DEPARTMENT OF MEDIA ENGINEERING

TEAMING TOGETHER
NITTTR CHANDIGARH

Media engineering is a rapidly growing and an evolving area. It is an amalgamation of media technology and media principles. The value addition due to multimedia, and more specifically the e-media has forced the eco-system to think of innovation in media tools, implementation of tools, assessment tools, media quality, transparency and more so in integrating the general masses thereby, giving birth to a department in the institute named as 'Media Engineering'.

Digitisation, virtualization and cyber physical integration has created a new dimension in media and its related areas. Accordingly, gaming, e-content development, media entertainment, innovative instructional material, LMS, CMS, media communication, media tools, application for tools and educational product development are the prime focused areas of the department. Multimedia presentation and authoring, multimedia data compression and multimedia communication and retrieval, form the three foundational pillars of the department.

Social journalism and media research, development of quality MOOCs, production of documentary films, digital design and publishing are now given more cared attention in today's scenario. The department is engineered to create manpower needed for evolving media world. The department conducts various short-term courses on media and media related themes including application tools. The department is poised to conduct long- term programmes leading to master's degree in many upcoming areas pertaining to media engineering.

VISION

Department of Media Engineering will emerge as a Centre of Excellence for education, training and research in the areas of Media Design, Development, Marketing and Management.

MISSION

- **To offer education and training programmes (both in contact and ICT mode) for improving the professional competencies of teachers and staff of Technical Institutions (Engineering Colleges and Polytechnics).**

- **Offer management training programmes for the personnel from industry and other organizations in the areas of media design, development, marketing and management.**

- **To develop instructional material (both Print and Non-Print) to enhance effectiveness of teaching-learning process and to develop MOOCs on Educational Technology and Educational Management.**

- To undertake Research and Development projects in Media Design, Development and impact (including e-learning, online learning, blended learning etc.) and Technical Education Planning & Management.

- To provide extension and consultancy services to various stakeholders in the technical and education system and other organizations.
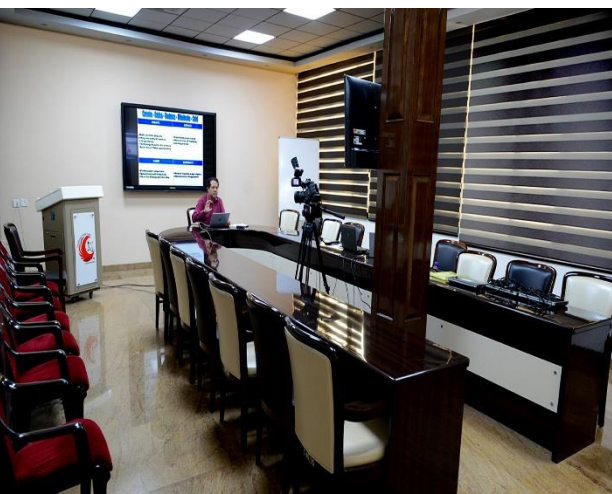
Objectives of the Department

To develop e-content for digitization of technical education

To provide knowhow on cost effective ICT support for implementation of digitization of education

To offer innovative education and skill-training programmes on multimedia technology

To prepare competent faculty and technical staff to take up networked based research for effective TEL.

OUR ACTIVITIES

Education & Training

Long Term and Short Term (ICT & Contact Modes) Programmes in upcoming areas pertaining to media engineering.

Major Areas: Video Film Production (Scriptwriting, Storyboarding, Audio, Lighting, Camera, Graphics and Editing), Graphics and Animation (Skill based), Video Editing Techniques (Skill based), MOOC & E-content Development

Instructional Material Development

Print Material
(Instructional booklets, Lab Manuals)

Non Print Material
(Video Films for SWAYAM MOOCs, NITTT, NRC and e-lectures, E-content, Infographics and PowerPoint Presentations, Digital Designs)

Research & Development

Major Areas: Media Design and Development, Marketing and Management

Curriculum Development

Design of programmes in Media Application, Graphics and Animation, Video Film Production, Media Design and Development

Extension Services & Consultancy

Areas of Consultancy Projects : Development of Studio Infrastructure, NBA Accreditation, Video Film Production, SWOT Analysis, Script Writing etc.

