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#### IT POLICY

| POLICY NO.          | ISSUE/REVISION NO. | DATE OF REVISION | NEXT REVISION 2024 |  |
|---------------------|--------------------|------------------|--------------------|--|
| MEC/IQAC/POLICY/015 | 01/01              | 16/08/2021       |                    |  |

| PREPARED BY | VERIFIED BY      | APPROVED BY |  |
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| IT HEAD     | IQAC COORDINATOR | PRINCIPAL   |  |

Mailam Engineering College, Mailam - 604 304.



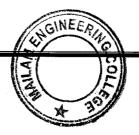
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#### MAILAM ENGINEERING COLLEGE

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### **IT Policies & Guidelines**





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#### 1. Need for IT Policy

- IT Policy is being documented for fair and transparent academic purpose for use of various IT resources in the Campus for Students, faculty, Staff, Management and visiting Guests and Research Fellowship Members.
- Due to the policy initiative and academic drives, IT resource utilization in the Campus has grown by leaps and bounds during the last decade.

Now, MEC has network connections to every computer system covering more than ten buildings across the campus and hostel.

Computer Center is the department that has been given the responsibility of running the institute's intranet and Internet services. Also Firewall security, DNS, email, web and application servers and managing the network of the institute.

MEC is getting its Internet bandwidth from BSNL. Total bandwidth availability from BSNL Ltd., source is 100 Mbps (leased line 1:1).

With the extensive use of the Internet, network performance outreach in three ways:

- When compared to the speed of Local Area Network (LAN), Internet traffic over the Wide Area Network (WAN) is a potential bottleneck.
- When users are given free access to the Internet, non-critical downloads may clog the traffic, resulting in poor Quality of Service (QoS) and affecting critical users and applications.
- When computer systems are networked, viruses that get into the LAN, through Intranet/Internet, spread rapidly to all other computers on the net, exploiting the vulnerabilities of the operating systems.

Too many concurrent users, who are on the high speed LANs trying to access Internet resources through a limited bandwidth, definitely create stress on the Internet bandwidth available.

Every download adds to the traffic on the Internet. This adds to costs and after a point, brings down the Quality of Service and Quality of Experience. Reducing Internet traffic is the answer.

Hence, in order to securing the network, Computer Center has been taking appropriate steps by installing firewalls, access controlling and installing checking and content filtering software at the gateway.

As IT, users are aware, all the educational institutions worldwide have IT policies implemented in their respective institutions.

Without strong management policies, it seems we will not be effective and not

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It may be noted that institute IT Policy applies to technology administered by the institute centrally or by the individual departments, to information services provided by the institute administration, or by the individual departments, or by individuals of the institute community, or by authorized resident or non-resident visitors on their own hardware connected to the institute network. This IT policy also applies to the resources administered by the central administrative departments such as Library, Computer Centers, Laboratories, Offices of the institute, or hostels and guest houses, or residences wherever the network facility was provided by the institute.

#### Applies to

Stake holders on campus or off campus

- Students: UG, PG, Research
- Employees (Permanent/Temporary/Contractual)
- Faculty
- Administrative Staff (Non-Technical / Technical)
- Higher Authorities and Officers
- Guests

#### Resources

- Network Devices wired/ wireless
- Internet Access
- Official Websites, web applications
- Official Email services
- Data Storage
- Mobile / Desktop / server computing facility
- Documentation facility (Printers/Scanners)
- Multimedia Contents

#### 2. Vision, mission and objectives

- **IT Vision:** To be globally competitive Engineering Institute destination that will strive to provide the latest Information Technological resources to all the students as a form of providing quality Engineering education.
- IT Mission: To place MEC amongst the most preferred Engineering Institutes when it comes to IT investment & Implementations through strategic planning combined with developing a globally competitive and sustainable IT Resource Campus environment, thereby making MEC as one of the most favored IT enabled



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Institutions.

#### Policy Objectives: -

The objectives of the IT policy are as follows:

- To provide all required IT resources as per the academic programs laid down by AICTE. Also, introduce new IT technologies which will benefit the students and research staff.
- To effectively have an annual plan of introducing new technologies in-line with the Academia.
- Create provision for priority up-gradation of the products development of the Institute.

#### 3. IT Hardware Installation Policy

Institute network user community needs to observe certain precautions while getting their computers or peripherals installed so that he/she may face minimum inconvenience due to interruption of services due to hardware failures.

#### a) Primary User

An individual in whose room the computer is installed and is primarily used by him/her is considered to be "primary" user. If a computer has multiple users, none of whom are considered the "primary" user, the department Head should make an arrangement and make a person responsible for compliance.

#### b) End User Computer Systems

Apart from the client PCs used by the users, the institute will consider servers not directly administered by Computer Center, as end-user computers. If no primary user can be identified, the department must assume the responsibilities identified for end-users. Computer systems, if any, that are acting as servers which provide services to other users on the Intranet/Internet though registered with the Computer Center, are still considered under this policy as "end-users" computers.

