

The systems that use lightwave to carry and transmit information through optical fibers are called fiber-optic communication systems

While fiber optics are now widely adopted for high-performance communication, it is important to understand how they differ from legacy technologies such as copper cabling and wireless systems.

In this module, Principles of Fiber Optic Communication, you will be introduced to the building blocks that make up a fiber optic communication system.

You'll learn about topics like fiber's losses, dispersion, and nonlinearities, as well as coherent lightwave systems. The latter subject has undergone major changes due to the extensive development of ...

The communication system of fiber optics is well understood by studying the parts and sections of it. The major elements of an optical fiber communication system are shown in the following figure.

Beginning with an overview of the historical development of the subject, the book introduces the electromagnetic spectrum and the basics of optical power. It subsequently discusses optic receivers, ...

By the end of this chapter, students will gain a comprehensive understanding of how optical communication systems and their impact on the future of global communication. These systems are ...

Since the publication of the first edition of this book in 1992, the state of the art of fiber-optic communication systems has advanced dramatically despite the relatively short period of only 10 ...

Use of suitable lithographic techniques, to fabricate periodic optical fibre structures such as Long-period Fibre Gratings (LPFG) or Long period Waveguide Gratings (LPWG).

This course investigates the basic aspects of fiber-optic communication systems. Topics include sources and receivers, optical fibers and their propagation characteristics, and optical fiber systems.

This chapter provides brief introduction to active and passive optoelectronic devices used in fiber optic systems.

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