

Vishnu Waman Thakur Charitable Trust's VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra And Affiliated to University of Mumbai

NAAC "B++" Grade

Department of Electronics & Telecommunication Engineering

Topic Name: Industrial Visit

Name of the Guest Speaker: Dr. Mishra, Centre Director

Designation: Scientific Officer

Organization/Institution: Centre for Excellence in Telecom Technology and

Management (CETTM), MTNL

Date: August 14, 2024

Time: 10am to 3pm

Programme Summary / Details:

1. Introduction

On August 14, 2024, the Electronics and Telecommunication Department of VIVA Institute of Technology organized an industrial visit to the **Centre of Excellence in Telecom Technology and Management (CETTM), MTNL, Mumbai**. The visit was aimed at providing students with practical insights into advanced telecommunications technologies and management practices, as well as to offer exposure to state-of-the-art facilities and industry-leading practices.

Participants:

Faculty Members: Prof. Sonali Gaikwad (Assistant Professor) and Prof. Pratik Parsewar (Assistant Professor) **Students:** S.E and T.E students of Electronics and Telecommunication Department.

2. Objectives of the Visit

Technological Exposure: To explore the latest advancements in telecommunications technology as showcased at CETTM.

Management Insights: To understand the management practices and strategic approaches employed in the telecom industry.

Hands-On Learning: To engage in practical exercises with telecom equipment and technologies.

Professional Interaction: To interact with industry professionals and gain insights into current trends and career opportunities in telecommunications.

3. Itinerary

10:00 AM – **Arrival Introduction and Overview:** we arrived at CETTM, MTNL Mumbai, and was received by Dr. Mishra, Centre Director. Students were briefed about the day's schedule and objectives.

Dr. Mishra delivered an informative presentation covering:

CETTM's Role: An overview of CETTM's mission and its role in advancing telecom technology and management. The session was interactive and we gained a lot of insights about various complexities behind 2G,3G,4G and 5G networks

Technological Innovations: Insights into key technological innovations and research areas.



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11:00 AM - Facility Tour: The tour covered several key areas of CETTM:

Telecom Lab: Demonstrations of advanced telecom equipment, including network simulators, optical fibre systems, and wireless communication technologies.

Training Facilities: An overview of the training modules and methodologies used for developing telecom professionals, including simulation exercises and hands-on training.

Research Areas: Insight into ongoing research projects and innovations in telecom technology, such as 5G networks and IoT solutions.

12:30 PM - Interactive Session and Workshop: An interactive session and workshop was held with CETTM experts, featuring:

Technical Presentations: Detailed presentations on recent advancements in telecom technology, including 5G and its implications for future telecom infrastructure.

Optical Fibre Cabel: An interactive session was taken by Dr. Nair on basics of Optical Fibre Cabel and its future application. We got practical view of the Optical Fibre Cabel and its importance in the speed of network.

Antenna Configuration: An interactive session was taken by Dr. Mishra on the basics of network towers and their inner complexities. We also got the mechanism behind SIM and its configuration with the network provider.

Troubleshooting Techniques: Techniques and tools for diagnosing and resolving telecom network issues.

04:00 PM - Departure: The group departed from CETTM, concluding a day of valuable learning and engagement.

4. Observations and Learning Outcomes

Technological Insights:

Advanced Equipment: The visit provided a comprehensive view of cutting-edge telecom equipment, including network simulators, optical fibre technologies, and wireless communication systems.

Innovations in Telecom: We gained insights into the latest advancements, such as 5G networks, and understood their impact on future telecommunications infrastructure.

Hands-On Learning:

Practical Skills: The workshop provided us with hands-on experience in network configuration, optical fibre cable, various databases of the network provider.

Application of Theory: Students applied theoretical knowledge in practical scenarios, enhancing their understanding of network management and design.

Professional Interaction:

Career Opportunities: Interaction with CETTM professionals offered insights into career paths within the telecom industry and the skills required for various roles.

Future Trends: Discussions on emerging technologies and industry trends provided students with a forward-looking perspective on their field of study.

5. Feedback



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Students:

The visit was highly appreciated for its practical focus, the interactive nature of the workshop, and the exposure to advanced technologies. We found the experience both educational and inspiring.

Faculty:

Faculty members commended the organization and execution of the visit. The visit effectively complemented the academic curriculum and provided students with a broader understanding of the telecommunications sector.

6. Conclusion

The industrial visit to CETTM, MTNL Mumbai was a highly successful educational event, offering us valuable insights into advanced telecommunications technologies. The practical workshops, facility tour, and interactions with industry experts enriched our learning experiences and provided a deeper understanding of our field of study. The department looks forward to organizing similar visits in the future to continue enhancing our educational experiences.

Report Prepared by:

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