

BID DOCUMENT

(e - Procurement)

**Supply of Adult & Paediatric Simulation Training System, Laparoscopy
Training System, Bronchoscopy simulation, GI Simulator
in**

**Skill Centre and Simulation Lab, Trauma Centre Complex,
IMS, BHU, Varanasi**



**Issued On:
01.02.2019**

**Skill Centre and Simulation Lab
Trauma Centre Complex
Institute of Medical Sciences
BANARAS HINDU UNIVERSITY
VARANASI-221005, INDIA**

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Checklist for Bid/Tender Submission

(The following check-list must be filled in and submitted with the bid documents)

Pre- Qualification Bid

Sr. No.	Particulars	Yes/No
1	Have you attached the techno commercial unpriced bid form duly filled in appropriately?	
2	Have you attached a copy of the last audited balance sheet of your firm	
3	Have you attached the details of the income tax clearance certificate, proof of manufacturing unit/ dealership letter/ general order suppliers and copy of Central / State sales tax registration certificate?	
4	Have you attached the copies of relevant work orders from Govt. Depts. / PSUs and Central Autonomous Bodies?	
5	EMD: Have you submitted EMD asked for (as specified in BDS).	
6	Have you submitted samples of all items indicated in the respective schedule of requirements at the address of tender inviting authority within due date.	
7	Have you enclosed the schedule of requirement indicating the make offered without indicating the pricing components along with the techno commercial unpriced bid?	
8	Have you submitted the bids both techno commercial unpriced and priced bid separately for each tender?	
9	Have you enclosed the statement of deviations from financial terms and conditions, if any?	
Price Bid		
1	Have you signed and attached the priced bid form?	
2	Have you attached the schedule of requirements duly priced?	

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Part-1

Bidding Procedures

Section I: Instructions for Online Bid Submission

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e Procurement at <https://eprocure.gov.in/eprocure/app>.

1. Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-Procurement/e-tender portal are prerequisite for e-tendering.
2. Bidder should register for the enrollment in the e-Procurement site using the “[Online Bidder Enrollment](#)” option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide only valid and true information including valid email id. All the correspondence shall be made directly with the contractors/bidders through email id as registered.
3. Bidder need to login to the site through their user ID/ password chosen during enrollment/registration.
4. Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/TCS/nCode/eMudra or any other Certifying Authority recognized by Controller of Certifying Authorities (CCA) India on eToken/SmartCard, should be registered.
5. The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
6. Contractor/Bidder may go through the tenders published on the site and download the tender documents/schedules for the tenders.
7. After downloading / getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.
8. Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
9. Bidder may log in to the site through the secured login by the user id/ password chosen during enrolment/registration and then by submitting the password of the e-Token/Smartcard to access DSC.
10. Bidder may select the tender in which he/she is interested in by using the search option and then move it to the ‘my tenders’ folder.
11. From my tender folder, he may select the tender to view all the details uploaded there.

12. It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
13. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and ordinarily it shall be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, all may be clubbed together and provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be very fast.
14. The Bidders can update well in advance, the documents such as certificates, annual report details etc., under “My Space option” and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
15. Bidder should submit the Tender Fee/ EMD as specified in the tender. The hard copy should be posted/couriered/given in person to the Tender Inviting Authority, within bid submission due date and time as indicated in the tender. Scanned copy of the instrument should be uploaded as part of the offer.
16. While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.
17. The bidder has to select the payment option as offline to pay the Tender FEE/ EMD as applicable and enter details of the instruments.
18. The details of the DD/any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable or liable for rejection.
19. The bidder has to digitally sign and upload the required bid documents one by one as indicated. Very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read, understood and agreed with all clauses of the bid document including General conditions of contract without any exception.
20. The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.
21. If the price bid format is provided in a spread sheet file like BoQ_XXXX.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Priced-bid/BOQ template shall not be modified / replaced by the bidder; else the bid submitted is liable to be rejected for the tender.

22. The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission due date and time (as per Server System Clock). The TIA shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.
23. After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the acknowledgement number indicated by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and also be used as entry pass to participate in the bid opening.
24. The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening etc., in the e-Tender system. The bidders should follow such time during bid submission.
25. All the data being entered by the bidders would be encrypted using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.
26. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers’ public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
27. The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128 bit encryption technology. Data storage encryption of sensitive fields is done.
28. The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
29. For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. Parallely for any further queries, the bidders are advised to contact over phone: **1-800-233-7315** or send an e-mail to – cppp-nic@nic.in.

Section II: Instructions to Bidders

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Section II. Instructions to Bidders

A. General

- 1. Scope of Bid**
 - 1.1 Scope of Work :
 - a. Supply of **Adult & Paediatric Simulation Training System, Laparoscopy Training System, Bronchoscopy simulation, GI Simulator** as per Specifications.
 - 1.2 Throughout these Bidding Documents unless the context otherwise requires:
 - a. “in writing” means communicated in written form (e.g. by mail, e-mail, fax, telex) with proof of receipt;
 - b. “singular” means “plural” and vice versa; and
 - c. “day” means calendar day.
- 2. Corrupt and Fraudulent Practices**
 - 2.1 The Purchaser requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Section V.
 - 2.2 Further in pursuance of this policy, Bidder shall permit and cause its agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers to provide access to purchaser to all the accounts, records and other documents relating to submission of the applicant, bid submission (in case prequalified), and contract performance (in case of award), to inspect and to have them audited by auditors appointed by the purchaser.
- 3. Eligible Bidders**
 - 3.1 A Bidder may be a firm, a company, a limited liability partnership (LLP), a government-owned entity or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent.
 - 3.2 In the case of a joint venture, all members shall be jointly and severally liable for the execution of the contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process and during the contract execution in the event the JV is awarded the contract.
 - 3.3 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the

purpose of this bidding process, if the Bidder:

- a. directly or indirectly controls, is controlled by or is under common control with another Bidder; or
- b. receives or has received any direct or indirect subsidy from another Bidder; or
- c. has the same legal representative as another Bidder; or
- d. has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or
- e. participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid shall result in the disqualification of all Bids in which such Bidder is involved. This, however does not limit the inclusion of the same subcontractor in more than one bid; or
- f. any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid; or
- g. any of its affiliates has been hired (or is proposed to be hired) by the Purchaser for the contract implementation; or
- h. would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project that it provided or was provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
- i. has a close business or family relationship with a professional staff of the Purchaser (or of the project implementing agency, or of a recipient of a part of the loan) who:
 - (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or
 - (ii) would be involved in the implementation or supervision of such contract.

3.4 A foreign firm and individual may be ineligible if as a matter of law or regulations, India prohibits commercial relations with the country of bidder.

3.5 A Bidder shall provide such evidence of eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

B. Contents of Bidding Document

4 Sections of Bidding Document

4.1 The Bidding Documents consist of Parts 1, 2 ,3 and 4, which include all the Sections indicated below, and should be read in conjunction with any Addenda if any, issued.

Part 1: Bidding Procedures

- Section I. Instructions for Online Bid Submission
- Section II. Instructions to Bidders
- Section III. Bid Data Sheet (BDS)
- Section IV. Prequalification
- Section V. Policy of University against the Corrupt and fraudulent Practices

Part 2: Supply Requirements

- Section VI. Schedule of Requirements

Part 3: Contract

- Section VII. General Conditions of Contract
- Section VIII. Special Conditions of Contract

Part 4: Bidding and Contract Forms

- Section IX. Bidding Forms
- Section X. Contract Forms

4.2 The Invitation for Bids issued by the Purchaser is not part of the Bidding Document.

4.3 Unless obtained directly from the Purchaser, the Purchaser is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Bid meeting (if any), or Addenda to the Bidding Document. In case of any contradiction, documents obtained directly from the Purchaser shall prevail.

4.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as required by the Bidding Documents.

5 Clarification of Bidding Documents, Site Visit, Pre-Bid Meeting

- 5.1 A Bidder requiring any clarification of the Bidding Document shall contact the Purchaser in writing at the Purchaser's address specified in the BDS or raise its enquiries during the pre-bid meeting if provided. The Purchaser will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids within a period specified in the BDS. The Purchaser shall forward copies of its response to all Bidders who have acquired the Bidding Documents, including a description of the inquiry but without identifying its source. If so specified in the BDS, the Purchaser shall also promptly publish its response at the web page identified in the BDS. Should the clarification results in changes to the essential elements of the Bidding Documents, the Purchaser shall amend the Bidding Documents following the due procedure.
- 5.2 If so specified in the BDS, the Bidder is advised to visit and examine the project site and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for procurement of Goods. The costs of visiting shall be at the Bidder's own expense.
- 5.3 The Bidder and any of its personnel or agents shall be granted permission by the Purchaser to enter upon its premises and lands upon the express condition that the Bidder, its personnel, and agents shall indemnify the Purchaser against all liability in respect thereof.
- 5.4 If so specified in the BDS, the Bidder's designated representative is invited to attend a pre-bid meeting. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 5.5 The Bidder is advised to submit any questions in writing to reach the Purchaser not beyond one week preceding the meeting.
- 5.6 Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Documents. Any modification to the Bidding Documents that may become necessary as a result of the pre-bid meeting shall be made by the Purchaser exclusively through the issue of an addendum and not through the minutes of the pre-bid meeting. Absence in the pre-bid meeting shall not be a cause for disqualification of a Bidder.

