



IT Procurement, Usages and Disposal Policy 2024

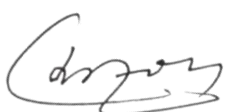
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CHAPTER-1

Introduction

New age is very dynamic and embraces rapid changes that are taking place as a result of technological innovation and increased awareness of the wider stakeholders. Information and Technology (IT) is the main drivers of these changes. A reliable computer-based information system is essential for efficient management and operation of any organization. The guidelines provided in this policy are strictly to be followed at all levels of hierarchy in the BIGM. The responsibility of getting all the employees familiarized with the ever-changing IT environment lies with the IT unit. This IT policy may be revised and updated as and when necessary for its continued relevance.

Scope of the Policy

This IT Policy document applies to all level of officers/ staffs, all other granted users of IT assets and defines their responsibility for protection and appropriate use of information, applications, computer system and network.

Objectives

The main objective of this IT Policy is to define the minimum resource requirements, rules, regulations, procedures, security guidelines etc., which the Institution must try to achieve. The specific objectives are:

- i. To set up a secure, sustainable and efficient IT platform.
- ii. To promote and facilitate use of IT in all areas of the Institution for efficient service and optimal utilization of resources at its disposal to the benefit of the country.
- iii. To develop a pool of expert IT personnel to satisfy ever-increasing demand of the Institution, not only for preventive maintenance of the IT system but also for development maintenance.
- iv. To develop an efficient IT infrastructure capable of facilitating access to domestic, national and global networks.
- v. To establish a standard IT Policy & IT management.
- vi. To establish a secure environment for the processing of data.
- vii. To identify information about security risks and management.
- viii. To define the responsibility Disposal Committee and Disposal Committee.

Detailed Guidelines and Procedures

CHAPTER-2

IT Management Structure

IT management structure refers to the organizational framework and hierarchy that governs the planning, coordination, implementation, and maintenance of information technology (IT) resources within an organization. The structure defines the roles, responsibilities, and reporting relationships of individuals or teams involved in managing and leveraging IT for achieving the organization's goals and objectives.

BIGM aims to become a premium knowledge hub by adding value in teaching, training and research on policy, governance, and development to serve the interest of the country and its people. Three core functions of BIGM are Academic, Training and Research. To facilitate these functions the institute is divided into six wings which are Academic, Research, Admission, Examination and Result (AER), Training, Managerial Services and Strategic Planning. IT unit which works as a section of Strategic Planning wing, is responsible for managing the technological infrastructure of BIGM. This unit ensures that all systems are available and reliable for day-to-day operation, and that these are secured against any external or internal cyber threats. IT unit supports the institute in achieving its mission and vision by evolving with technological progress such as Artificial Intelligent (AI), Machine Learning (ML), Data Mining, Data Science etc.

Figure 1 describes the hierarchy of IT Management Structure of BIGM. System Analyst/Deputy System Analyst works as the core person in IT unit, who is responsible for

