

## BIOMEDICAL ENGINEERING & ELECTRONICS DEPARTMENT (Formerly known as Electronics Department)

### Introduction:-

- Biomedical Engineering & Electronics Department is established to support/maintain Biomedical Equipment's and Electronics devices in the campus and off campus.
- Department is also offers services to Building Automation Equipment's, Desktop, Printer, Intercom Telephone Services, Dish TV Services and CCTV Surveillance system.

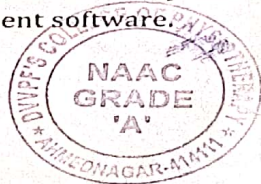
### Installation Policy for New Equipment


- 1) On receipt of new equipment, In-charge central stores sends intimation to the indenter. The Indenter /user along with the Biomedical/Electronics Engineer inspects the equipment for-
  - a. Completeness.
  - b. Performance.
  - c. Resolution. & sign the acceptance protocol.
- 2) After the acceptance-protocol has been signed. The firms/vendor representative visit the site and certifies adequacy as per requirement of the equipment.
- 3) Service engineer of the vendor installs the equipment in presence of the Engineers of electronics department and conduct course of instructions wherever applicable
- 4) Certain documents are required along with the equipment like an operating manual, repair manual and list of spares both required to be readily available with the equipment.
- 5) Operator training may be carried out under the aegis of Electronic branch who will issue "Driving License" to a trained user wherever applicable.
- 6) Based on the available literature or readily available with the OE supplier, list of Do's & Don'ts is made available to the user for compliance & display next to the equipment at the installation site.
- 7) Commissioning report is sent to the Central store for further necessary action.
- 8) Electronics Engineer plans maintenance schedule and provision of spares.
- 9) A copy of the operator's manual is handed over to the user. As a policy, copy of the same will also be available with the Electronic department.
- 10) The central store will assign EMD serial number (Item Code) to the equipment for the sake of distinctive identity; the number which will be used by the user and maintenance department both in addition to central stores for any further communication.

The record of newly installed equipment be maintained in Maintenance management software.

  
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VPF's College of Physiotherapy  
Ahmednagar-414111



  
Maintenance Engineer  
P.D.V.V.P.F's Dr. Vikhe Patil  
Memorial Hospital & Medical College.  
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## **Standard Operating Procedure (SOP) For the Equipment Maintenance Department**

### **Scope of Work:-**

This procedure applies to the maintenance of all Instruments and Equipment used within the Campus and off Campus,

- 1) All Bio-Medical, Electronic, Electro-mechanical equipment's installed in the Campus.
- 2) All the equipment's installed in IT Centers.
- 3) Maintenance of all the Equipment installed at Dr. Vithalrao Vikhe Patil Foundation's Medical College & Memorial Hospital, Vilad Ghat, Ahmednagar.

### **Responsibility:**

#### **Biomedical / Electronics Engineer-**

- To Report, Day- to-day maintenance activities to the Management.
- To supervise overall functioning of department.
- To write an individual SOP for all equipment which defines all the maintenance requirements (eg. Preventive, Breakdown and calibration) regardless of whether carried out by an external Service Provider (eg. Authorized Service Franchisee or OEM),
- To prepare preventive maintenance Schedule to be carried out by the in-house or by external service provider, in consultation with the Junior Electronic Engineers.
- To prepare the technical specifications for new equipment in consultation with user HOD and submit to the Purchase department as & when required,
- Evaluate the performance of the installed equipment, calibrate whenever necessary.
- Ensure conduct of operation training of the users and issue "Driving License".
- To carry out installation of new equipment by OEM or in house.
- To recommend the AMC and CMC of equipment to the Management
- Any other work assigned by higher authority.

#### **Junior Electronic/Biomedical Engineer**

- Overall supervision of Maintenance work.
- To carry out the Preventive/Routine maintenance of Equipment and attend to reported Breakdown of equipment with the help of allotted technicians,
- To handle day-to-day breakdown complaints of all the equipment installed in the campus,
- To ensure availability of the required of spares for the maintenance of various equipment,
- To submit daily report to the Biomedical/Electronic Engineer,
- To guide/train the technicians/supervisor.
- Work of Biomedical Engineer in his absence.

