



The Bombay Salesian Society's  
**DON BOSCO INSTITUTE OF TECHNOLOGY**

Premier Automobiles Road, Kurla West, Mumbai - 400070

**Department of Electronics & Telecommunication Engineering**

**Report on Industrial Visit**

**Title:** Industrial Visit to satellite earth station Yeur

**Date:** *March 22, 2024*

**Time:** *8.30am - 5pm*

**Venue:** *BSNL Satellite earth station*

**Target Audience:** **B.E Sem VI Electronics & Telecommunication Engineering**

**No. of Participants Present:** *42*

**Resource Person:**

**Organization of Recourse Person:** *Aparna M. Telgote*

**Organizing Department / Committee / Authority:** *Electronics & Telecommunication* Faculty Coordinator: *Aparna M. Telgote*

**Objectives:**

- ❖ To bridge the gap between industry and academia
- ❖ To make students aware of carrier opportunities in the field of Telecommunication domain

**Detailed Report:**



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On March 22, 2024, a cohort of 42 students pursuing Bachelors in Engineering in the domain of Electronics and Telecommunications, accompanied by 3 educators from Don Bosco Institute of Technology, Kurla, embarked on an industrial visit expedition to the BSNL Satellite Earth Station nestled amidst the serene environs of Yeur Hills, Thane. This immersive half-day session not only broadened our horizons but also deepened our understanding of satellite communication systems, antennas, and associated equipment, unveiling the intricacies of telecommunications technology.

The session commenced with a session, informing us of the operational intricacies of the antennas, the equipment, and systems set-up within the satellite earth station. Through insights interwoven with real-world examples, we traversed the concepts of signal modulation, transmission protocols, and network management systems (NMS), gaining invaluable information, such as the operational dynamics of satellite communication networks.

Venturing to the height of the facility, we were enthralled by the sight of towering antennas, meticulously aligned to establish robust communication links spanning vast distances. These antennas, boasting impressive technical specifications such as diameter, gain, and beamwidth, serve as the linchpin of satellite communication infrastructure, enabling seamless connectivity across continents.

One notable antenna we encountered was a parabolic reflector with a diameter of 9 meters and a gain of 40 dB, operating within the Ku-band frequency range (12-18 GHz). This antenna, equipped with sophisticated tracking mechanisms, enables precise alignment with geostationary satellites, facilitating high-speed data transmission over long distances.

Furthermore, our exploration delved into the realm of frequency spectrum allocation, where we gained statistical insights into the utilization of various frequency bands. The Ku-band, characterized by frequencies ranging from 12 to 18 GHz, finds widespread application in satellite communication systems, offering high data throughput and efficient spectrum utilization. In contrast, the Ka-band, operating within the frequency range of 26.5 to 40 GHz, is prized for its immense bandwidth capacity, catering to emerging applications such as satellite internet and broadband services.

A focal point of our visit was the symbiotic relationship between BSNL and prominent satellite providers like IPSTAR and Thaicom. IPSTAR, renowned for its state-of-the-art routers and network management solutions, augments the operational efficiency of satellite communication systems, ensuring seamless data transmission and network optimization. Thaicom, a leading satellite operator in the Asia-Pacific region, boasts a constellation of geostationary satellites, strategically positioned to deliver a wide array of telecommunication services, including broadcasting, broadband internet, and mobile communication.

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Enclosed : Attendance and Invoice



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Premier Automobiles Road, Kurla West, Mumbai - 400070

Office of the Divisional Engineer,  
Satellite Earth Station, Yeur  
Core Network Transmission West, Mumbai  
J.K.Gram, Yeur, Thane-400 606.  
☎ : 8275006548, fax :022-25888091.



**भारत संचार निगम लिमिटेड**  
( भारत सरकार का उपक्रम )  
**BHARAT SANCHAR NIGAM LIMITED**  
(A Govt. of India Enterprise)

No.DE SM/Yeur/T-12/ Trainee/ 2023-24/16

Dated at Yeur, the 22.03.2024

To,  
The Principal,  
Don Bosco Institute Of Technology ,  
Kurla (W)  
Mumbai -400070

This is to inform that the following students of the Don Bosco Institute Of Technology, Kurla (W) Mumbai -400070 have successfully attended Industrial Visit scheduled on 22.03.2024 at Satellite Earth Station , BSNL-Yeur on topic "Satellite Communication."

