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XAVIER INSTITUTE OF ENGINEERING

A SISTER INSTITUTION OF ST. XAVIER'S COLLEGE

INDUSTRIAL VISIT TO OFC MUX STATION, PRABHADEVI, MUMBAI

DATE: 29/09/2018

Event Coordinator(s)

Prof. Shailaja Udtewar

Student Coordinator(s)

Ms. Ritika Kaushal

Time & Place:

10:00 a.m. to 2.30 p.m

OFC Mux Station, Prabhadevi, Mumbai

Department:

Electronics and Telecommunication

No. of participant:

1 Faculty

25 Students

OBJECTIVE:

To amalgamate theoretical knowledge with the practical one, knowledge through books alone is not sufficient. Thus, the Department of Electronics and Telecommunication, Xavier Institute of Engineering strive to acquaint its students with the latest technology and developments in the world.

An Industrial Visit to OFC Mux Station, Prabhadevi, Mumbai was planned for Final year EXTC students to make them aware of different multiplexing technologies that are enabling the evolution of network speeds on fiber optic cabling. Such technologies include time division, space division and wavelength division multiplexing. Today's global businesses demand faster, more secure and larger capacity communication systems for their network operations. Fiber optic technology is expected to play a major part in this growth. Every engineering student has a right to fair knowledge in this fast-growing technology.

SCOPE:

As students of the final year Electronics and Telecommunication have Optical Communication and Networks as one of their subjects, so the visit to OFC Mux Station would definitely help them to provide a practical scenario of Optical Fiber Networks and their boundless performance capabilities.

RESOURCE PERSONS:

1. Mr. Kailas Kathare, Divisional Engineer, OFC, WTR , BSNL
2. Mr. Arjun Gupta, Junior Telecom Officer

An industrial visit to the MTNL mux station was organized by Prof. Shailaja Udtewar for the students of BE-EXTC of Xavier Institute of Engineering on 29th September, 2018.

Students were instructed to assemble at the MTNL building's reception area at 10:00 am sharp and then taken to the 11th floor and the visit started with an introductory speech by Mr. Kailas Kathare, Division Engineer, WTR, BSNL.

The visit was divided into two halves, one that covered the theory and the second half included all the practical details.

First Session was conducted by Mr. Arjun Gupta. He has discussed Recent Trends in Speed and Efficiency of Fiber Optic Technology which itself continues to develop alongside the increased demand for greater speed and efficiency. Then he introduced new devices called optical couplers and optical switches which support a new communication trend called AON, or all-optical networks. This technology allows data to be transmitted without any electrical processing, which in turn can result in farther transmission distances. He has also discussed another recent improvement in fiber cables is known as WDM, or wavelength division multiplexing. This is a process that increases bandwidth capacity even further by allowing different carriers to transmit optical signals. His style of teaching was unique and he made students understand complex topics with real life examples in an easy manner.

Second Session has started after lunch break which lasted for 30 minutes and then students were taken to practical section of the OFC Mux Station. Students were divided in 4 groups with 8 to 9 students each. Each group was led by the MTNL faculty and given exposure to following features of OFC Mux Station.

FEATURES OF OFC MUX

1. High capacity OTN/CPAN/DWDM Systems forming for long haul & local bulk Traffic transport, such as 10G HUAWEI MAKE, UTL MAKE, ZTE.
2. Very High precision PRC clock with GPS for uniform network synchronization.
3. DXC-9500 with mesh backbone connectivity with DXC cloud for Reliable & efficient Service.
4. SDH STM-1/STM-16/STM-64 Rings for local /distant station connectivity.

