

Multiplexing in Modern Communication

Chetan Borse¹, Rugved Bhalekar², Pranav Mahajan³, Rushikesh Vishwas⁴, Yogesh Chandratre⁵

^{1,2,3,4}Students, Department of Electronics and Telecommunication Engineering, Guru Gobind Singh Polytechnic, Nashik

⁵Sr. Lecturer, Department of Electronics and Telecommunication Engineering, Guru Gobind Singh Polytechnic, Nashik

Abstract: Multiplexing is a fundamental concept in modern communication systems, enabling multiple signals to be transmitted over a single channel. This paper presentation explores the principles and applications of multiplexing in various domains, including telecommunications, digital networking, and multimedia systems. The presentation covers different types of multiplexing techniques, such as frequency-division multiplexing (FDM), time-division multiplexing (TDM), and code-division multiplexing (CDM). The benefits and drawbacks of each technique are discussed, along with their implementation challenges and solutions. Additionally, the presentation highlights the emerging trends in multiplexing, such as the use of software-defined networking (SDN) and the integration of multiplexing with other technologies, such as IoT and 5G. The aim of this paper presentation is to provide a comprehensive overview of the multiplexing concept, its applications, and its future prospects in the field of communication systems.

Keywords: Digital Networking, Multimedia System, SDN, IoT and 5G.

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