- 6 Amendment of Bidding Document**
- 6.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by corrigendum. In case of e-procurement, corrigendum / amendment shall be published on <http://eprocure.gov.in/eprocure/app>.
- 6.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents from the Purchaser. The Purchaser shall also promptly publish the addendum on the Purchaser's web page.
- 6.3 The Purchaser may, at its discretion to give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, extend the deadline for the submission of bids.

C. Preparation of Bids

- 7 Cost of Bidding**
- 7.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 8 Language of Bid**
- 8.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages into the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.
- 9 Documents Comprising the Bid**
- 9.1 The tender/Bid shall be submitted online in two part, viz., Technical Bid and Commercial Bid.

9.1.1 TECHNICAL BID

The following documents are to be scanned and uploaded as part of the Technical Bid as per the tender document:

- (a) Scanned copy of Tender Forms (Techno Commercial Un-Priced Bid) and Tender Acceptance Letter);

- (b) Scanned copy of the completed schedules,
- (c) Scanned copy of Bid Security or copy of proof for submission of Tender Document Fee/ Earnest Money Deposit etc.;
- (d) Scanned copy of written confirmation authorizing the signatory of the Bid to commit the Bidder;
- (e) Scanned copy of documentary evidence
 - (i) establishing the Bidder's qualifications to perform the contract if its bid is accepted and
 - (ii) the Bidder's eligibility to bid;
- (f) Scanned copy of
 - (i) documentary evidence, that the Goods and Related Services to be supplied by the Bidder are of eligible origin and
 - (ii) conform to the Bidding Documents, and
 - (iii) any other document required in the BDS;
- (g) Scanned copy of Pre-qualification Details as per Section-IV like PAN/TIN/Sales Tax / Service Tax etc.
- (h) Technical Bid.

All the original documents as well as the original payment instrument like Demand Draft/Bank Guarantee /Pay order or banker cheque of any scheduled bank against Tender Fee/EMD, samples as specified in this tender document have to be sent to the address of the Purchaser mentioned in Bid Data Sheet (BDS) by post/speed post/courier/by hand on or before bid Submission closing date & time. Beyond that the tender shall be summarily rejected without assigning any reason.

9.1.2 **COMMERCIAL BID**

The commercial bid comprises of :

- (i) Scanned copy of Tender Form (Price Bid)
- (ii) Price bid in the form of BoQ_XXXX.xls.
- (iii) Scanned copy of item wise breakup of price bid.

The Price bid format is provided as BoQ_XXXX.xls along with this Tender Document at <http://eprocure.gov.in/eprocure/app>. Bidders are advised to download this BoQ_XXXX.xls and quote their offer/rates in the prescribed column. Bidders can quote Basic Price in INR or CURRENCY (for other than INR) but it is mandatory to quote taxes/levies in INR only, in the prescribed column and upload the same in the commercial bid.

- 9.2 In addition to the above requirements, bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement, there to.
- 9.3 The Bidder shall furnish in the Tender Forms information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.
- 10 Tender Forms(Technical and Price) and Price Schedule(BOQ)**
- 10.1 Tender Forms and Price Schedules (Bill of Quantity-BOQ) shall be prepared using the relevant forms furnished in Section IX, Bidding Forms and BOQ provided. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.
- 11 Alternative Bids**
- 11.1 Unless otherwise specified in the BDS, alternative bids shall not be considered.
- 12 Bid Prices and Discounts**
- 12.1 The prices and discounts quoted by the Bidder in the Tender Forms and in the Price Schedules (BOQ) shall conform to the requirements specified as under.
- (a) All lots (contracts) and items must be listed and priced separately in the Price Schedules (BOQ).
 - (b) The price to be quoted in the Tender Forms shall be the total price of the bid, excluding any discounts offered.
 - (c) The Bidder shall quote any discount and indicate the methodology for their application in the Tender Forms.
 - (d) Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, unless otherwise specified in the BDS A bid submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.
- 12.2 If so bids are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise

specified in the BDS, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer discounts for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted provided the bids for all lots (contracts) are opened at the same time.

12.3 Prices shall be quoted as specified in each Price Schedule (BOQ) as provided. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible country. Prices shall be entered in the following manner:

(a) For Goods manufactured in India:

- (i) the price of the Goods quoted EXW (ex-works, ex-factory, ex warehouse, ex showroom, or off-the-shelf, as applicable), including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
- (ii) any sales tax/VAT and other taxes payable on the Goods, if the contract is awarded to the Bidder; and
- (iii) the price for inland transportation, insurance, and other local services required to convey the Goods to their final destination (Project Site) as specified in the BDS.

(b) For Goods manufactured outside India, to be imported:

- (i) the price of the Goods quoted under Carriage and Insurance Paid (CIP) Model upto named place of destination in India as specified in the BDS;
- (ii) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the BDS;

(c) For Goods manufactured outside India, already imported:

- (i) the price of the Goods, including the original import value of the Goods; plus any mark-up (or rebate); plus any other related local cost, and custom duties and other import taxes already paid

or to be paid on the Goods already imported.

- (ii) the custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported;
 - (iii) the price of the Goods, obtained as the difference between (i) and (ii) above;
 - (iv) any sales and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and
 - (v) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the BDS.
- (d) for Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements:
- (i) the price of each item comprising the Related Services (inclusive of any applicable taxes).

13 Currencies of Bid and Payment

13.1 The currency(ies) of the bid and the currency(ies) of payments shall be as specified in the BDS. The Bidder shall quote in Indian Rupees the portion of the bid price that corresponds to expenditures incurred in Indian Rupees, unless otherwise specified in the BDS.

14 Documents Establishing the Eligibility and Qualifications of the Bidder

14.1 To establish Bidder's their eligibility, Bidders shall complete the Tender Form (Techno Commercial Un-Priced Bid & Priced Bid), included in Section-IX, Bidding Forms.

14.2 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction:

- (a) that, if required in the BDS, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IX, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in India;
- (b) that, if required in the BDS, in case of a Bidder not doing business within India, the Bidder is or will be (if awarded the contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking

obligations prescribed in the Conditions of Contract and/or Technical Specifications; and

- (c) that, the Bidder meets each of the qualification criterion.

15 Period of Validity of Bids

- 15.1 Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
- 15.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. A Bidder may refuse the request without forfeiting its Earnest Money Deposit (EMD). A Bidder acceding to the request will neither be required nor permitted to modify the bid.
- 15.3 Bid evaluation will be based on the bid prices without taking into consideration the above modifications.

16 Bid Security

- 16.1 The Bidder shall furnish as part of its bid, a bid security, as specified in the BDS, in original form the amount and currency as specified in the BDS.
- 16.2 If a bid security is specified, the bid security shall be a demand guarantee in any of the following forms at the Bidder's option:
 - (a) an unconditional guarantee issued by a bank or financial institution (such as an insurance, bonding or surety company);
 - (b) an irrevocable letter of credit;
 - (c) a banker's cheque or Demand Draft ; or
 - (d) any other security as specified in the BDS, of a reputed source from an eligible country. If the unconditional guarantee is issued by a financial institution located outside India, the issuing financial institution shall have a correspondent financial institution located in India to make it enforceable The bid security shall be valid for forty five (45) days beyond the original validity period of the bid, or beyond the extended period.
- 16.3 If a Bid Security is specified, any bid not accompanied by a substantially responsive Bid Security, shall be rejected by the Purchaser as non-responsive.
- 16.4 If a Bid Security is specified, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract

and furnishing the Performance Security.

- 16.5 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the contract and furnished the required performance security.
- 16.6 The Bid Security of the bidder may be forfeited or the Bid Securing Declaration executed:
- (a) if he withdraws from the bid during the period of bid validity specified by the Bidder on the Tender Forms, or any extension thereto provided by the Bidder ; or
 - (b) if he being successful Bidder fails to:
 - (i) sign the Contract; or
 - (ii) furnish a performance security.
- 16.7 The bid security of a JV must be in the name of the JV that submits the bid. If the JV has not been legally constituted into a legally enforceable entity at the time of bidding, the bid security shall be in the names of all members as named in the letter of intent.