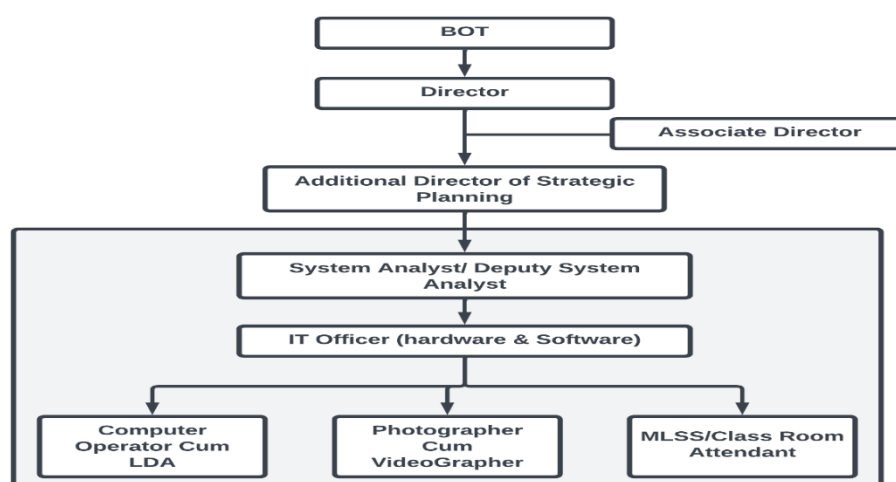


Figure 1: Hierarchy of IT Management Structure

managing all operations and staffs of this unit. Responsibilities of each role of IT unit are outlined in the document titled Standard Operating Procedure (SOP) of the Work Distribution of BIGM. IT management structure of BIGM may change over time, as the institute consistently makes improvements to support its mission and vision.

Functions of IT Department

Depending on the size and scope, goals and vision, degree of collaboration among IT teams and other stakeholders, IT unit can be described by a functional Model.

Figure 2 describes the functional model of IT unit which organizes the IT team into units based on function, such as networking, security, development and maintenance of hardware and software etc. IT unit of BIGM consists of five functional units such as Software Support and Maintenance, Database Development and Maintenance, Network and Security, IT Vendor Handling and Hardware Management. This unit as a whole provide services to all six wings of BIGM for efficient day to day operation of all digital systems and infrastructures of the institute.

