

REPORT ON INDUSTRIAL VISIT  
TO  
ALL INDIA RADIO STATION  
VIJAYAWADA  
ON  
26-10-2022



Organized by  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

A.Y: 2022-23.

The department of Electronics and Communication Engineering organized an industrial visit to **All India Radio Vijayawada, Vijayawada** on **26-10-2022** in association with IEEE NEC Student Branch. All India Radio is the largest radio network in the world, and one of the largest broadcasting organisations in the world in terms of the number of languages broadcast.

There are forty five students of 3<sup>rd</sup> B.Tech-ECE and two faculty members of ECE department **Dr. K. Raju** and **Mrs. G. Rajavali** have participated in this Industrial visit. The main Objectives of the visit is to give the awareness to the students about territorial transmission, production and broadcasting of the radio programs as well as to understand the structure of the studio and management of radio station.

On receiving the permission letter from All India Radio(AIR), Vijayawada, all the students and two faculty members went to an industrial visit, All India Radio Vijayawada on **26/10/2022**.



We all assembled at the college at 9:50 a.m. and left the college in a college bus. We reached the All India Radio, Vijayawada at 12:15 p.m. The AIR –Vijayawada authorities gave brief introduction about functions of AIR under Vivid Bharathi, Rainbow and Satellite Channels. Local Radio Station serve small communities showcase local culture and broadcast.

The station have several sections:

- **Recording studios-** Console, recorded program, agriculture, health economics and research related to all national and international subjects covered by All India Radio Vijayawada.
- **Control room studio console-** The Studio console is the major equipment used in the STUDIO CONTROL ROOM. It is with the help of this device the different programs that are produced and those that are received from other stations routed to air. The various inputs to the console are the programs from various studios, the programs that are received using a C BAND receiver which is broadcasted and the programs that are received via an ISDN link.



The Outputs from the console is taken through two master amplifiers among which one is active at a time. This output is directed to the STUDIO TRANSMITTER LINK (STL).



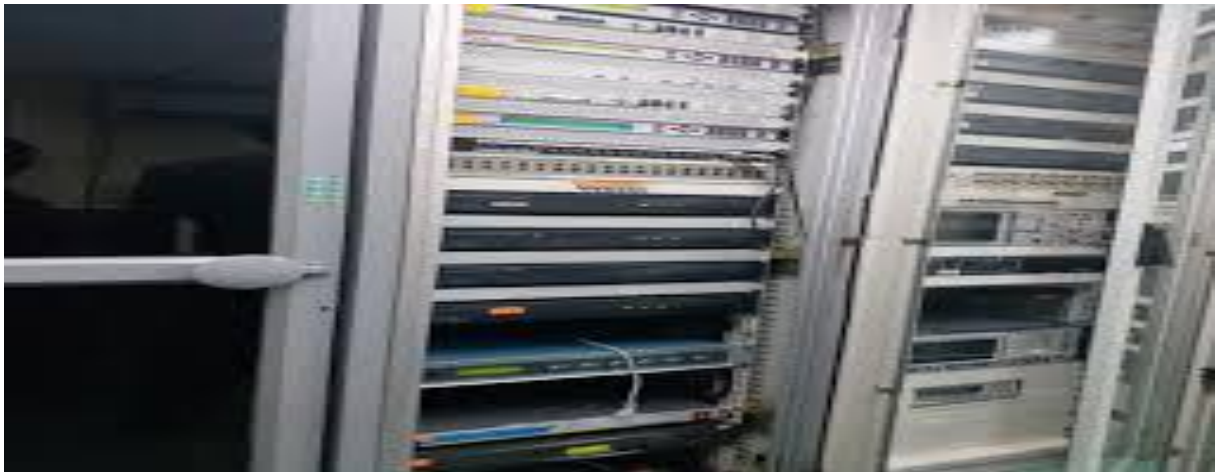
- **Production studio-** students got to know the production department of the station how to record the voice and edit it., a revenue generation and sponsorships.
- **Electronic or technical section-**All mechanical issues handled by this department, security of equipment's and instrumental maintenance etc.



We left the premises at 2:00 p.m and had a lunch. We reached the All India Radio, Numbur at 3:45p.m and authorities are received us at the entrance and gave a brief introduction to how to transmit the AM programs and gave brief introduction about the AM Radio Transmitter. Then they took us to the studio where they conduct gathering program. they gave us some technical information about the position of lights i.e. backlight, front or key light & kill Light and cameras, as they are the most important part of their programme.



Then they showed us the working of control room. Then we were taken to Audio control room where they showed us the audio console, from which they control the audio signals by altering the frequencies of sound.



**ABOUT ANTENNA:** The height of this antenna is 138 meters. It transmits signal around 500km. It transmits signal in elliptical shape. Combination of two antennas, It transmits the signal in shape of 8. In sea source areas we use two antennas due to prevent the wastage of signal. In other areas like Hederabad, Kadapa use only single antenna.

The range of the signal depends on the height of the antenna. The radio station can use 100KW DC to transmit the signal.

The technical details observed in All India Radio:

- 1) AM tower is about 200 Meters Height, Contains Transmitter and antenna Units, transmits program Signals within the radius of 120km.
- 2) FM channels are Broadcasted Under the banner of Vivid Bharathi & Rainbow.

- 3) In order to cover entire AP several Relay stations have been setup at various places.
- 4) Audio and Video frequencies are fed simultaneously at different frequencies.



#### **OUTCOME:**

- The students have learned the entire processes of communication practically i.e ON air and OFF air recording studios and the officials clarified all the doubts by the students regarding the same.
- Students witnessed the live shows of Rainbow (F.M) and Vividh Bharathi (A.M) transmissions and requirements or difficulties involved during the transmission of the voice signals to air.
- Apart from that, the students had an interaction session with one of the programme managers regarding the type of programmes that AIR puts forward.
- The students showed enthusiasm and excitement and learnt many technical and managerial aspects of the establishment of a communication system practically.

All the students highly enjoyed their entire visit. It was an amazing experience of fun & learning, which we all have memorable reminiscences. The trip was exceptionally good & knowledgeable to all of us. We look forward to make such visits in future too as technical visits give practical and better understanding of subjects to students and update their knowledge practically.