



# ADHI COLLEGE OF ENGINEERING & TECHNOLOGY

Near Oragadam Industrial Estate, Chennai 631605.

## Internship Training Programme to News 7 Tamil Channel, Chennai

The final year ECE students and Ms. M. AthiaFarheen Assistant Professor, Department of ECE, have participated the internship training programme in the NEWS 7 TAMIL, Nungambakkam, Chennai- 600 0037 during 28<sup>th</sup> May 2018 to 14 June 2018. Thanking for provided the enormous support from Management people to the ECE students for internship programme.

### Industry Profile

The News 7 Tamil channel is one of the leading news channels in South India. The News 7 Tamil channel is one of the Tamil-language Infotainment TV channel providing viewers with a wide array of stories ranging from domestic and international affairs, human interest, business, sport, entertainment, culture, and lifestyle. The channel with a distinct Tamil perspective on world news is substantial reach among audiences across the country for its underlying social concern and above all staying away from any kind of sensationalism.

### Topics Discussion

Mr. Venkata Ramani, Technical head, NEWS 7 Tamil channel, Chennai has welcomed the ECE students of Adhi College of Engineering and Technology and briefly explained about industry exposure. The following broadcasting processes has been discussed.

### ○ **Reporters and Cameraman**

Reporter has gathered the news from news feeders via LIVE BAG and OB (Outdoor Broadcasting) van.

### ○ **Ingesting**

Ingest is used to record the news videos. This record is captured the news by camera man via camcorder. The camcorder consists of public IP and AVIWEST which connected by P2 recorder or OB van with decoder unit. Finally, transmitting videos are displayed on the source screen. The P2 recorder received the video signal from the storage unit. OB van helps to transmit the information directly to satellite. While, ingest helps to receive the information from satellite. Whereas, the signal deviation avoided by station video routers. The P2 recorder consists of the seven pin connectors which includes the two pins are bidirectional used to record and playback. The transmitting signals feed with Multiviewer station from different routers which help the display the video motion on the screen.

In the News7 Tamil channel station; they have demonstrated the 20 feeders and 7 record simultaneous feeders which are used to record/hold the video motion pictures on the screen. The resultant video a pasted 5" by 5" square cardboard hole on the screen of 24" display screen. It is known as Standard definition video (SD video). The SD video will convert the High definition videos (HD video) by using X-50 and X-100. The receiver unit consists of aAVIWEST via internet protocol provider. It helps the capture the video with bit rate of 3 Mbps and latency of 20 ms.

### ○ **Editing**

Editing machines are connected to central server and editor's will edit the content according to the script produced in OCTOPUS. Following software is used in editing machines

- VELOCITY
- FCP(Final Cut Pro)
- Adobe Premiere Pro

- **Graphics**

In graphics uses the editing by VIZRT (Visualization in Real-Time or Visual Artist) software, which encodes the HTML coding to design the background display on the screen.

- **Input team and Output team**

In input team gathers the news from different locality of station. While the output team is responsible to running the video on the air content.

- **Production control room**

The PCR is known as the gallery or studio control room which makes the composition of outgoing news/program on the video motion. The following facilities are included in the PCR. They are Camera control unit, Vision mixer, NRCS, MPLM, Viz content pilot, Multiviewer Output and Audio Control Unit. **Camera control unit:** It is used to control the video, Chroma, black level of camera according to image / anchors / guest.

- **Vision Mixer:**

In this lot of video sources are connected. Vision mixer editor will switch to particular video according to the show director / Octopus rundown.

- **NRCS:**

News7 Tamil uses Octopus software for making script and running the bulletins. Director will be using the rundown for the corresponding shows which will be according to output team for live / show coordination. While they publish the rundown octopus uses the MOS protocol to send the video list to video server's, script content to Teleprompter and graphics content to via content pilot.

- **MPLM:**

After rundown published, the video id's will be loaded according to Octopus. We will be having the list of video id's which are ready to playing according to PCR director command.

- **Multiviewer**

The output video is monitoring from different sources which connected to video switcher.

- **Audio control unit-** Audio room will need to maintain the audio levels according to the industrial standards. They will mix the corresponding audio according to video which is played from MPLM /PCR director's instruction.

- **Audio Post Production Room**

In which Audio will be recorded for special program and also script for that news.

- **Master control room:**

MCR is responsible for inserting the commercials/promo, logos, tickers according to schedule. They need to monitor the uplink and downlink coordinate with PCR directors for commercial breaks. MCR will monitor the downlink feed from different cable operator's like DTH, Cable MOS.

- **Facilities in the MCR:**

- ADC air client software
- ADC media client software
- Nexioremote client
- Icon master
- P2 player
- **ADS air client software-** It is called automatic device control which communicate with various devices by IP 422 and 232 which includes Station router , Icon master.
- **ADC media client-** It is used to check the video clips and register the video clips in ADC database for inserting the corresponding video id's in ADC client.

## Internship Report

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- **Nexio remote client-** It is a backup server, if any issue occurred in the ADC playlist, they can play the video ID's as per scheduled either by manually or by automatically.
- **Icon master-** This is one of the video switcher which use to switch between videos, logos, tickers according to the ADC scheduled.
- **P2 player-** It is also one of the backup playout. If any situation all the main servers are shutdown from the P2 player's we can run the prom's as a time being.

**Internship's Gallery**



**AUDIO CONTROL ROOM**



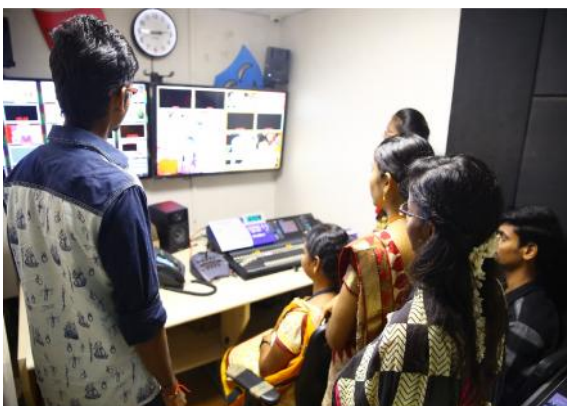
**PRODUCTION CONTROL ROOM - 1**



**INPUT UNIT**



**EDITING**



**AUDIO CONTROL ROOM**



**STUDIO**



## Internship Report

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**OUTPUT UNIT**



**PRODUCTION CONTROL ROOM - II**



**INGESTING**



**Canon Future Broadcasting Workshop  
held at "THE PARK Hotel"**

### **STUDENT'S FEEDBACK**

Students felt very excited to know about the details of functioning of news channel and they gathered practical knowledge of satellite communication system and online broadcasting.