Tezpur University

Information and Communication Technology (ICT) Policy

(Approved by the Board of Management
vide Resolution No. B.102/2021/3/5.1, Dated 28.07.2021)

1. Preamble

Tezpur University strives to use modern Information and Communication Technology (ICT) for higher efficiency, effectiveness, and cost-effectiveness of its activities. The ICT Policy defines the resources, usage, operation, and maintenance policies in this regard. The ICT policy includes the following aspects:

- Addressing the problem of accessibility of the computing facilities
- Departmental computing facilities
- Procurement of computing resources
- Maintenance of computing resources
- Networking
- Development, maintenance and upgradation of the software used in the administration of the University
- Green Computing Practices
- Printers & other peripherals
- Upgradation and disposal of obsolete or unusable ICT Infrastructure
- Access control and usage of ICT Infrastructure
- Risk Management of ICT Infrastructure
- CCTV Surveillance System
- Smart Classroom systems
- Learning-resource storage and delivery system
- Services to be provided by the computer centre

2. Background

Tezpur University started using computers from its very inception in 1994 in its academic as well as administrative activities. A Computer Centre was established in 1997 to serve as a common computational resource centre for the academic programmes as well as for maintenance of the other computing resources in the university. Over the years the University has grown substantially in terms of departments and academic programmes as well as in infrastructure. The user departments of the computer centre spread over an area of 261 acres of the university campus. Two computing facilities with clusters of computing resources were set-up as part of the Computer Centre (CC) for use by the students of different academic programmes. It also maintains the computing resources and the ICT facilities for teaching-learning process used by the faculty and the administration. A campus LAN was implemented initially with coaxial cables

and later with optical fiber backbone connecting the academic departments as well as administrative sections. Internet connectivity was initially provided with ERNET VSAT facility. With the implementation of the NKN (National Knowledge Network) a 1Gbps fibre link was obtained. Wireless LAN has also been set-up to extend the LAN connectivity to the Hostels and the residential areas. Presently, the computer centre maintains the proxy server, web server, mail server, administrative database server, library server of the University. In addition, it also maintains the EPBX for the intercom facility and the CCTV surveillance network.

With the increasing use of e-contents in the teaching-learning process and blended mode of teaching becoming prevalent it has become necessary for the university to have a robust LMS (Learning-resource Management System) with e-content development, storage, and delivery system. The university has therefore set-up a studio for e-content development by the faculty and an LMS server for the storage and delivery of the e-contents. The university has also enhanced the e-content delivery facilities in the classroom and added new and upgraded the existing smart classrooms. It has provided every faculty member with desktop/ laptop PC, printer, graphics tablet, web camera and headphone to enable creation and delivery of e-contents, for the online classes and efficient management of the mentoring and assessment process in addition to carrying out their research activities effectively.

With the increasing use of ICT (Information and Communication Technology) and the rapid expansion of the ICT facilities in the university, it has become necessary to replace the existing IT Policy of the university with a more appropriate ICT Policy.

3. The ICT Policy

The ICT policy shall include the following aspects.

3.1 Addressing the Accessibility Problem

To address the problem of accessibility of the ICT facilities the University shall set up some computer laboratories at different academic buildings in the University. These labs will be managed by the Computer Centre (CC). The objectives of having these laboratories are:

- Making resources available nearest to the user departments
- Providing services, like email, Web service, File service etc, to the users through the terminals available in the nearest Unit of the CC
- Conducting computer lab sessions of user departments at the nearest unit of the CC
- Conducting computer skill tests for recruitment purpose
- Organizing lab sessions for Refresher Courses and Workshops for the user departments at the nearest unit

The Units of the CC will normally remain open from 7-00 hrs. to 24-00 hrs. Adequate number of personnel shall be employed on shift duty for this purpose. Students Assistants with appropriate remuneration may also be engaged to man the laboratories beyond office hours and on holidays. The working hours shall be reviewed based on the availability of manpower and other constraints. There shall be effort to keep at least the central hub open for 24 hours.

3.2 Departmental Computing Facilities

The individual departments shall be allowed to set-up computing laboratories only where specialized computing resources are necessary. Permission for setting-up of such a facility shall be given by the Vice Chancellor on recommendation by the concerned School board on receiving proper justification from a department.

Such specialized Labs may be funded by other funding agencies through research projects, or through departmental plan grants. Such Labs will be maintained either by technical staff of the department, third parties, or by personnel employed under the concerned projects. The computer centre shall not be responsible for procurement and maintenance of these resources. If at any time a department is not in a position to continue maintenance of such resources, it may offer these to the CC to be included in the common resource pool of computing resources of the University.

The department may consult the computer centre regarding the requirements for maintenance of the computing resources obtained through research projects at the proposal preparation stage. The maintenance of computing resources under research projects shall be done under the respective project or by the concerned departments.

