Introduction to Optical Fiber Communication in Lightwave Systems

From the last 10-15 years Optical Fibers are replacing the conventional ways of data transmission i.e. wires, where an optical fiber is a transparent, hair like cylindrical structure which carries data in form of light signals. As the number of users is growing day by day so as the transmission data, in order to accumulate this high amount of data the traditional wires was not an good option because with the enlargement of users, their needs also expand. One of the need of users is speed, although the wires were transmitting data but the speed was low with other losses in the transmission. Optical fiber transmits data in the form of light, so naturally the speed of data is 3*10^8 m/s (speed of light). In modern world almost everything will rely on optical cabels like that of telephone, television, internet lines etc. This paper focuses on the implementation of the optical network in metro span area that with what parameters, components, losses and efficiency an network working on light signal will handle the large amount of an metropolitan area.

References


Index Terms

Computer Science Communications

Keywords

Network Evolution, Services, WDM, Impairments.