ
02.	Human Computer Interaction	Jenny Preece, Yvonne Rogers, Helen Sharp, David Benyan, Simon Holand, Tom Carey	Addison Wesley (UK)
03.	Human Computer Interaction: Issues and Challenges	Qiyang Chen	Idea Group Publishing, NY
04.	Human Computer Interaction in the new millennium	John M. Carrol	Addison Wesley Publishing
05.	Collaboration, Communication and Commerce in the 21 st Century	Joe Clabby	Prentice Hall, NJ
06.	User Interface Design: Strategies for Effective Human Computer Interaction	Ben Shneiderman	Addison Wesley, NJ
07.	Object Modeling and User Interface Design	Mark Van Harmelen	Addison Wesley, NY
08.	Voice Communication between Human and Machine	David B. Roe, Jay G. Wilpon	National Academy Press

Course Materials: Internet Links

- www.hcibib.org
- Web site maintained by the course instructor
<http://www.facweb.iitkgp.ernet.in/~dsamanta>
- Email: dsamanta@iitkgp.ac.in
- Group email address: iitkgp_hci
 - Post message: iitkgp_hci@yahoogroups.com
 - Subscribe: iitkgp_hci-subscribe@yahoogroups.com

**Wishing you all the best
and
grand success in HCI endeavor**

