


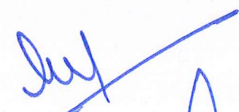


**SPECIFICATIONS OF POLYSOMNOGRAPHY (PSG) SYSTEM FOR SLEEP  
DISORDERS STUDY: -**

**Operational Requirements:**

1. Polysomnography system that records and displays the physiological parameters with at least 32 channels
2. The PSG system should have at least followed channels: **10** unipolar, **10** bipolar, **1** DC body position, Integrated pulse oximeter, Integrated pressure transducer
3. The system must be Lightweight and portable
4. System should have live trending of multiple parameters
5. System should have selectable video and audio quality
6. System should have Online scoring and editing& be able to display online AHI and total sleep time&Online arousal index
7. System must conform to full AASM Guidelines
8. Should have color-coded channels for ease of use.
9. Quick disconnect head-box.
10. Should have Ethernet communication.
11. Should have the provision of using the system at a 50 m distance from the acquisition system.
12. Should have a built-inIntercom for communication with the patient, also should record the same with patient data.
13. Should have extra audio output at amplifier for the patient room.

**Acquisition Software:**

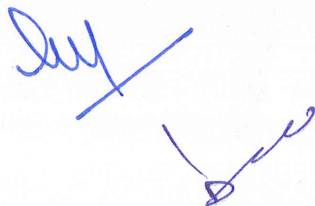
1. System must conform to AASM Guidelines
2. System must be capable of simultaneously monitoring multiple recordings
3. System should have multiple data scroll speeds
4. System should have selectable video and audio quality
5. System should have Online scoring and editing
6. System should be able to display online AHI and total sleep time &Online arousal index
7. System should have the option of Multiple recording file size choices



  
  
  
  
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8. System should have multiple synchronized time base
9. System should navigate data by the graphical interface, comment query, event query, and scroll bar
10. System should have a customized event creator
11. System should have custom event trend plots and hypnograms
12. System should have the option of viewing AHI, HDI or ADI live or at any point in the record
13. System should View AHI at every treatment level
14. System should have Automatic or custom event associations
15. System should have the option of remote access scoring
16. System should have a Study Creator file wizard
17. System should be able to display multiple recordings in slide show
18. System should have the option of combining fragmented recordings
19. System should have the option of creating Custom MSLT files
20. System must have Auto and manual scoring

#### **Acquisition Software:**

1. It should have a facility for acquisition and review mode by split screen and at least 3 reviews simultaneously.
2. Should have user-configurable Montages
3. Should have the option of setting up three different scroll speeds for the different sets of data display.
4. Should have facility for time cursor for easy correlation among different time bases.
5. Should have an individualized set of data scoring as per user requirements.
6. Should have facility for EEG scoring & frequency detection/Classification.
7. Should have a facility for creating customized events.
8. Should have facility for Single click editing
9. Should have facility for auto-updating of patient information
10. Should have facility for slide show feature for presentation.
11. Should have facility for custom workplaces for different users.
12. Should have a facility for custom channel creation for the additional parameter.
13. Should have a facility for custom watermarks.

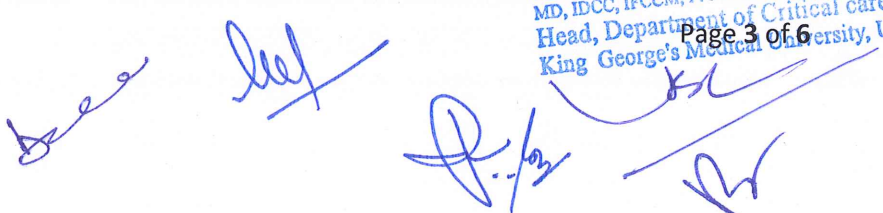


  
  
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14. Should have facility for configurable keyboard and mouse keys.
15. Should have facility for edit scoring from trend plots.
16. Should have Live trending of multiple parameters.
17. Should have Selectable video and audio quality.
18. Should have Online scoring and editing.
19. Should have Online AHI and sleep time.
20. Should have an Online arousal index.
21. Should have Remote viewing of live data.
22. Should have Auto append.
23. Should have an Automatic MSLT/MWT timer and recording tool.
24. Should be able to support multiple users, with individualized operational settings.
25. Should have facility for scorer comparison between two scorers.
26. Should have an option for exporting the data on CD/DVD to be able to be played on other PC without the need for additional software.
27. Should have facility for changing channel layout by single mouse drag
28. Should have Delta Analysis Summary Option for Quantitative analysis
29. Should have Power Spectrum analysis for individual wave Bands, Should also display trend plots for the same.
30. Should be able to generate a report for the EEG spectrum Analysis with detailed Epoch power analysis.
31. Should have facility for individual password protection for different users