- Any other work assigned by higher authority.

### **Maintenance Supervisor**

- To supervise Preventive/Routine maintenance of Equipment.
- To supervise day-to-day breakdown complaints of all the equipment installed in the campus,
- To raise the requirement of spares required for the maintenance of various equipment in consultation with Jr. Biomedical Engineer.
- To submit daily report to the Biomedical / Maintenance Engineer,
- Any other work assigned by Higher Authority.

### **Clerk/Store Keeper-**

- Documentation work of department.
- Maintain (receipt/issue) inventory of spares.
- Generate pending complaints report and submit to the Maintenance Engineer,
- Any other work assigned by Higher Authority.

### **Electronics/Biomedical Technicians:**

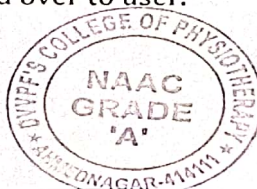
- To carry out the preventive maintenance and breakdown maintenance as per the schedule and under instructions of Biomedical/Electronics Engineer.
- Any other work assigned by Higher Authority.

### **Breakdown Complaint Handling Mechanism during office Hours**

- Receives the report and forward to the concerned Biomedical /Electronics Engineer.
- Biomedical /Electronics Engineer will examine the nature of complaint and will carry out maintenance, on site with the help of technician. If onsite maintenance is not possible equipment be shifted to the maintenance workshop.
- for onsite repair: any spares required be consumed from departmental stock, rectify the complaint as per check list along with the user before handing over equipment and ensure serviceability as per the Check list and then hand over the equipment in good working condition to the end user,
- In case of in-house repair is not possible then service call be given to the OEM service center in consultation with the Biomedical /Electronics engineer,
- OEM Service engineer will attend the complaint and if required be recommend to shift the equipment to service center for repairs. Store department should issue gate pass and arrange to send equipment to the service center,
- Equipment under AMC/CMC: If equipment is under AMC, the service engineer of vendor/firm be informed about breakdown.
  - Vendor service engineer will visit and examine the equipment and carry out breakdown maintenance. Performance verification check be carried out and if found in good working condition, the equipment be handed over to user.

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- In case site repair is not possible OEM engineer may advise sending of the equipment to the main service centre.
  - Store department should issue gate pass and arrange to send equipment to the service centre,
  - OEM service engineer will carry out repair and necessary calibration and send it along with detailed technical report to the maintenance department,
  - Concerned Biomedical/Electronics Engineer will re-examine it before handing over to the end user in good working condition.
- To close the complaint: On resolution of complaint, the consent from user be sought to close the complaint.

**Procedure for the Preventive Maintenance:**

➤ **Equipment under AMC/CMC**

- Concerned Biomedical/Electronics Engineer will ask OE supplier to indicate probable dates for maintenance. After receipt of the same he will inform the user and amend the sticker, located at the rear side of the equipment (indicating the month of maintenance)
- Biomedical/Electronics Engineer will monitor the month of Preventive Maintenance and intimate to the OE supplier.
- Accordingly engineer from OEM will visit and perform the job and carry out PVC as per the protocol, hand over equipment to the end user and realign/amend the PM sticker indicating next PM.

• **Non-AMC/CMC Equipment:**

- After studying the Operating and service manual/recommendations of OEM supplier, the Biomedical/electronics engineer should decide the Maintenance frequency based on the use of equipment. Prepare the check list, and intimate to the end user about the probable dates of maintenance.
- Accordingly PM Sticker be modified.
- Biomedical/Electronics Engineer should perform the maintenance as per schedule and maintain the record.

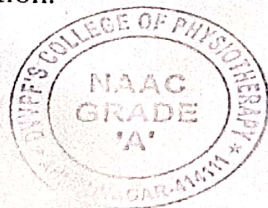
**Complaint handling Mechanism after office Hours:**

- Schedule for ON-CALL engineer is drawn by the Biomedical/Electronic Engineer.
- If any equipment is reported for malfunctioning, the end user immediately calls the telephone operator, who inturn informs the engineer/Technician (on Call Duty)
- The On call engineer/Technician should examine the equipment at site and take corrective action.

