



(A Venture of Chandigarh ETC Services Pvt. Ltd.)

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Website : www.citcchandigarh.com

Course Syllabus: Certificate Course in Multimedia

Batch Name: Multimedia

Eligibility: 10th

Course Start: 1st of Every Month

Course Duration: 90 Hours

Courses / Modules Paper

Module

Paper 1
Multimedia

Module 1

Paper 1: Multimedia

1: Introduction to Multimedia

- 1.1 What is Multimedia
 - Components of Multimedia
- 1.2 Multimedia and Hypermedia
- 1.3 World Wide Web
- 1.4 Overview of Multimedia Software tools
 - Music Sequencing and Notation
 - Digital Audio
 - Graphics and Image Editing
 - Video Editing

2: Multimedia Authoring and Tools

- 2.1 Multimedia Authoring
 - Multimedia Authoring Metaphores
 - Multimedia Production
 - Multimedia Presentation
 - Automatic Authoring
- 2.2 Useful Editing and Authoring Tools
 - Adobe Premer
 - Macromedia Director
 - Macromedia Flash
 - Dreamweaver
- 2.3 VRML
 - Overview
 - Animation & Interaction
 - VRML Specifics

3: Graphics and Image Data Representation

- 3.1 Graphics / Image Data Types
 - 1- Bit Images
 - 8- Bit Grey Level Images
 - Image Data Types
 - 24- Bit Color Images
 - 8-Bit Color Images
- 3.2 Popular File Formats

4: Color in Image and Video

- 4.1 Color Science
- 4.2 Color Model in Images
 - RGB Color Model
 - CMY Color Model
 - CMYK System
 - Transformation from RGB to CMY
- 4.3 Color Models in Videos
 - Video Color Transforms
 - YUV Color Model
 - YIQ Color Model
 - YCbCr Color Model

5: Fundamental Concepts in Video

- 5.1 Types of Video Signals
 - Component Video
 - Composite Video
 - S-Video
- 5.2 Analog Video
 - NTSC Video
 - PAL Video
 - SECAM Video
- 5.3 Digital Video
 - Chroma Sub Sampling
 - CCIR Standards for Digital Videos
 - High Definitions TV(HD TV)

6: Basics of Digital Audio

- 6.1 Digitization of Sound
 - What is Sound
 - Digitization
 - Nyquist Theorem
 - SNRSQNR Linear and Non-Linear
- Quantization
 - Audio Filtering
- 6.2 MIDI
 - MIDI Overview
 - Hardware Aspects of MIDI
 - Structure of MIDI Messages
- 6.3 Quantization and Transmission of Audio

7: Multimedia Data Compression

- 7.1 Lossless Expression and Algorithm
- 7.2 Lossy Compression Algorithms
- 7.3 Image Compression Standards
- 7.4 Basic Media Compression Techniques
- 7.5 Basic Audio Compression Techniques
- 7.6 MPEG Audio Compression

8: 3D Modeling

- 8.1 Introduction
- 8.2 How 3D modeling is used
- 8.3 The learning curve
- 8.4 3D modeling Software