

ASET Colloquium

National Nanofabrication Centre: Facilities and collaboration opportunities
by Dr. Prabhakara Rao Y.P. (National Nanofabrication Centre (IISc))

Friday, 17 February 2017 from 16:00 to 17:00 (Asia/Kolkata) at AG-66

Abstract:

The Centre for Nano Science and Engineering (CeNSE) was established at the Indian Institute of Science (IISc), Bengaluru to pursue interdisciplinary research on the nanoscale. Activities of interest to the Centre include, materials, electronics, MEMS/NEMS, photonics, biotechnology, and solar cells.

CeNSE houses state-of-the art National Nanofabrication Centre (NNfC), Micro and Nano Characterisation Facility (MNCf) and Packaging facility. NNfC is capable of realizing micro and nano scale devices on various substrates including Si, GaN, SiC, quartz, glass, graphene, and III-V. The facility houses industry standard tools geared to realize a wide variety of Semiconductor Devices, MEMS/NEMS, Photonics, Photovoltaics, Microfluidic and Biosensors. MNCf conducts virtually any type of electrical, optical, mechanical and material characterization. Both of these are national user facilities and are accessible to outside researchers.

About the Speaker:

Dr. Y P Prabhakara Rao is presently the Chief Operating Officer, National Nanofabrication Centre, Centre for Nano Science and Engineering at the Indian Institute Of Science, Bengaluru. He takes care of Micro and Nanofabrication Centre for research and development activities of various Semiconductor Devices & MEMS. Formerly he was additional General Manager, Semiconductors, Bharat Electronics Limited, Bengaluru. He worked in Integrated Circuits division, Silicon Power & Small Signal Transistors, Hybrid Micro Circuits, RF and Microwave super components of Bharat Electronics, Bengaluru for 35 years.

Dr. Y P Prabhakara Rao was responsible for various indigenously developed technologies viz. wide variety of bipolar processes, CMOS, SOICMOS processes, large area low leakage silicon detector technology etc. He has developed various Bipolar and CMOS integrated circuits for consumer, industrial, space and defence and atomic energy applications. He has also developed radiation detectors for CERN (Geneva), BNL(USA), GANIL (France) and KEK (Japan) in collaboration with BARC, VECC and TIFR.

He was a recipient of BEL R&D excellence award, Society of Defence Technologists (SODET) gold category Award for technology development, Indian Electronics and Semiconductors Association (IESA) awards for best electronic product of the year in 2010 and 2011 for Nuclear and aerospace categories respectively.