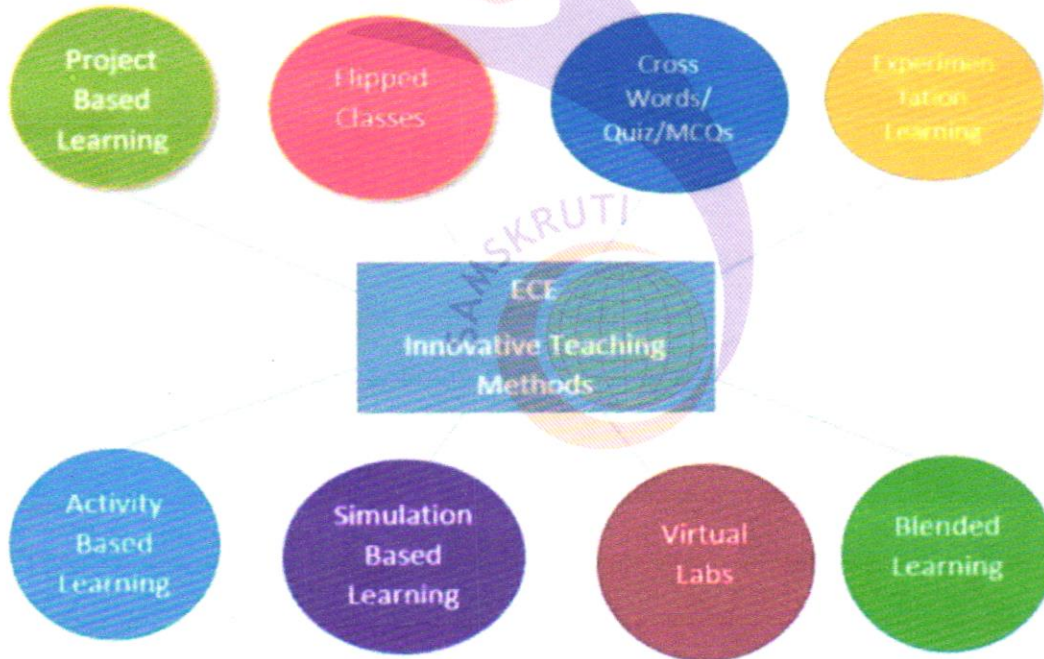


**Department of Electronics and Communication Engineering**

**Teaching Learning Process A. Y : 2023-24**

**Teaching Learning Process**

The Department of ECE uses a number of cutting-edge teaching techniques that grab students' attention in the classroom, pique their interest in the material, inspire a desire to learn more, stimulate their minds, help them comprehend the material rather than just memories it, encourage student interaction, and enhance their capacity to apply what they have learned. Also, the new assignments boost students' participation in the class.



The Innovative teaching methods followed for various courses

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# SAMSKRUTI

COLLEGE OF ENGINEERING & TECHNOLOGY

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Institution



## INDEX

Sl. No	Name of the Program	Semester	Date	Innovation Method	Platform /link
1	Industrial Visit to "Doordarshan Kendra"	III-I	18/08/23	Industrial Visit	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
2	One day workshop on "REVIT BEAM"	IV-1	10/08/23	Workshop	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
3	Guest Lecture on "Electrical Hybrid Vehicles"	IV-I	11/09/23	Guest Lecture	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
4	Seminar on "Emerging Technology in Power Engineering"	II-II	12/10/24	Seminar	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
5	Guest lecture on "Finite Element Methods"	II-I	15/11/23	Guest Lecture	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
6	Career Guidance of Higher Education in Foreign Country	III-II, IV-II	22/01/24	Seminar	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
7	Workshop on "Photosynthetic Solar Cells"	IV- I,III-I	11/12/23	Workshop	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
8	One Day seminar on "Green Concrete"	III-I, IV-I	18/03/24	Seminar	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>
9	Rubicon skill Development	II-II	18/04/24	Workshop	<a href="https://www.samskruti.ac.in/engineering/ece">https://www.samskruti.ac.in/engineering/ece</a>

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## DEPARTMENT OF ECE

### CIRCULAR

Date : 15.08.2023

All the students of B.Tech (ECE), III year I Semester are hereby informed that industrial visit at **“DOORDARSHAN KENDRA”** is going to be organized for III- I students on date **18/08/23**.

