

2.6 MULTIMEDIA APPLICATIONS

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RATIONALE

This course introduces how multimedia can be used in various application areas. It provides a solid foundation to the students so that they can identify the proper applications of multimedia, evaluate the appropriate multimedia systems and develop effective multimedia applications. It gives a detailed view of various classification, audio technologies, texts, and animations.

COURSE OUTCOMES

At the end of the course student will be able to

- CO1: Develop a well-designed, interactive Web site with respect to current standards and practices
- CO2: Demonstrate in-depth knowledge in an industry-standard multimedia development tool and its associated scripting language
- CO3: Determine the appropriate use of interactive verses standalone Web applications
- CO4: Design time-based and interactive multimedia components
- CO5: Identify issues and obstacles encountered by Web authors in deploying Web-based application

DETAILED CONTENTS

UNIT I

Definitions and Classification

Multimedia Hardware- Multimedia Software–Meetings the analog signals – Search of Digital recording – CD ROMs.

UNIT II

Digital Audio Technologies

Sound Cards – Playback and Recording – MIDI – working with MIDI.

UNIT III**Multimedia texts**

Coloring – Digital Imaging Fundamentals – Digital Image Development and Editing.

UNIT IV**Animation fundamentals**

Animation Software tools – Animation Techniques – Digital video fundamentals – Digital video production techniques.

UNIT V**M/M Project Design Concepts**

Authoring – Project Planning and Costing – Multimedia team.

PRACTICAL EXERCISES**2D Animation software (Adobe Flash)**

Study of Adobe Flash Tools; Frame by Frame Animation; Motion Tweening; Simple Tweening; Using Guide Layer; Shape Tweening; Simple Tweening; Shape Hint; Masking; Single Layer Masking; Double Layer Masking; Movie Clip; Buttons; Publishing of Flash Movie

Action Scripts

1. Simple functions: Stop, Play, Go to, Get URL, Call
2. Properties - _x, _y, _x Scale, _y Scale, _alpha
3. Event handling

Image Editing Software (Adobe Photoshop)

Study of Adobe Photoshop tools

2. Image editing
3. Applying special effects.

RECOMMENDED BOOKS

1. Multimedia Magic – S.Gokul - BPB Publications, 2008.
2. Multimedia – Making it work – T. Vaughan – Osborne McGraw Hill - 2005.
3. Fundamentals of Multimedia – Drew – Pearson Education – 2006.
4. Multimedia Systems – Buford – Pearson Education – 2007.

SUGGESTED WEBSITES

1. <https://nptel.ac.in/courses/117/105/117105083/>
2. <https://nptel.ac.in/courses/106/106/106106200/>

INSTRUCTIONAL STRATEGY

This is a skill based subject and topics taught in the class should be practiced in the Lab regularly for development of required skills in the students. This subject contains five units of equal weight age.