FACILITIES IN THE DEPARTMENT

TV Studio (Main Studio)

The spacious main TV studio 54ft x 40ft x 32ft (16m x 12m x 9m) has arrangement of:

- 132 lights operated through remote control hoisting system.
- Centrally air-conditioned and is 100% acoustically treated.
- Broadcast standard TV studio with sound locking entries
- Separate PCR, ACR, LCR equipped with 3 CCD type multicamera system with CCU, one unit of Tapeless Model 1600 HD-VTR and one unit of DVCAM recorder and 12 channel Digital Audio Mixer.
- Multi HD Camera Setup
- Hoist Control
- Lapel Microphone and Projector

MINI STUDIO

The Mini Studio has state-of-the art infrastructure:

- 3 CCD professional HD Camcorder PMW-EX3
- Audio mixer and Cool Lights
- DataVideo SE-800 Audio/Video Mixer
- Projector
- Microphones (Tube type and Lepal)
- UPS-3KVA
- Light Control Room
- Multi Camera Setup
- Vision Mixer
- Optical Disk Recorder
- Interactive Board
- Electronic Lectern and Plasma Display

PRODUCTION CONTROL ROOM

Vision Mixer

Optical Disk Recorder

3 Camera Control Units

Talk Back System

Multi Screen Display

AUDIO CONTROL ROOM

- Audio Mixer
- Amplispeaker
- Stereo System

LIGHTING CONTROL ROOM

36 Channel Light Dimmer Controller and Patch Panel

Outdoor Recording Unit – ENG Lab

- 3 CCD professional HD Camcorders PMW-EX3
- Wireless microphone –EW 100 ENG and Lavalier Microphone
- Lighting porta pack
- Colour Monitors
- ENG Cameras
- Portable outdoor lights and other related accessories.

Non Linear Editing Lab

- 2 Final Cut Pro
- 1 Velocity Quattrus
- Non Linear Editing System
- MAC Systems
- 24 TB Small Tree
- Sony XD Recorder

GRAPHICS AND ANIMATION LAB

MAC Systems

18 TB Small Tree

24 TB Small Tree

Sony XD Recorder

Personal Computer

Interactive Board

Electronic Lectern

LED Display

Live Streaming Facility

Setup for conducting ICT mode courses with single camera setup

GOLDEN JUBILEE SMART CLASSROOM

Video Library

- Air-conditioned video library with a collection of more than 1200 files in Beta, DVDs and CDs for programme exchange and video film production.
- Video Archiver
- Betacam Tapes
- Optical Disks
- CDs & DVDs
- BetaCam VCR
- DVD Player
- Personal Computer

CONVERSION & ARCHIVING LAB

Equipped with state-of-the art:
- NLE System
- UltraStudio 4K
- Betacam Player
- Monitor
- Plasma
- Personal Computer

PHOTOCOPY & PRINTING SECTION

*With a capacity to print approximately 4 lakh page in a working day
(Both color and black & white)*

Gyanvani Radio FM Channel (105.6 MHz)

Gyanvani is broadcasted from the institute in two slots, ie. 6 am to 10 am and 6 pm to 10 pm. It is an educational Radio Channel.

Broadcasting of technical education Programmes for Gyan Darshan Channel

Since 26.01.2001, department of media engineering of this institute has been selected by ministry of Human Resource Development as nodal centre for broadcasting of technical programmes produced by the four Technical Teachers' Training Institutes in India from Gyan Darshan channel, Educational technical Programmes produced by these institutes are being broadcasted from Gyan Darshan Channel in 2 slots of half an hour each daily at 7.45 am and 2.30 pm for use by the teachers and students of various technical institutes in the country.

MAJOR ACHIEVEMENTS THROUGH INSTITUTE PROJECTS AND PROGRAMMES

1

Trained 5417 participants

Through Successful coordination of the **video production** of the following **MOOCs** modules: Graphics & Animation Development, Curriculum Implementation & Evaluation, Development of Self Learning Material and Research in Technical Education

2

Trained 16022 participants

Through Successful coordination of the **video production** of the following **NITTT** modules: Creative Problem Solving, Innovation & Meaningful R & D, Communication Skills, Modes and Knowledge Dissemination, Institutional Management & Administrative Procedures

3

Trained 8233 participants

Through Successful coordination of the **video production** of **ARPIT Course** on Big Data Analytics in Smart Grid

4

To launch a new PG DIPLOMA COURSE on **Digital Marketing** *APPROVED BY UGC*

MAJOR ACHIEVEMENTS

5

19 Million

Views on the NCTEL YouTube channel of the Institute

6

400

Powerpoint presentation were designed for various programmes conducted by the Institute

7

160k

Total subscribers of the NCTEL Youtube Channel

8

327

Departmental Video Films Prepared by the department

MAJOR ACHIEVEMENTS

9

413

Video Production for MOOCs Modules

10

1858

Videos edited and uploaded on NCTEL YouTube channel of the Institute

11

315

ICT Programmes Technically Coordinated

12

Key enabler of Technical Coordination of the ICT based programmes in the seamless and smooth conduct of programmes during and post-COVID period.

THINKING MADE VISIBLE

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