All the third year students of ECE must attend the industrial visit without fail.

**Venue:** Seminar Hall

  
HOD -ECE

Copy to:

- Principal Office
- IQAC
- Department
- Notice Board



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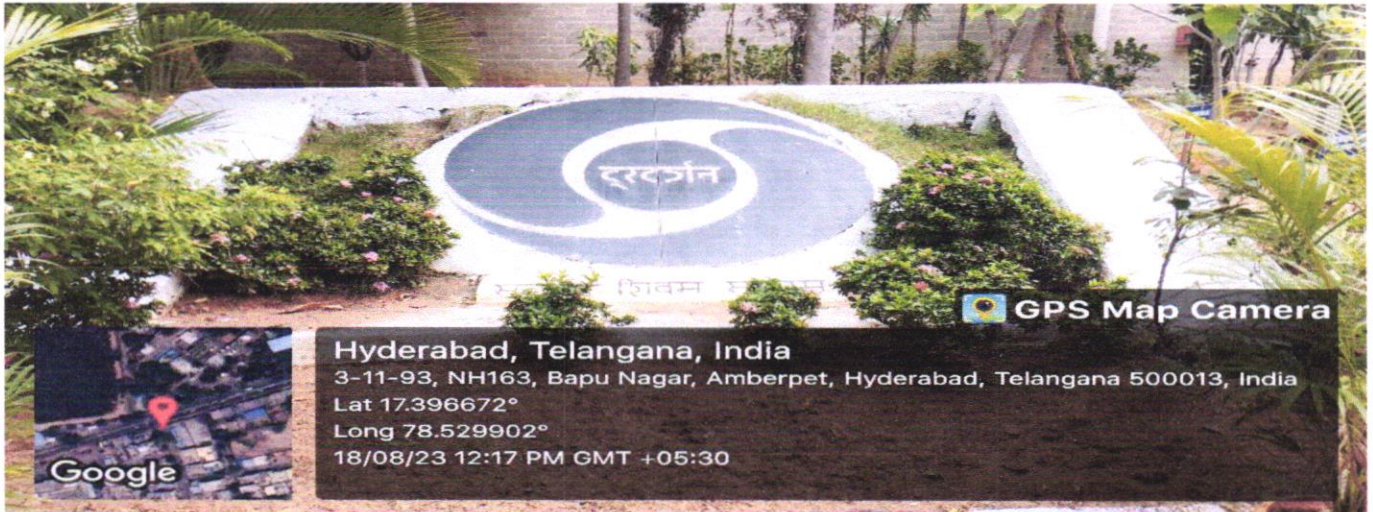
## REPORT ON “DOORDHARSHAN INDUSTRIAL VISIT”

On 18/08/2023. The department of Electronics and Communication Engineering has planned a industrial visit to “DOORDARSHAN KENDRA”, which is located at Ramanthapur, Hyderabad.