D. Submission and Opening of Bids

- 17 Sealing and Marking of Bids** 17.1 The Bidder shall submit the bids electronically, through the e-procurement system (<http://eprocure.gov.in/eprocure/app>). Any document submitted through any other means will not be considered as part of the Bid except for the Originals as asked for in this tender.
- 18 Deadline for Submission of Bids** 18.1 The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
- 19 Late Bids** 19.1 The e-Procurement system would not allow any late submission of bids after due date and time as per server system. After electronic online proposal submission, the system generates a unique identification number which is time stamped. This shall be treated as acknowledgement of the proposal submission
- 20 Withdrawal, Substitution, and Modification of Bids** 20.1 A Bidder may withdraw, substitute, or modify its bid on the e-procurement system before the date and time specified but not beyond.

20.2 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Tender Forms or any extension thereof Modification/Withdrawal of the Bid sent through any other means shall not be considered by the Purchaser.

21 Bid Opening

21.1 The Purchaser shall open the bids as per electronic bid opening procedures specified in Central Public Procurement Portal (CPPP) at the date and time specified. Bidders can also view the bid opening by logging on to the e-procurement system. Specific bid opening procedures are laid down at <http://eprocure.gov.in/eprocure/app> under the head “Bidders Manual Kit”. The tenderer/bidder will be at liberty to be present either in person or through an authorized representative at the time of opening of the Bid or they can view the bid opening event online at their remote end. Price Bids of only those tenderers shall be opened whose technical bids qualify.

21.2 The withdrawn bid will be available in the system therefore will be considered, If bidder once withdraws the bid then he will not be able to participate in the respective tender again. Modification to the bid shall be opened and read out with the corresponding bid. Only bids that are opened and read out at bid opening shall be considered further.

21.3 The Purchaser shall prepare a record of the bid opening that shall include; the name of the Bidder; whether there is a withdrawal, substitution, or modification; the Bid Price including any discounts and alternative bids; and the presence or absence of a bid security, if one was required. The Bidders’ representatives who are present in the office of the Purchaser to witness the bid opening shall be requested to sign the record. The omission/refusal of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be made available on the e-procurement system.

E. Evaluation and Comparison of Bids

22 Confidentiality

22.1 Information relating to the evaluation of bids and recommendation of contract award shall not be disclosed to bidders or any other persons not officially concerned with the bidding process until information on Contract Award is communication to all Bidders.

22.2 No Bidder shall contact the purchaser on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Purchaser it

should be done in writing.

22.3 Any effort by a Bidder to influence the purchaser in its decisions on bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.

23 Clarification of Bids

23.1 To assist in the examination, evaluation, comparison of the bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the Evaluation of the bids.

23.2 If a Bidder does not provide clarifications of its bid by the date and time set in the Purchaser's request for clarification, its bid may be rejected.

24 Determination of Responsiveness

24.1 The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself.

24.2 A substantially responsive Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

(a) if accepted, would

(i) affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or

(ii) limit in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Contract; or

(b) if rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

24.3 The Purchaser shall examine the technical aspects of the bid submitted in accordance with instructions specified in tender document, in particular, to confirm that all requirements enumerated in the 'Schedule of Requirements' Section-VI have been complied with, without any material deviation or reservation or omission.

24.4 If a bid is not responsive to the requirements of Bidding

Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by correction of the material deviation, reservation or omission.

- 25 Conversion to Single Currency** 25.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted in a single currency as specified in the BDS.
- 26 Margin of Preference** 26.1 Unless otherwise specified in the BDS, a margin of preference shall not apply.
- 27 Evaluation of Bids** 27.1 The Purchaser shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
- 27.2 To evaluate a Bid, the Purchaser shall consider the following:
- (a) evaluation will be done for Items or Lots (contracts), as specified in the BDS; and the Bid Price
 - (b) price adjustment due to discounts offered;
 - (c) converting the amount resulting from above, if relevant, to a single currency;
 - (d) price adjustment due to quantifiable nonmaterial nonconformities in;
- 27.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
- 27.4 The Purchaser's evaluation of a bid shall exclude and not take into account:
- (a) in the case of Goods manufactured in the India, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
 - (b) in the case of Goods manufactured outside India, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Bidder;
 - (c) any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
- 27.5 The Purchaser's evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors

selected, if any, shall be expressed in monetary terms to facilitate comparison of bids.

- 28 Comparison of Bids**
- 28.1 The Purchaser shall compare the evaluated prices of all substantially responsive bids established to determine the lowest evaluated bid. The comparison shall be on the basis of CIP-Carriage and Insurance Paid to (place of destination) prices for imported goods and EXW – Ex Works (named place of delivery) prices, plus cost of inland transportation and insurance to place of destination, for goods manufactured within India, together with prices for any required installation, training, commissioning and other services. The evaluation of prices shall not take into account custom duties and other taxes levied on imported goods quoted CIP and sales and similar taxes levied in connection with the sale or delivery of goods.
- 29 Qualification of the Bidder**
- 29.1 The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria.
- 29.2 The determination shall be based upon an examination of the documentary evidence of the Bidder’s qualifications submitted by the Bidder.
- 29.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder’s qualifications to perform satisfactorily.
- 30 Purchaser’s Right to Accept Any Bid, and to Reject Any or All Bids**
- 30.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

F. Award of Contract

- 31 Award Criteria**
- 31.1 The Purchaser shall award the Contract to the Bidder whose bid has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided the Bidder is determined to be qualified to perform the Contract satisfactorily.

- 32 Purchaser’s Right to Vary Quantities at Time of Award**
- 32.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VI, Schedule of Requirements, provided this does not exceed the percentages specified in the BDS, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.
- 33 Notification of Award**
- 33.1 Prior to the expiration of the period of bid validity, the Purchaser shall, notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Purchaser will pay the Supplier in consideration of the supply of Goods (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”). At the same time, the Purchaser shall also notify all other Bidders of the results of the bidding.
- 33.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 33.3 The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after notification of award, requests in writing the grounds on which its bid was not selected.
- 34 Signing of Contract**
- 34.1 Promptly after notification, the Purchaser shall send the successful Bidder the Contract Agreement.
- 34.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.
- 34.3 Notwithstanding anything contained in clause 34.2, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its bid, always provided however, that the Bidder can demonstrate to the satisfaction of the Purchaser that signing of the Contract Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract.

35 Performance Security

- 35.1 Within twenty eight (28) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the General Conditions of Contract (GCC), using for that purpose the Performance Security Form included in Section-X, Contract Forms, or another Form acceptable to the Purchaser. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Purchaser. A foreign institution providing a bond shall have a correspondent financial institution located in India.
- 35.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose bid is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.

Section III. Bid Data Sheet (BDS)

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). In case of inconsistency, the provisions herein shall prevail over those in ITB.

Serial No.	A. General
1	The reference number of the Invitation for Bids is IMS/BHU/SCSL/2018-19/05 Dated: 01.02.2018
2	The Purchaser is Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre Complex, Institute of Medical Sciences, BHU, Varanasi
3	Maximum number of members in the JV shall be: 4

Serial No.	B. Contents of Bidding Documents
4	For Clarification of bid purposes only, the Purchaser's address is Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre Complex, Institute of Medical Sciences, BHU, Varanasi Attention : Prof. S.K. Mathur Address : Skill Centre and Simulation Lab, Trauma Centre Complex, Institute of Medical Sciences, BHU, Varanasi Floor/ Room number : - City : Varanasi ZIP Code : 221005 Country : India Telephone : 91-9450955143 Facsimile number : 91-542-0000000 Electronic mail address : skmathurbhu@gmail.com
5	Web page : http://eprocure.gov.in/eprocure/app
6	A site visit shall not be organized by the purchaser.
7	A Pre-Bid meeting : NA

