#### **Facilities**

## **Details of the Department Laboratory**

The department of Computer Science & Engineering is enriched with computing facilities like well equipped laboratories with modern computing environments, ventilated and well furnished classrooms; we provide a pleasant working environment for students to undertake their practical and assignment work. Final year students have entire lab at their disposal to carry out their project work with high speed internet connectivity to help them accomplishing their research objectives, even in Third year, students are allotted systems. The department has Systems with Dual core 5000 2.6GHz, 2GB Ram, 160 GB HDD, PIV 1.80 GHz processors, 512 MB RAM, 80GB HDD, well equipped microprocessor lab with multivibrator kits, Lan trainer Kit, well furnished computerized seminar hall, server room. All the required softwares are installed with antivirus with periodic updates and maintenance of laboratories is at a high priority.

## **Existing Laboratory infrastructure and physical facilities**

Sr.No.	Name of the Laboratory	Name of the Important equipment	Important Softwares and Tools
1	Seminar Hall (Software Engineering Lab)	Computer quantity- 56,  Company- Hp Processor- Intel Core 2Duo, Ram- 2GB, HDD, 160GB, Monitor-17''  TFT, Keyboard, mouse	Rational Rose , Ubuntu
		Smart Class Room-Touch Screen MonitorLumen PS750 Wireless tablet X867, Wireless touch white board, touch pen, eraser etc. MIC system- Unisound UPA-1200 receiver coller	
		Projector(ceiling mounted), quantity – 1, Sharp Note Vision XR-40X	
2	MATLAB Lab	Computer quantity-12, Company- Hp, Processor- intel Core i7, RAM-4GB, HDD-500 GB, Monitor-18.5" TFT Keyboard, mouse	MATLAB, Ubuntu

		Projector(ceiling mounted), quantity – 1, Sharp Note Vision XR-40X	
3	Object Oriented Lab	Computer quantity-24,  Company- Hp, Processor- Intel core i7,  RAM- 4GB, HDD- 500 GB, Display LED,  Keyboard, Mouse	My Eclipse, Net beans IDE, Java SE Development Kit 1.8, Ubuntu
		Projector(ceiling mounted), quantity – 1, Sharp Note Vision XR-40X	
4	Networking Lab	Company- Dell, Computer quantity- 5, Processor- Intel core i5, RAM-2GB, HDD-320 GB, Monitor-18.5" TFT Keyboard, mouse	NS2, PacketTracer, Ubuntu
		Company- Hp, Quantity-10, Processor - intel Core i7, RAM-8GB, HDD-1 TB, Monitor-18.5" TFT Keyboard, mouse	
		Company- Hp, Quantity- 5 , Processor - Intel core i7, RAM-4GB, HDD-500 GB, Monitor-18.5" TFT Keyboard, mouse	
5	Programming Lab	Computer Quantity-27,Company- Lenovo, Processor- AMD athlon Dual Core, RAM-2GB, HDD-40 GB, Monitor-18 TFT, Keyboard, mouse	Turbo C 3.0
		Quantity-3, Company- Hp, Processor- Intel Core2 Duo, RAM-2GB, HDD-320 GB, Monitor-18.5" TFT Keyboard, mouse	
		Quantity-1, Company- Hp, Processor- Intel Core2 Duo, RAM-2GB, HDD-320 GB, Monitor-18.5" TFT Keyboard, mouse	
6	DLD & Microprocessor Lab	Microprocessor Kit XPO-85,Quantity-15, Company- Anshuman Tech Pvt. Ltd	XPO-85, 8086 emu, MASM
		Digital Model Circuits, quantity- 33	

7	Project Lab	Computer Quantity-30 Company- HP, Processor- Intel Core i7, RAM- 8GB, HDD- 1TB, Monitor- 18.5"TFT, Keyboard, mouse	GNS3, Apache Tomcat, My Sql, Oracle, XAMP, .NET Framework
8	DBMS & Big Data Lab	Computer Quantity-30, Company- Dell, Processor- Intel i5, RAM- 2GB, HDD- 320GB, Monitor- 18" TFT, Keyboard, Mouse  Projector(ceiling mounted), quantity – 1, Sharp Note Vision XR-40X  Blade Server	Blade Server, Ubuntu, Hadoop, Statistica, Postgress
9	IOT & Wireless Sensor Lab	Computer Quantity-15, Company- Dell, Processor- Intel Core i7, RAM- 8GB, HDD-1TB, Monitor- 19.5", Keyboard, Mouse  Internet of things and wireless sensor lab extablishment:  1. WSN Development Kit: a. Programmable coordinator & gateway (quantity - 2), b. Programmable Intelligent End devices (quantity - 10), c. Non intelligent End devices with sensors (quantity - 10).  2. WSN raw kit: Quantity - 5. Universal Microcontroller Board with Arduino Mega & ARM 7 Daughter board with wifi module, Zigbee Inteface module, Bluetooth interface, Raspberry PI 2, battery module and charger.  3. IOT Development System: Quantity - 10, IOT nodes with a controller section and associated software.	Opnet, Omnet, Ubuntu, Tiny OS, Sensor Kit
10	PG Research Lab	Computer Quantity-12, Company- Dell, Processor- Intel Core i5, RAM- 2GB, HDD- 320GB, Monitor- 18.5" TFT, Keyboard, Mouse	Ubuntu, software required by individual PG student

