2. Chafic Kazon and Joey Lott: Programming Flex 3, O'Reilly, June 2009.
   (Listed topics from Chapters 1 to 8, 12 to 15)

Reference Books:

1. Jack Herrington and Emily Kim: Getting Started with Flex 3, O'Reilly, 1st Edition, 2008.
2. Michele E. Davis and John A. Phillips: Flex 3 - A Beginner's Guide, Tata McGraw-Hill, 2008.
3. Colin Moock: Essential Actionscript 3.0, O'Reilly Publications, 2007.
4. Nicholas C Zakas et al : Professional Ajax, 2nd Edition, Wrox / Wiley India, 2007.

USER INTERFACE DESIGN

Sub Code: 10IS833	**IA Marks : 25**
Hrs/Week: 04	**Exam Hours : 03**
Total Hrs: 52	**Exam Marks : 100**

PART - A

UNIT 1 **8 Hours**

Usability of Interactive Systems: Introduction, Usability Requirements, Usability measures, Usability
Motivations, Universal Usability, Goals for our profession
Guideline, principles, and Theories: Introduction, Guidelines, principles, Theories, Object-Action Interface Model

UNIT 2 **5 Hours**

Managing Design Processes: Introduction, Organizational Design to support Usability, The Three pillars of design, Development Methodologies, Ethnographic Observation, Participatory Design, Scenario Development, Social Impact statement for Early Design Review, Legal Issues.

UNIT 3 **7 Hours**

Evaluating Interface Designs: Introduction, Expert Reviews, Usability Testing and Laboratories, Survey Instruments, Acceptance Tests, Evaluation During Active Use, Controlled Psychologically Oriented Experiments.
Software Tools: Introduction, Specification Methods, Interface-Building Tools, Evaluation and Critiquing Tools.

UNIT 4 **8 Hours**

Direct Manipulation and Virtual Environments: Introduction, Examples of Direct Manipulation, 3D Interfaces, Teleoperation, Virtual and Augmented Reality.

Menu Selection, Form Fillin, and Dialog Boxes: Introduction, Task-Related Menu Organization, Single Menus, Combinations of Multiple Menus, Content Organization, Fast Movement Through Menus, Data Entry with Menus: Form Fillin, Dialog Boxes, and Alternatives, Audio Menus and Menus for small Displays.

PART - B

UNIT 5 **8 Hours**

Command and Natural Languages: Introduction, Functionality to Support User's Tasks, Command-Organization Strategies, The Benefits of Structure, Naming and Abbreviations, Natural Language in Computing.

Interaction Devices: Introduction, Keyboards and Keypads, Pointing Devices, Speech and Auditory interfaces, Displays-Small and Large, Printers.

UNIT 6 **6 Hours**

Quality of Service: Introduction, Models of Response-Time Impacts, Expectations and Attitudes, User Productivity, Variability in Response Time, Frustrating Experiences.

Balancing Function and Fashion: Introduction, Error Messages, Nonanthropomorphic Design, Display Design, Window Design, Color.

UNIT 7 **5 Hours**

User Manuals, Online Help, and Tutorials: Introduction, Paper versus Online Manuals, Reading from Paper Verses from Displays, Shaping the Content of the Manuals, Online Manuals and Help, Online Tutorials, Demonstrations, and Guides, Online Communities for User Assistance, the Development Process.

UNIT 8

5 Hours

Information Search and Visualization: Introduction, Search in Textual Documents and Database Querying, Multimedia Document Searches, Advanced Filtering and Search Interfaces, Information Visualization

Text Books:

1. Ben Shneiderman: Designing the User Interface, 4rd Edition, Pearson Education, 2009.
   (Chapters 1 to 9 and 11 to 14)

Reference Books:

1. Alan J Dix et. al.: Human-Computer Interaction, II Edition, Prentice-Hall India, 1998.

2. Eberts: User Interface Design, Prentice-Hall, 1994.
3. Wilber O Galitz: The Essential Guide to User Interface Design - An Introduction to GUI Design, Principles and Techniques, Wiley-Dreamtech India Pvt. Ltd, 1998.

NETWORK MANAGEMENT SYSTEMS

Sub Code: 10IS834	**IA Marks : 25**
Hrs/Week: 04	**Exam Hours : 03**
Total Hrs: 52	**Exam Marks : 100**

PART – A

UNIT 1 **7 Hours**

Introduction: Analogy of Telephone Network Management, Data and Telecommunication Network Distributed computing Environments, TCP/IP-Based Networks: The Internet and Intranets, Communications Protocols and Standards- Communication Architectures, Protocol Layers and Services; Case Histories of Networking and Management – The Importance of topology , Filtering Does Not Reduce Load on Node, Some Common Network Problems; Challenges of Information Technology Managers, Network Management: Goals, Organization, and Functions- Goal of Network Management, Network Provisioning, Network Operations and the NOC, Network Installation and Maintenance; Network and System Management, Network Management System platform, Current Status and Future of Network Management.

UNIT 2 **6 Hours**

Basic Foundations: Standards, Models, and Language: Network Management Standards, Network Management Model, Organization Model, Information Model – Management Information Trees, Managed Object Perspectives, Communication Model; ASN.1- Terminology, Symbols, and Conventions, Objects and Data Types, Object Names, An Example of ASN.1 from ISO 8824; Encoding Structure; Macros, Functional Model.

UNIT 3 **6 Hours**

SNMPv1 Network Management - 1: Managed Network: The History of SNMP Management, Internet Organizations and standards, Internet Documents, The SNMP Model, The Organization Model, System Overview.

UNIT 4 **7 Hours**

SNMPv1 Network Management – 2: The Information Model – Introduction, The Structure of Management Information, Managed Objects, Management Information Base.The SNMP Communication Model – The SNMP Architecture, Administrative Model, SNMP Specifications, SNMP