Serial No.	C. Preparation of Bids
8	<p>The language of the bid is: English or Hindi.</p> <p>All correspondence exchange shall be in English or Hindi language.</p> <p>Language for translation of supporting documents and printed literature is English or Hindi.</p>
9	The Bidder shall submit the following additional documents in its bid: NA
10	Alternative Bids shall not be considered.
11	The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.
12	Place of Destination: Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre Complex, Institute of Medical Sciences, BHU, Varanasi
13	Final destination (Project Site): Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre Complex, Institute of Medical Sciences, BHU, Varanasi
14	<p>The prices shall be quoted by the bidder in : Foreign Currency of Principal's Country (Preferably in Indian Rupees)</p> <p>The Bidder is required to quote in Indian Rupees (INR), the portion of the bid price that corresponds to expenditures incurred in Indian Rupees (INR).</p>
15	Manufacturer's authorization is Required
16	After sales service is Required.
17	The bid validity period shall be 120 days .
18	<p>EMD/Bid security shall be paid @ 2% of the estimated value(s) of quoted items by the way of Demand Draft (DD)/Bank Guarantee (BG) in favor of the Registrar, Banaras Hindu University, Varanasi-221005 and should be valid for a period of 45 days beyond the BID validity period. All tenders received without EMD/Bank Security shall be rejected.</p> <p>TENDER FEE : NIL</p>
19	Other types of acceptable securities: NA

Serial No.	D. Submission and Opening of Bids
20	<p>For bid submission purposes only, the Purchaser's address is Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre Complex, Institute of Medical Sciences, BHU, Varanasi</p> <p>Attention : Prof. S.K. Mathur</p> <p>Street Address : Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre Complex, Institute of Medical Sciences, BHU, Varanasi</p> <p>City : Varanasi</p> <p>ZIP/Postal Code : 221005</p> <p>Country : India</p> <p>The deadline for bid submission is:</p> <p>Date : 04.03.2019</p> <p>Time : 05:00 PM</p> <p>The electronic bidding opening procedures shall be as given in Section I-Instructions for Online Bid Submission.</p>
21	<p>The bid opening shall take place at: Director Office, Institute of Medical Sciences, BHU, Varanasi</p> <p>Street Address : Banaras Hindu University, Varanasi</p> <p>Floor/ Room number : Director Office</p> <p>City : Varanasi</p> <p>Country : India</p> <p>Date : 06.03.2019</p> <p>Time : 03:15 PM</p> <p>The electronic bidding opening procedures shall be as given in Section I-Instructions for Online Bid Submission.</p>

Serial No.	E. Evaluation and Comparison of Bids
22	<p>The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: Indian Rupees</p> <p>The source of exchange rate shall be: Reserve Bank of India.</p> <p>The date for the exchange rate shall be: Last day for submission of Bids.</p>
23	A margin of domestic preference shall apply.
24	<p>Evaluation will be done for concern equipment.</p> <p><i>Note: Bids will be evaluated for each item and the Contract will comprise the item(s) awarded to the successful Bidder.</i></p>

Serial No.	F. Award of Contract
25	<p>The maximum percentage by which quantities may be increased is: <i>NA</i></p> <p>The maximum percentage by which quantities may be decreased is: <i>NA</i></p>

Section IV. Prequalification

1. A notarized affidavit by the firm that it has never been black-listed must be attached along with the Bid, failing which the Bid shall be rejected.
2. Profile of each Bidder and past experience in supply of the material (certificates to be enclosed), proof of manufacturing Unit/Dealership letter and general order supplier. Manufacturer's authorization certificate as prescribed in Section IX in case bidder is not manufacturer.
3. List of other Govt. Departments, Public Sector units and Central Autonomous Bodies for which the bidder is supplying material or having the similar type of contracts and a certificate regarding the satisfactory performance of the contract.
4. Copy of the audited balance sheet of the bidder for the previous three financial years indicating the turnover in supply of the material.
5. True copy of Permanent Account Number.
6. Details of Sales Tax / VAT along with a copy of certificate to be attached.
7. Service Tax No. along with copy of certificate.
8. TIN along with copy of certificate.
9. Submission of samples if required, for all items indicated in the schedule of requirements. The make of items proposed to be supplied should be indicated in the format of the schedule of requirements and submitted along with the techno commercial unpriced bid without indicating the pricing components.
10. Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the schedule of requirements are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

Section V. Policy of University against the Corrupt and Fraudulent Practices

University strictly adheres to its policy against corruption and requires that bidders and their agents, subagents, sub-contractors, suppliers etc. shall not indulge in any kind of corrupt practices, fraudulent practices, collusive practices, coercive practices, obstructive practices or other kinds of corruption declared as crimes under Indian law.

- a) If bidder or their agents, subagents, sub-contractors, suppliers etc. are found, directly or indirectly, involved in such practices, bid or agreement and execution thereof at any stage may be rejected or cancelled as the case may be by the University and besides it , University may initiate legal actions including civil and criminal proceeding.

For the purpose of this provision the terms are defined as follows:

- (i) “Corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;¹
- (ii) “Fraudulent Practices” is any act or omission including a misrepresentation which knowingly or recklessly made to mislead another party to obtain financial or other benefit or to avoid an obligation;²
- (iii) “Collusive Practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;³
- (iv) “Coercive Practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;⁴
- (v) “Obstructive Practice” is deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or

¹ For the purpose of this sub-paragraph, “*another party*” refers to a public official acting in relation to the procurement process or contract execution. In this context, “*public official*” includes university staff and employees of other organizations taking or reviewing procurement decisions.

² For the purpose of this sub-paragraph, “*party*” refers to a public official; the terms “*benefit*” and “*obligation*” relate to the procurement process or contract execution; and the “*act or omission*” is intended to influence the procurement process or contract execution.

³ For the purpose of this sub-paragraph, “*party*” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions.

⁴ For the purpose of this sub-paragraph, “*party*” refers to a participant in the procurement process or contract execution.

intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation.

- b) Besides actions under clause (a) University may also take action to blacklist such bidder either indefinitely or for a specified period.

Part-2

Supply Requirements

Section VI. Schedule of Requirements

Contents

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1. List of Goods and Delivery Schedule

Line Item N°	Description of Goods	Quantity	Physical unit	Final (Project Site) Destination as specified in BDS	Delivery (as per Incoterms) Date		
					Earliest Delivery Date	Latest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
<i>[insert item No]</i>	<i>[insert description of Goods]</i>	<i>[insert quantity of item to be supplied]</i>	<i>[insert physical unit for the quantity]</i>	<i>[insert place of Delivery]</i>	<i>[insert the number of days following the date of effectiveness the Contract]</i>	<i>[insert the number of days following the date of effectiveness the Contract]</i>	<i>[insert the number of days following the date of effectiveness the Contract]</i>
1.	Adult & Paediatric Simulation Training System	01	Nos.	As per tender documents	21	30	
2.	Laparoscopy Training System	01	Nos.	As per tender documents	21	30	
3.	Bronchoscopy simulation	01	Nos.	As per tender documents	21	30	
4.	GI Simulator	01	Nos.	As per tender documents	21	30	

2. List of Related Services and Completion Schedule

Service	Description of Service	Quantity ¹	Physical Unit	Place where Services shall be performed	Final Completion Date(s) of Services
<i>[insert Service No]</i>	<i>[insert description of Related Services]</i>	<i>[insert quantity of items to be supplied]</i>	<i>[insert physical unit for the items]</i>	<i>[insert name of the Place]</i>	<i>[insert required Completion Date(s)]</i>

1. If applicable

3. Technical Specifications

"Summary of Technical Specifications"

Item No	Name of Goods or Related Service	Technical Specifications and Standards
1.	Adult & Paediatric Simulation Training System	<p>Adult & Paediatric high fidelity Simulation Training System with integrated ultrasound and ventilator</p> <p><u>Part A.</u> <u>Adult simulation training system</u></p> <ol style="list-style-type: none"> 1. The system shall consist of a wireless computer patient monitor, wireless control PC/Laptop and wireless manikin. 2. The system shall be completely wireless and tether-less 3. The operating system shall be WINDOWS /MAC based. 4. The wireless control device should be able to run the system from a distance of up to 300 feet, 5. The manikin shall be self-contained with internal electrical and pneumatic power. 6. The compressor shall be built into the manikin body. 7. The compressor operational sounds shall not interfere with the auscultation of manikin sounds 8. The compressor operation shall not cause unwanted manikin body movement. 9. The simulation engine shall reside in the manikin to assure continued correct response to inputs and continued operation in the event of communication loss. 10. The system shall provide supplemental wired connectivity and power capability. 11. Swappable, rechargeable batteries (while in use) shall be optionally available. 12. Battery charging can occur while the manikin is operating (within access to AC power) 13. The ultrasound manikin shall be able to operate for 4 hours continuously in the wireless mode. 14. The system shall permit multi-media images to be inserted into simulations. 15. The system shall permit lab values to be inserted into simulations. 16. The system shall permit X-Rays to be inserted into simulations. 17. The system shall permit image display to be inserted into simulations. 18. There shall be separate neck skins for cricothyrotomy procedures. Neck skins shall allow multiple cricothyrotomy procedures without the need for replacement after each procedure. 19. An automatic drug recognition system shall detect drug type and dosage amount without the use of external, electrical devices. 20. Drug recognition is automatically accomplished when a syringe with RF (Radio Frequency) ID Tag is in the proximity of the IV site and mouth.

