

NANO TECHNOLOGY FOR ELECTRONICS

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Abstract: *In recent years rapid advances in Nano Technology have provided a variety of nano products in different applications. One area of research is focused of the possible use of nano particles as a basic element of electronic devices. This paper is an attempt to look on nanotechnology for electronics as the revolutionary technology. For example nanotechnology for electronics is to be viewed as the technology that picks up where traditional MOSFET (Metal oxide semi conductor field effect transistor) scaling stops. SILICON – BASED integrated circuits have experienced phenomenal growth since the invention and demonstration of the earliest devices; the first bipolar transistor in 1948, the first planar integrated circuit in 1961 and the first general purpose metal –oxide-semiconductor field-effect transistor (MOSFET) in 1964. Today the semiconductor industry has combined revenues of over 140 billion dollars. This rapid technological progress was first predicted in 1965 by Gordon Moore in the now famous “Moor’s Law” which stated that integrated circuit density and performance would double every 18 months. These improvements would come from reduced transistor dimensions. Increased transistor counts, and increased operating frequencies. Silicon – based metal oxide –semiconductor (MOS) technology will eventually run into fundamental limits and not be able to provide the expected increases in density and performance. Hence a new technology, nano technology will dominate in Electronics in the near future. This paper deals about that.*

Key words: *MOS , Transistor, Electronic, Nano Technology.*