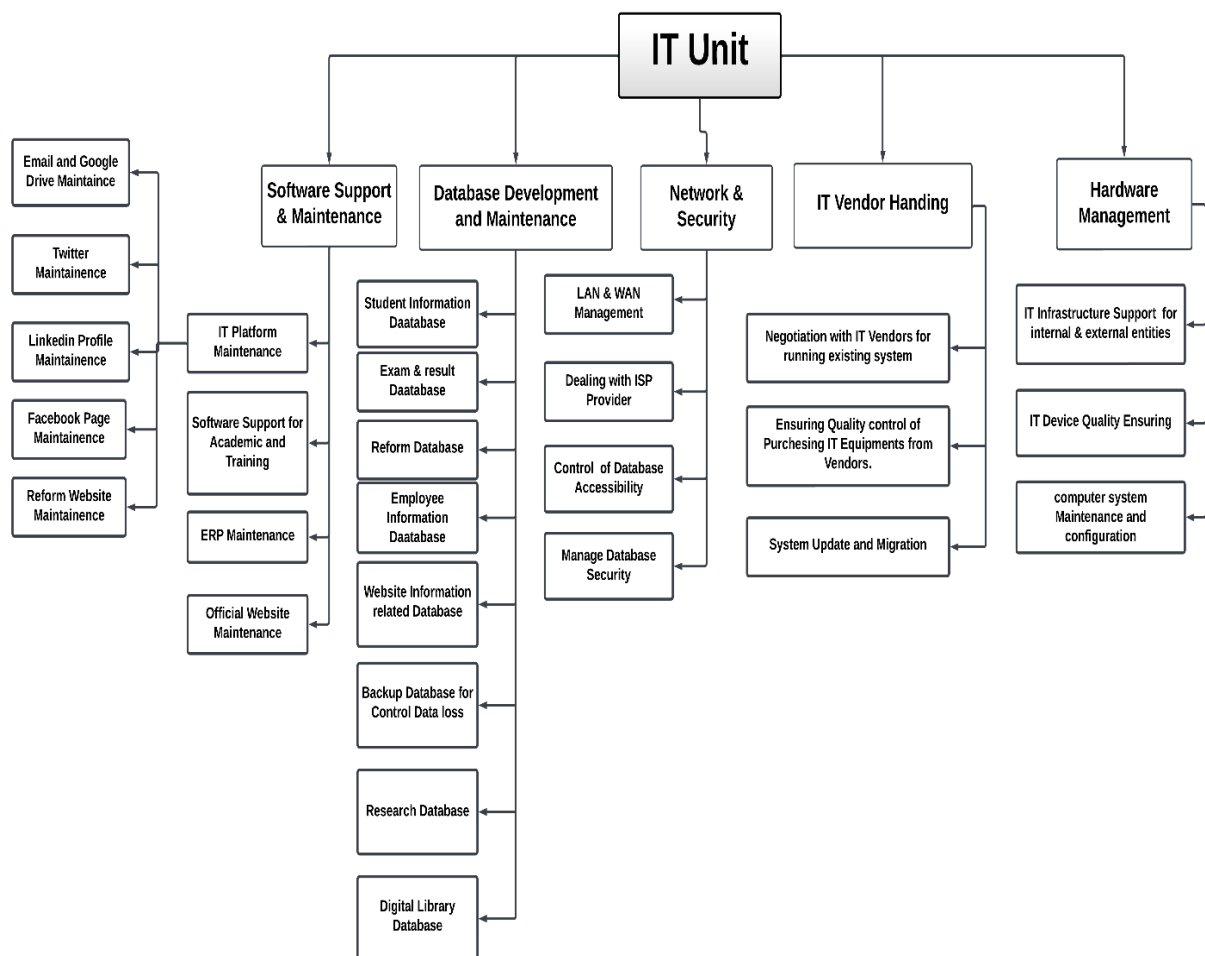


Figure 2: Functional Model of IT unit

Area of Documentation

- i. Organogram for IT Department
- ii. Job description (JD) for each individual within IT Department.
- iii. Scheduled roster for IT operation & segregation of duties for IT tasks.
- iv. All technical resource materials.
- v. List of technical persons or experts, names and addresses of hardware and software vendors and list of firms providing services.
- vi. Network wiring plan with individual level and number for each cable to identify the origin and destination of each cable/wire.
- vii. Network topology (physical and logical).
- viii. Workstation type, NIC, RAM, I/O Port, IP Address, etc.
- ix. Server type, NIC, RAM, I/O Port, IP Address, etc.
- x. Network maintenance report for each workstation and server with problem(s), diagnosis and solution(s).
- xi. Register of hardware maintenance.
- xii. Data backup register and filing.

Training and Awareness

- i. IT related employees should be given adequate training on sensitive IT matters.
- ii. Modern facilities be built up to promote IT education and computer-aided education at all levels in the Institution.
- iii. Concerned personnel be sent abroad / outside the Institution for higher training and education in IT. The employees should be provided with orientation training on IT to build their awareness.
- iv. Library facility be made up-to-date and adequate in IT related books and periodicals.
- v. Internet facility should be given in the library and Training Hall.
- vi. Proper / continued training will have to be given to all employees at different levels on regular basis. IT Department will electronically keep all information regarding training provided to employees.
- vii. Qualified and skilled teachers / speakers will be included in the training program(s) in order to train up employees up to the mark.
- viii. IT personnel to be trained on the necessary steps to be taken in case of any exigency / health security problem emerged in the IT area.
- ix. All the network users will be trained about its operating and security procedures.

Procurement Management

- i. IT Wing shall develop long and short-term plans for purchasing LAN hardware and software.
- ii. Equipment and software shall be procured as per the procurement policy of the Institution / Public Procurement Rule (PPR).
- iii. The IT Wing shall provide technical support to make purchases of a routine nature that are included in the budget approved in every calendar year by proper authority.

Problem Management

- i. The problems be recorded on daily / weekly basis and there will be a team consisting of receptive, responsible and experienced personnel to look into the problem.
- ii. The responsibility for problem resolution will be with the IT wing and the problems will be assigned internally to a team member for action.
- iii. The problem report to be submitted by the team member and the issue must be properly investigated.
- iv. The necessary corrective actions as recommended / suggested by the team member be taken within the time frame bounded by the problem's severity.
- v. The findings and action steps taken during the problem resolution process be documented.
- vi. Remote systems problems also be attended by IT department.

Usages of IT equipment

- i. An official of BIGM will get either a desktop or a laptop. No one will be allowed to use more than one machine. If anyone takes laptop, he/she must return the desktop.
- ii. High-configuration computer will only be provided in case of conducting high level of data intensive research. For conducting regular research work, providing of high-configuration computer will not be allowed.

