
	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

Preventive Maintenance Plan for Computer Laboratory Equipment

Universidad Politécnica Salesiana

Technical Secretariat of Information Technology

Códe:	STTI-MPRL-0001
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Revised by:	Technical Secretary of Information Technology
Approved by:	Main Campus Vice President
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Cuenca, September 15, 2015

The Technical Secretariat of Information Technology is responsible for reviewing, updating and fulfilling the responsibilities outlined in the Document Control Procedure of the Information Technology Department of Universidad Politécnica Salesiana.


The document titled, “Preventive Maintenance Plan for Computer Laboratory Equipment” has been reviewed and approved on September 1, 2015 and is issued in the form of a controlled version verified through signatures.

Developed by:
Support Technician

Approved by:
Main Campus Vice President

Revised by:
Technical Secretary of Information Technology

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Change History


Versi0n	Reason for change	Made by	Date
0.1	Creation of the Quality Plan of the Technical Secretariat of Information Technology	Técnico de Soporte	09/01/2015

People Involved


Campus Vice President
Office of the Campus Vice President

Technical Secretary of Information Technology
Technical Secretariat of Information Technology

Support Technician
Technical Secretariat of Information Technology


	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

CUENCA – MONTH - YEAR

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

Contents

Change History	3
People Involved.....	3
PREVENTIVE MAINTENANCE PLAN FOR COMPUTER LABORATORY EQUIPMENT	6
1.- JUSTIFICATION.....	6
2.- OBJETIVES.....	6
3.- MAINTENANCE DESCRIPTION	7
3.1. Hardware Preventive Maintenance	7
3.2. Software Preventive Maintenance.....	7
4.- REQUIRED HUMAN RESOURCES	8
5.- REQUIRED MATERIAL RESOURCES.....	8
5.1.- Budget.....	9
6.- REQUIRED SOFTWARE RESOURCES	9
7.- MAINTENANCE ORDER BLOCK SCHEME	9
8.- MAINTENANCE RESPONSIBILITY	9
9.-MAINTENANCE PLAN SCHEDULE FOR UPS MACHINES.....	10
10.- MAINTENANCE PROCEDURE.....	10
10.1.- Information backup, on EXTERNAL HARD DISK if necessary	10
10.2.- The following should be verified on the computer	10
10.3.- Perform a Complete Formatting of the Computer	10
10.4.- Installation of the Operating System – Office Package – Utility Programs.....	10
10.5.- User creation.....	11
11.- Creation of the Preventive Maintenance Record	11
12.- Summary of Preventive Maintenance	13
13.- Conclusion.....	14
14.- Observations	14

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

PREVENTIVE MAINTENANCE PLAN FOR COMPUTER LABORATORY EQUIPMENT

1.- JUSTIFICATION


Computer equipment, by virtue of being in constant operation for the entire academic period (six months), is exposed to different hardware and software changes, as well as the accumulation of dust on its parts. These factors affect the equipment and can cause poor performance in its operation.

The proliferation of computer viruses may infect computers and disconfigure their installed antivirus protection system, as has been detected in some cases.

Therefore, it is necessary to review the software and hardware, and conduct a total internal and external cleaning of dust accumulated in the equipment. To this purpose, the Department of Information Technology, responsible for providing technical support in this area, has developed a preventive maintenance plan for computer lab equipment to provide total maintenance of both hardware and software.

2.- OBJETIVES

- Perform internal and external cleaning of computer equipment
- Perform a debug of the software installed on each computer

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

3.- MAINTENANCE DESCRIPTION


3.1. Hardware Preventive Maintenance

- Internal cleaning
 - CPU (Processor, Memory, Board, Ventilator, Power Source)
 - Monitor
 - Keyboard
 - Mouse
 - Printer
 - Floppy drive
 - CD-ROM / CD-RW/ DVD

- External cleaning
 - CPU
 - Monitor
 - Keyboard
 - Mouse
 - Printer
 - Floppy drive
 - CD-ROM / CD-RW/ DVD

3.2. Software Preventive Maintenance

- Review of the necessary programs for their respective functioning.
- Uninstallation of unauthorized programs.
- Review of the state of the operating system.
- Review of Users in each unit.
- Review of administrator user passwords.
- Review of name and password of each user who uses the machine.
- Antivirus review and update.
- Review of the names and IP of the equipment and configuration of TCP/IP
- Deletion of temporary files.
- Deletion of temporary internet files.
- Free up space on the hard drive.
- Virus check.


	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

4.- REQUIRED HUMAN RESOURCES

- Support and Maintenance Technicians, Laboratory Assistants

5.- REQUIRED MATERIAL RESOURCES

- Kit de Mantenimiento para Impresoras.
- Maintenance Kit for Printers.
- Multimeter.
- Sponges
- LCD screen cleaning spray
- Industrial alcohol.
- Scotch Brite Towel Covers, reusable
- Protective masks.
- Plastic Tie Sleeves 100 x 2mm
- 500GB portable hard drive
- Small brushes
- 600w/120vac power supplies
- Box of small screwdrivers
- DVDs for backups
- Masking tapes
- Helical tape covers.
- Aprons
- Pairs of gloves
- Flannels
- 4 sheets of fine sandpaper
- Plastic channels 60x 40
- RJ45 Cat6A Jack
- RJ45 connectors
- 7 foot patch cord.
- Liquid soap

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology	Version: 1.0
	Preventive Maintenance Plan for Computer Laboratory Equipment	

5.1.- Budget.