		<ol style="list-style-type: none"> 21. The manikin shall identify drugs and devices via Radio Frequency (RF) ID Tag System. 22. A drug formulary of 108 drugs and different concentration shall be provided including RF ID tags for ET tubes and BVM devices. 23. A flow meter shall measure the amount of simulated medication infused in the IV arm. 24. The simulator shall include minimum 1 Auto Mode Patient Case which shall cause the simulator to react physiologically correct and incorrect amounts of medication infused. 25. Multiple simulations/manikins can be controlled from a single work station. 26. The system shall include a profile editor which allows each instructor to specifically configure the simulator and interface to meet their preference and needs. 27. The system shall include a display of past, present and future scenario trending providing instructors with situational awareness during a scenario. 28. The software must be open infrastructure for customized debriefing and a Video System application. 29. The integrated System should be capable of providing debriefing solution which captures and records audio and video of simulation and other learning activities. 30. The system should be capable to record, replay and log the simulation event to give learners every opportunity to evaluate and assess each learning experience completely. 31. The System shall offer: High quality performance feedback for effective learning, easy-to-use audio and video set-up and control, Time stamped and searchable event log, Annotation and assessments. 32. Features- Audio & Video Capture <ol style="list-style-type: none"> a. AVS must be able to integrate with manikin data to form a single, fully annotatable debrief log. b. The system shall have facility to integrate Four (4) HD Camera (digital, IP and USB cameras) inputs. c. The system shall have software to control Pan-tilt Zoom camera. d. The system should have one digital audio input. e. The System Shall offer Camera and microphone with base system, multiple camera options shall be available, Additional hardware offered to expand system as needed, Software control of IP (Internet Protocol) cameras. 33. Debrief- <ol style="list-style-type: none"> a. The system should raise the value of debriefing by allowing the Instructors to evaluate or score simulations immediately for individual and group actions. b. The software should have the feature for Instructor to add comments and annotations. c. The system shall be able to identify actions associated with individual learners. d. The system should enable streaming of live video to multiple locations and View debriefing data on network from anywhere with web-based tools. 34. Hardware for Debriefing system <ol style="list-style-type: none"> a. Processor/CPU Intel Xeon E5-1620 3.6 10M 1600-4C b. Hard Drive 1 265GB SATA 1ST SSD c. Hard Drive 2 1 Terabyte 720 RPM SATA 2nd
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		<ul style="list-style-type: none"> d. HDD e. RAM 8 GB DDR3-1600 f. Screen LCD - 22" or more Widescreen 1920 x 1080 g. Mouse USB Optical Scroll h. Keyboard USB Standard Keyboard i. Operating Software Windows Server 2012 Standard - License and Media - 2 processors - OEM - DVD - 64bit j. DVD SATA Super Multi DVDRW 1st ODD <p>35. The manikin shall be optionally controlled by multiple operators at the same or different locations, when each is equipped with an additional optional PC which has Manikin controlling software installed.</p> <p>36. The operating system shall be able to synchronize with online content to import scenarios and scenario aids.</p> <p>37. The instructor shall have the ability to communicate with the learners wirelessly via built-in microphones in the manikin's head utilizing wireless technology.</p> <p>Airway</p> <p>38. Airway skills/features shall include:</p> <ul style="list-style-type: none"> a. Controllable open/closed airway, automatically or manually controlled b. Head tilt/Chin lift (sensed) c. Jaw thrust w/articulated jaw (sensed) d. Retrograde intubation e. First grade fiberoptic intubation f. Transtracheal jet ventilation g. Light Wand intubation h. Needle cricothyrotomy i. Surgical cricothyrotomy <p>39. Variable lung compliance shall be available in 4 Independent steps.</p> <p>40. Variable airway resistance shall be available in 4 Independent steps.</p> <p>41. Right main stem intubation shall be possible.</p> <p>42. Stomach distention shall be possible.</p> <p>43. The system shall detect proper head position.</p> <p>44. Cannot intubate/Can ventilate shall be possible.</p> <p>45. Cannot intubate/Cannot ventilate shall be possible.</p> <p>46. Tongue edema shall be possible in 2 levels.</p> <p>47. Pharyngeal swelling shall be possible.</p> <p>48. Laryngospasms shall be possible.</p> <p>49. Decreased cervical range of motion shall be possible.</p> <p>50. Trismus shall be possible</p> <p>51. The system should be able to connect to any ventilator and should be able to breathe spontaneously and hold PEEP at any level. Resistance and compliance should be minutely adjustable, allowing to simulate a vast number of patient disease states – with realistic chest rise. And should be able to provide platform for hands-on training on the following -</p> <ul style="list-style-type: none"> a. Initiating mechanical ventilation for an ARDS, trauma, or post- op patient b. Adjusting the ventilator after a change in patient conditions c. Patient-ventilator dyssynchrony d. Lung protective ventilation e. Weaning protocols
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f. Technical specifications

Tidal volumes	2 mL to 2.5 L		
Functional Residual Capacity	200 – 1500 mL		
Spontaneous breath rate	3 to 150 breaths/min		
Peak flow	280 L/min ± 10%		
Resistance settings	3 to 500 cmH2O/L/s (linear and parabolic resistor types)		
Compliance settings	0.5 to 250 mL/cmH2O		
Breath profiles	user-defined pressure data files (breath profiles) or parameter-selected standard patterns		
Airway pressure	uncertainty < than 1%		
Accuracy	Resistance	+/-	10%
	Compliance	+/-	5%
	Flow	+/-	2%

ICU Ventilator

Should be a dual mode ventilator (barometric and volumetric ventilation) with invasive or noninvasive mode suitable for ICU care on adult and paediatric patients.

It should be a wall gas independent ventilator providing a wide range of ventilation in pressure- or volume-controlled modes.

Ventilation mode:

- Assisted Controlled Ventilation ACV: Barometric and Volumetric.
- Synchronized Intermittent Mandatory Ventilation SIMV: Barometric and Volumetric.
- Spontaneous ventilation PS: Pressure support PS and Pressure Support + guaranteed volume PS.VT.
- CPAP ventilation
- PRVC mode