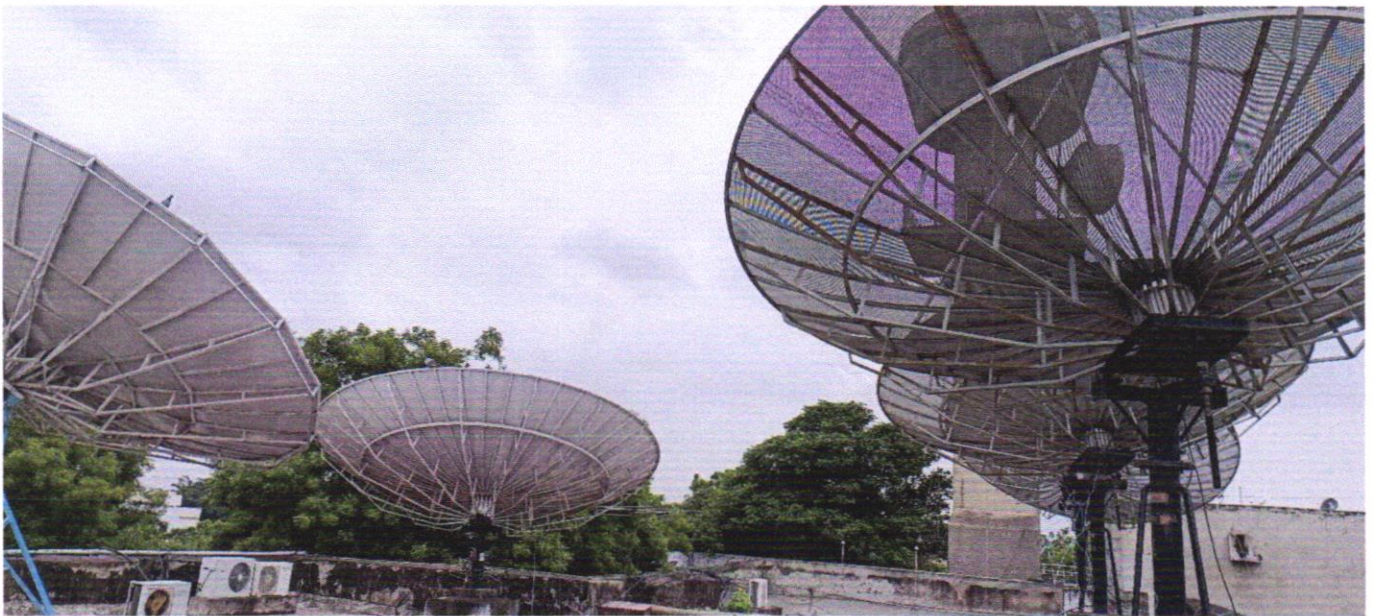
Dr.K. Vanisree (Dept. HOD) has arranged the industrial visit. This visit helps students to know about Transmitter & Receiver Modulation Techniques



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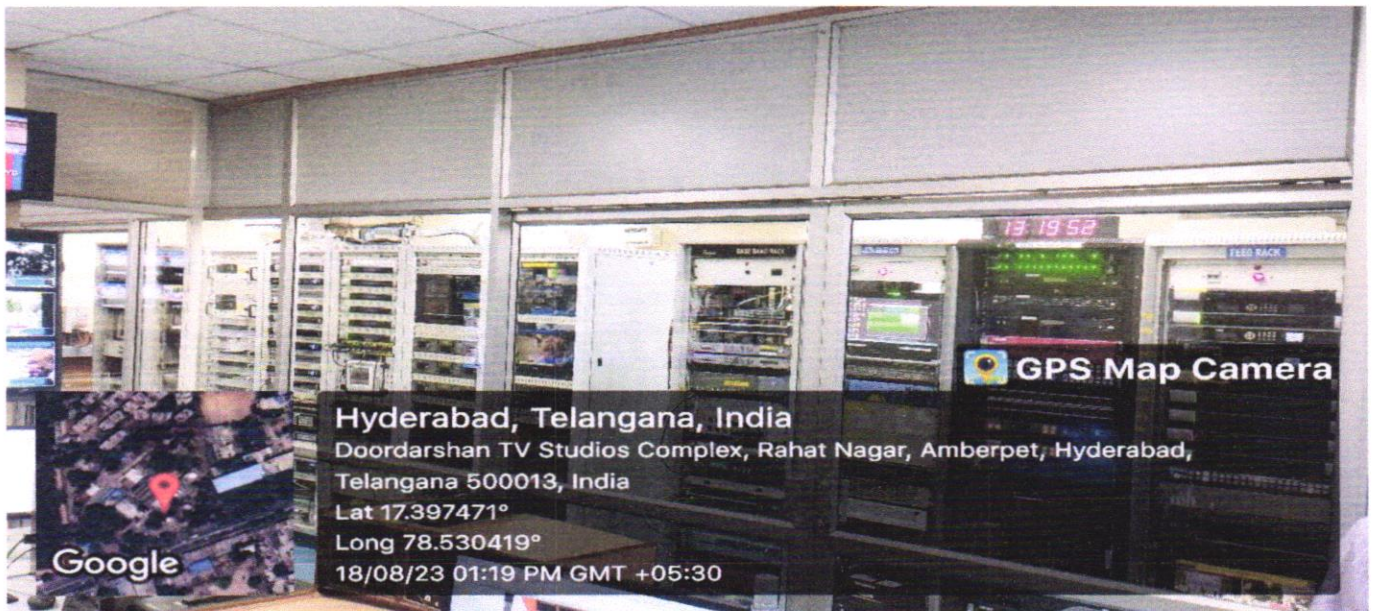


