

**Report
On
Industrial Visit
At**

“Regional Telecom Training Center (RTTC), Ahmedabad”



On

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Computer Engineering Department

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Report Consists of Activity Conducted at RTTC & BSNL Exchange.

- Registration of Students
- Visit to Museum
- Visit to Network Lab
- Visit to Broadband Technology Lab
- Visit to OFC(Optical Fiber Cable) Lab
- Visit to FTTH(Fiber to the Home) lab
- Visit to Digital Telephone Exchange - C-Dot Lab
- Visit to GSM BTS Lab

Visit to the Museum in this they give details about starting from Morse key to advance telephone systems, like as Morse key devices – rotary dialing – DTMF system – strowger exchange (First Exchange) to Latest Exchange.



(Museum)

Visit to the Network Lab in this they give details about routing configuration and details about component.



(ROUTER)

Visit to Broadband lab they give following details to our students broadband services reached to customer from the three providers. Basically these are Service Provider, Network Provider and Access Provider. The role of Network Provider is to provide the services offered to customer through the access extended by Access Provider. There are various types of networks which are capable of transmitting and managing the broadband traffic to desired nodes or locations.

TECHNOLOGY OPTIONS FOR BROADBAND SERVICES:

- Narrow Band: 2.4 kbps – 128kbps
- Broadband: 256kbps – 8000kbps
- LAN: 1000kbps – 100Mbps / Giga Ethernet Various Access Technologies are used for the delivery of broadband services. Broadband communications technology can be divided broadly in to Following categories: -

- Wireline Technology
- Wireless Technologies

Visit to OFC Lab, they give following detail to our students, use and demand for optical fiber has grown tremendously and optical-fiber applications are numerous. Telecommunication applications are widespread, ranging from global networks to desktop computers. These involve the transmission of voice, data, or video over

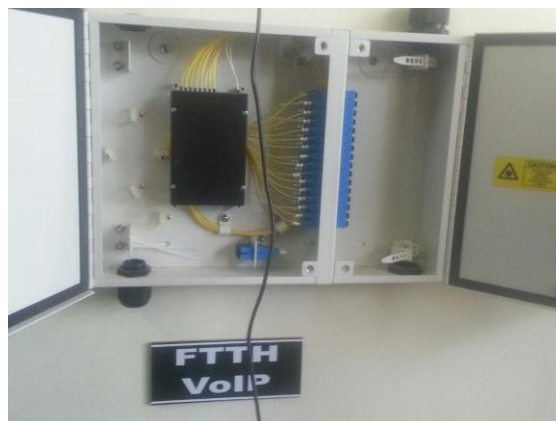
distances of less than a meter to hundreds of kilometers, using one of a few standard fiber designs in one of several cable designs.

Advantage of OFC SPEED: Fiber optic networks operate at high speeds - up into the gigabits BANDWIDTH: large carrying capacity DISTANCE: Signals can be transmitted further without needing to be "refreshed" or strengthened. RESISTANCE: Greater resistance to electromagnetic noise such as radios, motors or other nearby cables. MAINTENANCE: Fiber optic cables costs much less to maintain.



(OFC Lab)

Visit to the FTTH (Fiber to the home) Lab where they give information about fiber technology and current trend in fiber optics systems and also they have explained and shown some devices and its application using fiber technology like optical splitter, VoIP, IP TV.



(FTTH Lab)

Visit to GSM BTS Lab where they have shown how the call operating systems are established and how the above three labs are inter connected to each other and how the call routing happens from End user to End user.

Visit to Digital Telephone Exchange - C-Dot Lab It is the telecom technology development center of the Government of India. C-DOT develops telecom technologies, solutions and applications for the fixed-line, mobile and packet-based converged networks and services.

Outcome of This Activity:

Student learned much practical application of Networking, Wired Communication system, FTTH and Mobile communication, how the connections are established, how they work, how to detect the error in connections and how to overcome from those errors and many more. Also they learned different advantages and disadvantage of all above mentioned technology.



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