



TAGORE ENGINEERING COLLEGE


(A Member of Tagore Group of Institutions Chennai)

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai




ACCREDITED BY IQAC-NAAC WITH 'A' GRADE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

LIST OF LABORATORY

S. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status (all the courses for which the lab is utilized)	PICTURE
1	System Programming Laboratory	30	Intel Processor i5-11400 GigaByte MB H510 M-H, Crucial RAM DDR4 8GB, Crucial Micron SSD BX500 480GB, Dell Monitor 20" LED D2020H, Fingers Cabinet With SMPS, Turbo Mini Dell Usb keyboard and Dell Usb Mouse Operating System: UBUNTU 22.04.1 Software Operating System: UBUNTU 22.04.1 Software Used: Python 3.10.4, GCC, JDK 17.0.4	26	

2	Database Management System Laboratory	30	<p>Intel Processor i5-11400 GigaByte MB H510 M-H, Crucial RAM DDR4 8GB, Crucial Micron SSD BX500 480GB, Dell Monitor 20” LED D2020H, Fingers Cabinet With SMPS, Turbo Mini Dell Usb keyboard and Dell Usb Mouse Operating System: UBUNTU 22.04.1 Software Used: Mysql Client core- 8.0, Python 3.10.4 ,GCC</p>	17	
3	Operating Systems Laboratory	30	<p>Intel Processor i5-11400 GigaByte MB H510 M-H, Crucial RAM DDR4 8GB, Crucial Micron SSD BX500 480GB, Dell Monitor 20” LED D2020H, Fingers Cabinet With SMPS, Turbo Mini Dell Usb keyboard and Dell Usb Mouse Operating System: UBUNTU 22.04.1 Software Used: UMLet 15.0.0, GCC</p>	17	
4	Network And Security Laboratory	30	<p>Intel Processor i5-11400 GigaByte MB H510 M-H, Crucial RAM DDR4 8GB, Crucial Micron SSD BX500 480GB, Dell Monitor 20” LED D2020H, Fingers Cabinet With SMPS, Turbo Mini Dell Usb keyboard and Dell Usb Mouse. Operating System: UBUNTU 22.04.1 Software Used: JDK 17.0.4, GCC</p>	17	

5	Internet Programming Laboratory	30	<p>Intel Processor i5-11400 GigaByte MB H510 M-H, Crucial RAM DDR4 8GB, Crucial Micron SSD BX500 480GB, Dell Monitor 20" LED D2020H, Fingers Cabinet With SMPS, Turbo Mini Dell Usb keyboard and Dell Usb Mouse. Software Used: JDK 17.0.4</p>	17	
6	Mobile Application Development Laboratory and Cloud Computing Laboratory	30	<p>Intel Processor i7-12700 GigaByte MB H610MH, Crucial RAM DDR4 16GB, Crucial Micron SSD 500GB, Dell MTR 20" LED, Finger Cabinet with SMPS Turbo mini, Dell Usb Keyboard and Dell Usb Mouse. Operating System: UBUNTU 22.04.1 Software Used: Android Studio 2021.2.1.15, Virtual box 6.1, JDK 17.0.4</p>	17	
7	PG and Research Laboratory	30	<p>Intel Processor i7-12700 GigaByte MB H610MH, Crucial RAM DDR4 16GB, Crucial Micron SSD 500GB, Dell MTR 20" LED, Finger Cabinet with SMPS Turbo mini, Dell Usb Keyboard and Dell Usb Mouse. Operating System: UBUNTU 22.04.1 Software Used: JDK 17.0.4, GCC, UMLet 15.0.0</p>	17	

LABORATORIES MAINTENANCE AND OVERALL AMBIANCE

The labs furnished with individual slots for each desktop has a centralized Air Conditioning system to maintain the operating temperature and reduce the dust accumulation. The network switches are housed under 4U rack, and the network connections are professionally commissioned to individual desktops for Inter and Intra Network access

S.No	Equipment Name	Details of Daily Maintenance	Once in a Month	Bi-Monthly
1	Personal Computer	Checking the Working Condition and Cleanliness	Defragmentation, Deleting Temporary Files (Windows, Browser and so on)	Uninstallation of Unwanted Software and Review of Installed Software
2	Laser Printers	Checking the Working Condition and Cleanliness	Checking the Ribbon Impression Condition	Cleaning the Internal Components and Testing the Operational Status of the printer
3	Projector	Checking the Working Condition	Checking the Resolution	Calibrating the Color and Other Aspects
4	Air Conditioner	Checking the Working Condition	Air Quality and odour Testing	Cleaning the Filter and Checking the Operating Condition
5	Keyboard & Mouse	Checking the Working Condition and Cleanliness	Identification of Faulty Components	Checking the Wear and Tear of the Equipment
6	Internet / Ports & Switches	Checking for connectivity	Identification of faults	Identification of faults
7	Server Maintenance	Checking the Working Condition and Cleanliness Log Checking	Maintenance by System Admin for OS Updates	Maintenance by System Admin for OS Updates

Overall Ambience

- Laboratories are well equipped and maintained.
- Do's and Don'ts and Safety measures rules are displayed in each laboratory.