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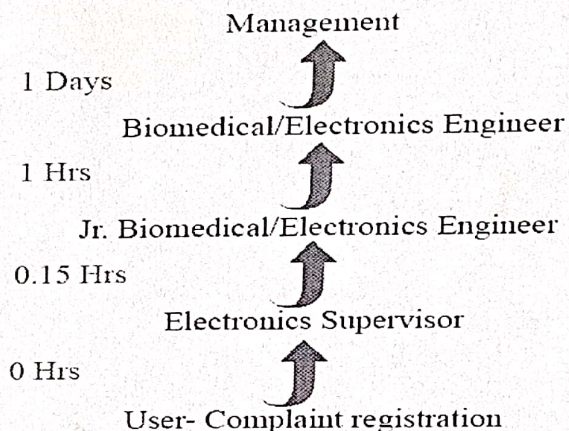
Maintenance Engineer  
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- He records the events in his work diary and report to the Biomedical/electronics engineer next day. However in case of major breakdown Biomedical/electronics engineer be informed immediately.

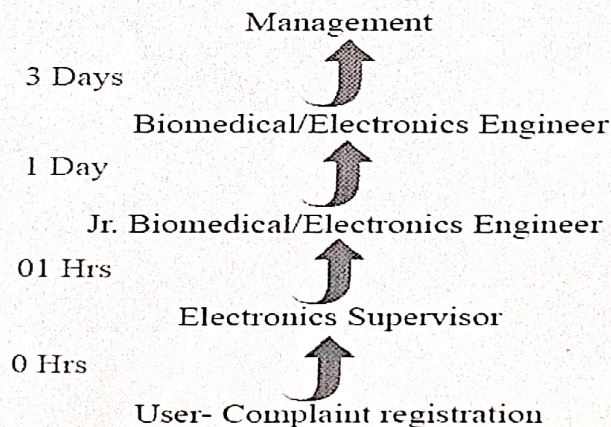
**Escalation Matrix**

- In case complaint is not attended or repairs are delayed the users can escalate the complaint as per following escalation matrix.

**Life Saving equipment Complaints Escalation Matrix**



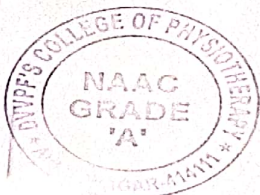
**Normal Electronics equipment Complaints Escalation Matrix**



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## Telephone Services

### Intercom Telephone

- The department provide, co-ordinates & maintains the Intercom Telephone system in the campus.
- Department should provide intercom telephone services wherever applicable in offices, residential area and hostels.
- The Intercom connection in residential be provided to on call Teaching faculty, Staff engaged in emergency services etc. However application for the seeking services be submitted through respective Head of department to the Administration /management.
- The electronics department should also co-ordinate the billing of the telephone services hired from BSNL at central EPABX. i.e. analysis of bills, timely payment co-ordination etc.
- The electronics department should maintain telephone instrument, telephone network and EPABX system.

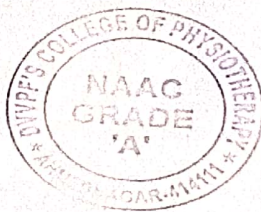
### Mobile Telephone Services

- The department provides co-ordinates & maintains the Mobile telephone services to designated staff.
- Department should provide the mobile communication services given to key staff. The work includes provide hand set, mobile connectivity, billing and maintenance of handset etc.
- Application to avail official mobile telephone service be given to management through respective HOD.
- The user given official mobile facility are categorized depending upon nature of their work and monthly billing limit be given for usage of telephone strictly for official use?
- The amount exceeding billing limit be recovered from staff from monthly salary. The intimation to this effect be given to account department by electronics department.

### CCTV Surveillance system

- Electronics department co-ordinates installation, maintenance of CCTV cameras installed in the department.
- Help the security department to retrieve specific footage if required and maintain desired backup of data.

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## **Management Information Centre (Formerly Known As Computer Department)**

**Name of the Department:** - Maintenance (IT) Department.

### **Scope of Department:-**

The Computer department is responsible for providing services / support for department in the campus and off campus (IT Center) for following areas...

