

COLLOQUIUM

“Accelerators: Physics, Technology and Applications”

Abstract: Particle accelerators are devices producing beams of energetic ions and electrons which have various applications. It is estimated that more than 30,000 accelerators are already in operation world over and many more are being constructed. Although, particle accelerators were developed initially for basics research, they are now used extensively for radiation therapy in the medical world, explosive detection, agriculture, industry, water and air cleaning, development of new drugs, etc. Due to their advantages many hospitals are now setting up hadrons based facilities for cancer therapy.

In recent years great interest has been displayed, worldwide, for accelerator driven sub critical reactor systems (ADS), to produce energy using Thorium as nuclear fuel and transmute radioactive wastes in a possibly, cleaner and safer way than at present. This is of great interest to India due to large thorium resources available in the country.

In this talk, salient features of some of these areas will be discussed.

By

Dr. Pitamber Singh

**Ion Accelerator Development Division
Bhabha Atomic Research Centre, Mumbai**

Dr. Pitamber Singh, an Outstanding Scientist, joined BARC in 1976 after graduating from its Training School. He received his Ph.D. degree in physics from Mumbai University in 1983 and has visited several international accelerator labs. Dr. Singh has made an outstanding contribution towards building the 2 MV Tandem accelerator, 6 Million Volts Folded Tandem Ion Accelerator and many other facilities at BARC. He is a member of the “National Academy of Sciences, India” and several scientific associations. He has been conferred the DAE’s Technical Excellence and Group Achievement awards and INS High Technology Award for his contributions towards indigenous development of the accelerator technology in the country. Presently, he is working on development of High Intensity Proton Accelerator for Accelerator Driven System (ADS)- an important program of India. Dr Singh has more than 350 scientific publications including 60 invited talks both in national and international conferences. Dr Singh is member of the Technical Board for Project X at Fermilab, USA. Presently, he is Head of Ion Accelerator Development Division at BARC. He is also a Senior Professor of physics at Homi Bhabha National Institute, Mumbai.

Day & Date : Tuesday, March 4, 2014
Time : 15:45 hrs
Venue : Seminar Room, PF-AG-14, Prefabs, Near Annabhau Sathe Bhavan, University of Mumbai, Vidyanagari, Kalina Campus, Mumbai - 400 098.

All are Welcome