

A Report on Industrial Visit to
"BSNL-Rajiv Gandhi Memorial Telecom Training Centre, Meenambakkam, Chennai"

Organized by Department of Computer Science and Technology
on 19.09.2026



Report Submitted by: Mr. N Saikiran, Assistant Professor, Department of CST

Participants: (51 students- III Year, Section C)

Report Received on 21.09.2026

Mode of Conduct: Offline

Objectives of the Visit

- To understand the functioning and operations of modern telecommunication networks and their role in providing reliable communication services.
- To gain practical exposure to telecom infrastructure, including transmission, switching, networking, and communication systems.
- To understand the working principles of optical fiber communication and its applications in high-speed data transmission.
- To observe the practical implementation of computer networks and data communication technologies used in the telecommunications industry.
- To familiarize students with emerging technologies in telecommunications, including 4G/5G, broadband, IP-based networks, and network management systems.
- To bridge the gap between theoretical knowledge and industrial practices by observing real-world telecom systems and equipment.

Activities at NARL

During the visit, students engaged in:

- Orientation and briefing on BSNL's operations and the role of RGM TTC in telecom training and technology.
- Visit to telecom laboratories to observe communication equipment and network infrastructure.
- Demonstration of optical fiber communication, including fiber-based transmission and networking technologies.
- Exposure to switching and transmission systems used in telecommunication networks.



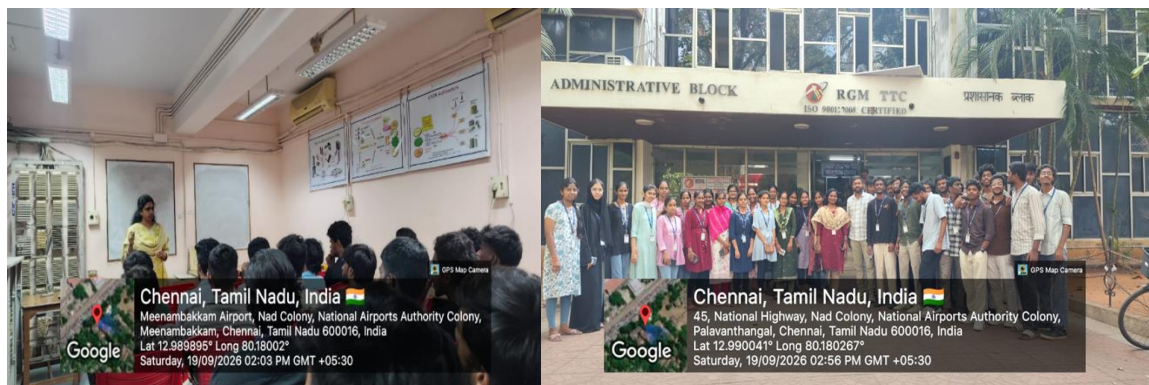
- Demonstration of broadband and IP-based networking technologies and their practical applications.



- Introduction to mobile communication technologies, including 4G and 5G network concepts.



- Observation of network monitoring and management systems used for maintaining telecom services.



- Interaction with BSNL technical professionals/trainers to understand practical applications, industry practices, and troubleshooting methods.

Technical Topics Discussed

The following major technical areas were covered during the industrial visit:

- Telecommunication Networks, Infrastructure and Network Components
- Optical Fibre Communication and FibreNet Technologies

- Passive Optical Network (PON) Architecture
- Broadband Technologies and Access Networks
- Telecom Switching and Transmission Systems
- Network Operations, Maintenance and Fault Management
- Practical Applications of Networking and Communication Systems

Observations & Learning Outcomes

- Students gained practical exposure to modern telecommunication systems and network infrastructure used by BSNL.
- Students observed the working of optical fiber communication and high-speed data transmission technologies.
- Students developed an understanding of switching, transmission, broadband, and IP-based networking systems.
- Students learned how mobile communication technologies, including 4G and 5G, support modern communication services.
- Students understood the importance of network monitoring, maintenance, and troubleshooting in ensuring reliable telecom services.
- Students were able to relate theoretical concepts from Computer Networks and Data Communication to their practical implementation in industry.



Conclusion

The industrial visit to BSNL RGM TTC, Chennai provided students with valuable practical exposure to telecommunication systems, networking infrastructure, optical fiber communication, and modern communication technologies. The visit helped students relate their theoretical knowledge of Computer Networks and Data Communication to real-world industrial applications. Interaction with BSNL professionals also enhanced their understanding of network operations, maintenance, emerging technologies, and industry requirements. Overall, the visit was informative and contributed to the technical knowledge, practical awareness, and professional development of the students.



The Department of Computer Science and Technology sincerely appreciates the support, guidance, and technical assistance extended by RGM TTC/BSNL, Meenambakkam, Chennai, and the technical personnel who interacted with the students and facilitated their learning during the industrial visit.