3.3 Procurement of computing resources

The computing resources may be procured either by the University against the indent order placed by the Computer Centre or by the individual departments for their own laboratories. The process of procurement of the computing resources shall be as per the prevailing government rules and regulations.

The specifications for the computing resources for the specialized laboratories of the individual departments shall be worked out by the respective departments and procurements will be as per existing government rules and regulations.

3.4 Maintenance of computing resources

The post-warranty maintenance of the Servers and the UPSs shall be carried out through AMC. The PCs and Laptops in the Computer Centre and those provided to the departments/ sections by the Computer Centre shall be maintained by the Technical Staff of the CC. Appropriate stock of spares shall be maintained for that purpose. The maintenance of the peripheral devices will be done through AMC, third party or by the staff depending upon the cost and critical nature of the device. A small buffer of PCs, UPSs, and Printers shall be maintained for temporary replacement in critical usage cases.

3.5 Networking

The Campus LAN and WiFi facility shall be maintained by the computer centre. The LAN shall cover all the academic departments, offices, hostels, and the residential area. The WiFi facility shall be provided in the entire campus in phased manner depending upon availability of funds. Appropriate technologies shall be used for the networking. While the procurement, installation, administration, and maintenance of the networking equipment shall be the responsibility of the computer centre, it shall not be responsible for the computing resources in the hostels and the residential areas except in cases identified by the competent authority.

3.6 Development, Maintenance and Upgradation of Software

There shall be a designated Software Team (ST) comprising the System Analysts, the Junior Programmers and two Faculty Members of the Department of Computer Science & Engineering. One of the faculty members shall act as the chairman. The user departments will submit a Software Requirement Note (SRN) describing any need for- *i.* new software or *ii*. upgradation of existing software or *iii.* maintenance, and the stipulated time frame for the service (i.e., urgency). The ST will consider the SRN and check if the requirements are supported in SAMARTH, the CU-ERP. In case the requirements are not suitably supported in SAMARTH, the ST shall prepare a feasibility report which will be submitted to the Software Development Advisory Committee (SDAC). SDAC will recommend either for third party service or to take up the task for in-house development. For in-house tasks, the ST members may directly carryout the task, or engage other TU members, including students. Optionally, external professionals may also be hired for in-house software tasks.

A Software Quality Assessment Committee (SQAC) comprising two members of the ST, two faculty members of the Department of Computer Science & Engineering, and one member of the user department shall oversee the quality of the in-house work as well as procured software & services. This will include thorough checking of possible security flaws.

The ST shall also be responsible for maintaining the University Website. One of the ST members shall act as the Web Master. The periodic review of the website will be done by the SDAC and send recommendation to ST for upgradation if needed.

Procured Software should be maintained generally by the software provider for at least one year. Software developed in-house should be properly documented and maintained in-house. The third parties, providing tailored software must provide the full source code of the software with documentation. The source codes of software developed in-house both by the software professionals or students must be available and maintained by the computer center personnel.

Every upgradation of software package must be supported by proper documentation and justifications. Licensed software procured must be upgraded to new versions if the user requirement assessment recommends such upgradation.

The software packages that have already been procured or developed in-house will be distributed to different user departments based on the user requirement assessment. Wherever possible these software packages shall be integrated under suitable framework to enhance sharing of resources and utilization taking into consideration the security concerns. While developing new software, its feasibility for integration must be studied.

The University will also implement the ERP modules, which conforms to the Tezpur University rules and regulations, developed by MHRD, Govt. of India under the project 'SAMARTH'. The University will appoint a member of the Software Team as a nodal officer to oversee the implementation and other related activities of the SAMARTH modules adopted/implemented in the University.

3.7 Green Computing Practices

Due to growing concern in environmental responsibility, the computing resources should be used efficiently. The following green computing practices shall be adopted.

- Obsolete equipment disposal by following "Upgradation and disposal of obsolete or unusable IT infrastructure" policy
- Use of certified energy efficient and environment friendly equipment
- Sharing printers, computing resources and storage over network
- Keeping monitors in sleep mode or turn off mode when not in use
- Activating power management feature on computers and peripherals
- Use of email for circulation of office documents and memos
- Reduce paper waste by printing as little as possible
- Use of double sided printing
- Refilling toner cartridge wherever possible and buy back of batteries by authorized vendors
- Shifting to cloud-based services whenever possible

3.8 Printers & Printer Usage

Getting documents printed is an important part of computing activity. However, it can be also quite costly as the printing stationeries are often expensive. Therefore, it is necessary to be prudent in the supply and usage of printers. The policy on the supply of printers shall be as follows:

1. One laser printer shall be provided to each of the following:
   Vice Chancellor, Deans, Heads of the Departments, Heads of the Centers, Registrar, Controller of Examinations, Librarian, Finance Officer, University Engineer, Department Offices, Warden's offices, Administrative Sections.
2. In addition, the University may provide printers to faculty members, officers and other staffs based on requirement and availability of funds. The faculty members shall arrange for the stationery for the printers provided to them on their own.
3. DMPs shall be provided wherever there is need for printing receipt vouchers.