The Administrative Technical Directorate will provide the necessary materials according to the budget established for this period.


6.- REQUIRED SOFTWARE RESOURCES

- Microsoft Windows Package
- Microsoft Office Package
- Autodesk Package
- Matlab Package
- Adobe Creative Cloud Package
- Labview Package
- Antivirus
- Netsupport School Package
- Arcgis Package
- Ansis Package
- Shadow Defender
- Other

7.- MAINTENANCE ORDER BLOCK SCHEME

	LABORATORIES	Equipment Number

8.- MAINTENANCE RESPONSIBILITY

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

9.-MAINTENANCE PLAN SCHEDULE FOR UPS MACHINES.

Start	Responsible	Laboratory	Equipment	Total PCs	Type

10.- MAINTENANCE PROCEDURE

10.1.- Information backup, on EXTERNAL HARD DISK if necessary

- The backup must contain institutional information only.


10.2.- The following should be verified on the computer

- Name of the computer
- Name of the Domain or Workgroup
- IP Address (Static or Dynamic) of the equipment (Desktop or Laptop).
- Installed Programs.
- Virtual Drive Shortcuts
- Installed Peripherals (Printer Scanner, etc.)

10.3.- Perform a Complete Formatting of the Computer

10.4.- Installation of the Operating System – Office Package – Utility Programs

- En esta instalación se debe tomar en cuenta que toda instalación de cualquier software se debe constatar que llega su licencia respectiva.
- This installation must consider that any installation of software must include a verification of the respective license.
- Operating Systems:

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0


- Windows 7/8 Profesional, 32 or 64 Bits
- Utility programs:
Microsoft Office 2013 (Excel-Word-PowerPoint-Visio-Project-Outlook)/Adobe Acrobat Reader /PDFCreator/7 Zip/VLC Player/ Antivirus/ Firefox Mozilla /Java /Adobe Flash Player/NetSupport/Visual Studio/Shadow.


10.5.- User creation

- 1 Administrative user:
User name: UPS
- Naming format for computer:
[lab as an acronym for laboratory] [Laboratory number] [Seat occupied within the laboratory]
First computer of laboratory 1
Example: lab0101

11.- Creation of the Preventive Maintenance Record


The Preventive Maintenance records must be filled out and signed by the person in charge of support and delivered to the Technical Secretariat of Information Technology.


	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology	Version: 1.0
	Preventive Maintenance Plan for Computer Laboratory Equipment	

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology	Version: 1.0
	Preventive Maintenance for Computer Laboratory Equipment	

TECHNICAL MAINTENANCE RECORD FOR COMPUTER LABORATORY EQUIPMENT				
Date:				
Laboratory:				
Name of equipment:				
IP Address:				
Network Mask:				
Gateway:				
DNS:				
Mac Address:				
STATUS				
STATUS				
PARTS	REVISION	MAINTENANCE	CHANGES	OBSERVATIONS
CPU				
Power Source				
CD-ROM/DVD RW				
Keyboard				
Mouse				
UPS				
Software				
Antivirus				
Responsible:				
Start time:		End time:		

For changes made to a computer component, when a failure occurs or when the maintenance consists of a small soldering of the video card, etc. or simply a total change of the Monitor or a Mouse, etc., the Corrective Maintenance will be carried out depending on the problem and the speed of the equipment. In this case, the following record is used:


	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology	Version: 1.0
	Preventive Maintenance Plan for Computer Laboratory Equipment	

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology	
	Preventive Maintenance for Computer Laboratory Equipment	Version: 1.0

TECHNICAL MAINTENANCE RECORD FOR COMPUTER LABORATORY EQUIPMENT			
Laboratory:			Date:
Name of equipment:		Ip:	Mac:
HARDWARE DAMAGE		SOFTWARE DAMAGE	
		<i>OPERATING SYSTEM:</i>	
		<i>OFFICE SYSTEM:</i>	
		<i>BASE SOFTWARE:</i>	
		<i>AUTOCAD:</i>	
		<i>INVENOR:</i>	
		<i>MECHANICAL:</i>	
		<i>ELECTRICAL:</i>	
		<i>MATLAB:</i>	
		<i>ANTIVIRUS:</i>	
		<i>OTHERS</i>	
CONNECTIVITY			
<i>IP ADDRESS:</i>		<i>SUBNET MASK:</i>	
<i>MAIN DNS:</i>		<i>GATEWAY:</i>	
<i>SECONDARY DNS:</i>			
Responsible:			
Start time:		End time:	

12.- Summary of Preventive Maintenance

At the end of the Maintenance, a summary of the work carried out is completed. Once all the previously established points of both hardware and software for each computer are fulfilled, important observations found during the work should be included in this summary.

	QUALITY MANAGEMENT SYSTEM	Code: STTI-MPRL-0001
	Technical Secretariat of Information Technology Preventive Maintenance Plan for Computer Laboratory Equipment	Version: 1.0

13.- Conclusion

By executing this Maintenance Plan every six months, the useful life of the equipment is extended, and a better service is provided, thus guaranteeing greater availability of the equipment.

14.- Observations