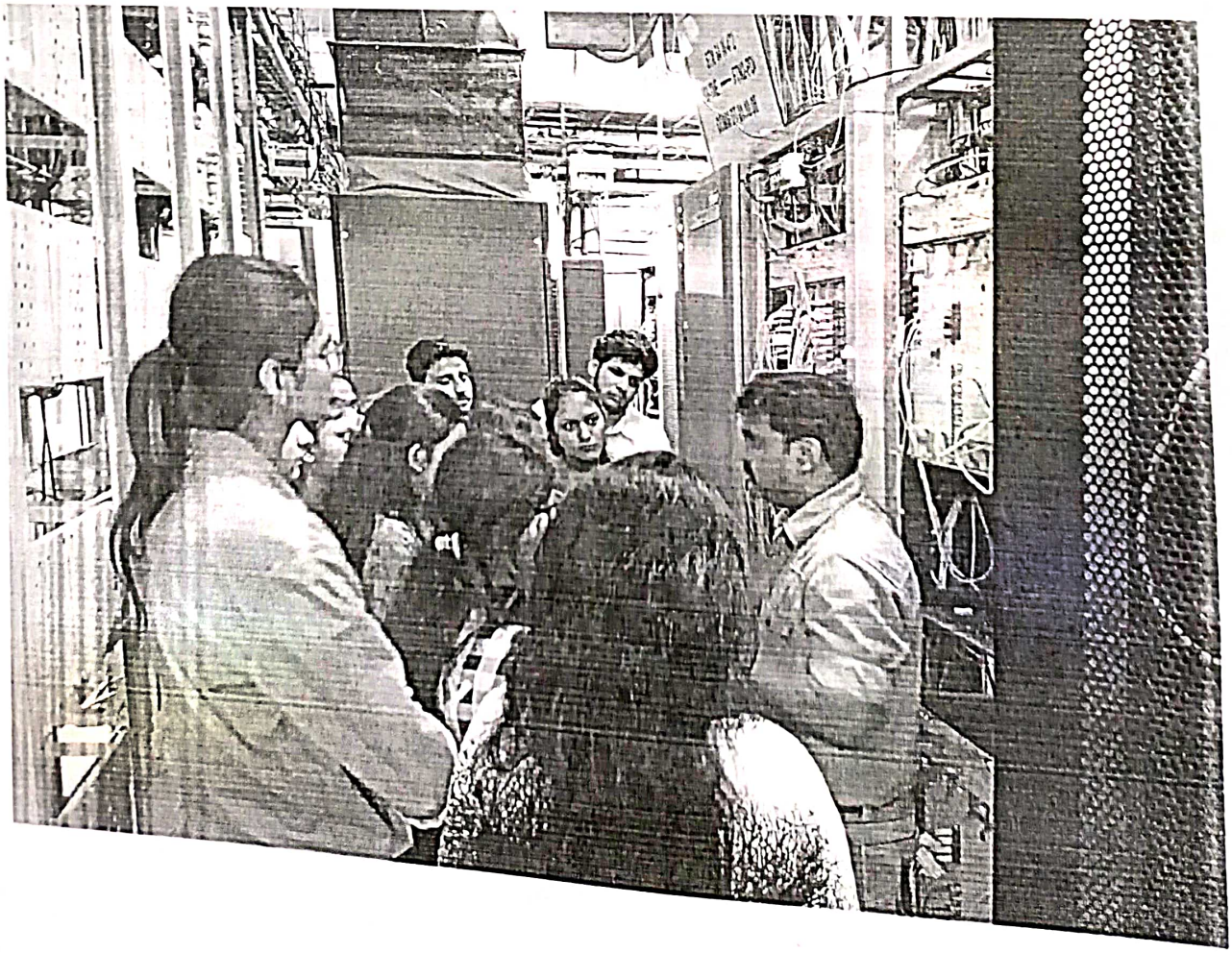
5. MLLN DXC NODE-8100 (256 *256) TELLLABS Make With two independent ROT's for providing N*64kbps service.
6. 10G HUAWEI EMS,2.5G ZTE EMS & STM16 TEJAS server for A. O & M of 10G DWDM , 2.5G &STM16 Systems in MBI WTR region.
7. All traffic 2 dropped and built up at this station is totally mapped on software basis using HUAWEI DXC 7500 & DXC 3500, thereby providing so many advantages over physical built-up.

