

TITLE

**Nanotechnology:
Nanocomputing and
other applications**

Abhijeet Gaikwad

JBIMS, India

Nanotechnology and the sciences that are associated with it have attracted much attention recently. While there are considerable efforts underway that aim to commercialise nanotechnology, most of the activity seems to focus on research and development activities. This paper reviews impact of nanotechnology on computing, transportation, data storage, space exploration, national security, energy and information systems.

More than forty years ago, Richard Feynman said, "The principles of physics, as far as I can see, do not speak against the possibility of manoeuvring things atom by atom." He continued, "There is plenty of room at the bottom."

Nanotechnology is the projected ability to make things from the bottom up, using techniques and tools that are being developed today to place every atom and molecule in a desired place. If this form of molecular engineering is achieved, which seems probable, it will result in a manufacturing revolution. Presently our handling of the molecular manufacturing process is very crude, we move atoms around in great heaps and pile them together, but we lack the ability to snap them together in a meaningful way. With nanotechnology, we'll be able to snap together the fundamental building blocks of nature easily, inexpensively and in almost any arrangement that we desire.

In this paper the author presents the basic concept of Nanotechnology with a focus on Nanocomputing. Further this paper takes a review of applications of nanotechnology in the fields of transportation, data storage, space exploration, national security, energy and information systems.

Biography

Abhijeet Gaikwad has completed his B. Tech at the age of 23 years from Visvesvaraya National Institute of Technology, India and has majored in Electrical Engineering. Currently he is doing his Masters from JBIMS, Mumbai, India.