The departments shall procure printer stationeries through the departmental contingency fund. The concerned departments/centers/sections will set policies for usage of printing resources.

Private parties shall be allowed to set-up print shops within the university campus to enable students to take additional printouts.

3.9 Upgradation and disposal of obsolete or unusable ICT infrastructure and associated resources

There shall be a four members committee comprising the Director of the Centre, a Faculty Member of the Department of Computer Sc. & Engineering, a Computer Engineer, and the Deputy Registrar (Stores & Purchase) to assess the status of the ICT resources. A member of the concerned department shall be a special invitee. The Director of the Computer Centre shall Chair the Committee. The committee shall assess the status of the resources periodically and shall be empowered to declare a computing resource as obsolete and to recommend its disposal. The

resources tagged as obsolete will be replaced by state-of-the-art resources as per requirement, subject to availability of funds, without affecting the users.

The obsolete resources may be given to Hardware Labs, exchanged with state-of-the-art systems under buy-back options. The University may also decide to donate such systems to organizations such as schools, NGOs, if the organization finds them usable. The obsolete resources which are declared as e-waste shall be recommended for disposal to the Stores Disposal Committee (SDC) (formed vide BoM Resolution No. B.43/2005/1/3.9 dated 12.01.2005) by following the guideline as per Govt of India regulations on E-Waste Disposal.

3.10 Access Control and Usage of ICT infrastructure

In respect of access control and usage of ICT infrastructure the University policy shall be as follows:

1. The University shall have the right to control the access to the various computing resources and databases in the University.
2. As required by the Govt. of India IT Laws the University shall maintain log of the emails sent and received by the users.
3. Accessing undesirable/illegal/harmful/copyright infringing materials using the University computing resources is prohibited. The access to those materials/websites shall be blocked to the extent possible. Log of accesses to websites of doubtful nature shall be maintained and scanned from time-to-time.
4. The users shall maintain discipline and shall not cause any damage to any resource of the computer centre.
5. The users shall not bring any food item to the computer centre.
6. Every user shall sign a document assuring to abide by the above rules at the time of applying for a login account. Disciplinary action shall be initiated against a user violating any of these rules and shall block his/her access to the resources in the computer centre.

3.11 Risk Management of ICT infrastructure

With growing dependency on ICT infrastructure, the threats and vulnerabilities to ICT infrastructure are of great concern today. ICT infrastructure faces several risks and the risk exposure may vary from time to time. It is necessary to perform ICT infrastructure risk assessment in regular basis and there shall be an Incident Response and Disaster Recovery Team for the University. The University shall follow the risk management policies for critical ICT infrastructures as given below:

- Periodic and Scheduled backup of data in geographically separated location
- Keeping IT infrastructure under surveillance
- Use of fire alarm, smoke alarm and fire extinguisher
- Earthquake resistant buildings
- Physical security for theft control
- Use of Anti-virus tools for protecting servers, desktops and network devices from malwares
- Regular updating of software with security patches
- Regular updating of firewall
- Periodic assessment of risks due to obsolescence of critical ICT infrastructure.

3.12 ICT Infrastructure Review Committee

There shall be an ICT Infrastructure Review Committee consisting of one representative from each of the user departments with the Vice-Chancellor as the chairman and the Director of the centre as its convener. The committee shall meet at least once in a semester to review the functioning of the ICT infrastructure and to take major operational and policy decisions.

3.13 Services to be provided by the Computer Centre

The Computer Centre shall provide the following services:

- Maintain the common computing facility for use by the students of the different academic programmes
- Provide computing resources to the Faculty Members, Departmental Offices, Library and the Administration
- Develop, procure and maintain software required for administrative and other purposes of the university, in case they are not covered in SAMARTH (the CU-ERP) or the requirements are not suitably supported in SAMARTH.
- Set-up and maintain the Campus LAN and WiFi
- Provide Internet, email, database services etc. to the users
- Provide and maintain the MMPs in the common auditoriums/ conference halls and in 25% of the classrooms in each department
- Assist the Administration in the process of Selection and Procurement of Computing Resources
- Organize training programmes for the faculty and staff from time-to-time
- Run extension programmes like computer training programmes for unemployed youth
- Maintain
    - The University website
    - the Intercom facility of the University
    - the Studio for e-content development,
    - the LMS and the e-resource storage and delivery system
    - the Language labs
    - the CCTV surveillance system
- Conducting Skill Tests for recruitments
- Providing resources for conducting online examinations like – GATE and Recruitment tests

3.14 Implementation of the provisions in the IT Act

The university shall strictly implement all the relevant provisions in the IT Act of the country.

Dated : 30.08.2021

Sd/-
Registrar, Tezpur University