- Vision, Mission, PEO's, PSO's, PO's are displayed in all the laboratories.
- All laboratories are equipped with essential equipment to meet the requirements of the curriculum.
- Adequate consumables are maintained in laboratories.
- The student login register is maintained in each laboratory.
- The computers are repaired immediately with the support of technicians or external service providers in case of any issues.
- All necessary system updates like Operating system, Microsoft Office, Antivirus update and respective laboratory software are updated every semester and maintained based on requirement.
- Based on the requirements of the student project, FDP, workshop, value-added courses, training program, etc. software are installed, updated and the same is maintained in the system maintenance register.
- The display board provided for displaying the course syllabus and list of experiments for the appropriate laboratory course.
- The laboratories are equipped with Air conditioners and fans for good ventilation and ambiance.
- Proper ventilation and lighting effect are ensured in the laboratories
- The air conditioners in laboratories are serviced and maintained periodically by the powerhouse department.
- The laboratories are also provided with LED lights for better luminance and power saving.
- The laboratories have an adequate number of Furniture, Ergonomics Benches/Chairs to accommodate the students with comfort.
- The laboratories are equipped with the rolling chairs and smooth finish floor tiles for better appearance.
- LCD projectors are provided in the laboratories for ICT.
- Proper routings are provided for internet access and separate domain to the students.
- Movable sliding keyboard draws are provided for easy access of computer table.
- Each laboratory is equipped with a whiteboard, computer, the Internet, and such other amenities.

- Each laboratory is equipped with First Aid Box and Fire Extinguisher.
- Awareness labels about conserve energy are pasted in laboratories.
- Charts showing the description of basic concepts are displayed in all the laboratories.
- UPS facility is available for all computer systems.
- Wi-Fi with well-equipped high-speed systems within the campus for effective contribution in projects and research.
- Drinking water facilities are available within the laboratories.
- Dustbins for easy disposal of wastes/electronic wastes are made available in all laboratories.
- Laboratory manuals are prepared and are made available in soft and hard copy. Laboratories are operated beyond college hours for the convenience of the students.

Safety measures in laboratories

Sr. No	Laboratory Name	Safety Measures
1	System Programming Laboratory	First Aid Kit, Fire Extinguishers, Instruction Board for Do's and Don'ts
2	Database Management System Laboratory	First Aid Kit, Fire Extinguishers, Instruction Board for Do's and Don'ts
3	Operating Systems Laboratory	First Aid Kit, Fire Extinguishers, Instruction Board for Do's and Don'ts
4	Network And Security Laboratory	First Aid Kit, Fire Extinguishers, Instruction Board for Do's and Don'ts
5	Internet Programming Laboratory	First Aid Kit, Fire Extinguishers, Instruction Board for Do's and Don'ts
6	Mobile Application Development Laboratory and Cloud Computing Laboratory	First Aid Kit, Fire Extinguishers, Instruction Board for Do's and Don'ts
7	PG and Research Laboratory	First Aid Kit, Fire Extinguishers, Instruction Board for Do's and Don'ts

Project Laboratories

Project laboratory is to provide a practical and creative space for faculty and students with various software. This Laboratory offers the opportunity to gain valuable hands-on experience with state-of-the-art environment where the faculty members and students become proficient in both the physical and creative skills needed in the field of Information Technology

Students and faculty members are encouraged to utilize additional facilities available in the laboratories.

Students are encouraged to do mini-projects with the facilities available in the laboratories.

The department library is equipped with books, NPTEL videos and project reports to assist students in their research projects.

Project laboratory can be utilized after working hours for the benefit of students, faculty members and research scholars.

Students are motivated to access periodical magazines and e-journals related to electronics and communication available in the library to gain deep insights to help them in their areas of interest.

Students are trained to incorporate transferable skills for redesigning the experiments.

Video lectures are given to the students to demonstrate all experiments along with step-by-step explanations.