KARNATAKA STATE OPEN UNIVERSITY

Mukthagangothri, Mysore – 570 006, India

Skill Development Programme

Syllabus – Post Graduate Programmes

MULTIMEDIA

Objectives

- Multimedia play an important role in the field of education, agriculture, product launch, science and technology, corporate development and enhanced business opportunities.
- With the increasing variety and range of hardware and software used for Multimedia, the demand for the manpower in these fields has escalated.
- Students will learn about multimedia , which is a field concerned with the computer controlled integration of text, graphics, drawings, still and moving images(video),animation, audio and any other media where every type of information can be represented, stored, transmitted and processed digitally.

Level I – First Year

Introduction to Multimedia: Concept of Multimedia, Multimedia applications, Advantage of Digital Multimedia, Multimedia system Architecture. Data and File format standards- RTF, TIFF,RIFF, MIDI, JPEG, AVI, JPEG, TWAIN Architecture.

Multimedia input and output technologies: Key Technology Issues, Pen Input, Video and Image Display Systems, Print Output Technologies, Image Scanners, Digital Voice and Audio, Video Images and Animation, Full Motion Video.

Multimedia storage and retrieval technologies: Magnetic Media Technology, RAID-Level-0 To 5, Optical Media, WORM optical drives, Hierarchical Storage Management, Cache Management for storage systems.

Multimedia application design -Types of Multimedia systems - Virtual Reality Design - Components of Multimedia system - Distributed Application Design Issues – Multimedia Authoring and User Interface - Hypermedia Messaging – Distributed Multimedia Systems Multimedia Security Applications :Media Sensor Network - Voice over IP (VoIP) Security – DTH – Video Conference

Level II – Second Year

Multimedia and E-Commerce: Introduction to E-commerce: Current Web technologies for Ecommerce-Social E-commerce and Mobile E-commerce- E-commerce current and future scope-E-commerce market. Software and Hardware for E-commerce systems -E-commerce web system development life cycle - Ecommerce for Mobile systems - Cloud services and computing in Ecommerce

Electronic payment systems: Credit cards –Debit cards -online transactions. Security Threats in E-commerce: vulnerability in client side, server side and in communication medium-Technology and solutions: Encryption, SSL VPN, firewalls-server and client side protection. SET: Key Technologies in Secure Electronic Transactions

Multimedia and cloud computing: Cloud computing components- Infrastructure-services-storage applications database services – Deployment models of Cloud- Services offered by Cloud Benefits and Limitations of Cloud Computing – Issues in Cloud security Cloud security services and design principles

Virtualization fundamentals: Enabling technology for cloud computing- Types of Virtualization- Server Virtualization- Desktop Virtualization – Memory Virtualization – Application and Storage Virtualization- Tools and Products available for Virtualization, Client Server Distributed Architecture for cloud – Traditional apps vs. Cloud apps

List of experiments:

- Creating slides, designing slides, back ground, layout styles, special effects. Editing text, adding/deleting aligning, making bold, italic and fonts, colour text. Changing back ground colours and designs. Creating auto shapes, drawing clip art, word art, smart art, charts, tables, text boxes, images, shading and 3-d effect Rotating text and pictures, text wrapping, saving, quitting and printing slides
- Inserting new slides, making animation effects, Inserting hyperlinks between files, Viewing the slides, slide transition, making sound effects, inserting movie/sound from external files, Grouping and ungrouping the objects.
- Acquire a basic understanding of Multimedia systems and its applications including requirements of Multimedia communication systems
- Acquire skills on Multimedia objects and its representation
- Acquire basic skills on Multimedia editing techniques
- Acquire basic skills on Multimedia compression technologies
- Acquire basic skills on Multimedia application design techniques
- Acquaint oneself with various Multimedia Authoring and Publishing Tools

References

1. Subramanian V. S., “Principles of Multimedia Database Systems”, Elsevier Publishers, 2013.
2. Elmasri and Navathe, “Fundamentals of Database Systems, 6thEdition, Addison.
3. Wesley, 2003. Subramanian S., “Principles of Multimedia Database Systems”, Elsevier, 1998.
4. Date C. J., “An Introduction to Database Systems”, 8th Edition.5. Khoshafian S. and Bakor A. B., “Multimedia and Imaging Databases”, Elsevier, 1996.
6. Kingsley Nwosu C., “Multimedia Database Systems: Design and Implementation Strategies”, Kluwer Academic Publishers, 1996.