#### c) Warranty

Computers purchased by any Department/Cells should preferably be with 3-year onsite comprehensive warranty. After the expiry of warranty, computers would be maintained by Computer Center.

d) Power Connection to Computers and Peripherals



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All the computers and peripherals should be connected to the electrical point strictly through UPS. Power supply to the UPS should never be switched off, as continuous power supply to UPS is required for battery recharging. Further, these UPS systems should be connected to the electrical points that are provided with proper earthling and have properly laid electrical wiring.

#### e) Network Cable Connection

While connecting the computer to the network, the connecting network cable should be away from any electrical/electronic equipment, as they interfere with the network communication. Further, no other electrical/electronic equipment should be shared with the power supply from where the computer and its peripherals are connected.

#### f) File and Print Sharing Facilities

File and print sharing facilities on the computer over the network should be installed only when it is absolutely required. When files are shared through network, they should be protected with password and also with read only access rule.

#### g) Maintenance of Computer Systems provided by the Institute

For all the computers that were purchased by the institute centrally and distributed by the Computer Center will attend the complaints related to any maintenance related problems.

#### h) Noncompliance

MEC faculty, staff, and students not complying with this computer hardware installation policy may leave themselves and others at risk of network related problems which could result in damaged or lost files, inoperable computer resulting in loss of productivity. An individual's non-compliant computer can have significant,

#### i) Computer Center Interface

Computer Center upon finding a non-compliant computer affecting the network will notify the individual responsible for the system and ask that it be brought into compliance. Such notification will be done via email/phone. The individual user will follow-up the notification to be certain that his/her computer gains necessary compliance. The Computer Center will provide guidance as needed for the individual to gain compliance.

#### 4. Software Installation and Licensing Policy

Any computer purchases made by the individual departments/cells should make sure that such computer systems have all licensed software (operating system, antivirus software and necessary application software) installed.



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#### a) Operating System and its Updating

Individual users should make sure that respective computer systems have their OS updated in respective of their service packs/patches, through Internet. This is particularly important for all MS Windows based computers (both PCs and Servers). Updating OS by the users helps their computers in fixing bugs and vulnerabilities in the OS that were periodically detected by the Microsoft for which it provides patches/service packs to fix them.

#### b) Backups of Data

Preferably, at the time of OS installation itself, one can have the computer's hard disk partitioned into many volumes typically C, D and so on. OS and other software should be on C drive and user's data files on the other drives (e.g. D, E). In case of any virus problem, generally only C volume gets corrupted. In such an event formatting only one volume, will protect the data loss. However, it is not a fool proof solution. Apart from this, users should keep their valuable data on CD / DVD or other storage devices such as pen drives, external hard drives.

#### c) Noncompliance

MEC faculty, staff, and students not complying with this computer security policy leave themselves and others at risk of virus infections which could result in damaged or lost files inoperable computer resulting in loss of productivity risk of spread of infection to others confidential data being revealed to unauthorized persons.

An individual's non-compliant computer can have significant, adverse effects on other individuals, groups, departments, or even whole institute. Hence it is critical to bring all computers into compliance as soon as they are recognized not to be.

#### d) Computer Center Interface

Computer Center upon finding a non-compliant computer will notify the individual responsible for the system and ask that it be brought into compliance. Such notification will be done via email/phone. The individual user will follow-up the notification to be certain that his/her computer gains necessary compliance. The Computer Center will provide guidance as needed for the individual to gain compliance.

#### 5. Network (Intranet & Internet) Use Policy

Network connectivity provided through an authenticated network access connection or Wi-Fi is governed under the Institute IT Policy. The Computer Center is responsible for the ongoing maintenance and support of the exclusive of local applications. Problems

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Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by National Board of Accreditation (NBA) & TATA Consultancy Services (TCS) within the Institute's network should be reported to Computer Center.

#### a) IP Address Allocation

Any computer (PC/Server) that will be connected to the institute network should have an IP address assigned by the Computer Center. Departments should follow a systematic approach, the range of IP addresses that will be allocated to each buildings.

#### b) Running Network Services on the Servers

Individual departments/individuals connecting to the institute network over the LAN may run server software, e.g., HTTP/Web server, SMTP server, FTP server, only after bringing it to the knowledge of the Computer Center in writing and after meeting the requirements of the institute IT policy for running such services. Noncompliance with this policy is a direct violation of the institute IT policy, and will result in termination of their connection to the Network.

#### c) Wireless Local Area Networks

This policy applies, in its entirety, department, or hostel wireless local area networks. In addition to the requirements of this policy, departments, or hostels must register each wireless access point with Computer Center including Point of Contact information.

Departments or hostels must not operate wireless local area networks with unrestricted access. Network access must be restricted either via authentication or MAC/IP address restrictions. Passwords and data must be encrypted.

#### 6. Institute Database Use Policy

This Policy relates to the databases maintained by the institute.

Data is a vital and important Institute resource for providing useful information. Its use must be protected even when the data may not be confidential.

MEC has its own policies regarding the creation of database and access to information and a more generic policy on data access. Combined, these policies outline the institute's approach to both the access and use of this institute resource.

#### Database Ownership:

MEC is the data owner of the entire Institute's institutional data generated in the institute.

