



NETAJI SUBHAS OPEN UNIVERSITY

SCHOOL OF SCIENCES

Manual for Computer Laboratory

1. Introduction:

The laboratory of computer science department is a multipurpose, well equipped, spacious, secured facility which serves the students of various departments to achieve the required academic goal/computing skills by providing enough opportunity of practising and learning. As a vital part of the university the Computer Laboratory also supports the faculties to pursue the research/project work by providing access to technological resources, selected softwares, important materials etc. Additionally, the laboratory is also used for training for teachers and staff for different purposes.

2. Organizations:

The laboratory is overseen by the department of computer science. Dedicated full-time facility members support the various functions of the laboratory:

- Maintenance: equipment installations, maintenance, and repair;
- Process: process engineering, training, monitoring
- Administration: server room, finance, management.

3. Laboratory Overview

The computer laboratory is comprised of several laboratory spaces spread across different regional centres of the university. The first computer laboratory facility is housed in the academic building of School of Sciences at Kalyani campus of the university. The laboratory encompasses approximately 3500 sqft of spaces and has a large number of desktops and other necessary equipment. The laboratory has dedicated room for servers, online UPS, network switches and other important accessories which is completely isolated from the laboratory class room for safety and maintenance purpose. The second laboratory facility is situated in Durgapur campus of the university which also has similar set up along with a large number desktops and other equipment. The Hardware/software/networking equipment inside the laboratory at Kalyani are as follows:

- 45 desktops installed with windows OS connected through an Ethernet LAN to High speed external network provided by National Knowledge Network.
- 2 Gigabit Rack-mount Switch of 24 Port.
- a network security system is implemented through firewall dedicated for the entire campus network and it monitors and controls incoming and outgoing network traffic based on predetermined security rules.
- Windows Server with Intel® Xeon® Processor 64GB Memory, supports up to 1024GB and hard disk of capacity 2 TB.
- Network attached storage with 16 TB hard drives which can handle maximum 512 concurrent connection.
- Online UPS of capacity 15 KVA
- Microsoft Office packages
- GCC compiler for
for C/C++/Java/Fortran/Ada
- Python 3.0, PyCharm community edition
- Anaconda Distribution for Python/R
- R-studio and other packages.
- MapInfo (version 12.5)
- Geomatica (10.2)
- Projector, White board, Sound System
- Smart board



Computer Laboratory at Kalyani



Computer Laboratory at Durgapur



4. Laboratory Programs

Following programs are organised in the computer laboratory in a periodic basis.

- Laboratory Counselling and Evaluation Session for Bachelor Degree in Mathematics
- Post Graduate Computer Training for Master degree in Mathematics.
- Practical Session for Master degree in Geography

5. Laboratory Hours

The laboratory is available for use 24-hours/day, seven days/week. The faculty is available generally during working hours only (Monday through Friday, approximately 10-30 am - 5 pm.) Use of the laboratory during off-hours and weekends is subject to the approval from appropriate authority. The laboratory routinely shuts down for general equipment and facilities maintenance. Shutdowns may be extended to accommodate University-wide shutdowns or special projects.

6. Laboratory Management

The department has following strict protocol/principles while managing the activity inside the laboratory.

- insures only people who are trained and qualified on a particular tool have access to it;
- tracks equipment usage by individuals;
- allows users to reserve tools;

Each user is assigned a laboratory account. This allows the user to "enable" those tools in the laboratory, which he/she have been trained and qualified to use. Each laboratory user is required to have his/ her own laboratory account or group account. As in any other networked environment, users are expected to be a responsible user. User may use only his/her own individual account or group account and access privileges; they do not share their own account name and password with anyone. The server room is not accessible to the normal users. Any activity in the server room needs appropriate permission/approval from the concerned faculty members assigned for the session.

7. Communication in the laboratory

Effective and conscientious communication is essential in the laboratory. The following principle/s has been followed for effective communication while using laboratory.

- For individual activity, Specific process or equipment questions can be addressed to the concerned faculty/s responsible for the session. The name of the faculty/s are introduced before the session.

- For group based activity, problems, questions or comments can be addressed to the other laboratory user. If not resolved that needs to be communicated to the faculty present in the laboratory.
- All the communications be kept at a professional level and concern only matters that are of interest to the relevant group.

8. Laboratory code of conduct for the users

- Student must come into the laboratory quietly and go to their assigned computer. They must not touch other keyboard or mice on the way to their computer.
- The student must check the computer unit and its peripherals attached before using it. They must immediately inform the instructor if there is any defect, error or damage observed at the computer (hardware/software) assigned or if there are any missing peripherals (mouse, keyboard, etc.). The instructor should immediately report the incident to concerned person in the department.
- Instructors shall closely monitor the conduct of their students while they are inside the laboratory. The Instructor should not leave the class during the instructor's assigned laboratory hours. In the exceptional event that the instructor has to leave the class, the instructor must inform to the concerned person in the department.
- Students are responsible for their own work. They must save their documents on their assigned drives, any information saved or installed on the systems in any other places of hard drive may be deleted once the Computer is rebooted (restarted).
- To provide an atmosphere conducive to academic work and studying, rooms are designated as "Quiet" or "Moderate Discussion" areas. In addition, the use of cell phones is not permitted in the computer laboratories.
- Students are not allowed to alter configuration settings of any computer laboratory equipment. Tampering, deleting or modifying CMOS/BIOS settings, IP Configuration, system parameters, or system files stored in the hard disk are strictly prohibited.

- Students are not allowed to bring bags, food and beverages inside the laboratory. Chewing gum, eating, drinking, smoking, littering is prohibited inside the computer laboratory.
- No student or personnel shall be allowed to attach or detach any peripheral to and from any IT equipment or devices without explicit permission from the concerned faculty of the department. Users are not allowed also to attach personal devices like hard disc, pen drive or CD in any computer laboratory's network without permission from faculty.
- Accessing unsafe sites is strictly prohibited.
- Printing of manuscripts, business letters, banners, personal documents and research works are not allowed in the laboratory. Only the printing of program listings is allowed using the laboratory printer with prior permission of the instructor.
- Users are not allowed to install, update or download any software in any computers inside the laboratories. It is also prohibited the users to boot from any bootable devices to run software in any computers in the laboratory. In cases that there is need to install, update or download software or boot from other device the instructor must seek for the approval of the responsible faculty in the department.
- Playing games are not allowed inside the computer laboratory, this includes video games, card games and other games. However, in cases of the topic is related to games the instructor must inform the responsible faculty in the department.
- Anyone who is causing disturbance, trouble and exhibiting hostile or threatening behaviour will be requested to leave the computer laboratory.
- Proper computer laboratory etiquette must be observed;
 1. Ensure that no trash is left behind.
 2. Turn-off computer units and arrange the computer peripherals (mouse, keyboard and headset) after use.
 3. Don't twist the monitors of the neighbours.
 4. Chairs must be returned properly to its original places
- Theft, vandalism, or abuse in any form is a grave offense and shall be dealt with accordingly. Wilful violations of the above provisions shall constitute disciplinary

actions. Intentionally Violators of these guidelines may be subject to any, but not limited to, the following sanctions:

1. admonition
2. temporary or permanent suspension of computer laboratory privileges
3. dismissal from the university/school/department

9. Visitors policy

For safety reasons, casual visitors/observers are not allowed in the laboratory. Anybody wishing to visit the laboratory needs to have approval from higher authorities. Unless the recommendation from university officials the visitors first needs to communicate the purpose of visit to the concerned faculty in the department. Based on the purpose, the faculty will communicate the same to the director/registrar. If the permission is granted the visitor can enter into the laboratory.

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