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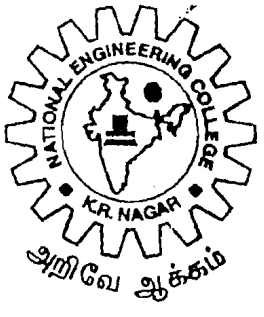

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MEMS for Optical Switching Networks

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Abstract:-*Microelectro-mechanicalsystems (MEMS) has emerged as a killer applicatio telecommunication networks. Silicon-based optical MEMS offer numerous advantages over o parallel technologies in terms of cost, scalability and compactness. It also, allows manufacturing of highly accurate miniaturized parts, and use materials with excellent mecha and electrical properties. Applications of MEMS include tunable lasers, optical switches, tunable filters. In this paper we, discuss the technology, performance, and reliability of Dimension (2D) MEMS optical switch. Further, this paper shows that this technology mee scalability, performance, and reliability requirements for important applications in fiber networks.*

Keywords: - MEMS, photonic applications, tunable laser, optical switches, tunable filters.

I. Introduction

The bandwidth concern of an optical telecommunication network can be solv allowing the traffic grooming, routing and switching at the wavelength levels. Thus, swit plays a very important role in optical networks. The main features of optical switching is enables routing of optical data signals without the need for conversion to electrical s (OEO), and therefore is independent of data rate and data types. Network -protection, resto bandwidth provisioning, wavelength routing and network performance monitoring ar applications of optical switching. Optical signal rou..g as a whole depends on optical connects, which are the basic elements for routing optical signals in an optical network or s Though, cross connect of different configuration are possible the strictly nonblocking, widely in use, which means that any input can be switched to any output, and if a new conn is made, existing connections are not affected. Whereas in case of blocking switches connections cannot be established for certain choices of input and output ports.

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