Data Administrators:

Data administration activities for the officers in



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#### • MIS Components:

For the purpose of Management Information System requirements of the institute these are:

- Employee Information Management System.
- Students Information Management System.
- Financial Information Management System.
- Library Management System.

Here are some general policy guidelines and parameters for departments, cells and administrative department data users:

#### 7. Responsibilities of Computer Center

#### a) Campus Network Backbone Operations

- 1. The campus network backbone and its active components are administered, maintained and controlled by Computer Center.
- 2. Computer Center operates the campus network backbone such that service levels are maintained as required by the Institute Departments, and hostels served by the campus network backbone within the constraints of operational best practices.

#### b) Maintenance of Computer Hardware & Peripherals

Computer Center is responsible for maintenance of the institute owned computer systems and peripherals that are under warranty or out of the warranty.

#### c) Receiving Complaints

Computer Center may receive complaints from the users if any of the computer systems or peripherals that are under maintenance through them is having any problems.

#### e) Installation of Un-authorized Software

Computer Center or its service engineers should not encourage installing any unauthorized software on the computer systems of the users. They should strictly refrain from obliging such requests.

#### d) Physical Demarcation of Campus Buildings' Network

- 1. Physical connectivity of campus buildings already connected to the campus network backbone is the responsibility of Computer Center.
- 2. Physical demarcation of newly constructed buildings to the "backbone" is the responsibility of Computer Center. It essentially means exactly at which location the fiber optic backbone terminates in the buildings will be



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3. Computer Center will consult with the client(s) to ensure that end-user requirements are being met while protecting the integrity of the campus network backbone.

#### f) Preservation of Network Equipment and Accessories

Routers, Switches, Fiber optic cabling, UTP cabling, connecting inlets to the network, Racks, UPS, and their batteries that are installed at different locations by the institute are the property of the institute and are maintained by Computer Center and respective departments.

#### g) Additions to the Existing Network

Any addition to the existing network done by department or individual user should strictly adhere to the institute network policy and with prior permission from the competent authority and information to Computer Center.

Institute Network policy requires following procedures to be followed for any network expansions:

- 1. All the internal network cabling should be as on date of CAT 6 UTP.
- 2. UTP cabling should follow structured cabling standards. No loose and dangling UTP cables are drawn to connect to the network.
- 3. UTP cables should be properly terminated at both ends following the structured cabling standards.

#### 8. Guidelines for Desktop Users

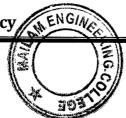
These guidelines are meant for all members of the MEC Network User.

Due to the increase in hacker activity on campus, Institute IT Policy has put together recommendations to strengthen desktop security.

The following recommendations include:

1) When a desktop computer is installed, all operating system updates and patches should be applied. In addition, operating system updates and patches should be applied regularly, on an ongoing basis. The frequency will be a balance between loss of productivity (while patches are applied) and the need for security. We recommend once in a week cycle for each machine. Whenever possible, security policies should be set at the server level and applied to the desktop machines.

9. Video Surveillance Policy



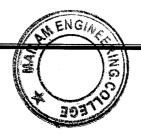
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The system comprises: Fixed position cameras; Monitors; digital video recorders;

Signs will be prominently placed at strategic points and at entrance and exit points of the campus to inform staff, students, visitors and members of the public that a CCTV Camera installation is in use.

The system has been installed by institute with the primary purpose of reducing the threat of crime generally, protecting institutes premises and helping to ensure the safety of all staff, students and visitors consistent with respect for the individuals' privacy. These purposes will be achieved by monitoring the system to:

| 10. Web Ap                    | plication Filter  |            | THE STATE OF | and a sub-superior |  |  |
|-------------------------------|---|------------|--|--------------------|--|--|
| Application                   | Management  | Staff      | Student  | Guest              |  |  |
| Captive portal Session        | concurrent sessions / user  |            |  |                    |  |  |
| Sites Blocked                 | Porn, torrents, Proxy & Hacking, Gambling, Marijuana, Criminal Activity |            |  |                    |  |  |
| YouTube                       | Allow   | Allow      | Time based   | Allow              |  |  |
| YouTube_Educational           | Mandatory Certificate needs to be purchased                             |            |  |                    |  |  |
| What's App                    | Allow   | Allow      | Time based   | Allow              |  |  |
| Facebook                      | Allow   | Allow      | Time based   | Allow              |  |  |
| Skype or Video <u>calling</u> | Allow   | Allow      | Time based   | Allow              |  |  |
| Entertainment                 | Allow   | Time based | Time based   | Allow              |  |  |
| TV_News Channel               | Allow   | Allow      | Time based   | Allow              |  |  |
| Online Games                  | Deny  | Deny       | Deny   | Deny               |  |  |
| Windows Update                | Allow   | Allow      | Allow  | Allow              |  |  |





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- Default Block Category in Firewall
  - Weapon
  - Phishing and fraud
  - Militancy and Extremist
  - Gambling
  - Pro-Suicide and self-Harm
  - Criminal Activity
  - Intellectual Piracy
  - Hunting and Fishing
  - Legal highs
  - Controlled substances
  - Anonymizers
  - Sexually Explicit
  - Nudity
  - Advertisement

