

April 18-19, 2019
Paris, FranceD S Grewal., Nano Res Appl 2019, Volume:5
DOI: 10.21767/2471-9838-C2-033

THE FUTURE OF NANO-ELECTRONICS- A CRITICAL ANALYSIS

D S Grewal

Emeritus, Eternal University, Baru Sahib, Himachal Pradesh

Nanotechnology is now well embedded in scientific minds and societal needs. Its branch, nanoelectronics, has been leading and developing 'more than Moore's' predictions. The nano-material like CNTs, nanowires, quantum dots, graphene and xene, have led towards fabrication and manufacturing smarter, stronger, miniaturized, reliable quality products which are not only cheap and consume less energy but also occupy least space. Stretchable, wearable, flexible nano-products have increased their portability and security, giving a new meanings to the requirement of development of nanoelectronics. Graphene, an allotrope of carbon, is likely to become a dominant material in flexible electronics in future. Because of its superb electrical conductivity, flexibility and physical strength it will replace other carbon products in the Nano field. Nano-marketing is now over \$1 trillion globally and the major countries of the world are alive to its developmental needs. Since the development of nanotechnology needs huge funds beyond the capability of an individual research or institution there is an urgent need of setting up centrally funded, well equipped nano-laboratories spread all over making them approachable to all researcher with least cost to make it a marketable product. The major corporate houses must rise and assist nano-research and to introduce nano-products on their production lines to take the advantage of trillion dollar global market in nanomaterial and products. Nanotechnology and specially the nano-electronics can build any country's future if the research and manufacturing are encouraged by their governments and research planners. The future of mobile electronics lies in stretchable or flexible electronics. The potential applications may include wearable electronic devices, biomedical uses, compact portable devices and robotic devices.

Biography

Dalvinder Grewal did Ph.D. in English from North Bengal University and in Management from Punjab Technical University; MSc (Tech) from Pune University, MBA from IGNOU and MA (Eng.) from Himachal Pradesh University. He has been Principal, Guru Nanak Dev Engg College, Ludhiana; Founder Principal, C.T College of Engg, Jalandhar; Chairman (Electronics), J.M.I.T Radour, Registrar, SLIET Longowal; President (HRD), Trident Group; Director Principal, BMS College of Engg, Muktsar; Group Director, G.T.B.K Group of Institutions; Adviser, Sri Sukhmani Group of Institutions, Chandigarh and Dean, R & D Desh Bhagat University, Mandi Gobindgarh. He has published 48 Books including: Fundamentals of Nanoelectronics; Introduction to Nanoelectronics; Nanotechnology, Origin and Development of Universe, Scientific Vision of Guru Nanak; He published over 300 papers and 500 articles; guided 18 PhD/M.Tech students and is on the editorial panel of 8 international journals.

dalvinder45@rediffmail.com