Sr. No	Name	Class
1	Divya Sharma	BE EXTC
2	Shreyas Nanaware	BE EXTC
3	Sakshi Morey (via Russel)	BE EXTC
4	Gracy Borra	BE EXTC
5	Jay Dulange	BE EXTC
6	□Nitish Chavan	BE EXTC
7	Kshitij Bare	BE EXTC
8	Deep Patel	BE EXTC
9	Pooja verma	BE EXTC
10	□Kanishka Aware	BE EXTC
11	JaipreetSaini	BE EXTC
12	□Abhishek Waghmare	BE EXTC
13	Shreeya Pimple	BE EXTC
14	Kajal Sathe	BE EXTC
15	Needhi kamble	BE EXTC
16	Darshan kadlag	BE EXTC
17	Amogh Worlikar	BE EXTC
18	Sarika Galphade	BE EXTC
19	Benish Christo	BE EXTC
20	Simran kot	BE EXTC
21	Pranjali Raval	BE EXTC

Sr. No	Name	Class
22	Leroy Rodrigues	BE EXTC
23	Siddhant Kedar	BE EXTC
24	Dhanshree pansare	BE EXTC
25	Anuj dhmal	BE EXTC
26	Vivek kamble	BE EXTC
27	Aniket Pawar	BE EXTC
28	Sanskar Kumar	BE EXTC
29	Suraj Kumar	BE EXTC
30	Russel Dmello	BE EXTC
31	Shruti Gokhale	BE EXTC
32	Satyam Shukla	BE EXTC
33	Omkar Bidwai	BE EXTC
34	Rushikesh Gosavi	BE EXTC
35	Anushk Sawant	BE EXTC
36	Yash Sonawane	BE EXTC
37	Aditya Saju	BE EXTC
38	Adwait Rao	BE EXTC
39	Lovely	BE EXTC
40	Gaurish Sankhe	BE EXTC
41	Simran Koparkar	BE EXTC
42	Rishabh Giri	BE EXTC

Faculty: (1) Ms. Madhavi Pedenekar (2) Ms. Poonam C. (3) Ms. Aparna Telgote  
Place: Yeur, Thane

Date: 22/03/2024



Sub Divisional Engineer (SM)  
Bharat Sanchar Nigam Ltd.  
Satellite Earth Station, CN-TX West,  
Yeur, Thane - 400 606.

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**BHARAT SANCHEER NIGAM LIMITED**  
(A GOVT. OF INDIA ENTERPRISE)  
TELECOM TRAINING CENTRE MUMBAI  
400028

TAX INVOICE



Invoice Number: 0110014322  
Date: 04.04.2024  
Customer PO No.: DS/SMA/VELUR/12/Training/2023-24/14  
Invoice Number: 1120242705000743

Customer Name  
W/TEAM - TRAINING  
CUSTOMER  
GSTIN:  
Customer Address  
T/CS  
Mumbai - 400001  
State code: 27, Maharashtra

SNo	Service	HSN/Parent SAC Code	Unit	No. of Parts / Group	Date	From	To	Basic Price (INR)	Total (INR)	Admin charges (INR)	IGST (INR)	CGST (INR)	Taxes		Discount (INR)	Gross Total (INR)		
													IGST (INR)	CGST (INR)				
1	1 Day I.V. DON BOSCO IT MUMBAI 27.03.24	990204	1	DAY	22.03.2024	22.03.2024		230.00	18,500.00		6.90	9.00	941.00	910	941.00	13,990.00		
<b>TOTAL</b>																	13,990.00	
<b>Amount Payable</b>																		13,990.00

Amount in Words: INR TWELVE THOUSAND THREE HUNDRED NINETY ONLY  
PAN NO. GSTIN: JTAABC18576G1ZL  
Remarks: Whether Amount of tax subject to reverse charge: NO  
Total CGST : 941.00  
Total SGST/UTGST : 645.00  
Total IGST : 0.00

Issuing Authority (Signature)  
*[Signature]*  
Don Bosco IT Engineer (SM)  
Bharat Sanchar Nigam Ltd.  
Satena Earth Station, Ch. D. West,  
Year, Thane - 400 605.

*[Handwritten Signature]*

TO,  
AD (CASH) O/o GM CNTX-W Mumbai  
Kindly receipt & acknowledge the CASH receipt of One Day  
Int. Visit of 42 students of DON BOSCO IT-Mumbai at SES Year  
on dt. 22.03.2024 The list of students is enclosed.  
Total Amt. = Rs. 295 X 42 = Rs.12390 (Including GST).  
This is for your inf. & n/a pl.