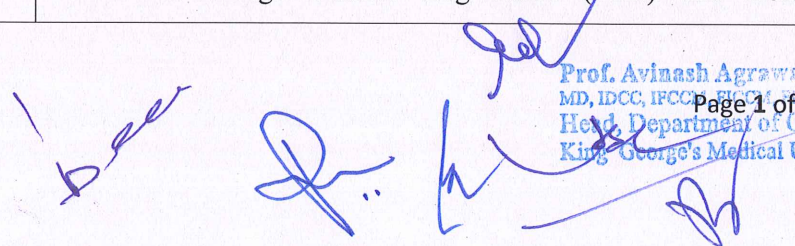


**SPECIFICATIONS FOR NON-INVASIVE CARDIAC OUTPUT MONITORING SYSTEM**

S. No	Category Name	Specifications of the Product
1a	Non-Invasive Cardiac output Monitoring system/Fluid Management Monitoring System	Touch screen with minimum 10-inch screen display (single unit).
		100% non-invasive monitor using externally applied sensors on the thorax to measure cardiac output/ stroke volume and other related parameters
		Weigh less than 5 Kg for easy portability.
		Bioreactance technology gives an accurate and precise measurement. The firm should submit clinical validation studies with the equipment versus the gold standard like PAC and relevant studies of fluid responsiveness in sepsis and shock patients
		Should not cause interference nor get interfered with by other standard ICU equipment such as ventilators, cardiac monitors, etc.
		Accuracy should not be affected by changes in arterial compliance e.g vasopressors or shock state. Should give fluid responsiveness in mechanically ventilated and spontaneously breathing patients
		Quick dynamic assessments, self-calibrated, give parameters like Cardiac Output (CO), Cardiac Index (CI), Stroke volume (SV) System Vascular Resistance (SVR) or Total Peripheral Resistance (TPR), Total Peripheral Resistance Index (TPRI), Stroke Volume Variation (SVV), Cardiac Power(CPO), Cardiac Power Index (CPI) & Contractility index for the heart -Dx/Dt; Oxygen delivery Index (DO2i) & Total thoracic fluid content (TFC)
		Provide dynamic assessment and real-time fluid management dashboard through Passive Leg Raise (PLR) and Bolus

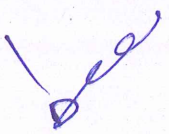
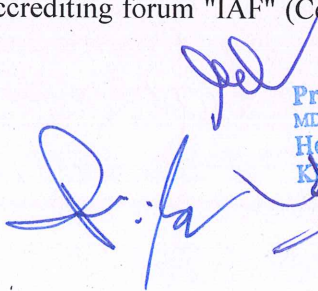


  
 Prof. Avinash Agrawal  
 MD, IDCC, IFCCP, FICM, FICCM, FCCP (USA)  
 Page 1 of 5  
 Head, Department of Critical care,  
 King George's Medical University, UP, Lko.



		Challenge both
		Data Updates on screen 4 seconds, 8 seconds, 16 seconds, 24 seconds, and 48 seconds.
		Provide Blood pressure (NIBP) option. Can be available with the SpO2 module
		Should be able to run on mains and battery. Battery life of at least 6 hours.
		Should have data storage capability
		Should have connectivity to external 3rd part system via serial port, LAN, or Wi-Fi
		Exceptional Clinical Tools - Fluid Management Dashboard for both PLR and Bolus, Real-Time, Fluid Management Display, Excel reports to USB Drive with Fluid Management graphs
1 b	Non-invasive Bioreactance Sensors for fluid management monitoring	Deliver the continuous low amplitude alternating electrical current supplied and samples at a very fast rate, the signal emanating from the patient - the Bioreactance signal
		4 double sensors (complete with attached sensor lead and connector), meant for 48 hours of monitoring
		Each pair of sensors is mounted on an adhesive pad with a protective film covering the adhesive underside
		A sensor lead is affixed to each sensor at one end; the lead has a dedicated connector at the other end, for connection to the monitor Patient Cable
		Latex-free, single-use disposable products

**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).




  
**Prof. Avinash Agrawal**  
 MD, IDCC, IFCCM, FICCM, FIACCM, FCCP (USA)  
 Head, Department of Critical care,  
 KJ Somaiya Institute of Medical Sciences, JP, L



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.
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.

Prof. Anandash Agrawal  
M.D., IDCC, IFCCM, FICCM, FIACCM, FCCP (USA)  
Head, Department of Critical care,  
King George's Medical University, UP, I.



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., 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.
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., 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

Dee



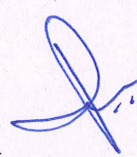
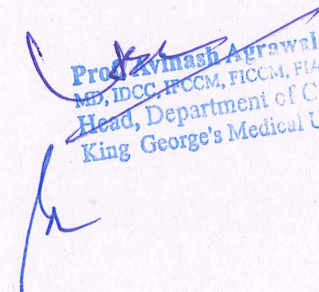
Prof. Avinash Agrawal  
MD, IDCC, IFCCM, FICCM, FIACCM, FCCP (USA)  
Head, Department of Clinical care,  
King George's Medical University, UP, Lko.

20



contract without assigning any reason for the same, which shall be binding upon the bid.

20. Should provide 5-year CMC. CMC cannot be more than 5% of the contract value.
21. System configured application-specific educational video tutorials shall be provided as standard with the system.
22. Details of service outlet in India to render services during 5 years warranty period.
23. The principals must give a certificate if the supplier/vendor is changed during the course of the guarantee/warranty period, the principals would be responsible for the upkeep/maintenance of the quote/supplied equipment, besides honouring all the terms and conditions of CMC/AMC in letter and spirit.

  
  
Prof. Avinash Agrawal  
MD, IDCC, FCCM, FICCM, FIACCM, FCCP (USA)  
Head, Department of Critical care,  
King George's Medical University, UP, Lko.