CHAPTER-3

IT Operation Management

IT Operation Management covers the dynamics of technology operation management including change management, asset management, operating procedures and request management. The objective is to achieve the highest levels of technology service quality by minimum operational risk.

User Request / Change Management

- i. Changes to information processing facilities and systems shall be controlled.
- ii. All maintenance / changes in the IT system will be governed by a formal documented process including forms with necessary change details.
- iii. Signed off forms will have to be obtained from the person/vendor assigned for the task before implementation of changes in software/hardware.
- iv. User Acceptance Test (UAT) will have to be completed before implementation of the change. This document should be preserved for ready reference.

Asset Management

- i. An inventory will have to be kept with all significant details for hardware and software, and it should be reviewed at least once a year. A record of this review will be maintained.
- ii. All assets associated with the information facilities must be labeled with tag and name.
- iii. Asset inventory must be reviewed at least once a year.
- iv. All data on equipment and associated storage media must be destroyed or overwritten before sale, disposal or reissue.
- v. Software used in IT will be subjected to a support agreement.
- vi. Software used in any computer must be approved by authority. Use of unauthorized or pirated software must be strictly prohibited throughout the BIGM, particularly in networked PCs. Random checks will have to be carried out to ensure compliance.

Recording Request / Maintenance History

- i. For ready reference, a file / register will have to be opened for recording history relating to troubleshooting so that problem(s) can be solved easily in future.

CHAPTER-4

Software Development and Acquisition

For any new application or function for BIGM requires analysis before acquisition or creation to ensure that Institution requirements are met in an effective and efficient manner. This process covers the definition of needs, consideration of alternative sources, review of technological and economic feasibility, execution of risk analysis, cost-benefit analysis and conclusion of a final decision to 'make' or 'buy'.

In-house Software

- i. Detailed design and technical application requirements shall be prepared.
- ii. Criteria for acceptance of the requirement shall be defined and approved by the concerned department.
- iii. Application security and availability requirements shall be addressed.
- iv. Developed functionality in the application shall be in accordance with design specification and documentation.
- v. Source code must be available with the concerned department and kept secured.
- vi. Source code shall contain title area, the author, date of creation, last date of modification and other relevant information.
- vii. Software Development Life Cycle (SDLC) with User Acceptance Test (UAT) shall be followed and conducted in the development and implementation stage.
- viii. System documentation and User Manual shall be prepared and handed over to the concerned department.

Outsourced Software

- i. All the software procured and installed by BIGM shall have legal licenses and record of the same shall be maintained by the respective department of BIGM.

Vendor Selection

- i. There must be a core team comprising of personnel from Functional Departments and IT Department for vendor selection.
- ii. Vendor selection criteria for application must address the following:
 - a) Market presence;
 - b) Years in operation;
 - c) Technology alliances;
 - d) Extent of customization and work around solutions;

- e) Performance & scalability;
- f) Number of installations;
- g) Existing customer reference;
- h) Support arrangement; and
- i) Other criteria, if any, prescribed in BIGM's Procurement Policy.

Software Documentation

- i. Documentation of the software shall be available and safely stored.
- ii. Document shall contain the followings:
 - a) Functionality;
 - b) Security features;
 - c) Interface requirements with other systems;
 - d) System Documentation;
 - e) Installation Manual;
 - f) User Manual.

Other Requirements

- i. There shall have a test environment to ensure the software functionalities before implementation.
- ii. User Acceptance Test shall be carried out and signed-off before going live.
- iii. Any bugs and/or errors found due to design flaws, must not be escalated to higher levels in Software Vendors' organization and BIGM, and must be addressed in time.
- iv. Support agreement must be maintained with the provider for the software used in institution with the confidentiality agreement.

CHAPTER-5

Backup and Restore Plan (BRP)

- i. There must be a documented backup procedure.
- ii. Backup copies of information are to be stored off-site at a geographically separate and safe environment.
- iii. There should be at least one backup copy kept on-site for the time critical delivery.
- iv. The backup cycle will have to be based on the following:
 - a) At least 1 – days daily cycle;
 - b) At least 1- month monthly cycle, and
 - c) Yearly cycle as required by regulatory authority.