**Should be suppliedwith:**

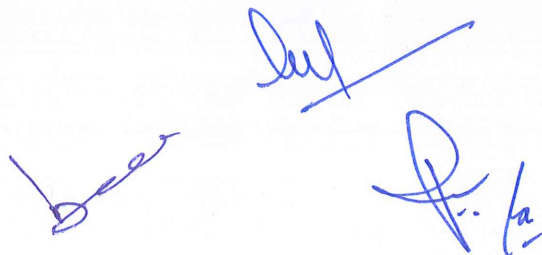
1. Laptop computer should have the following specifications:
  - a. Intel i5 processor, 8 GB RAM, Windows10 OS
  - b. 22" TFT monitor
  - c. 1TB HDD SDD,DVD R/W, mouse
2. HP laser jet printer
3. Adequate capacity online UPS
4. EEG electrodes - 02 sets
5. Conductive Paste (1000 gms or more) - 10 sets

  
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6. Preparing Gel (250 gms. Or more) - 05 sets  
7. PSG sensor kit - 02 Sets

**Conditions for tender:**

1. All accessories should be from the same Original Equipment Manufacturer for the main unit.
2. Instruments must be ISO certified and a copy should be enclosed. (The ISO Certificate must be issued by any organization accredited by the Bureau of Indian Standard or accredited by the international accrediting forum "IAF" (Certificate to be attached).
3. Instruments must be IEC/EN 60601-1 2nd Ed, IEC/EN 60601-1 3rd Ed. A1, IEC/EN 60601-1-2, IEC/EN 60601-2-26 2nd Ed, & IEC/EN 60601-2-26 3rd Ed certified.
4. Should be USA FDA and European CE be approved by 4 digits notified body.
5. Other necessary certifications if any required will be provided by the bidder for the smooth functioning of the machine.
6. Installation process should be performed by O.E.M trained service engineers/ service representatives on OEM letterhead or Service Report within 15 days of supply, with the mandatory provision of providing preventive services visit of OEM trained Service Engineer/ Service Representative quarterly per year till the completion of warranty period (i.e., 20 visits for the first 05 years) & further quarterly visits (04 visits/year) year till the completion of CMC period.
7. The equipment should have a Brand name/ Model Number embossed/etched on the equipment.
8. All the technical specifications in the compliance statement must be supported by Original Literature from the firm/ O.E.M with highlighting Numbering & flagging of all technical certificates.
9. Offered Equipment should have a strong Government Installation base.
10. Offered Equipment should have a Regional Sales Service Centre of the Original Equipment Manufacturer in the region for a 95 % uptime guarantee.
11. For the offered main unit, the essential, optional required consumables'/accessories' shelf life should be declared on the Original Equipment Manufacturer's letterhead.

  
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12. In case of technical snag/failure/breakdown the response time for the inspection should be within 24 hours and repair within 05 days otherwise provide a service machine/ alternate arrangement to be made till the period of recovery of the breakdown of the unit, failing which attracts penal action as per the decision of institute/ hospital.
13. For offered equipment the Training of technical staff and users should be performed by Original Equipment Manufacturer trained Service Engineers at the proper designated place- at bidders' cost.
14. Company should quote their latest model and need to provide an affidavit for the same.
15. As a tendering process the Demonstration of the offered Equipment is Mandatory at hospital/institute premises or other designated places at the bidder's cost.
16. The bidder must comply with the General Financial Rules and their modifications if any issued by the Government of India- 2017.
17. Any bidder from a country that shares a land border with India will be eligible to bid in the tender only if the bidder is registered with the Competent Authority (i.e., Registration certificate issued by the Ministry of Commerce and Industry (Department for Promotion of Industry and Internal Trade- DPIIT after October 2020). If any such bidder is not registered with DPIIT they will be liable for technical disqualification.
18. Principal (OEM) must authorize only one agent to be quoted in the bid otherwise multiple quotes through different agents in the same bid will be canceled.
19. The Bidder and its OEM both have to submit a notarized affidavit on the Indian Non-Judicial Stamp Paper of Rs.100/- that the bidder has not quoted the price higher than the current financial year and last financial year supplied to any government Institute/ Organization/ reputed Private Organization. OEM also has to submit that the price quoted by the bidder in the bid is on its behalf and the lowest in the current and last financial year in the country. Therefore, if at any stage it has been found that the supplier and its OEM have quoted lower rates than those quoted in this bid; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier and any excess payment if any, will become immediately payable to the Institute (the purchaser). If such an affidavit is not submitted, the bid will be outrightly rejected. (Part of technical bid).
20. Guarantee / Warranty Period: Separate offers of Comprehensive Maintenance Contract (CMC on main equipment) and Annual Maintenance Contract (AMC on main

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equipment) for further 5 years after expiry of 5 years of warranty (i.e., 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> years) in rupees only (and on basis of percentage of price) should be included in a financial bid in the absence of which the offer is liable to be rejected. Payment for CMC/AMC shall be made only after the expiry of the warranty of 5 years, in case the Institute (the purchaser) decides for availing of CMC/AMC services. Contract for CMC/AMC shall be decided on expiry of warranty but rates (not more than 5% inclusive of all taxes for 6<sup>th</sup> to 10<sup>th</sup> year) will be frozen at the price of an issued purchase order before the release of payment by the Institute (the purchaser). However, the Institute (the purchaser) may decide not to enter into any CMC/AMC contract without assigning any reason for the same, which shall be binding upon the bid.



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