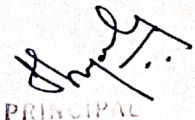
- 1) Central Procurement & Maintenance of computer desktop, laptop, PACS Thin Client, Scanners, Printers, servers.
- 2) Establishment & Maintenance of Wired, Wireless, Wi-Fi Network across the campus.
- 3) Procurement, installation and maintenance of application & system software's.
- 4) Procurement, installation and support for customized software, ERP etc.
- 5) Management and support to the Village IT Project & its activities.
- 6) Design, development and updation of official website of [www.vims.edu.in](http://www.vims.edu.in)
- 7) Maintenance & support to Hospital & Medical College email services (vims.edu.in).

### **Procurement of New computer peripherals (Printer/Desktop/Scanner)**

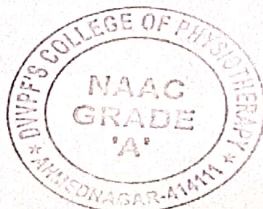
- The budgetary provision for all the computer peripherals to be procured in institute is made centrally by Computer department.
- The user department intimate the future requirement to computer department so as to allocate budget for them.
- Computer department make provision for additional upcoming requirement as well. This will enable to accommodate non planned requirement of department.
- Normally computer desktop, Printers, PACS terminals are procured in bulk and kept as store stock in central store.


### **Inspection of New Device (Printer/Desktop/Scanner)**

- On receipt of new device, In-charge central stores sends intimation to the Computer department. The maintenance Engineer of computer department inspects the equipment for-
  - a) Completeness,
  - b) Performance. & sign the acceptance protocol.
- The computer department assign Equipment serial number to the devices for distinctive identity; the number which will be used by the user and maintenance department both in addition to central stores for any further communication.

  
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- The device is registered in software of computer department along with history of procurement (name of supplier, brand name, model no, date of purchase, warrantee details) and technical specifications.

#### **Allotment of computer peripherals (Printer/Desktop/Scanner)**

- The user department need to raise their requirement to Computer department specifying detailed justification. The said application is analyzed by computer department and put up to management for final approval. On approval, the required device is issued to user department by central store on intimation from computer department.

#### **Installation of New Device (Printer/Desktop/Scanner)**

- Once device is issued to user by central store. Based on requirement of user the device is installed by Computer maintenance engineer in user department.

#### **Standard Operating Procedure**

##### **SOP for the computer Peripheral Maintenance, Scope of Work:-**

This procedure applies to the maintenance of all computer peripherals within the Campus and off Campus,

- All Computer devices in the Campus, (eg. Hospital Buildings, Medical College, College of Physiotherapy, College of Nursing)
- All the equipment's installed in IT Centers
- Maintenance of Wireless Network of IT center
- Wi-Fi Network
- Local Area Network (Wired LAN).

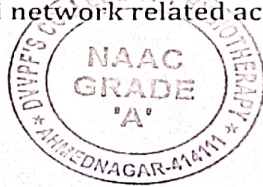
#### **Job Responsibility of staff:-**

##### **Manager IT -**

- To Report, Day- to-day maintenance activities to the Management (TS),
- Write an individual SOP for all equipment's which defines all the maintenance requirements (ie. Preventive, Breakdown) regardless of whether carried out by an external Service Provider (eg. Authorized Service Franchisee or OEM),
- To prepare preventive maintenance Schedule.
- To prepare the technical specifications for new equipment and submit to the Purchase department as & when required,
- Evaluate the performance of the installed equipment.
- Overall Supervision
- Activities related to IT centers/Telemedicine project (network/software design and maintenance)
- Web designing/ development.
- Server Maintenance & administration
- Network design, planning & development work
- Wireless /WiFi network related activities.

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- Internet Services related activities.
- Preparation of various maintenance contract papers.
- Any other work assigned by higher authorities.

#### **Sr. Computer programmer**

- Overall software support.
- Software maintenance and support for Campus Automation software modules of Account, Stores, Purchase, MRD, CCL, ICU,OT, OPD, Pathology, Microbiology, Radiology, HRD & Payroll Department
- New Software development related activities
- Support to Library Management Software
- Work of Computer Programmer in his absence.
- Any other departmental work assigned by authorities.