We reached Dhoordharshan Kendra at 12:00 pm and we meet M.SUDHAKAR RAO (asst director ) in dhoordharshan. He the guide of our entire visit. First we moved to receiver part M .SUDHAKAR sir explained about the receiver and the process of it.



The parabolic dish antenna PDA act as a receiver. Receiver is also called as Downlink.it has 7.5 diameter. Receivers use 'c' band frequency i.e 20-40GHZ.The receivers are more because to receive many signals at a time. To compress those signals SCBC'S & MCBC'S are used.

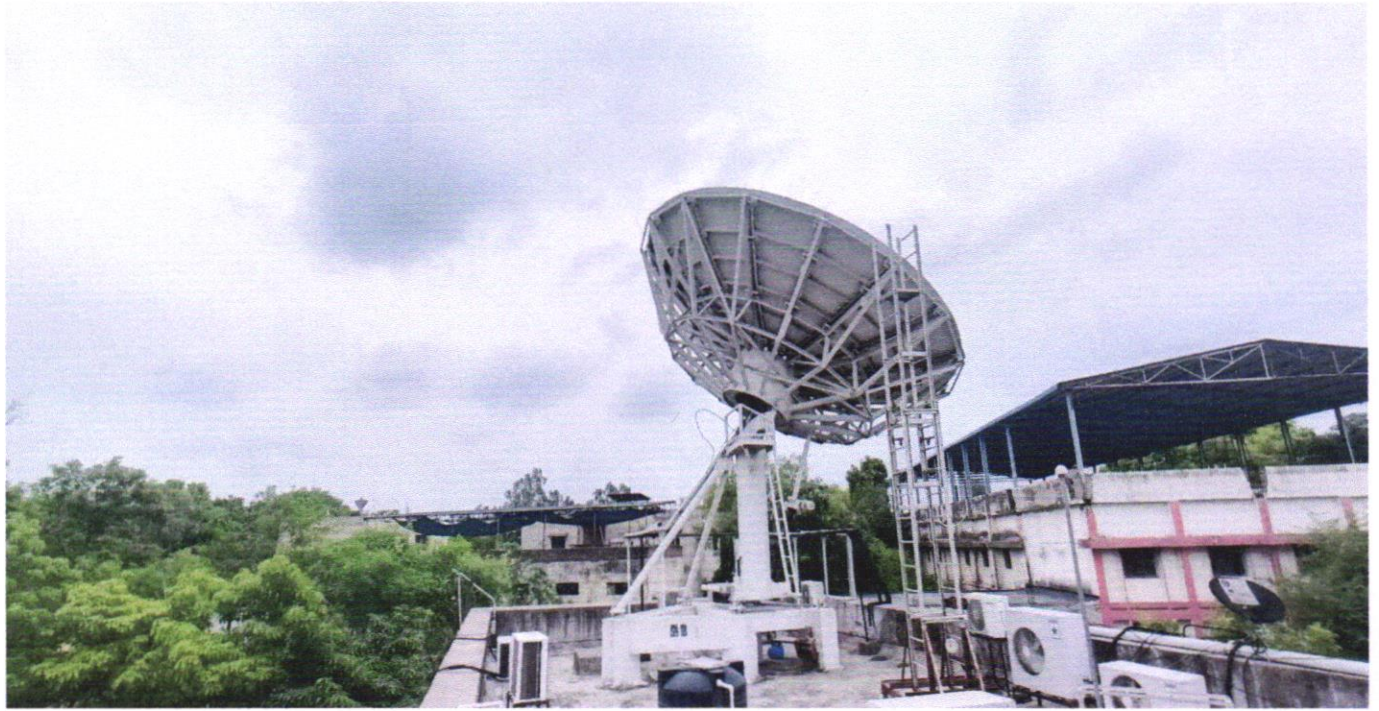
The distance from Earth to satellite is 36000kms. The satellites which are used for communication purpose are set in a fixed location i.e 74,83.5,94 in orbit. The signals are received from satellite through a FEED. It is placed at the top of the antenna. After receiving the signals those are passed in to the indoor i.e SERVER ROOM.