<p>Parameters:</p> <ul style="list-style-type: none"> - Frequency: 2 to 80 bpm. - Tidal volume: 50 to 2,500 ml. - Inspiratory Pressure: 3 to 60 cmH2O. - Maxi flow: 5 to 120 l/min. - PEEP : 0 to 25 Pa (= 25.4 cmH2O) - Flow shape: square or decreasing. - FiO2 : 21 to 100% (monitoring built-in). - Backup Apnea Ventilation: programmable VCV/PCV. - Programmable pneumatic Nebulizer O2. - Key 100% O2 – 2 min. <p>Triggers: flow and/or pressure (auto-manual)</p> <ul style="list-style-type: none"> - Class of device: Class II BF type. 	<p>Respiratory mechanics:</p> <ul style="list-style-type: none"> - Inspiratory Pause (Auto – Manual). - Exhalation Pause (Auto – Manual). - P0.1.(Occlusion Pressure) - Manual breath. - Programmable recruitments. - R/C static calculations (Auto – Manual). - Built-in display: touch screen, electroluminescent monochrome (Yellow & Black) <p>Battery autonomy and recharging</p> <ul style="list-style-type: none"> - Built-in battery: > 3 hrs; - Battery + external battery pack: > 6 hrs
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		<p>Product compliance:</p> <ul style="list-style-type: none"> - This device should comply with the following standard EN , CEI, IEC,NF EN ISO,WEEE 2002/96/EC,CE 0197 Directive 93/42 CE, notified body TÜV Rheinland <p>Biphasic Defibrillator</p> <ol style="list-style-type: none"> 1. Biphasic Technology <p>The current – controlled biphasic waveform lowers the electrical threshold for successful defibrillation with minimal tissue damage and the truncated exponential waveform is adapted to patient's impedance.</p> 2. Simple and Intuitive <p>The machine is user-friendly with simple and intuitive interface.</p> 3. Portable and Lightweight 4. Remote Control through Paddles <p>Remote charging and discharging through paddles facilitates easy charging for convenient use.</p> 5. Integrated Pediatric Paddles <p>Designed for safe use on pediatric patients enabling suitable doses of energy.</p> 6. Flexible Power Supply <p>Operates from the mains (AC), from a vehicle battery (DC) and with its internal battery.</p> 7. Auto-test <p>Enables auto-test when switched on and during operations.</p> 8. Should have AED, Pacemaker, MASIMO Spo2, Recorder and Data storage. <p>Anesthesia Workstations</p> <ul style="list-style-type: none"> - Should be able to maintains minimum minute ventilation and its capabilities include VCV, PCV, SIMV (V) +PS, SIMV (P) +PS, Manual and Stand by. - The usage of comprehensive alarm system helps with intuitive use during the examination of patient. - Should have Adult and Pediatric modes of operation <p>Breathing</p> <ol style="list-style-type: none"> 1) Simulated spontaneous breathing shall be possible. 2) Bilateral and unilateral chest rise and fall shall be possible. 3) CO2 exhalation shall be possible. 4) Normal and abnormal breath sounds shall be present 5) There shall be 5 anterior auscultation sites 6) There shall be 6 posterior auscultation sites 7) There shall be 9 independently controllable breath sound channels 8) Oxygen saturation and Plethysmogram shall be displayed on the patient monitor 9) A computer screen icon shall display the amount of air being provided during Bag Valve Mask ventilations.
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		<p>10) Bilateral Needle thoracentesis shall be possible 11) Unilateral and Bilateral chest movement shall exist 12) Unilateral and lobar breath sounds shall be present 13) Bilateral chest tube insertion shall be possible</p> <p>Cardiac</p> <p>1) An extensive ECG library shall be present with rates ranging from 0 to 220. 2) Heart sounds shall occur in four anterior locations to auscultate aortic, pulmonic, mitral and tricuspid sounds 3) Pacing and capture shall be possible.</p> <p>Circulation</p> <p>1) Blood pressure shall be measurable manually by auscultation of Korotkoff's sound (left arm). 2) Return to flow blood pressure measurement shall be possible. 3) Carotid, femoral, brachial, radial, dorsalispedis, popliteal and posterior tibialis pulses shall be a. synchronized with ECG. 4) Pulse strength shall be related to blood pressure. 5) Palpation shall be detected and logged.</p> <p>CPR</p> <p>1) CPR compressions shall generate palpable pulses. 2) Blood pressure waveform artifacts on ECG 3) Realistic depth of CPR compressions shall be possible, per AHA 2010 Guidelines. 4) Detection of depth, rate, and hands-off time of CPR compressions shall be displayed, per AHA latest Guidelines. 5) Detection of CPR release shall be displayed, per AHA 2015 Guidelines. 6) Real time feedback on quality of CPR shall be provided, per AHA 2015 Guidelines.</p> <p>Other Features</p> <p>1) The simulator shall display convulsions and capable of seizures, tonic and clonic. 2) The manikin can produce urine. Short term catheterization and Foley catheterization shall be possible. 3) Cyanosis in the mouth shall be displayed. 4) Bowel Sounds shall be available via 4 speakers. 5) Simulations shall be controllable remotely throughout a network. 6) The system shall be capable of operating in the instructor mode via scenarios or "on the fly". 7) The system shall be capable of operating in the auto mode which permits the simulation to proceed without operator interaction, once the scenario has started. 8) The bidder shall make training arrangements to teach the basics of simulator system including startup and shut down procedures, running basic scenarios, patient monitor and instructor device operations, operating modes, and other useful system features. 9) End user training to understand scenario support materials and resources, define learner roles, teaching to prepare for a simulation, practice facilitating a simulation, and share best practices for debriefing</p>
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		<p>Patient Monitor Parameters should include</p> <table border="1"> <tr><td>a. ECG (2 traces)</td></tr> <tr><td>b. SpO2</td></tr> <tr><td>c. CO2</td></tr> <tr><td>d. ABP</td></tr> <tr><td>e. CVP</td></tr> <tr><td>f. PAP</td></tr> <tr><td>g. PCWP</td></tr> <tr><td>h. NIBP</td></tr> <tr><td>i. TOF</td></tr> <tr><td>j. Cardiac Output</td></tr> <tr><td>k. Temperature (core and peripheral)</td></tr> <tr><td>l. AGT (labeled)</td></tr> <tr><td>m. awRR</td></tr> <tr><td>n. N2O</td></tr> <tr><td>o. ICP</td></tr> <tr><td>p. O2</td></tr> <tr><td>q. pH</td></tr> <tr><td>r. X-Ray Display</td></tr> <tr><td>s. 12 Lead ECG Display</td></tr> </table> <ul style="list-style-type: none"> • The system certifications shall include: <ul style="list-style-type: none"> a. UL b. CE/FDA c. FCC d. CSA e. Hazardous, Materials Regulation (HMR) f. Proposition 65 (California) <p>52. System should be capable of Ultrasound training; the bidder shall quote RUSH and FAST Module.</p> <ul style="list-style-type: none"> a. The Ultrasound teaching system should have following modules each with 10 cases and 10 scenarios <ul style="list-style-type: none"> i. Sonography for trauma care (eFAST), <ol style="list-style-type: none"> 1. Pediatric Trauma (Blunt Trauma) 2. False-Positive Hemoperitoneum (Blunt Trauma) 3. Hemoperitoneum& Coagulopathy (Blunt Trauma) 4. Hemopericardium (Penetrating Trauma) 5. Tension Pneumothorax (Penetrating Trauma) 6. Hemoperitoneum (Blunt Trauma) 7. Tension Pneumothorax (Blunt Trauma) 8. Hemothorax&Hemoperitoneum (Blunt Trauma) 9. Abnormal Mental Status (Blunt Trauma) 10. Hemothorax (Penetrating Trauma) ii. Critical Care Bundle that contains rapid ultrasound for critical care (RUSH) <ol style="list-style-type: none"> 1. Acute inhalational injury (Blunt Trauma) 2. Pneumonia-Related Severe Sepsis 3. Hemorrhagic Shock (Blunt Trauma) 4. Moderate Hypothermia (Hypovolemic Shock) 5. Severe Sepsis complicated by 	a. ECG (2 traces)	b. SpO2	c. CO2	d. ABP	e. CVP	f. PAP	g. PCWP	h. NIBP	i. TOF	j. Cardiac Output	k. Temperature (core and peripheral)	l. AGT (labeled)	m. awRR	n. N2O	o. ICP	p. O2	q. pH	r. X-Ray Display	s. 12 Lead ECG Display
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		<p>Pericardial Effusion</p> <ol style="list-style-type: none"> 6. Severe Sepsis (Deep Venous Thrombosis) 7. Severe Sepsis (Distributive Hypovolemic Shock) 8. Ruptured Abdominal Aortic Aneurysm (Hemorrhagic Shock) 9. Severe Sepsis complicated by Pneumonia, Cardiomyopathy, IUP 10. Severe Gastroenteritis (Hypovolemic Shock) <p>iii. Cardiac Resuscitation Bundle that contains transthoracic echo (e-FATE)</p> <ol style="list-style-type: none"> 1. Acute Coronary Syndrome 2. Severe Sepsis with Pulmonary Source of Infection 3. Hypotension; Dehydration (Electrolyte Imbalance) 4. Pulseless Electrical Activity (Hyperkalemia) 5. Anaphylaxis 6. Massive Pulmonary Embolus 7. Tension Pneumothorax 8. Cardiac Syncope (Hypertrophic Cardiomyopathy) 9. Acute Ascending Aortic Dissection (Thoracic Aortic Aneurysm) 10. Cardiac Tamponade <ol style="list-style-type: none"> b. It should have access to real-ultrasound patient cases on-demand. c. It should have sonography case Library containing over several patient cases covering a broad spectrum of normal and pathologic conditions. d. It should have suitable Probe to scan and receive immediate expert instruction and probe-positioning guidance in a risk-free and stress-free setting. e. It should be able to train on real cases and learn to recognize key anatomical landmarks, image artifacts and pathologies. f. It should have knowledge assessment questions to reinforce student learning and test their knowledge and scanning skills. The students should be able to receive real-time performance assessment and feedback. <p>53. Automatic case scenarios for simulator</p> <ol style="list-style-type: none"> a. Trauma Care Scenarios, eFAST Protocol inbuilt in the system <ol style="list-style-type: none"> I. False-Positive Hemoperitoneum, Blunt Trauma II. Hemoperitoneum and Coagulopathy, Blunt Trauma III. Hemoperitoneum, Blunt Trauma IV. Hemothorax, Penetrating Trauma V. Hemoperitoneum and Hemothorax, Blunt Trauma VI. Abnormal Mental Status, Blunt Trauma VII. Hemoperitoneum, Blunt Trauma VIII. Tension Pneumothorax, Penetrating Trauma IX. Hemopericardium, Penetrating Trauma X. Tension Pneumothorax, Blunt Trauma b. Critical Care Bundle, RUSH Protocol inbuilt in the system <ol style="list-style-type: none"> I. Hemorrhagic Shock, Blunt Trauma II. Moderate Hypothermia, Hypovolemic Shock III. Severe Gastroenteritis, Hypovolemic Shock IV. Severe Sepsis, Deep Venous Thrombosis V. Severe Sepsis, Distributive, Hypovolemic Shock VI. Acute Inhalational Injury, Blunt Trauma VII. Ruptured AAA, Hemorrhagic Shock VIII. Severe Sepsis Complicated By Pericardial Effusion IX. Severe Sepsis, Pneumonia, Cardiomyopathy, IUP
