


DATE: 02/09/2021

Event Coordinator(s)

 Prof. Shailaja Udtewar

Time & Place:


02nd September 2021

10:30 to 11:30 am

Google Meet

Department:

Electronics and
Telecommunication

 **No. of participant:**

40 Students

BE EXTC

OBJECTIVE:

Electronics and Telecommunication department had organized an expert lecture on "Passive Optical Networks" for Final year students under the subject optical communication System by Prof. Shailaja Udtewar. This lecture was arranged so that students will have a glimpse of different architectures and approaches for next generation optical networks. The benefits and challenges of each approach and real time life use cases will be explored.

SCOPE:

This lecture was arranged for final year EXTC students to make the students aware that a Passive Optical Network (PON) is a fiber-optic network utilizing a point-to-multipoint topology and optical splitters to deliver data from a single transmission point to multiple user endpoints. Passive, in this context, refers to the unpowered condition of the fiber and splitting/combining components.

In contrast to an active optical network, electrical power is only required at the send and receive points, making a PON inherently efficient from an operation cost standpoint. Passive optical networks are used to simultaneously transmit signals in both the upstream and downstream directions to and from the user endpoints.

OUTCOMES:

Understand role of passive optical networks for delivering broadband network access to end-customers.

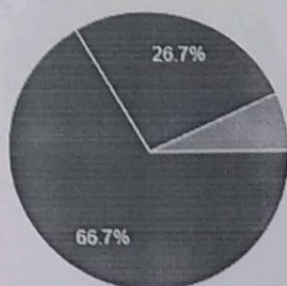
RESOURCE PERSONS:

Prof. Poonam Chakraborty
Assistant Professor,
Don Bosco Institute of Technology,
Mumbai.

FEEDBACK:

How was the overall organization of the session?

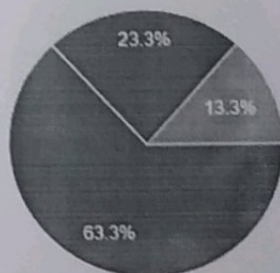
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

How relevant was the content discussed by the speaker?

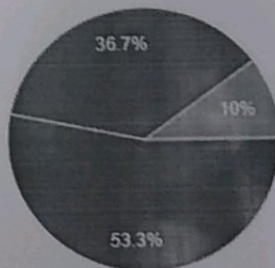
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

Are you satisfied with the time and venue/platform?

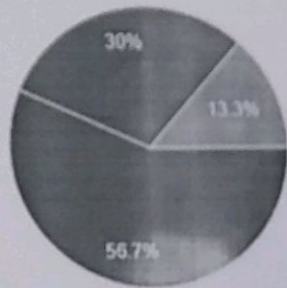
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

How much interesting this session was for you?

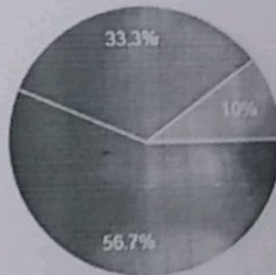
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

Did the lecture cover what you were expecting?

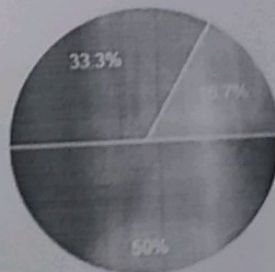
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

How was your preparation about the topic before guest lecture?

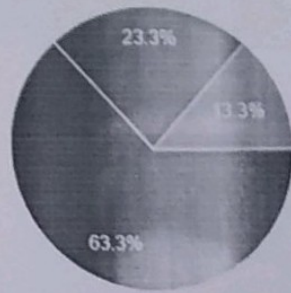
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

How much this session was useful from knowledge and information point of view?

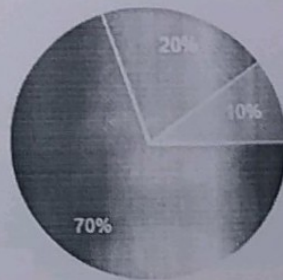
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

Overall effectiveness of the session

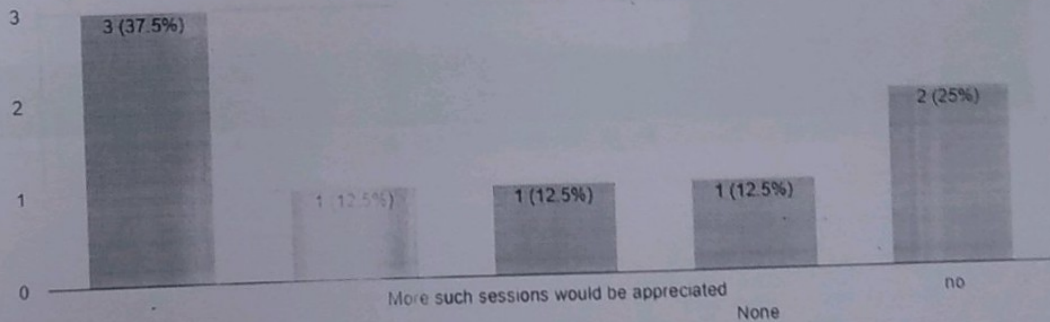
30 responses



- Excellent
- Very Good
- Good
- Fair
- Poor

Additional comments and suggestions for future

8 responses



SCREENSHOTS:

This screenshot shows a Google Meet window with a presentation slide. The slide title is "Passive Optical Network" and the presenter is Mrs. Poonam Chakraborty, Assoc. Prof. E.N.T.C Dept., Don Bosco Institute of Technology, Mumbai. The slide content is mostly obscured by a watermark. The meeting interface shows a grid of participants on the right, including Muhammad Umer Baig, Poonam Chakraborty, Chirmay Kharsaparker, Mauli Pawar, Shaikh Lugman Ahmad, Abhijith Aravindakshan, and 23 others. The time is 10:40 AM on 02 Sep 21.

This screenshot shows a Google Meet window with a presentation slide titled "Optical Network Architecture". The slide displays a hierarchical diagram of network layers: DWDM at the top, followed by SCDF (Splitting and Combining Fiber) and PON (Passive Optical Network). The SCDF layer includes "Splitting" and "Combining" components. The PON layer includes "Access Network", "Access Network", "Access Network", and "Access Network". The diagram is connected to "Metro Network" and "Core Network". The meeting interface shows a grid of participants on the right, including Poonam Chakraborty, Pranav Borkar, Sundar Kulkarni, Shaikh Lugman Ahmad, Chirmay Kharsaparker, and Navil Rego. The time is 10:54 AM on 02 Sep 21.

Meet - Expert Lecture "Passive Optical Networks" AT 2021...

Poonam Chakraborty is presenting

Types of WDM

10:55 AM | Expert Lecture "Passive Optical Networks" AT 2021...

Type here to search

29°C ^ 44% ENG 10:55 AM 02 Sep 21

Participants: Poonam Chakraborty, Pranav Borkar, Sunder Kulkarni, Shaikh Lagman Ahmad, Chintay Khanapurkar, Naval Raje, P V, 22 others, You.

Meet - Expert Lecture "Passive Optical Networks" AT 2021...

Poonam Chakraborty is presenting

PON Architecture

Passive Optical Network

11:21 AM | Expert Lecture "Passive Optical Networks" AT 2021...

Type here to search

39°C A3 107 ^ 44% ENG 11:21 AM 02 Sep 21

Participants: Poonam Chakraborty, Sampada Matkar, Ekta Gupta, Sarakruti Pawase, Sunder Kulkarni, Ajit Kumar Chetty, K N, 22 others, You.

Meet - Expert Lecture "Passive Optical Networks" AT Z...

https://meet.google.com/hqj-uuyv-min

Poonam Chakraborty is presenting

Evolution of PON...

- GPON Encapsulation Method (GEM) allows very efficient packaging of user traffic, with frame segmentation to allow for higher Quality of Service (QoS) for sensitive traffic such as voice and video content.
- The IEEE 802.3 Ethernet PON (EPON) and GPON standards were completed in 2004
- EPON uses standard 802.3 Ethernet frames, with system encapsulation per second upstream and downstream rates.
- PON is applicable for data-centric networks, as well as for service voice, data and video networks.
- In early 2006, work began on a very high-speed 10 Gbit/s EPON (XEPON or 10-GEPON) standard.
- In 2014, there were over 40 million installed EPON ports, making it the most widely deployed PON technology globally.
- 10G EPON is fully compatible with other Ethernet standards and requires no conversion or encapsulation to connect to Ethernet-based networks on either the upstream or downstream end.

11:25 AM | Expert Lecture "Passive Optical Networks" AT Z...

Type here to search

30°C AQI 107

11:25 AM 02 Sep 21

Meet - Expert Lecture "Passive Optical Networks" AT Z...