Server room it is also called as SATELLITE LINK STATION. In this room FEED RACK, IRD, EARTH STATIONS are present. The purpose of FEED RACK is to receive signals from receiver and IRD i.e integrator receiver decoder is used to receive live news to the station.



After receiver part we went into the dhoordharshan TV studio complex. There we observed how the shootings and live telecasts are done. The recorded are live telecasts first passed to the server room. Their the EARTH STATION which is belongs to transmitter.



Transmitter passes these telecasts in the form of signals to the satellites. Parabolic dish antenna act as a TRANSMITTER .It is also called as UPLINK. Transmitter has 6050 Hz frequency. Their is only one transmitter is present because to transmit the signals one transmitter is enough.

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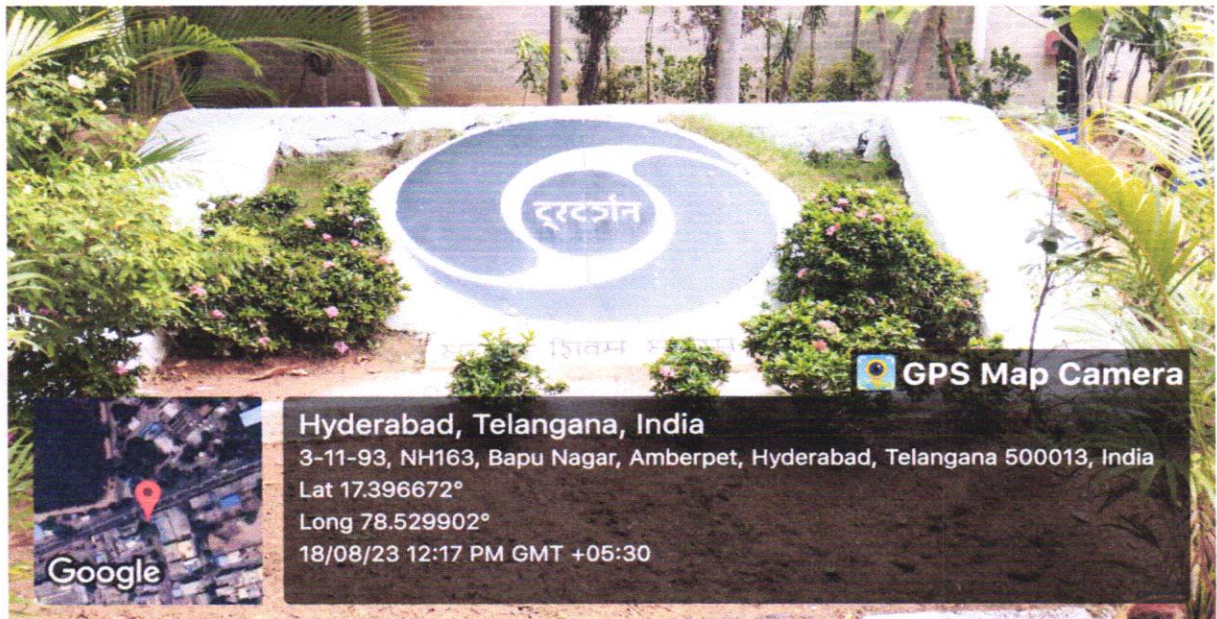
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**Report on "DOORDARSHAN INDUSTRIAL VISIT" on 18/08/2023**

On 18/08/2023, The department of Electronics and Communication Engineering has planned an industrial visit to '**DOORDARSHAN KENDRA**', which is located at Ramanthapur, Hyderabad.

