## UNIT – V (Lecture 2)

#### MULTIPLEXING AND MULTIPLE ACCESS

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## Multiplexing

- ☐ Frequency-Division Multiplexing
- **☐** Wavelength-Division Multiplexing
- Synchronous Time-Division Multiplexing
- Statistical Time-Division Multiplexing

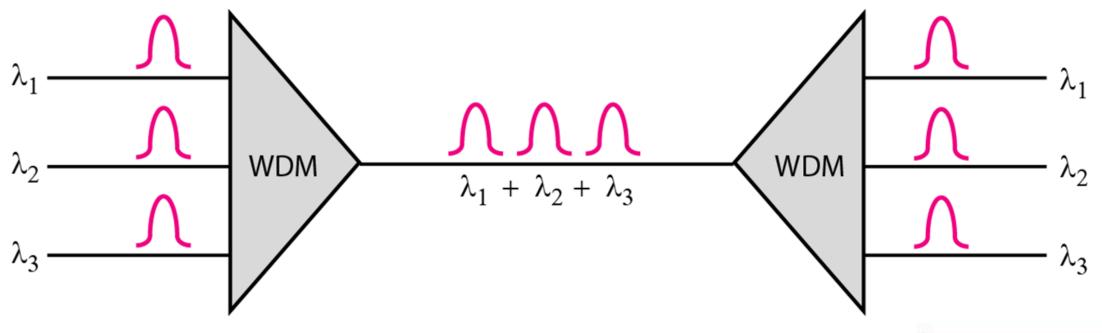


#### Wavelength-division multiplexing (WDM)

WDM is an analog multiplexing technique to combine optical signals.

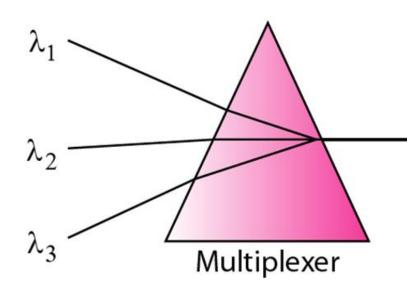


#### Wavelength-division multiplexing (WDM)

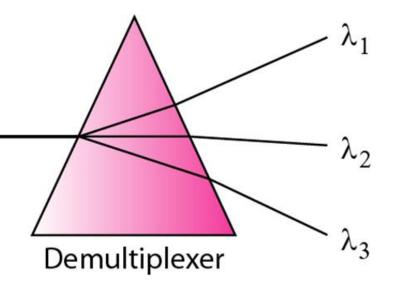




# Prisms in wavelength-division multiplexing and demultiplexing



$$\lambda_1 + \lambda_2 + \lambda_3$$
  
Fiber-optic cable





## Lecture Summary - Multiplexing

- ☐ Frequency-Division Multiplexing
- **☐** Wavelength-Division Multiplexing
- Synchronous Time-Division Multiplexing
- Statistical Time-Division Multiplexing



## Next Lecture – Multiplexing(Contd..)

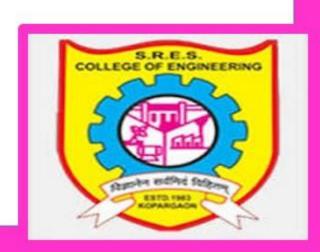
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- Statistical Time-Division Multiplexing



#### Assignment 5

#### Question 2:

Which of the three multiplexing techniques is common for fiber optic links? Explain the reason.



#### **Ask Questions & Share Responses**

You can ask your questions and share your responses at:

- Email: barbindanandit@Sanjivani.org.in and/or
- WhatsApp Group: SE IT 2022 batch, SE IT COA/FCCN 2019-2020

#### Lecture Presentation and Literature

To refer presentation of this lecture and literature visit:

https://github.com/aabarbind/IT2020