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		<p>X. Pneumonia-Related Severe Sepsis</p> <p>c. Cardiac Resuscitation Bundle inbuilt in the system</p> <ol style="list-style-type: none"> I. Pulseless Electrical Activity, Hyperkalemia II. Acute Ascending Aortic Dissection, Thoracic Aortic Aneurysm III. Massive Pulmonary Embolism IV. Severe Sepsis with Pulmonary Source of Infection V. Anaphylaxis VI. Cardiac Syncope, Hypertrophic Cardiomyopathy VII. Cardiac Tamponade VIII. Hypertension, Dehydration, Electrolyte Imbalance IX. Tension Pneumothorax X. Acute Coronary Syndrome <p>d. ACLS Scenarios</p> <ol style="list-style-type: none"> a. 05 scenarios allow hands-on practice of rhythm recognition and use of a defibrillator. b. 23 core scenarios designed to train assessment and management of patients following the 2015 AHA algorithms <ol style="list-style-type: none"> i. The scenarios should also include log comments, resulting in an annotated log file being generated during simulation. ii. Together with a debriefing guide with suggested debriefing questions and a section with case considerations, the annotated log file will support the instructor in conducting an effective debriefing session. c.6 test scenarios with 12 case presentations designed for Megacode testing. <ol style="list-style-type: none"> i. The 6 Megacode test scenarios each includes from 1 to 3 case presentations arranged after ECG development themes. The totaling 12 case presentations are based on the 12 ACLS Megacode Testing Cases in the Advanced Cardiovascular Life Support Instructor Manual based on the 2015 AHA Guidelines Update for CPR and ECC. These scenarios should include testing checklist. <p>Part B. Paediatric Simulation System</p> <p>General Features</p> <p>It should represent a 6-year-old boy that simulates a wide range of conditions from a healthy, talking child to an unresponsive, critical patient without any vital signs.</p> <ol style="list-style-type: none"> 1. The Standard system shall consist of a child simulator, wireless touch screen remote control, connection Box, PC/ Laptop installed with operating software and patient monitor. 2. The manikin shall be able to run with PC laptop or touch screen Wi-Fi enabled handheld color LCD remote control. 3. The operating system shall be Windows based. 4. The system shall have inbuilt compressor which will not interfere with the auscultation of manikin sound and cause unwanted manikin body movement. 5. The system shall provide supplemental wired power capability. 6. The system shall permit multi-media images to be inserted into simulations via the touch screen patient monitor. 7. The system shall permit pre-recorded multi-media clinical procedural training videos to be inserted into simulations via the touch screen patient monitor. 8. The system shall also permit lab values to be inserted into simulations via the touch screen patient monitor. 9. The system shall permit X-Rays to be inserted into simulations via the touch screen patient monitor. 10. The system shall include a profile editor which allows each instructor to specifically configure the simulator and interface to meet their preference and needs.
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		<p>11. The system shall include control of past, present and future scenario trending providing instructors with situational awareness during a scenario.</p> <p>12. The system shall include webcam and debriefing software which combines synchronized student log, patient monitor display, live audio and video feed in a single debriefing file.</p> <p>13. The integrated debriefing solution that captures and records audio and video of clinical training event and other learning activities and compiles them into one comprehensive debrief file. Each clinical training event can be recorded, studied, replayed, and logged to give teacher and learners every opportunity to evaluate each learning experience completely.</p> <p>14. The System shall offer: High quality performance feedback for effective learning, easy-to-use audio and video set-up and control, Time stamped and searchable event log, Annotation and assessments.</p> <p>15. It should be able to provide complete integration for one comprehensive solution.</p> <p>16. Incorporate synchronized audio, video, patient monitor, and event log into one debrief file,</p> <p>17. Compile recording of up to four streams of video</p> <p>18. Simulation event capture with fixed and pan-tilt-zoom digital/HD/analogue cameras</p> <p>19. Capture comments of other observers during the clinical training event</p> <p>20. It should be able to share debriefing data to improve learning outcomes</p> <p>21. Be able to stream video to multiple locations</p> <p>22. Be able to call up debrief files from other computers on the network or to any computer with standalone application files for recording, viewing, and editing exported debriefing files, event logs, wireless control log files, and BLS result files.</p> <p>23. It should be able to share the files with faculty and students</p> <p>24. It should be able to Export videos to embed in presentation or for research</p> <p>25. Airway Features</p> <ul style="list-style-type: none"> I. Realistic airway with physical landmarks II. Oral and nasal intubation III. LMA or ET insertion IV. Tongue edema V. NG tube VI. Cricoid cartilage VII. Head Tilt & Jaw Thrust VIII. Nasopharyngeal and Oropharyngeal airways <p>26. Breathing Features</p> <p>The Simulators breathing features shall include:</p> <ul style="list-style-type: none"> a) Spontaneous breathing b) Observable chest rise c) Variable respiratory rates (0-60 breaths per minute) d) Multiple upper airway sounds synchronized with breathing e) Detect & quantify the volume of mechanical ventilations (including no ventilations) f) BVM capable g) Normal and abnormal breath sounds (4 auscultation sites) h) Oxygen saturation and waveform (Advanced version) i) Left and right lungs can be either closed or opened to allow ventilations j) Breathing Complication <ul style="list-style-type: none"> I. Unilateral chest rise with right mainstem intubation II. Unilateral & Bilateral breath sounds <p>27. Cardiac Features</p> <p>The Simulators cardiac features shall include:</p> <ul style="list-style-type: none"> I. Defibrillation and cardioversion (manikin will report in log) II. Pacing III. Extensive ECG library IV. Multiple heart sounds synchronized with ECG V. ECG rhythm monitoring (3 leads)
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		<p>VI. 12 lead ECG display</p> <p>28. Circulation Features The Simulators circulation features shall include:</p> <ul style="list-style-type: none"> i. BP measured manually by auscultation of Korotkoff sounds ii. Bilateral carotid and unilateral brachial and radial (left side) pulses synchronized with ECG iii. Pulse strength variable with BP iv. Pulse palpation is detected & logged v. Compliant with latest AHA Guidelines vi. CPR compressions generate palpable pulses, blood pressure wave form, and ECG artifacts. vii. Detection and logging of a series of compression in the data log <p>29. Vascular Features The Simulators vascular features shall include:</p> <ul style="list-style-type: none"> a) IV access (right arm and hand) b) Intraosseous access (right tibia) <p>30. Should be able to train for childhood traumatic injuries, signs of abuse and scenarios to enhance training and simulations.</p> <ul style="list-style-type: none"> a) Zygomatic tears <ul style="list-style-type: none"> – Head skin with zygomatic lacerations, nasal bleeding – Head skin fits over manikin's head b) Chest -1st, 2nd and 3rd degree burns <ul style="list-style-type: none"> – Burns illustrated with blistering in progressive sequence – Chest skin replaces manikin's chest skin and attaches at the shoulders – Burns illustrated with blistering in progressive sequence – Left arm with plain forearm, articulates to manikin at the shoulder – Right leg with cigarette burns c) Road Traffic Accident <ul style="list-style-type: none"> – Left arm with road rash and fractured radius – Arm articulates to manikin at the shoulder d) Fractured radius / abnormal healing <ul style="list-style-type: none"> – Lower right arm with abnormal healing of fractured radius – Right arm with plain upper arm, articulates to manikin at the shoulder e) Canine Bite <ul style="list-style-type: none"> – Right hand with dog bite – Lower right arm, articulates to manikin at the elbow f) Electrical burn <ul style="list-style-type: none"> – Right hand with electrical wire burn entry – Lower right arm, articulates to manikin at the elbow g) Leg Injury <ul style="list-style-type: none"> – Exposed fractured tibia protruding from lower leg – Lower right leg articulates to manikin at the knee h) Femur fracture <ul style="list-style-type: none"> – Left leg with closed femur fracture sleeve – Sleeve fits over manikin's left thigh i) Crush Injury <ul style="list-style-type: none"> – Left foot with crushed toes – Left lower leg articulates to manikin at the knee <p>31. Operating System</p> <ul style="list-style-type: none"> I. The OS should be single and Intuitive interface – shall be able to control and manage all simulators from one universal platform. It should help in finding scenarios, conduct simulation training, and develop new scenarios to help meet learning objectives with greater ease. II. It should have dual operating mode- User control mode for total control over all parameters and auto-mode/physiological which will help run pre-programmed scenarios in a simple and effective way. Logged events, as well as events detected by the patient simulator, should automatically drive the scenario forward. III. User friendly Operation – operating system should control parameters with drop-down menus and slider bars. Operating system should be capable of transferring radiographic images and procedural videos to the student screen.