#### **Computer programmer**

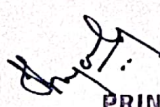
- Software maintenance & support of projects.
- PACS image archiving related work.
- Short term Software application development for projects
- Support to Biometric Punching Machine.
- To Assist Sr. Programmer for software support.
- Work of Sr. Programmer in his absence.
- Any other departmental work assigned by authority.

#### **I/c Hardware & Network**

- Overall Supervision/Co-ordination of Computer maintenance.
- Maintain record and correspondence regarding inventory of computer.
- New installation/maintenance of computer systems of Basement of OPD Building.
- Daily Backup of PACS Server.
- Support to systems software /Application Software
- Maintain record and correspondence regarding AMC/Warrantee/Network/Preventive Maintenance.
- Network (Wired/Wireless/Wi-Fi) maintenance and installation.
- Problems regarding email/internet /network connectivity.
- To Assist Manager IT in server administration.
- Work of Jr.MaintenanceEngineer in his absence.
- Any other departmental work assigned by authorities.

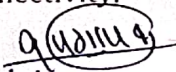
#### **Maintenance Supervisor**

- Supervision of Computer maintenance.
- New installation/maintenance of computer systems.
- Support to systems software /Application Software
- Network (Wired/Wireless/Wi-Fi) maintenance and installation.
- Problems regarding email/internet /network connectivity.

  
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- To Assist I/c Hardware & Network for hardware /network support.
- Work of Jr.Maintenance Engineer in his absence.
- Any other departmental work assigned by authorities.

#### **Junior Maint. Engineer (Printers)**

- Maintain record and correspondence regarding inventory of Printers & New installations.
- New installation/maintenance of computer systems of Hospital Buildings, Medical College, College of Physiotherapy, College of Nursing)
- In-house Printer Maintenance of all printers.
- Support to systems software /Application Software
- Problems regarding email/internet /network connectivity.
- Network (Wired/Wireless/Wi-Fi) maintenance and installation.
- To Assist Manager IT in server administration
- Any other departmental work assigned by authorities.

#### **Hardware Assistant**

- Maintain record and correspondence regarding inventory of Printers & New installations
- New installation/maintenance of computer systems of Hospital Buildings, Medical College, College of Physiotherapy, College of Nursing)
- In-house Printer Maintenance of all printers.
- Support to systems software /Application Software
- Problems regarding email/internet /network connectivity.
- Printer Maintenance Work of Jr Engineer (Printers) in his absence.
- Any other departmental work assigned by authorities.

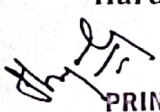
#### **Multimedia Operator**

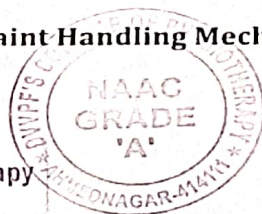
- Clerical work of department (filing/Typing)
- Activities related to different Programs.
- Activities related to VIMS Wi-Fi services.
- DTP work as and when required.
- Checking Official Email of Institute and forwarding to concern.
- Any other departmental work assigned by authorities

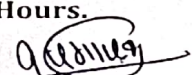
#### **Junior Maint. Engineer (Desktop)**

- New installation/maintenance of computer systems of Hospital Buildings, Medical College, College of Physiotherapy, College of Nursing)
- Support to systems software/Application Software.
- Work of Maintenance supervisor in his absence.

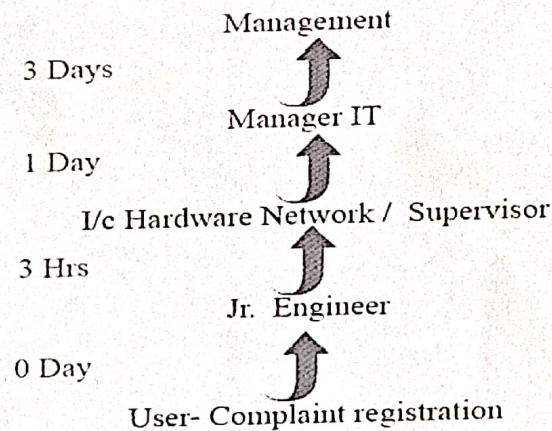
#### **Hardware Complaint Handling Mechanism during office Hours.**

