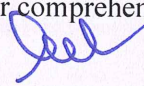
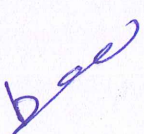
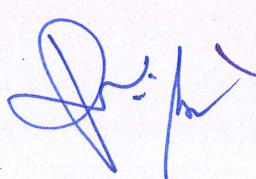



SPECIFICATIONS FOR COMPREHENSIVE CHEST AND LUNGS
EXAMINATION SIMULATOR

1. Simulator for comprehensive chest examination and Lung sound auscultation with an actual stethoscope like in a real patient.
2. Torso Manikin must have realistic anatomical landmarks mounted on a platform trolley for respiratory Examination.
3. Manikin should be mounted on a rotatable base allowing easy anterior and posterior clinical examination as with the real patient.
4. Using an actual stethoscope for effective lung sound auscultation training should be possible.
5. All lung sounds must be recorded from real patients and should not be synthetic sounds.
6. All sounds must have natural propagation and sound transition across the chest wall.
7. It should comprise of minimum 36 actual lung sound cases for the following chest sounds:
 - I) Normal sounds- Standard, Weak, Moderate, Loud heart sounds
 - II) Abnormal sounds- Left Lower area, Left whole area, absent left, Right lower area, the right whole area, absent right, whole thorax, bronchial sounds
 - III) Coarse Crackles- right lower area, both lower area, right middle area, left the lower area, both upper area, the whole thorax
 - IV) Fine Crackles- both lower areas, both lower and middle area, whole thorax case 1, whole thorax case 2
 - V) Wheezes- upper and middle area, around the trachea and upper area, polyphonic
 - VI) Rhonchi- Trachea and upper area, Polyphonic, with inspiratory wheeze, whole thorax
 - VII) Miscellaneous- Continuous sound-stridor, pleural rub left the lower area, pleural friction rub left lower, pleural friction rub right lower and middle, Hamman's sign, vocal fremitus.
8. Each Case must be accompanied by a detailed explanation and case reference with general descriptions and clinical data including patient histories, illustrations, radiographs and CT images for comprehensive teaching.





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9. Each case must be available with and without heart sound for examination and teaching purposes.
10. Classification of the Lung sound must be based on proven criteria of the American Thoracic Society / other International Societies.
11. It must have a graphical display of respiration sounds on the computer screen/ Tablet.
12. It should have at least seven auscultation sites on the Anterior side namely- I) Trachea II) Upper right Lung Field III) Upper Left Lung Field IV) Middle left Lung Field V) Middle right Lung Field VI) Lower right Lung Field VII) Lower Left Lung Field
13. It should have at least eight auscultation sites on the Posterior side namely- I) Upper right Lung Field II) Upper Left Lung Field III) Middle left Lung Field IV) Middle right Lung Field V) Lower right Lung Field VI) Lower Left Lung Field VII) Right costophrenic angle VIII) Left costophrenic angle
14. It must have the facility to play both posterior and anterior sounds simultaneously to allow examination by two or more students at a time.
15. It must Indicate inspiration and expiration through LED light to confirm the rhythm of breathing during sound auscultation.
16. It must be operated by a wireless controller/tablet with the facility to operate 4 to 6 Simulators simultaneously with one tablet for efficient group teaching and examination.
17. It must be possible to program a playlist of scenarios according to teaching needs.
18. An external speaker must be integrated into the trolley for demonstration and group studies.
19. Must have the facility to vary the Sound volume (in five levels), respiration rate and operating time to offer a variety of training options as per teaching needs.
20. It must have an auto check facility to check for any error and keep the Simulator in good condition.
21. It must be possible to detach the Manikin from Trolley and use it as a stand-alone unit.
22. It must be supplied complete with – Manikin torso with 1) Trolley - 1 No 2) Suitable PC with operating software Simulator -1 No 3) Wireless controller/ Table 4) Inbuilt Amplifier and external speakers- 1 set and all other attachments accessories required to make the System fully operational.

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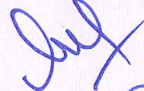
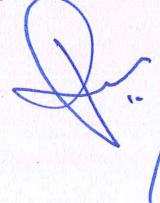


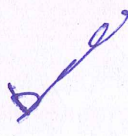
Conditions for tender:

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. 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

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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., 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 cancelled.
18. The Bidder and it's 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).

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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.
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.

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