		Projector(ceiling mounted), quantity – 1, Sharp Note Vision XR-40X	
11	Distributed Computing & Interconnection Lab	Computer Quantity-12, Company- Dell, Processor- Intel Core i7, RAM- 2GB, HDD- 500GB, Monitor- 18.5" TFT, Keyboard, Mouse	Ubuntu, RPC gen, JDK 1.8, NIRGAM, System C
		Projector(ceiling mounted), quantity – 1, Sharp Note Vision XR-40X	
12	Cyber Security Lab	Computer Quantity-3, Company- Dell, Processor- Intel Core i7, RAM- 2GB, HDD- 500GB, Monitor- 17" TFT, Keyboard, Mouse	Ubuntu, Windows, Forensic Tool Kit (Open Source emulator), Ethereal, FINALEMAIL
		Computer Quantity-27, Company- Hp, Processor- Intel Core2 Duo, RAM- 2GB, HDD- 250GB, Monitor- 17" TFT, Keyboard, Mouse	
13	PHD Scholars' Room	Computer Quantity-2, Company- Hp, Processor- Intel Core i7, RAM- 4GB, HDD- 500GB, Monitor- 17" TFT, Keyboard, Mouse	Ubuntu, Latex, other software required by individual PhD scholars.
		Computer Quantity-5, Company- Dell, Processor- Intel Core i3, RAM- 4GB, HDD- 500GB, Monitor- 17" TFT, Keyboard, Mouse	
		Computer Quantity-1, Company- Dell, Processor- Intel Core i7, RAM- 2GB, HDD- 500GB, Monitor- 17" TFT, Keyboard, Mouse	













# **Server Room**



Servers room is equipped with HP Proliant ML 350 (Dual-core64 bit Intel Xeon, 8GB, 73\*3 HDD); CD server (excel meridion data mirror server, HDD 200GB\*3, CD 1 (52X \*2, CD writer) 52X\*12X\*52X, DVD 1; Compaq Proliant ML350 (pentium III, 512, 30GB HDD); Compaq ProliantML310 (pentium IV, 256 MB, 40GB), Other networking equipment: CISCO 1700 router, Cyberoam 500i UTM, CISCO PIX 515E firewall, CISCO catalyst layer -3 switch 3550

# **University Intranet**

Maharana Pratap University of Agriculture and Technology, Udaipur is one of the few institutes in India to deploy a Gigabit campus networking providing 2-Mbps (1:1) leased through Cisco 1700 router, Cyberoam 500i UTM, Cisco PIX 515E firewall and Cisco catalyst 3550 and ISDN line connectivity not only to student hostels but also to all faculties. Wireless Internet/Intranet connectivity in each room of Under Graduate/Post Graduate hostels through 802.11g Wi-Fi network. In a network, a routing switch is a device that combines the functions of a switch to forward data by looking at a physical device address; and of a router to forward packets by locating a next hop address.

Click for more details

### **Department Library**



Library is the nerve center of any Educational Institution Welcome to the Library and Information Division of Computer Science and Engineering department. Apart from the rich collection of over 16000 books in the college's central library, Computer Science & Engineering department also has a good collection of more than 3000 books to provide sufficient consulting material for the faculty as well as the students. It has a variety of material, which includes course books such as embedded systems, software engineering, operating system, java, C++, VLSI design and synthesis, computer networks, design an analysis of algorithms, soft computing, distributed systems, interconnection networks, information security, mobile computing, multimedia computing, parallel architecture, database design to name a few ,along with the books for the overall development and recreation reading. The journals subscribed provide the latest information of the key industries and engineering trends to help the students in crucial decision making, and developing the aptitude for the same. A good number of lab manuals to facilitate students in their practical work are also available in the library, which are highly beneficial in inculcating the spirit of research among the students as well as the faculty members. The library is also equipped with photocopying facility. The students are encouraged to spend their spare time in the library and thus enrich their knowledge. The library serves as a resource centre to the teaching faculty. Moreover online access to IEEEXplore is also available to the students and staff to facilitate their research interests

### Other Infrastructure facilities

The Department of Computer Science & Engineering has a very well developed infrastructure and ambience along with well qualified faculty. The department building is built over more than 1800 sq. meter. Every year students has a dedicated class rooms, they are well ventilated with LCD Projector, High quality class room furniture, white board, electricity and fans. Final year students are having dedicated lab for them where each student has a system with internet facility to assist them in project work. Seminar hall, well ventilated with LCD projector, High quality seminar room furniture,

PCs (72 in no.) with internet facility, ACs, UPS, electricity, etc serve the purpose of meeting room , examination hall , and seminar room . Faculty rooms are exclusive with PC, Internet, printer, scanner, Book rack, furniture, white board etc





Third year IT class room

**CSE third Year class room** 

### **Research facilities**

In order to facilitate Research and Development activities in the department a lot of open source software's like NS-2. NIRGAM, etc are extensively used. Moreover a state of art embedded system lab is also being developed to facilitate research. The department is also having an extensive computing facility with the help of dedicated servers and high end computer system available to the students for facilitating research.

#### **Research Collaboration**

Department is connected with National Knowledge Network (NKN) to facilitate continues research interaction with the institutes of eminence in India. National Knowledge Network (NKN) is a Govt. of India initiative for facilitating higher learning by establishing a National Knowledge Networks connecting various academic Institutions of eminence in the country. The Department is connected to NKN with 1Gbps bandwidth connectivity.