Backup and Restoration Model

The following Data Backup and Restoration model will be followed until further development of any model by the IT Wing:

- i. The main server and the backup server will have the same configuration in order to keep the system running without any halt;
- ii. A computer will be kept for mirroring data from the main server;
- iii. The backup time and the backup procedure will be set. A particular time has to be reserved for taking backup;
- iv. Data backup will be kept in hard drive(s), CDs and tape drives. Off-site data backup procedure will be adopted;
- v. If necessary, third party software will be used for taking data backup;
- vi. Every user will backup data locally and then save data in a particular folder in the server. The Administrator will subsequently backup all user data and the system data centrally to the backup server as well as removable storage devices;
- vii. The network administrator will identify critical and / or sensitive network data files and applications and ensure that these are adequately protected and backed up;
- viii. There will be at least one backup copy kept on-site for time critical delivery;
- ix. There will be a folder in the name of each Department in the server;
- x. There will be a sub-folder for each subject under the main folder assigned for each Department;
- xi. Data Backup Schedule:

Sunday to Wednesday	backing up changed files
Thursday	backing up all files
End of every month	archiving from backup copies

CHAPTER-6

Service Provider Management

For smooth and efficient running of the BIGM's IT activities and procurement and maintenance of the related hardware/ software, BIGM requires the services of outside hardware suppliers/ other service providers. need to be done in a systematic and professional way so as to protect the interest of BIGM. While using the services of service providers, care should be given to do it systematically and professionally to protect the interest of BIGM.

Service Level Agreement (SLA)

- i. There shall be Service Level Agreement between the Vendor and BIGM.
- ii. The Annual Maintenance Contract (AMC) with the Vendor be made and kept active and always in-force.
- iii. The user site should ensure that the equipment does not contain sensitive live data when hardware is taken by the service provider for servicing/ repairing.
- iv. Service contracts with all service providers including third-party vendors shall include:
 - a) Pricing;
 - b) Measurable service/deliverables;
 - c) Timing/schedules, i.e., Service levels;
 - d) Confidentiality clause;
 - e) Contact person names (on daily operations and relationship levels);
 - f) Roles and responsibilities of contracting parties including an escalation matrix;
 - g) Renewal period;
 - h) Modification clause;
 - i) Frequency of service reporting;
 - j) Termination clause;
 - k) Warranties, including service suppliers' employee liabilities, 3rd party liabilities and the related remedies;
 - l) Ownership of hardware and software;
 - m) Proper Documentation (e.g. logs of changes, records of reviewing event logs);
- i. The IT Department must have emergency phone numbers and easily available contact sources as it is necessary to replace or repair critical network components quickly.
- ii. There shall be up –to-date service plans for all IT activities.

Outsourced Software

All the software procured and installed software collected from outsource by BIGM shall have legal Licenses and record of the same shall be maintained by the respective Department of BIGM.

Outsourcing activities shall be evaluated based on the following practices:

- a) The Objective behind Outsourcing
- b) The Economic viability
- c) The Risks and security concerns.
- d) Arrangements for obtaining the source code for the software.

CHAPTER-7

Disposal Committee

The Institution shall have a Disposal Committee which will play the vital role for overall IT equipment management. The Committee will review the requirement for disposal of IT equipment and advise/recommend to respective Disposal Team for necessary actions. This Committee shall be comprised of:

Wing Chief (Strategic Planning)	Chairperson
Wing Chief (Managerial Services)	Member
Engineer	Member
Accountant	Member
Officer (IT)	Member

Responsibility

The Disposal Committee will be generally responsible for the disposal of IT equipment. However, the Committee shall be specifically responsible for:

- Carrying out need analysis and preparation/finalization for disposal of IT equipment on the basis of need basis.
- Performing vendor management including Service Level Agreement (SLA) where applicable.
- Providing necessary opinion and technical assistance for disposal of IT equipment.
- Ensuring that the policy is established and implemented properly.
- Providing maintenance support with the help of Information Technology as and when necessary.

