## I.1: Civil design and construction of RRCAT Convention Centre

The construction of RRCAT Convention Centre was completed in the first week of January 2018. The coherent working of the C&SD resulted in handing over of the building, one year ahead of the planned schedule. The Convention Centre was inaugurated on 9th Jan. 2018 (Figure I.1.1) by Dr. R. Chidambaram, former Chairman, Atomic Energy Commission & Secretary, Department of Atomic Energy and then Principal Scientific Adviser to the Government of India. Planning, designing and construction of the convention centre pertaining to all the streams of engineering and technology was undertaken in-house. Convention Centre houses auditorium hall of 680 seating capacity (Figure I.1.2), two lecture halls each of 162 seating capacity (Figure I.1.3), a poster gallery, exhibition wings, dining hall, service blocks, central lobby etc. The entrance ramps to the lobby extends warm welcome to the guests. The layout on split level concept proved advantageous in space utilization and also enabled comfortable movement by limiting the level to be negotiated at a stretch. Steel trusses in arch shape spanning from 14 m to 40 m support the metal roof of galvalume sheet with rock wool slab for thermal insulation, sandwiched using liner panel metal sheet in double lock screw less standing seam.


*Fig. I.1.1: Inauguration of RRCAT Convention Centre by Dr. R. Chidambaram.*

*Fig. I.1.2: A view of Homi Bhabha Auditorium.*

The hall is thermally shielded from all sides to reduce load on air conditioning (AC) and noise. Auditorium chairs are fabricated with ergonomically designed profile supported on recliner system. This provides lumber support for continued sitting and also ensures sufficient passage for crossing. The location of distant viewer and angle of vision are as per Bureau of Indian Standard (BIS). The stage area has a wooden floor. Proscenium has been constructed using wooden panels on mild steel (MS) frames. The baffle walls are provided with MS frame and ply encased in fabric. The stage is provided with a specially designed moveable diaphragm so as to have flexibility of adjustment of depth of stage for specific functions. The area above the entrance lobby is covered with tensile structure thus providing all weather dining zone. The electrical system for the convention centre is planned, designed and built with advanced switchgear, light emitting diode (LED) based illumination and automation sensors resulting in highly energy efficient system satisfying the illumination level requirements as per BIS. AC system is provided by separate air handling units (AHUs) for auditorium, lecture halls, poster area etc. The noise free uniform air flow is ensured. Variable refrigerant flow system is used, which is a state-of-the-art technology with high energy efficiency. The building is well connected with high speed data and voice network of RRCAT. The landscape planning has given it an iconic impact (Figure I.1.4).


*Fig. I.1.3: A view of one of the lecture halls.*

*Fig. I.1.4: Landscape and parking area.*

Major events held in the RRCAT Convention Centre till June 2018 include InPAC-2018, seminar on the theme 'Role of electron correlations in condensed matter physics', Foundation Day, National Science Day, seminar on the theme 'Rendezvous with Light Sources', NSRP-21, XXXIII DAE Sports & Cultural Meet and inaugural function of OCAL-2018.

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