**Dr.K.Vanisree (HOD of Department)** has allotted two coordinators for the visit (**Ch.RamyaSree & Ravinder**). **35** Students are registered for the visit. This visit helps the students to know about transmission of a signal in Transmitter & Receiver, Modulation Techniques.



**DOORDARSHAN KENDRA ENTRANCE**

Firstly, we met **Mr.M.V.Sudhakar Rao (Asst.Director of DoorDarshan Kendra)**. He gave brief information about this visit and later he took us to the spot where the receiver is located. He first explained about modulation techniques and frequencies that are used for satellite communication, Signal transmission through receiver from different channels.

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**RECEIVER**

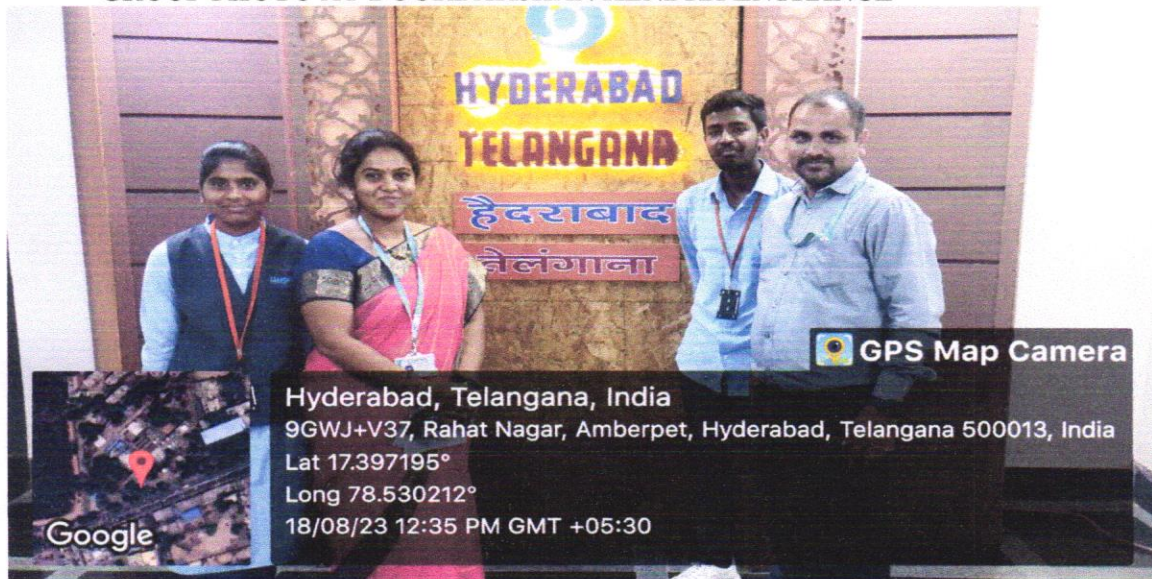
**Mr.M.V.Sudhakar Rao (Asst.Director)**

The Receiver is a Parabolic Dish antenna (Uplinking antenna) of Diameter 7.5meters which is used to receive signals directly from the satellite. The diameter varies according to the transmission of signal, this receiver can receive signal from 36000kms away satellite which is in space. The receiver consists of a Transponder of 36MHz. This Transponder is used to receive multiple signals from different channels, and it's also used to compress signals i.e MCPC (Multi Channels per carrier) & SCPC (Single channels per carrier). The Domestic antenna consists of a Dipole and Reflector. The signal is received from the satellite through a feed of antenna. The Mobile DSNG (Digital Satellite News gathering) is used for live programs, signal is transmitted from the transmitter and directly received by Receiver at the channel.

