

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Homi Bhabha Road, Mumbai-400 005

July 6, 2018

ASET Colloquium

- Speaker** : **Mr. A.C. Thakurta (RRCAT, Indore)**
- Title** : **Electrical systems in accelerators- An Indus perspective**
- Date & Time** : **Friday 13 July 2018 at 16:00 hrs.**
- Venue** : **Lecture Theater (AG-66.)**

Abstract :

In particle accelerators a number of electrical systems work in coordination for satisfactory operation of the facilities. In Indus synchrotron facility at RRCAT, the main contributors under these are precision power supplies, control systems, beam diagnostics, RF and microwave systems. Electronic modules, controllers also play a significant role in the working and monitoring of coolant systems and ultra-high vacuum systems. On beamline side at users' end, a number of electronic gadgets have been developed looking into the safety interlocks from the point of view of safety of the machine as well as the components installed in the beamlines. The capability gained over the years to develop the systems indigenously is an important aspect of the efforts put in. The salient features of the systems with the challenges involved will be brought out during the presentation.

About the Speaker:

A. C. Thakurta obtained his B. Tech in electrical engineering from I.I.T. Kanpur. He is from 28th batch of BARC Training School, and joined RRCAT, Indore in 1985. He looked after the activities of Power Supplies and Industrial Accelerator Division, RRCAT, and was involved in the development of precision power supplies for Accelerator Programme in RRCAT. He has worked on Indus power supplies. His areas of interest include power supplies for tracking DC and time varying current profiles, their control strategies, power supplies for pulsed magnets, inverters for high voltage generation, solving conducted EMI problems, etc. Presently, he is the Facility in-charge of Indus Accelerators and Director, Electron Accelerator Group RRCAT.



Dr. Satyanarayana Bheesette
(Coordinator, ASET Forum)