  
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- Where ever only one computer is available in department and same has undergone a problem, the complaint can be logged over telephone Ext: 234. The person receiving call will log your complaint on your behalf.
- The complaints logged will be subsequently attended by respective engineer designated for that area. He will examine the nature of complaint and will carry out maintenance, on site or else if not possible then advise the user to shift the equipment to the Computer maintenance workshop.
- If require requisite spare will be used from workshop stock to rectify the complaint.
- On resolution of problem and after consent of user the complaint is closed.
- In case complaint is not attended or repairs are delayed the users can escalate the complaint as per following escalation matrix.



- In case of in-house repair is not possible then service call be given to the service center or device is sent for repair to service center. However standby be provided by Computer Department.
- If equipment is under AMC, call is logged by computer maintenance engineer to concern company to carry out corrective maintenance.
- If any device required to send to service center for further repairs, Computer Maintenance will prepare gate pass and arrange to send equipment to the service center.

#### Procedure for the Preventive Maintenance:

- In case of Equipment under AMC/CMC the periodic preventive maintenance schedule/follow-up will be done by computer department. The I/C Hardware network is responsible to follow the schedule and follow-up.
- In case of Non-AMC/CMC Equipment: The respective engineer designated for are will carry out preventive maintenance of equipment twice a year.

#### Hardware Complaint handling Mechanism after office Hours:

- If any equipment is reported for malfunctioning, the end user immediately calls the telephone operator, who intern informs the engineer on call.
- The Duty engineer will examine the device at site and take corrective action.

#### **Software Complaint Handling Mechanism.**

- Users should contact on telephone (intercom or mobile) to report the software complaints.
- Incase Campus automation software the complaints be intimated to Sr. Programmer.
- Any changes desired in software be submitted in designated form duly signed by HOD of respective department.
- The changes pertaining to policy change be accompanied with concern circular or approval of management to that effect.
- The complaints not resolved in time be brought to notice of Manager It.

#### **Network/Wi-Fi/ wireless Network / Internet Services Complaint Handling Mechanism**

- During office hours Users should contact on ext: 234to report the complaints.
- Network /Wi-Fi /Wireless Network complaint be reported to I/c Hardware Network or Maintenance supervisor.
- The complaint regarding Internet Service be reported to I/c Hardware Network or Manager It.
- During non-office hours complaint be reported to engineer on call through Telephone operator.

#### **VIMS - Email services**

- Hospital & College mail server related complaints be to I/c Hardware Network or Manager It.
- New email id creation be done on approval from concern Registrar.

#### **SOP for Web publication of documents**

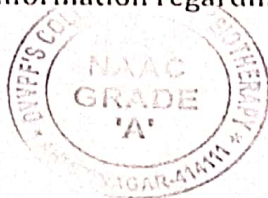
- College website is designed, maintained and updated by computer Department.
- The contents to be updated on website about department, activity, events can be sent to Manager It for updation through Register/Trustee & Secretary only.
- All photos should be submitted in.jpg format and include a brief description of each photo, Photos should not be sent as Word documents, PowerPoint presentations, etc.
- The following routine content can be directly uploaded by webmaster without approval.

1. Information regarding CME/events/workshop and guest lectures.
2. Information regarding awards and honors.

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3. Information regarding VIMS Admission (after approval from registrar examinations/Controller of examinations)
4. Latest news

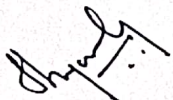
#### **Wi-Fi Services of VIMS**

- Wi-Fi facility is made available in All the Buildings in Campus.
- Wi-Fi is made available on authentication method. i.e. device registration.

#### **Any Other Important Please Write:-**

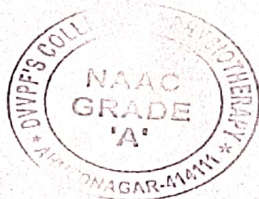
#### **Departmental Activities:-**

- **Making Decisions and Solving Problems**
  - Analyzing information and evaluating results to choose the best solution and solve problems.
- **Analyzing Data or Information**
  - Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
- **Interacting With Computers**
  - Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
- **Getting Information**
  - Observing, receiving, and otherwise obtaining information from all relevant sources.
- **Updating and Using Relevant Knowledge**
  - Keeping up-to-date technically and applying new knowledge to your job.
- **Thinking Creatively**
  - Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.



