PRESS RELEASE

Raja Ramanna Centre for Advanced Technology (RRCAT) celebrated its Foundation Day on Wednesday, 19th February 2014. Shri Sekhar Basu, Director, Bhabha Atomic Research Centre, Mumbai and Member, Atomic Energy Commission was the Chief Guest of the function. Dr. P.D. Gupta, Director, RRCAT, presided over the function. Dr. P.K. Gupta, Head, Laser Materials Development & Devices Division and Laser Bio-medical Applications & Instrumentation Division welcomed the gathering. Dr. S.M. Oak, Head, Solid State Laser Division proposed the vote of thanks. The programme was conducted by Shri S.C. Joshi, Head, Proton Linac & Superconducting Cavity Division.

Dr. P.D. Gupta presented an overview of the scientific activities of the Centre and highlighted the important achievements made during the last one year. He informed that Indus-I, the 450 MeV, 100 mA, Synchrotron Radiation Source (SRS) is functioning very well and is operating round the clock. Five beam lines are operational in Indus-I for which he expressed his appreciation for all the staff members. He informed that Indus-2 is also operational round-the-clock form February 2010 at 2.5 GeV, 180mA. Indus-2 has at present 12 beam lines commissioned which are made available to researchers from Universities, research institutes and National Institutions. Solid State amplifier of 225 kW has been developed successfully. for the first time in the world to overcome the difficulties faced in importing Klystrons. Indus-2 has also been operated for 2.5 GeV, 180 mA using the Solid State RF amplifier. Dr. Gupta also informed the developmental activities related to subsystem development of Proton Accelerator for future program on Spallation Neutron Source. He informed progress made on setting up of a large infrastructure development activities for SCRF cavity development including laser welding of SCRF cavity. Single cell SCRF cavities developed indigenously have performed satisfactorily and exhibited up to 37.5 MV/m of Accelerating gradient at 2 K in a test facility. Dr. Gupta also informed an important development activity of indigenously built Helium liquefier. He also informed development of RF components for high power Solid State Amplifiers and Compact Ultrafast THz Free Electron laser development. He informed on the R&D activities on Electron linac based radiation processing. He also highlighted the significant advances made in the

R & D on lasers and their applications in basic research, biomedical applications, material processing etc. Lasers developed in RRCAT are playing an important role in the nuclear power plant for remote cutting and welding operation for maintenance and replacement of faulty components. He informed on the development of laser based rapid manufacturing for small engineering components with expensive materials. He informed on soft X-ray lasing in a capillary discharge argon plasma activity. He also informed on development of materials R&D for superconducting cavity. Some of the significant developments made at RRCAT on growth of materials and studies on these were also highlighted. He also informed on advancement of high performance scientific computer clusters and Human resource development programs at RRCAT.

In his address, Shri Sekhar Basu expressed his happiness over the progress made by the scientists, engineers and the supporting staff of RRCAT in the areas of lasers and accelerators. He praised the reliable round the clock operation of Indus-2 and the keen interest shown by the researcher community in India on utilization of the Indus facility.