CHAPTER-8

Virtual Classroom

Purpose of Policy

This policy clarifies rights and responsibilities when delivering and recording teaching and learning using the Virtual Classroom service and other online communication and collaboration technologies.

Overview

The Virtual Classroom service is used in the regular delivery of fully-online programmes, and, in response to the outbreak of any pandemic, has also permitted online and hybrid delivery of programmes normally delivered on campus. The intention of this policy is to help manage the potential risks posed by challenges and complexities in the arrangements for virtual classes. The policy extends existing principles agreed for lecture recording to this context, amending them or making separate provision where required.

Scope

The policy applies to all staff, students and visiting lecturers involved in running or participating in virtual classroom sessions using the Virtual Classroom service or any other supportive communication and collaboration service. This policy covers teaching recorded or live-streamed using the Lecture Recording service, or nonteaching online events, meetings and other activities.

Maintaining a safe space for teaching and learning

The Institution intends each virtual class to remain a safe place for the exposition and discussion of potentially controversial ideas between the lecturers and students on a Course. A safe space is a prerequisite for building an academic community which is in turn critical to student engagement and learning.

1) Access to a virtual class by default will normally be limited to the staff, students or learners on the instance of the Course(s) that the teaching relates to. The lecturer may authorize access for other relevant participants. A student or employee accessing a virtual class without authorization may be investigated.

2) Staff and students contributing to a virtual class will normally be identified within the service by name. This is in the interests of maintaining a safe learning space, supporting academic community and student engagement, and of the effective running of the session. Where a student believes their interests in not being identified within a virtual class may outweigh these interests, they should contact their personal tutor or Student Adviser or the lecturer or course organizer for the Course concerned in advance to discuss whether their participation can be anonymous or pseudonymous.

3) While the building of online academic communities of learning is often likely to be more effective when interactions include video, each participant may nonetheless choose whether or not their video and/or still image is displayed to others within a virtual class.

CHAPTER-9

Tablet Procurement using the Funds of the Institution

Tablets are effectively mobile computers that are integrated into a flat touch screen, which is the main interface rather than a physical keyboard and mouse, though an onscreen virtual keyboard and stylus may be used. There are a wide range of devices available which range in size and performance but all have this general interface.

Tablet use case

Tablets are essential for field workers, including researchers and researcher related workers. If the tablet is primarily for field work, skip consumer tablets and look at rugged tablets built to take a beating. Rugged tablets come with plenty of vehicle mounts and cases. They can be used in heavy rain and are built to withstand dust and drops. Many have extended battery life or come with external battery docks. The easiest way to maintain your fleet of rugged tablets is to purchase them from one manufacturer, so choose carefully.

If employees typically take a lot of notes at work, most tablets will be handy tools. Taking notes on a tablet can reduce the sticky notes and papers scattered across your desk. With a tablet, you can effortlessly search for a specific note and edit or add to it without a pen or pencil. Typing can also be much faster and less strenuous than writing. However, if you enjoy the classic feel of jotting down notes, use a stylus and one of the best handwriting recognition apps to jot down legible, handwritten notes on your tablet and easily search for them later.

Purchasing and billing for Institution-owned devices

- Tablets to be purchased using BIGM funds.
- The Research Project will charge tablet purchases back to the BIGM.
- Information Technology will inventory all BIGM owned tablets at the time of purchase.
- BIGM will not budget nor will the Institution reimburse individuals for mobile device applications. It is preferable for device users to retain control of all apps installed on their device. Typically, apps are free or carry an inconsequential cost.

Conclusion

The increasing use of IT has benefitted immensely from the gains in technological revolution. IT is found to positively impact the speed of service delivery, as well as productivity. BIGM will train its Human Resources from time to time to keep them abreast of the innovations in

the use of IT. This IT Policy will help ensure quality service delivery and productivity of BIGM. From now on, the ability of BIGM will enhance, which is mainly a function of its efficient service delivery that depends on the use of IT.


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