

INTERCHIP INTERCONNECTIONS

EKTA AGRAWAL & KUMAR MANU

Department of E & C Engineering, MIT, Moradabad, Uttar Pradesh, India

ABSTRACT

In this paper, the relatively fundamental work in the area of interconnections in digital computing systems is discussed. We cover comparisons of Carbon Nanotubes (CNTs) and optical interconnections in VLSI. The number of components per chip has grown and the cost decreasing dramatically. The copper interconnects can not fulfill different design requirements. There are many challenges for copper based interconnects. We are comparing carbon nanotubes interconnects and optical interconnects for global and semi- global wire interconnections. In this paper, we are comparing carbon nanotubes and optical interconnects in terms of latency and power dissipation.

KEYWORDS: Carbon Nanotubes, Interconnect, VLSI, Optical Interconnects