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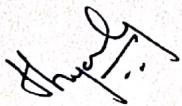
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## **Management Information Centre (Formerly Known As Biomedical Department)**

**Name of the Department:** -Maintenance (Biomedical) Department.

### **Introduction of the Department: -**

1. Bio – Medical Engineering (BME) is the application of engineering principles and techniques to the medical field. It combines the design and problem solving skills of engineering with medical and biological sciences to help improve patient health care and the quality life of individuals.
2. The fusion of engineering science with clinical medicine is set to play a central role in the development and improvement of treatment across a range of diseases and medical conditions. Technology can be applied to help save lives through healing or replacement of vital organs, and through the improvement of imaging techniques to detect the onset of disease more effectively.
3. Biomedical engineering (BME) is the application of engineering principles and design concepts to medicine and biology. This field seeks to close the gap between engineering and medicine: It combines the design and problem solving skills of engineering with medical and biological sciences to advance healthcare treatment, including diagnosis, monitoring, treatment and therapy.
4. Biomedical Engineers use engineering principles to solve health related and medical problems. They do a lot of research in conjunction with life scientists, chemists, and medical professionals to design medical devices like artificial hearts, pacemakers, dialysis machines, and surgical lasers. Some conduct research on biological and other life systems or investigate ways to modernize laboratory and clinical procedures. They act as a Communication Bridge between the hospital management and out sourcing supplied vendors/party's.
5. Bio-Medical can be called as Medical Electronics. It's a vast subject which can be formed by clubbing of Engineering, Mathematics, Science, Anatomy, Analog –DSP, Digital electronics, Communication theory, Microprocessors, Mechanical, Electrical & Electronics, Embedded, Safety, Instrumentation and Measurements.
6. Frequently, biomedical engineers supervise biomedical equipment maintenance technicians, investigate medical equipment failure, and advise hospitals about purchasing and installing new equipment, R&D and innovations.
7. Biomedical engineers work in hospitals, universities, industry, and research laboratories. They are the part of new inventions.



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## Standard operating procedure of department (SOP's)

### A-Equipment Management:

- All equipment's are inventoried and proper logs maintained in the Registers.
- All equipment's are allotted asset coding.

### B-Equipment Maintenance:-

#### 1-Routine maintenance:-

- The Biomedical Engineer is responsible for the overall management and upkeep of the Bio - medical equipment's.
- Designated staff is responsible for daily maintenance of equipment's based on daily monitoring checklist/Weekly monitoring /monthly monitoring.
- Deficiency details are documented in equipment break down book and the same is communicated to the chief biomedical engineer

#### 2-Breakdown Maintenance:-

- All breakdown entries are made in the Registers.
- The complaint is registered and complaint number is generated.
- Bio medical engineer is assigned or directed to the site for rectification as per first line service guidelines.
- If it is minor break down, corrective actions are taken by the biomedical engineer with the available spare parts in-house within 2-3 hours and the same is documented in the breakdown register with the time of rectification details and it is counter signed by the biomedical engineers who have performed the tests.
- If the problem is not solved, the service engineer is put forward to the service engineer depending upon the warranty/AMC and further plan of action is decided.
- Average down time depends on the type of breakdown
- The details are updated in to the daily breakdown report and follow up is done.

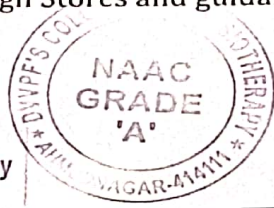
#### 3-Preventive maintenance:-

- The I Engineering prepares and maintains a maintenance plan as per the list of available equipment's.
- The Preventive Maintenance of instrument having an AMC contract is done by communicating with Maintenance dep't and company engineer.
- A schedule is prepared by the Engineering department for preventive maintenance as per the manufacturer recommendation.
- All medical equipment's undergo preventive maintenance at prescheduled period.
- The concerned department is informed about the schedule of the equipment for preventive maintenance well in advance, so that they can keep the equipment free for required time period.
- The availability of necessary spares, consumables, tools and necessary materials are ensured through standardization and /or advance planning, through Stores and guidance by Head of Engineering Department.