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**GROUP PHOTO AT DOORDARSHAN KENDRA ENTRANCE**



**STUDIO ENTRANCE**

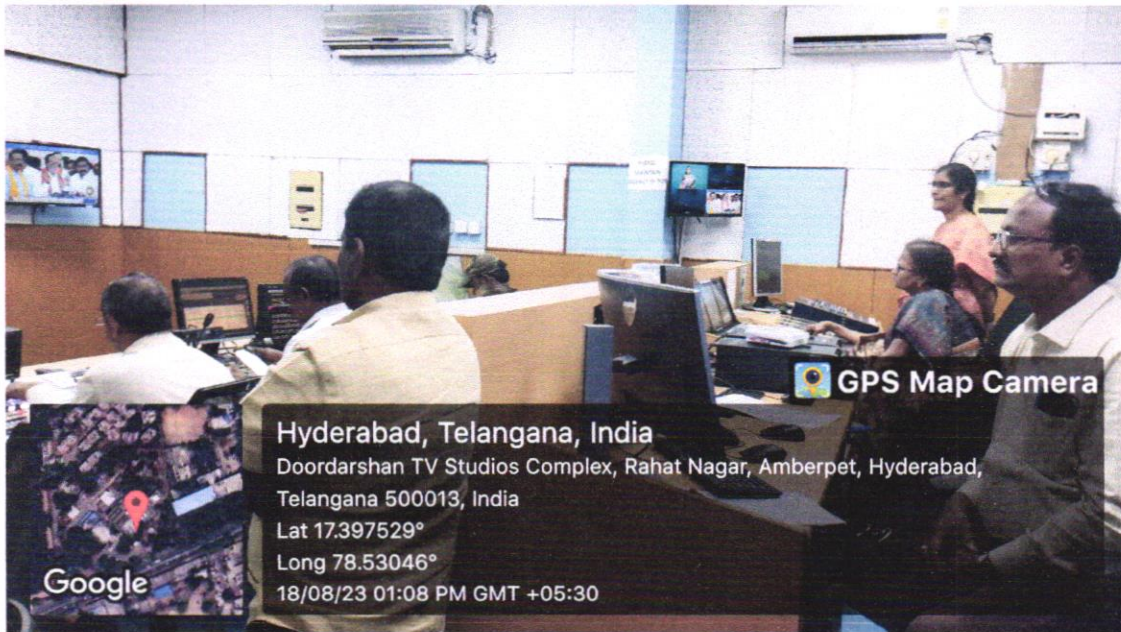
Then we entered the DoorDarshan studio. There are so many sections in the studio. Firstly, we entered to the PCR-1(Production control room-1), In this room there are three sections i.e., Vision mixing, VTR (Video tape recorder) and Cromaking. VTR is used to adjust the background of the video and then we entered the Room where all the live news is recorded.

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**MR.M.V. SUDHAKAR RAO EXPLAINING ABOUT SECTIONS IN PCR-1**

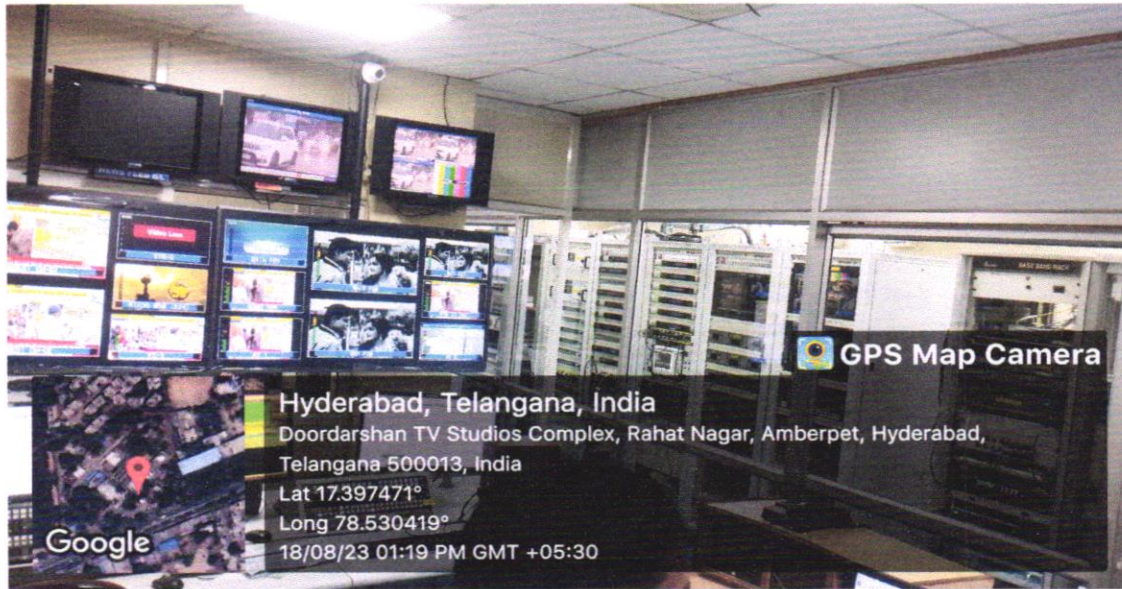
Next, we entered PCR-2(Production control room-2) where all the live recording news i.e., audio frequency and the Video backgrounds will be adjusted by the technicians. This room consists of CCU (camera control unit) which is used to show exact reflection, VCR (video casset recorder) in the range of u-band & beta-band and SCU (sound control unit). SCU is the section where audio frequencies are adjusted as required. Here there are three engineers., These engineers work on three different divisions i.e., audio,video,final editor.



