

SPECIFICATIONS OF EMG/NCV MACHINE

1. 6-8 channel equipment with software for NCV, EMG, VEP, BAER, SSEP, SSR, RNST, single fiber EMG, tremor analysis
2. System should have a head montage junction box with user-configurable channels.
3. Should have NCS, F wave, H reflex, Collision, Blink reflex, SSR, RR interval, RNST, Inching studies with temperature probe
4. Should have qualitative EMG, quantitative EMG, motor unit number estimate, single fiber EMG software
5. Should have a pattern, flash and goggle VEP, hemifield VEP, ERG, BAER, SSEP software
6. Should have tremor analysis software
7. Sensitivity: 1 microvolt per division to 10 millivolt per division
8. Input impedance: above 100 Mohms differential mode. Noise < 0.6 microvolt RMS
9. Display (Sweep speed): 0.2 ms — 12 sec/div
10. Common mode rejection ratio: above 112 dB isolation mode
11. Low filter settings: 0.01 Hz to 3 kHz and high filter settings: 10 Hz to 20 kHz with AC interference notch filter 50 Hz
12. Averager: Dual buffer alternate averaging preferred
13. Electrical Stimulator: monophasic/biphasic, constant current with artifact compensation
14. Should have compact stimulating electrodes with convenient dials for stimulation intensity adjustment and delivery of electric stimulation with user-configurable switches.
14. User should be able to open at least 8 test protocols simultaneously.
15. System should have at least 1 trigger input/output, upgradable to 6 Triggers.
16. Should have EMG (Free run needle EMG, MUAP analysis, Interference pattern, Auto MUP detection, and classification, and real-time turn amplitude analysis) with continuous storage of live EMG for a minimum of 10 minutes up to 99 sites
17. Must have Single Fiber EMG, Macro EMG, Stimulated SFEMG, and QEMG with the system
18. Should have EMG playback with waveform and sound for minimum of 10 minutes
19. Should have Brain stem auditory evoked potentials with click, burst & tone pip stimulation (ABR, MLR, SVR & EcochG)

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20. Should have Visual Evoked Potentials with Pattern, flash, and LED goggles (ERG, EOG PRVEP & LEDVEP)
21. Should have Somatosensory Eyeiked potentials with signal triggering and back averaging (SEP, SSEP, ECG triggered SSEP and ESCP)
22. Mat hasuser-friendlyDatabase management software and a study schedule program for easy data management
23. Should have an on-screen examination guide / Neuro navigator
24. Should be able to perform skin-electrode impedance check at both junction box and console 2 to 20 K ohm
25. Should have the option of P-300, collision studies
26. Should have autonomic Nervous System testing with SSR, RR interval & Microneurography
27. RNST should have pre- and post-exercise protocols inbuilt with action potential graphically represented alongside the table in the final result
28. Should have tetanic stimulation (50 Hz) in RNST for 10 seconds duration
29. Should have the facility of exporting data to or any other suitable format for analysis with MATLAB or any other third party software as well as for teaching videos
30. Must be supplied with-Branded PC with strict in-house quality checks by the manufacturer to comply with medical equipment standards.
 - a. Laboratory-based PC on trolley
 - b. Should be with the latest i7 processor, 4 GB RAM, 2 TB Hard Disk or better, 8 USB ports or better
 - c. Built-in DVD Super Multi Drive
 - d. With 22" color TFT LCD display
 - e. Suitable latest Windows operating system
 - f. f Supplied with Coloured Laser Printer
 - g. Supplied with online UPS with suitable rating with voltage regulation and spike protection for 60 minutes back up
 - h. Should be Capable of playing movies
 - i. Should Support JPEG, GIF, PNG, and TIFF files
32. Should be supplied with the following accessories:
 - a. Shielded stimulator (2 meters) (Adult)- 2 Nos.
 - b. Shielded stimulator (2 meters) (Paed)- 1 Nos.