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- After completion of maintenance (whether preventive or breakdown) the OK report is taken from the user department and also an acknowledgment is taken from user department.

#### 4-Calibration of Devices:-

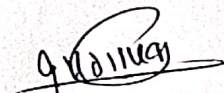
- A list of all instrument /equipment/ devices requiring calibration is prepared and maintained.
- The list identifies the measurement instruments by name, type, serial number, location, applicable calibration requirements, date of calibration done and calibration due date.
- The calibration status is updated continuously.
- Calibration certificate to be obtained from calibration agency with verification marked as O.K. /Not O.K.
- The same is kept with the biomedical department and copy is provided to the user department. Sticker is displayed on the machine which shows the last calibration date and next due date

#### C - Maintenance Policy:-

Biomedical Department follows the policy for Checklist Monitoring to have timely checked on Equipment

Following are the details:-

Checklist Name	Done By	Checked By	Frequency
Checklist for Biomedical equipment - Daily	In house Biomedical Engineer / Jr. Biomedical Engineer	User Department	Daily
Checklist for Biomedical equipment - 10 days	In house Biomedical Engineer / Jr. Biomedical Engineer	In house Biomedical Engineer / User department	After every 10 days
Checklist for Biomedical equipment - Monthly	In house Biomedical Engineer / Jr. Biomedical Engineer	In house Biomedical Engineer /User department	Once in a month
Checklist for Biomedical equipment - Quarterly	Inhouse Biomedical Engineer / Jr. Biomedical Engineer	User Department	Quarterly

  
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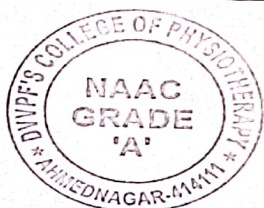




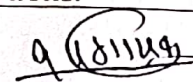
**9-Any other important please write:-  
Departmental Activities:-**

1. Daily rounds	2. Logging and registering the complaints
3. Solving the problems	4. Closing the pending issues
5. Listing of all equipments	6. Coding and asset numbering
7. Site planning	8. New installations and demonstrations
9. Servicing and repairing	10. Conducting training classes
11. Spreading awareness programs	12. Interacting with users
13. Allocation of equipments	14. Incident reporting
15. Grievance handling	16. Root cause analysis
17. Verification and validation	18. Selection and finalization
19. Choosing the best quality process	20. Safety concerns
21. Carrying calibrations	22. Camp supports
23. Warranty monitoring	24. Daily reporting
25. Filing and documentation	26. Certification & justification
27. Feedbacks on satisfaction reports	28. Maintenance and managing
29. QA/QC checks	30. Problem analysis
31. PM's scheduling and planning	32. Traceability verifications
33. Supporting services	34. Team work
35. Helping in purchase	36. Collecting quotation's
37. Taking responsibilities	38. Proper handling of equipments
39. Validity and due checks	40. Record works.
41. Register maintenance	42. Manuals listing.
43. Collecting backup's & SW cd's	44. Selection process
45. Day to day reporting	46. Follow up's & daily monitoring
47. Co-ordination & co-operation	48. Affordable relations with vendors
49. Diplomatic dealing	50. Effective communication
51. Prior intimation to higher officials	52. Gate pass follow up's
53. Identifying the problems	54. Functionality checks & scope of services.
55. Competitive techniques	56. Immediate response and decision making
57. Managing, operating & handling of various equipment's.	58. Priority identification & emergency support.
59. Work allocation & segregation.	60. Controlling costs & incidence.
61. Knowledge of BME waste management	62. Awareness of everything
63. Enrollments & safety policies.	64. Idea of cost cuttings & safety concerns.
65. Technically skilled performance.	66. Emergency purchases, Replacements.
67. Service utilities with diplomatic dealing.	68. Should maintain a good relation and communication.
69. Interacting with user departments.	70. Friendly approach in equip. handling.
71. General checks and testing's.	72. Quantitative differential approach.
73. Performance and Quality improvements.	74. Modifications, System & Software up gradations.

  
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