**PCR-2(PRODUCTION CONTROL ROOM-2)**

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At last, we entered the SLSR (satellite link service room), where all the programs and the transmitted signal will be stored in a hard disk. Firstly, the received signal enters to feedrack and next to Leitch server room and finally to the base band rack. Here the earth station is an uplink station. IRD (Integrator receiver decoder) is mainly used for live signals. Here the uplinking frequency is more than 42GHz and Downlinking frequency is in between 20GHz-42GHz.



**SATELLITE LINK SERVICE ROOM**

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**CIRCULAR**

Date: 10/08/2023

We are pleased to inform you about the "ONE DAY WORKSHOP ON REVIT BIM", organized on 17<sup>th</sup> Aug of 2023 at Seminar hall by Mr. Md.Nayeem from Kg Me Institute. This workshop is designed to provide students with practical knowledge and insights into the latest advancements in Revit BIM.

Venue:- Samskruti College Of Engineering and Technology.

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CC to

1. Honourable Chairman /Secretary
2. Principal Office
3. All HODs
4. Notice Board

IQAC	CE	EEE	MEC	ECE	CSE	CSD	CSM	MBA	H&S	AO

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## Report on One Day Workshop On Revit Bim Final Year B.Tech Students

### Program Overview

Workshop On Revit Bim were conducted for final-year B.Tech students at Samskruti College of Engineering and Technology. The goal of the Workshop was to enhance students' technical capabilities and make use of control systems and information technologies to reduce the need for human labour in factories, offices and at home and prepare them for corporate challenges and job placements.

- **Trainer:** Mr. Md.Nayeem
- **Dates:** 10/08/2023
- **Total Students:** 52



### Course Content Covered:

- Centralized Data Management
- Collaboration Across Disciplines
- Real-time Updates
- Advanced Analysis

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- Detailed Documentation and Schedules
- Lifecycle Management



**Outcome:**

- a) Improved Efficiency: Automated documentation, real-time updates, and centralized data reduce repetitive tasks and minimize the chances of errors, leading to faster project delivery.
- b) Better Collaboration: Revit's cloud-based tools and worksharing capabilities improve communication and collaboration across teams, even if they are in different locations.
- c) Cost and Time Savings: BIM's ability to simulate the entire lifecycle of a building means that problems can be identified early in the process, reducing costly changes during construction.
- d) Higher Quality and Accuracy: With a single model containing all project information, there is less chance of mistakes or inconsistencies between different disciplines (architecture, structure, MEP).
- e) Sustainability: Revit's tools for energy modeling, material takeoffs, and sustainability assessments help architects and engineers create more environmentally-friendly and resource-efficient buildings.

**Methodology:**

The workshop was delivered through a combination of PowerPoint presentations, interactive activities, role-playing exercises, Students actively participated in Workshop, which helped in Practice and inspire high ethical values and technical standards communication and presentations

**Outcome:**

Graduates can also work in academic as a researcher or professor, or in entrepreneurship as a startup founder or tech consultant and Engross in life-long learning to keep themselves abreast of new developments.



HOD

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