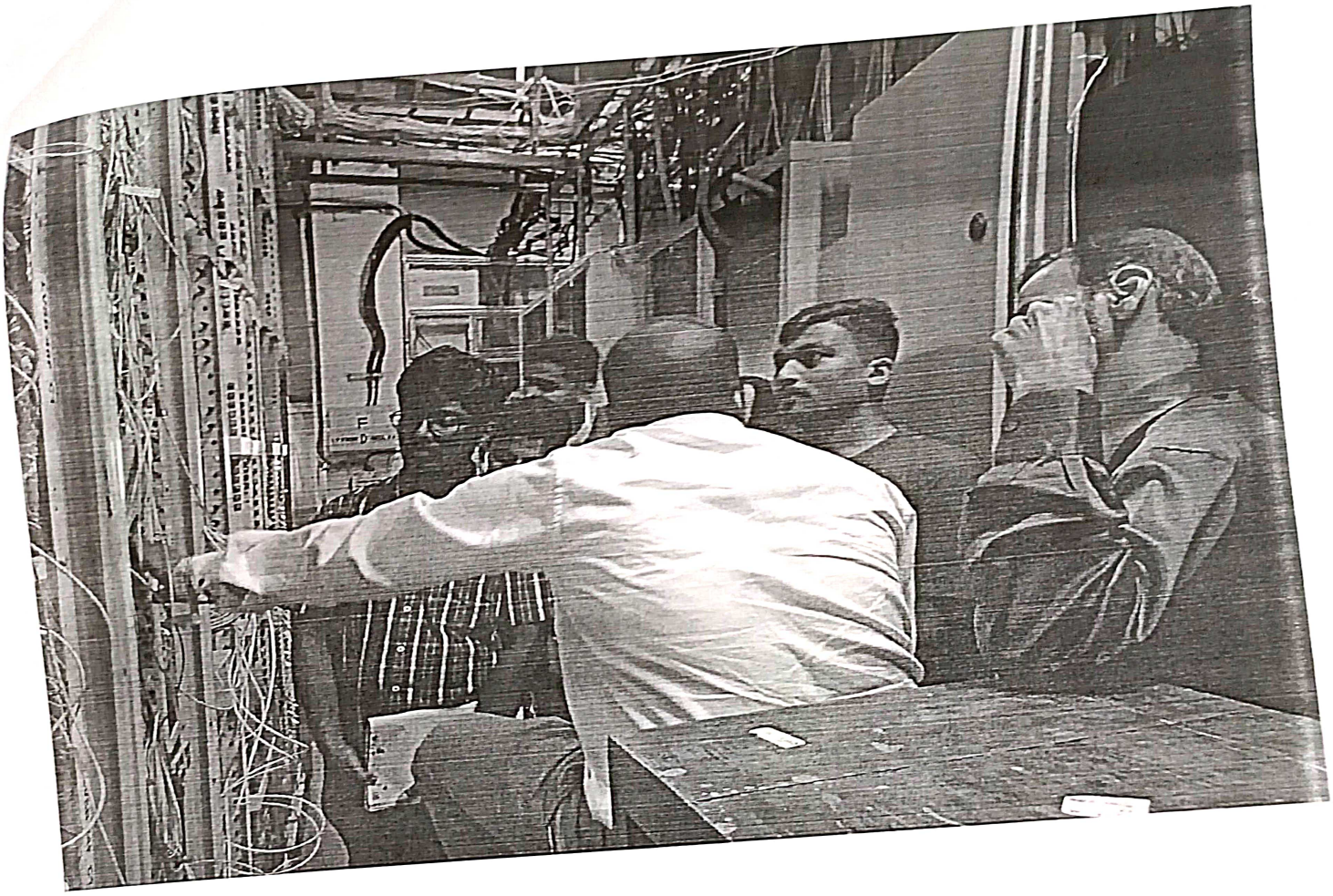
The practical session lasted for about 2 hours. MTNL faculty, were courteous enough to answer every bit of doubt asked by the students.

Finally, Industrial visit ended with a final talk by Mr. Kailas Kathare, Divisional Engineer and a few Photographs. This industrial visit helped students widen their knowledge horizons and explore their career choices. It was extremely helpful and in accordance to the feedback received by the students, it helped them understand the subject better and develop an interest in the same.

This Industrial Visit **bridged the gap** between the theory studied and how systems actually works.

PHOTOS:





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