https://meet.google.com/hqj-uuyv-min

Poonam Chakraborty is presenting

FTTH, FTN, FTL, FTTC, FTTCab

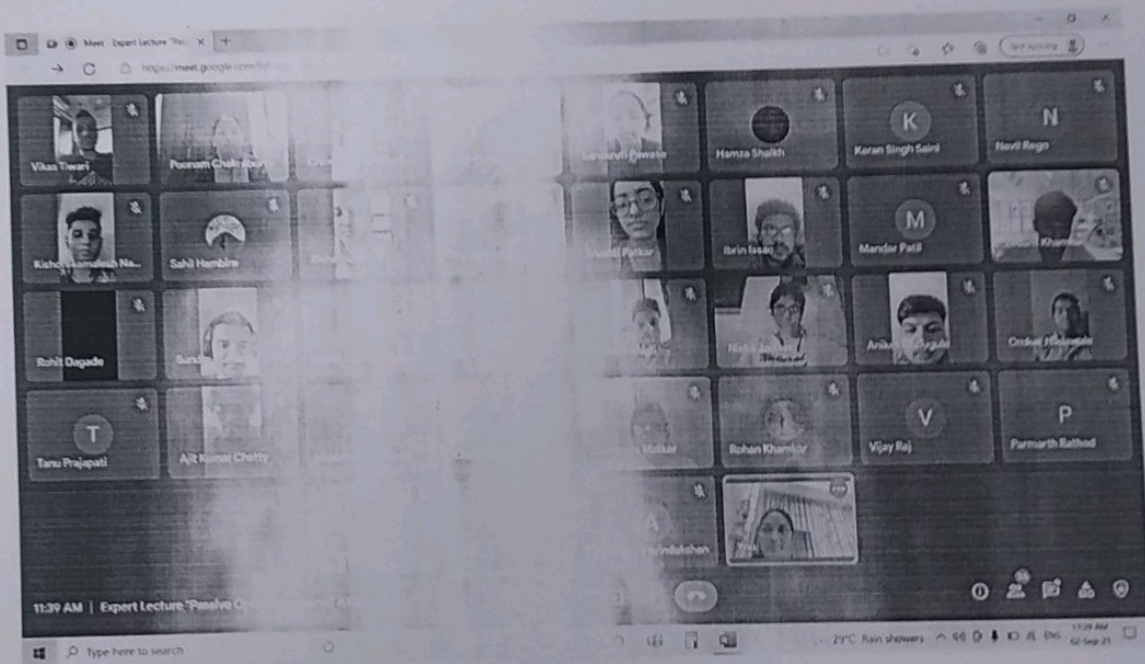
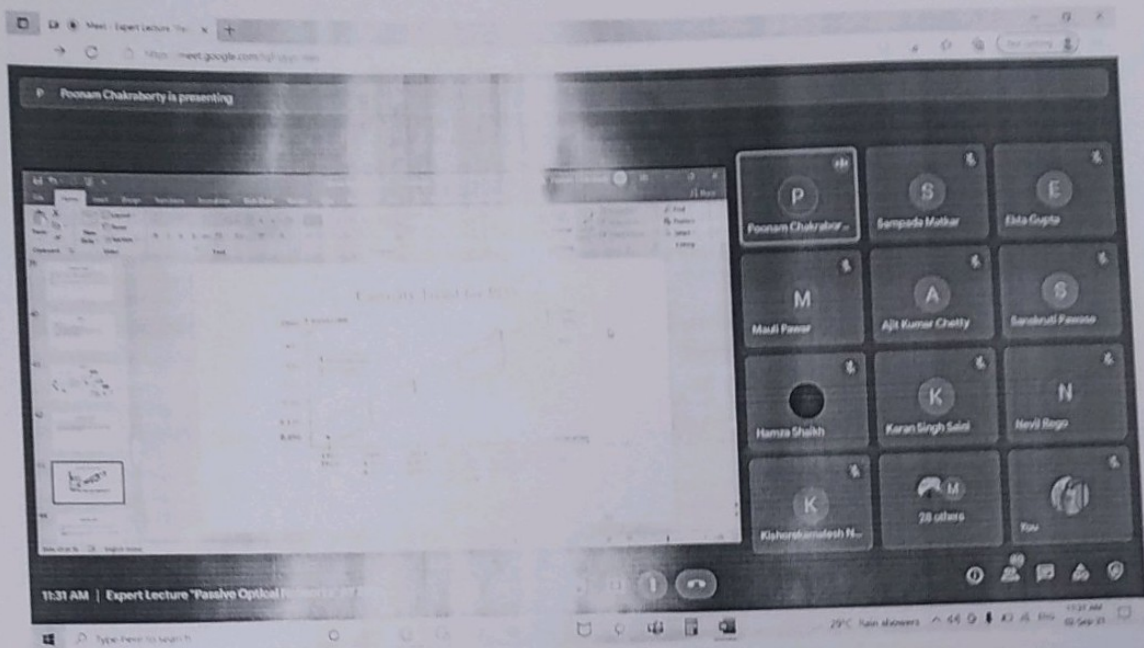
- FTTH - Fiber To The Home
- FTTB - Fiber To The Building
- FTTC - Fiber To The Cabinet
- FTTCab - Fiber To The Cabinet
- FTTN - Fiber To The Node

11:26 AM | Expert Lecture "Passive Optical Networks" AT Z...

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30°C AQI 107

11:26 AM 02 Sep 21



Prof. Shailaja Udtewar

Subject In-charge

Dr. Vidya Sarode

HoD, EXTC