

4.1.1 The institution has adequate infrastructure facilities for:

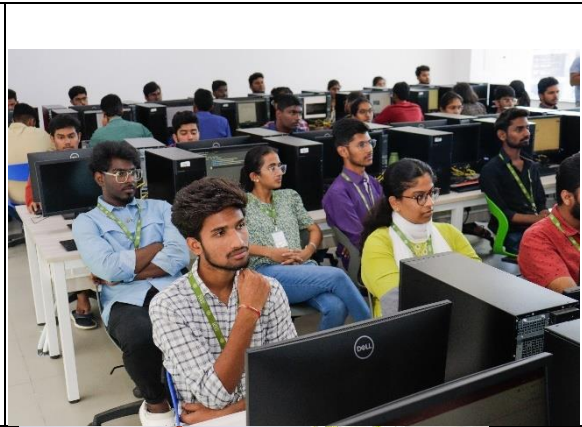
- a. Teaching-learning. viz., classrooms, laboratories,**
- b. ICT-enabled facilities such as smart classes, LMS, etc.**
- c. Facilities for cultural and sports activities, yoga centre, games (indoor and outdoor), gymnasium, auditorium, etc.**

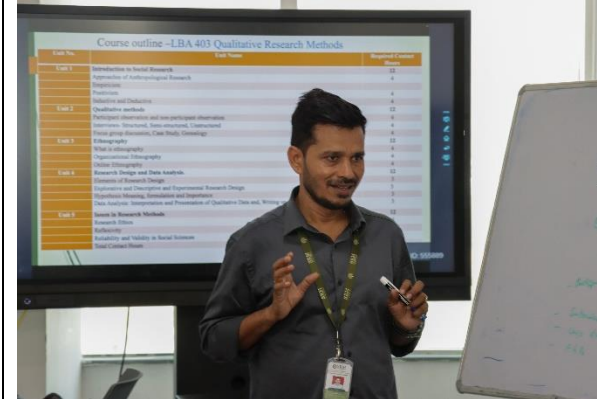
a. Teaching-learning. viz., classrooms, laboratories

Sample Photos of adaptable furniture



Classrooms and Laboratories





b. ICT-enabled facilities such as smart classes, LMS etc.

Impartus:

The video lecture capturing Solution setup is deployed in 25 classrooms as a Hybrid classes.

- 13 Classrooms in Vikram Sarabhai Academic Block - (W201, W202, W204, W205, W206, W207, W208, W209, W301, W302, W307, W308 and W401)
- 12 Classroom in SR Block - (S201, S205, S206, S207, S303, S304, S306, S307, S404, S405, S407 and S408)



Classroom Interactive Display Screens:

Classroom Display Screens	2018	2019	2021	2022	2023	Grand Total
Smart Interactive Displays - 75"	3	37	78	4	126	248
Non-interactive Displays - 55"	13	3	0	0	9	25
Grand Total	16	40	78	4	135	273

Internet Bandwidth - Year wise Augmentation

ISPs	2017	2018	2019	2020	2021	2022	2023
BSNL	155	155	155	155	155		
BSNL		512	512	512	512	1000	
Jio1			1000	1000	1000	1000	1000
Jio2						1000	1000
Pioneer1							1000
Pioneer2							1000
Total	155 Mbps	667 Mbps	1.667 Gbps	1.667 Gbps	1.667 Gbps	3 Gbps	4 Gbps

High-Performance Computing:

HPC facility to support interdisciplinary research and innovation includes the following

HPCC Surya: 64 Teraflops

- HPC Master Node -1 No
- HPC GPU node -1 No
- HPC Computing Nodes - 12 Nos

HPCC Chandrama: 27 Teraflops

- HPC Master Node -1 No
- HPC GPU node -1 No
- HPC Computing Nodes - 7 Nos

Overall HPC Computing consist of 2 Masters, 19 Compute Nodes, 2 GPU Nodes

- 91.77 Teraflops
- 1068 CPU core 2136 Thread
- 7 Terabyte RAM
- Cent OS

Following are the details of the HPCC Servers and their specifications

I. HPCC Surya: 64 Teraflops

HPC Surya Master Node (1No) Specifications

Product Name: HP ProLiant DL380 Gen10

Specifications:

- Processor: 2 X Intel Xeon-Gold 6248R
- Processor Core: 48 cores
- Processor Speed: 3.00GHz clock speed
- Memory: 256GB
- Storage: 54TB SSD Storage
- Network Throughput: 10Gig

HPC Surya Compute nodes (12 Nos) Specifications

Product Name: HP ProLiant DL360 Gen10

Specifications:

- Processor: 2 X Intel Xeon-Gold 6248R
- Processor Core: 48 core
- Processor Speed: 3.00GHz clock speed
- Memory: 256GB

- Storage: 1TB SSD
- Network Throughput: 10Gig

HPC Surya GPU Node (1 No) Specifications

Product Name: HP ProLiant DL380 Gen10 Plus

Specifications:

- CPU: 2 X Intel Xeon-Gold 6248R
- Processor Core: 48 cores
- Processor Speed: 3 GHz clock speed
- Memory: 512 GB
- Storage: 6TB SSD
- Network Throughput: 10Gig
- GPU: 2 X NVIDIA A100 80GB PCIe; CUDA Cores: 27,648

II. HPCC Chandrama (27 Teraflops)

HPC Chandrama Master node (1No)

Product Name: Super Micro

Specifications:

- CPU: Intel(R) Xeon(R) CPU E5-2697
- Processor Core: 36 cores
- Processor Speed: 3 GHz clock speed
- Memory: 512 GB
- Storage: 8TB SSD
- Network Throughput: 10Gig

HPC Chandrama Computing nodes (7 Nos)

Product Name: Super Micro and Tyrone

Specifications:

- Intel(R) Xeon(R) CPU E5-2697 (36-core), 480GB Memory, 8 TB SSD Storage, 10Gig Network
- Intel(R) Xeon(R) CPU E5-2697 (36-core), 320GB Memory, 1 TB SSD Storage, 10Gig Network
- Intel(R) Xeon(R) Gold 6248R CPU @ 3.00GHz (48-core), 256GB Memory, 12TB Storage, 10Gig Network

- SSD Storage, 10Gig Network
- Intel(R) Xeon(R) Gold 6248R CPU @ 3.00GHz (48-core), 256GB Memory, 2TB SSD
- Storage, 10Gig Network -2 no
- Intel(R) Xeon(R) Gold 6240R CPU @ 2.40GHz (48-core), 384GB Memory, 8 TB SSD
- Storage, 10Gig Network
- Intel(R) Xeon(R) Gold 6226R CPU @ 2.9GHz (32-core), 384GB Memory, 4 TB SSD
- Storage, 10Gig Network

HPC Surya GPU Node (1No)

Product Name: Tyrone Systems - DAS700TU-212RT

- AMD EPYC 7452 CPU @2.35 GHz (64-core), 256 GB Memory, 12 TB SSD Storage,
- 10Gig Network

LMS

The screenshot shows a Google Classroom interface for a course titled "Data Structures (CSE 107)" in "Semester II : CSE : S & U". The page features a navigation sidebar on the left with icons for home, calendar, people, and settings. The main content area is divided into sections: a header banner with a "Customize" button, a "Meet" section with a "Generate link" button, and a "Stream" section with a notification from "Meenakshi Choudhary" posted on "Jul 2, 2022" about a new material titled "quick and merge sort". The "Upcoming" section at the bottom indicates "No work due soon".

Classroom for Data Structures (CSE 107) Semester II : CSE : S & U

Stream **Classwork** People Grades

All topics

- quick and merge sort Posted Jul 2, 2022
- Sorting Algorithm Posted Jul 2, 2022
- Hashing Methods Posted Jun 27, 2022
- graph introduction (BFS, DFS, Topological s... Posted Jun 23, 2022
- Shortest Path problem Posted Jun 23, 2022
- AVL Tree Insertion Posted Jun 17, 2022
- Recorded Lecture Link (29-04-2022) Posted Jun 13, 2022

Classroom for Data Structures (CSE 107) Semester II : CSE : S & U

Stream **Classwork** People Grades

- ~~Recorded Lecture Link (28-04-2022)~~ Edited Jun 13, 2022
- Recorded lecture link (25-4-2022) Posted Jun 13, 2022
- unit 3: Tree Data Structures Posted Jun 6, 2022
 - tree data structures.pdf PDF
 - View material

View more

End Sem Project

c. Facilities

