

From

Head
Department of Computer Science
&
Department of Mathematics
School of Arts and Science
Vinayaka Mission's Research Foundation
AV Campus, Paiyanoor-603104

To
The Director
School of Arts and Science,
Vinayaka Mission's Research Foundation
AV Campus, Paiyanoor-603104

Respected madam,

Sub: PERMISSION LETTER FOR INDUSTRIAL VISIT

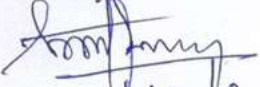
On behalf of School of Arts and Science, AV Campus, Vinayaka Mission's Research Foundation, OMR, Paiyanoor, Chengalpattu District- 603104, we wish to request for the permission to conduct an industrial visit at Rajiv Gandhi Memorial Telecom Training Center on 06.11.2023.

We wish to undertake a Rajiv Gandhi Memorial Telecom Training Center to acquire practical knowledge in Mathematics and Computer Science. Our academic curriculum focuses on engaging students in practical experiences to observe the implementation of what they are taught in BSNL.

A group of III B.Sc. Computer Science and III BCA, I&II M.Sc. Computer science, Department of Mathematics students in I, II and III year and faculty members intend to participate in this industrial visit. Kindly make arrangements for a visit in the relevant departments in our Institute.

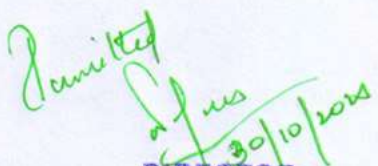
Thanking you

Yours faithfully

V. 
30/10/23

Date:30.10.2023
Place: Paiyanoor




DIRECTOR
School of Arts and Science
Vinayaka Mission's Research Foundation
(Deemed to be University)
AV Campus, OMR, Paiyanoor - 603 104.

**DEPARTMENT OF MATHEMATICS
SCHOOL OF ARTS AND SCIENCE
AV Campus, Paiyanoor – 603 104**

INDUSTRIAL VISIT REPORT

Name of the Company Visited	:	BSNL
Address	:	Rajiv Gandhi Memorial Telecom Training Center
Date	:	06.11.2023
Programme & Year	:	B.Sc Mathematics, B.Sc Computer Science, BCA & M.Sc Computer Science
Total No. of Students	:	79
No. of Faculties	:	05



An industrial visit to BSNL was scheduled for III year B.Sc Computer Science & III BCA, I & II years of M.Sc., Computer Science, I, II & III Year B.Sc., Mathematics on 06/11/2023. A total of 79 students visited the firm. Sub-divisional engineer Mr. S. Balakrishnan divided the students into four groups and explained the different modules namely switching, transmission, and MDF (Main distribution function). In the switching module, students learned on practical aspects of call-making and receiving. They were taught how to create the calling

number and how to check the dial tone. In the transmission module, students were briefed about OFC communication and its uses, advantages, and applications. The students were shown the real cables and their working procedures. In the MDF module, students learned about the requirement of the main distribution function. They were briefed about the line side and exchange side of MDF. The students were shown the functioning parts of the distribution unit. The industrial visit ended by 1:30 PM.



A telephone exchange consists of 4 functional blocks:



- 1) SWITCH ROOMS
- 2) MDF (Main Distribution Frames)
- 3) TRANSMISSION ROOMS
- 4) TELECOM SUPPORT INFRASTRUCTURE.

SWITCH ROOMS:

- a) It consists of digital electronic switches that guide the user to the destination by identifying a physical communication path.
- b) This identification is done with the help of logical or directory numbers.
- c) We were shown, how the switches work in real-time, with an operating terminal.

MDF (MAIN DISTRIBUTION FRAME):

- a) All subscriber lines are terminated at the end of MDF.
- b) It consists of a front (line) end and a back (switch) end which are interconnected with the help of a jumper.
- c) A safety point is created in MDF to avoid damages caused due to faults at the customer's end. The jumper of an MDF consists of gas discharge tubes which eliminates the faults.

TRANSMISSION ROOMS:

- a) The main function of transmission rooms is the interconnection of 2 exchanges set up within or outside the town. It involves optical fiber communication.
- b) Voice signals are first identified. 30 voice channels are combined with the help of first-order European multiplexers technology which can handle a speed of 2.048Mbps.



- c) Pulse Code Modulation of voice signals is carried out with digitization. Voice signals of frequency 0-4 KHz are converted to 64Kbps. The industrial visit was very helpful in providing us with a better understanding of the theoretical concepts of the subject Digital Switching Systems.