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- c. Shielded EP electrodes (1.5 meters or more) — 3 sets
- d. Gold plated Ear Clip electrodes (1.5 meters)- 3 pairs
- e. Self-sticking Surface electrodes (100/unit)- 2 units
- f. Conductive paste (3 Jars of 300 gms) - 2 sets
- g. Skin preparation gel (Set of 2 tubes) - 2 sets
- h. EMG needle holder- 2 Nos.
- i. EMG disposables needles (Box of 25) - 2 boxes (25 mm)
- j. EMG disposables needles (Box of 25) - 2 boxes (37 mm)
- k. EMG disposables needles (Box of 25) - 1 box (50 mm)
- l. Single fiber EMG needle - 2 Nos.
- m. Wrap up ground (50 c3n)- 2 Nos.
- n. Temperature prob - 1 No.
- o. Acoustically shielded Head Phones - 1 set p) Insert Ear Phones - 1 set
- p. 17" VEP Monitor - 1 No.
- q. LED Goggles - 1 No.
- r. ERG electrodes- 2 sets
- s. Skin marking pencils- 5 Nos.
- t. Measuring tape- 2 Nos.

Conditions for tenderer:

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. Should be USA FDA and European CE be approved by 4 digits notified body.
4. Other necessary certifications if any required will be provided by the bidder for the smooth functioning of the machine.
5. 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

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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.

6. The equipment should have a Brand name/ Model Number embossed/etched on the equipment.
7. 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.
8. Offered Equipment should have a strong Government Installation base.
9. Offered Equipment should have a Regional Sales Service Centre of the Original Equipment Manufacturer in the region for a 95 % uptime guarantee.
10. For the offered main unit, the essential, optional required consumables'/accessories' shelf life should be declared on the Original Equipment Manufacturer's letterhead.
11. 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.
12. 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.
13. Company should quote their latest model and need to provide an affidavit for the same.
14. 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.
15. The bidder must comply with the General Financial Rules and their modifications if any issued by the Government of India- 2017.
16. 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.,

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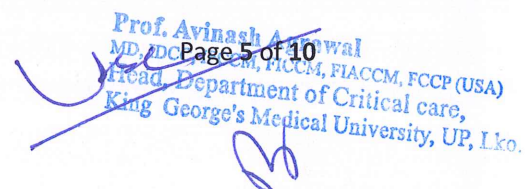
17. Principal (OEM) must authorize only one agent to be quoted in the bid otherwise multiple quotes through different agents in the same bid will be canceled.
18. The Bidder and its OEM both have to submit a notarized affidavit on the Indian Non-Judicial Stamp Paper of Rs.100/- that the bidder has not 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).
19. Guarantee / Warranty Period: Separate offers of Comprehensive Maintenance Contract (CMC on main equipment) and Annual Maintenance Contract (AMC on main equipment) for further 5 years after expiry of 5 years of warranty (i.e., 6th, 7th, 8th, 9th and 10th 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 6th to 10th 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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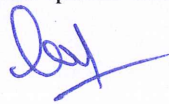
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2. Instruments must be ISO certified and a copy should be enclosed. (The ISO Certificate must be issued by any organization accredited by the Bureau of Indian Standard or accredited by the international accrediting forum "IAF" (Certificate to be attached).
3. Should be USA FDA and/ or European CE be approved by 4 digits notified body.
4. Other necessary certifications if any required will be provided by the bidder for the smooth functioning of the machine.
5. 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.
6. The equipment should have a Brand name/ Model Number embossed/etched on the equipment.
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8. Offered Equipment should have a strong Government Installation base.
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11. 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.



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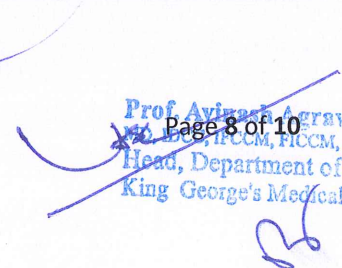
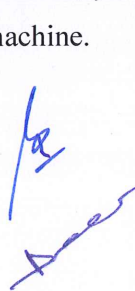
Dear Sir,

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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 6th to 10th 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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