

CASE STUDY DATA CENTER DESIGN, BUILD AND MONITORING

The broad scope of the work for the Data Centre was to receive & distribute power with Air solution. The design & scope of work considered is for Data Centre area of approximately 217sq.ft with server room area. Major Civil Construction of Mechanical System Design and Analysis Lab, UPS + Electrical Room & Virtual Reality Lab.

DEFENSE INSTITUTE OF ADVANCED TECHNOLOGY

This institute began as a military technical training school called the Institute of Armament Studies in 1952. In the beginning, it was temporarily located inside the College of **Military Engineering** campus at Dapodi near Pune. In 1967, the institute was renamed to Institute of Armament Technology (IAT) when it was made an interservice training institution and relocated to its present location in Girinagar, Pune

CONCEPT

CONCEPT INFORMATION TECHNOLOGIES (I) PVT LTD

101 Giridhar Avenue, Opp. Big Bazaar, Near City Pride, Kothrud, Pune – 38 www.citilindia.com

Structural Work for DC, VR Lab, UPS Room, Mechanical Lab

False Ceiling, Raised Flooring, POP Finishing and Painting, Fire Rated Doors & Glass Window, Godrej Furniture & Chairs, Carpet & Window Blinds

UPS & Electrical Infrastructure

Provided electric supply to the Data Centre with 100% redundancy. ELECTRICAL SUPPLY, 3-Phase raw power supply is feed to UPS and PAC from power source DG.

40 KVA UPS with N+1 Configuration, Dedicated MCCB for input, UPS, PAC, Data Centre, ACs, VR Lab, Mechanical Lab, Lights. 7.5 Tr PAC with N+1 Configuration for DC cooling Cassette Air Conditioner for UPS, Mechanical Lab and VR Lab

High performance computing Design structure Layout

Hardware resources available in HPC Cluster, Total no of nodes – 16, Total no of cores – 256, Memory per Node – 48 GB, Total usable storage – 16TB.

Mechanical System Design Lab

30 Nos of high performance GPU Based workstations installed along with required networking with the access of high performance computational facility for end user.

VR Lab

Antistatic Flooring Mat for Computational Facility & Virtual Reality Lab Virtual Reality 3 D Lab with Workstation, 3D Projector,5:1 Surround Sound, Projector Screen, VoIP Phone, Conference Room Structured Network of 100 + Points with Layer 3 & Layer 2 Switches

BUILDING MANAGEMENT SYSTEM (BMS)

Remote management for PAC, UPS, WLD, Fire Alarm, Fire Suppression, Rodent repellant Access control.

Data Centre Security

To Maintain Data Center Security below mentioned devices Installed:-Access Control System to restrict unauthorized access, Rodent Repellant System to affect the nervous system of ants, mice, spiders, and other rodents to prevent damage, Fire Alarm System to provide alarm in case of smoke / Fire. For this Detectors installed on Above False Ceiling, On False Ceiling, and Below False Flooring

Fire Suppression System to prevent Fire using FM200 Gas

Antistatic False Flooring , Fire retardant False Ceiling , Fire Retardant Door, Fire Retardant Paint for Data Center

Solutions

- Design a structure layout of UPS/Electrical Room
- •Design a structure layout of DC
- •Design a structure layout of virtual reality Lab.
- Design a structure layout of Mechanical system design Lab



CONCEPT INFORMATION TECHNOLOGIES (I) PVT LTD

101 Giridhar Avenue, Opp. Big Bazaar, Near City Pride, Kothrud, Pune – 38 www.citilindia.com