

## BMS success story

### Vrindavan Tech Village, Bangalore - India's first Platinum LEED business park



#### Project Details:

Vikas Telecom an IT park project (Vrindavan Tech. Village - VTV) at Outer ring road Marathahalli, Bangalore. Vikas Telecom has undertaken the development of a IT park project on approx. 100 acres of land at Marathahalli, Bangalore. The project is being built in different phases. Phase-1 comprises an approximate construction area of 13, 00,000 sft spread over 2 blocks of office space and a multi level car park.

VTV, one of the largest notified IT/ ITES SEZ in Bangalore to Outsource Partners International (OPI). Vrindavan offers tenants scalability with time so that they can begin with an incubation space and increase square footage as needed. The development includes IT specific commercial office space, hotels, serviced apartments, residential and retail facilities. The neighbourhood of VTV comprises several MNC's and other global corporates like JP Morgan Chase, Accenture, Cisco and Intel.

VTV is developed by Assetz, the master planning, architecture and landscape of VTV is an international collaboration resulting in a modern, flexible, forward-looking environment designed for local end users as much as multinational tenants.

FABS are the appointed Construction Management Consultants for this prestigious project.

VTV has been designed as per the guidelines of the Ministry of Environment and Forest (MOEF). The principles and methods used here are a conscious attempt to maintain the standards for a healthy environment. The project has obtained Environmental Clearance from the MOEF.

VTV uses environment friendly processes in their buildings and has also acquired a LEED certification.

VTV has been evaluated for LEED Green Building Rating System as Pre-Certified Platinum rated by Indian Green Building Council [IGBC] and US Green Building Council [USGBC]. Sustainability consultants from both India and overseas ensured that VTV exceeded all environmental standards for any business park of this scale in India. Some of the LEED highlights of VTV are:

- Energy usage is being monitored and energy simulation data shows a reduction in energy needs by more than 20% on typical building standards.
- All water is being treated to tertiary standards and thus 100% potable water usage for landscaping is eliminated.
- Depth of all floor plates has been kept to a maximum of 22m so as to provide daylight to 95% of all commonly occupied space, thus reducing use of artificial lighting.



VTV, India's only 'LEED Platinum' rated business-park is equipped with an Integrated Building Management System (IBMS) which not only enables efficient management of tenant requests but also transfers the energy conservation benefits to the tenants at a micro level.

### Highlights of Sauter BMS at VTV:

- Energy measurement both thermal & electrical for tenant billing
- Chillers & Thermal Energy System (TES) tank control
- Air handling with Heat recovery wheel control – 77Nos
- PHE pumps control
- STP monitoring

The BMS system comprises of 5 PDM's with 65000 data points for the main server and hot standby, 5000 data points each for three view station.

There are totally 151 BTU meters to monitor energy consumption of both comfort and critical load. There are around 220 energy meters which are integrated to the BMS through OPC. The energy meters are first integrated to Energy management system on MODBUS & then integrated to BMS through OPC.

Energy consumption bill both electrical and thermal are generated for the individual tenants. The BMS system monitors and controls 77 Nos of AHU with heat recovery wheel.

The plant room comprises of 3Nos 370TR Air cooled chillers, 600TR and 1000TR water cooled chillers, 2Nos Cooling tower and 2Nos of 250TR Brine chillers which are monitored and controlled by BMS.

The following third party systems have been integrated to Sauter BMS:

- Trane Chillers on BACnet protocol
- Danfoss VFD on MODbus protocol
- SDMO DG on MODbus