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		<p>IV. Patient Monitoring – Operating system should have patient monitoring capabilities to provide concise clinical feedback for physiological parameters including: ECG, SpO2, CO2, ABP, CVP, PAP, NIBP, TOF, and many more.</p> <p>V. Record and Review – Operating system should log time stamped comments to the data log, bookmark important events and capture notes throughout the simulation. Operating system should have straightforward logging capabilities and should allow integrated event log for more effective review, for improved learning outcomes.</p> <p>VI. Scenario drafting tool – Operating system should have tool to create or convert scenarios which can be run with all simulators/mainkins.</p> <p>32. Other The pediatric simulator shall be able to demonstrate the following clinical signs</p> <p>I. Convulsions (2 levels)</p> <p>II. normal, dilated, and constricted pupils</p> <p>III. Sounds</p> <p>a. Heart</p> <p>b. Lung</p> <p>c. Bowel</p> <p>d. Patient voice</p> <p>i. Pre-recorded sounds</p> <p>ii. Wireless microphone</p> <p>33. The Simulator shall have a configurable Touch Screen Patient Monitor with parameters that include (not limited to):</p> <p>34.</p> <table border="0"> <tr> <td>-ECG (2 traces)</td> <td>- Cardiac Output</td> </tr> <tr> <td>- SpO2</td> <td>- Temperature (core and peripheral)</td> </tr> <tr> <td>- CO2</td> <td>- AGT (labeled)</td> </tr> <tr> <td>- ABP</td> <td>- awRR</td> </tr> <tr> <td>- CVP</td> <td>- N2O</td> </tr> <tr> <td>- PAP</td> <td>- ICP</td> </tr> <tr> <td>- PCWP</td> <td>- O2</td> </tr> <tr> <td>- NIBP</td> <td>- pH</td> </tr> <tr> <td>- TOF</td> <td>- Patient Information</td> </tr> <tr> <td>- Blood Gases</td> <td>- Display</td> </tr> <tr> <td>- 12 Lead ECG Display</td> <td>- X-Ray Display</td> </tr> <tr> <td></td> <td>-</td> </tr> </table> <p>35. The system certifications shall include:</p> <p>a) UL</p> <p>b) CE</p> <p>c) FCC</p> <p>d) HMR</p> <p>e) CSA</p> <p>f) Comply with the essential requirements of Council Directive 2004/108/EC on electromagnetic compatibility (EMC) and Council Directive 2011/65/ EU on restriction of the use of certain hazardous substances (RoHS).</p> <p>36. The bidder shall offer a New Equipment End User Training. This shall provide training in the concepts, skills, & aptitude to operate & maintain the simulator.</p> <p>37. Educational support</p> <p>I. Learning session focused on teaching the basics of overall supply including startup and shut down procedures, how to run scenarios, patient monitor and instructor device operations, operating modes, and other useful system features must be incorporated by bidder from a trained user.</p> <p>II. Learning session to teach preparation and writing of scenarios</p>	-ECG (2 traces)	- Cardiac Output	- SpO2	- Temperature (core and peripheral)	- CO2	- AGT (labeled)	- ABP	- awRR	- CVP	- N2O	- PAP	- ICP	- PCWP	- O2	- NIBP	- pH	- TOF	- Patient Information	- Blood Gases	- Display	- 12 Lead ECG Display	- X-Ray Display		-
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		<p>using scenario building software & worksheet to construct scenarios relevant to individual learning objectives shall be conducted with the help of Basic and Advanced courses for end user. The scenarios can also be tested using the simulator.</p> <p>III. Customized educational training should also be arranged to meet specific needs by combining different platforms, procedures, devices and/or simulators with an array of topics. The training can be tailored to facilitate the learning objectives of the end users.</p> <p>IV. The bidder should provide training and necessary documents including suggested learning objectives, scenario set up and preparation, equipment checklist, role play information, proposed correct interventions, suggestive guided reflective questions and a section with clinical points to consider during simulation and debriefing along with the interventions that are logged by the instructor during simulation based training shall be available with each below mentioned scenario.</p> <p>V. It should offer emergency physicians, pediatricians, nurses and allied health professionals an opportunity for training realistic, case-based emergency situations.</p> <p>VI. Should be provided with following physiological scenarios from American Paediatric Academy</p> <ol style="list-style-type: none"> 1. Supraventricular Tachycardia 2. Severe Asthma Leading to Respiratory Failure 3. Seizure 4. Missed Pelvic Crush Injury 5. Medication Anaphylaxis 6. Altered Mental Status due to Accidental Ingestion of Medicine <p>VII. The Educational support should also be extended for faculty development to teach the simulation methodologies especially on Debriefing techniques. This training teaches shall focus on faculty/instructors how to facilitate an effective debriefing of their students within 10 minutes after scenario session. It should be a learner-centered debriefing model, draws on evidence-based findings from behavioral science, focuses on critical thinking, and encourages participants to analyze their performance and motivations.</p> <p>Technical features -</p> <p>Equipment Power</p> <ul style="list-style-type: none"> External power: Input voltage 9VDC, 1.5A Internal battery: 7.4V, 4.4Ah, Lithium-Ion External power supply and batteries. <p>Air Pressure</p> <ul style="list-style-type: none"> Internal air tank: Max 6 psi External air connection: Max 16 psi <p>Temperature Limits</p> <ul style="list-style-type: none"> Operating temperatures: +4 °C to 40 °C (39 °F to 104 °F) Storage temperatures: -15 °C to 50 °C (5 °F to 122 °F) <p>Environment - Simulator only</p> <ul style="list-style-type: none"> Relative humidity: 20% -90% (non-condensing) <p>Minimum Computer Requirements</p> <ul style="list-style-type: none"> • Intel i-core generation 3 or newer • Score over 3000 Pass Mark - CPU Mark • 4 GB RAM • 120GB hard disk space • 1366x768 or better • Headset w/microphone • USB ports – 2 <p>Minimum Software Requirements</p> <ul style="list-style-type: none"> • Windows 7 or Windows 8/ 10 • 100% DPI <ul style="list-style-type: none"> • Comprehensive warranty for 5 years covering all parts of the equipments (hardware and software both). • Rate of CMC for next 5 years should be mentioned separately.
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		<ul style="list-style-type: none"> • L1 of the equipment will be decided based on cumulative cost inclusive of CMC of the next 5 years • Compatibility of the equipment with a debriefing room should be possible
2.	Laparoscopy Training System	<p style="text-align: center;">TECHNICAL SPECIFICATION LAPROSCOPIC SIMULATOR</p> <ul style="list-style-type: none"> • The system should be fully computerised and interactive. • Should have PC and virtual reality simulation processor • Should have 24" flat LCD touch screen • Should have elevation mechanism for height adjustment • Should have foot switch for electrosurgical equipments • Should have high performance force feedback with three (3) degrees of freedom • Should have tool tracking with five (5) degrees of freedom • Should be High performance and precision • Should have a variety of optical angles:: 0 , 30 and 45 • Should have adapted instrument handles (graspers) • Should have interchangeable suturing handles with suturing module • The system should be able to provide comprehensive training in the field of laparoscopic surgery. • The system should feature built in tools for training group and individual trainee. • The system should contain at least 17 modules. • The system should have all parameters to evaluate trainee. • The system should have the following practice modules: <ul style="list-style-type: none"> ○ Basic Laparoscopic Skills including: <ul style="list-style-type: none"> ▪ Camera manipulation ▪ Eye-Hand Coordination ▪ Clip Applying ▪ Clipping and Grasping ▪ Two handed Maneuvers ▪ Cutting ▪ Electrocautery ▪ Translocation of Objects ○ Basic and advanced suturing skills ○ The advanced Suturing Module should include, Backhand technique, U-stitch, Curved suture line, Anastomosis, Slanted plane Suture line, Upper plane suturing and Hexagonal suture line. ○ The Basic and advance Suturing, should include, detailed interactive tutorials to enable independent training. ○ Essential skills Module ○ Should have Essential tasks similar to Fundamentals of Laparoscopic tutorials to enable independent training. ○ Should have Essential tasks similar to Fundamentals of Laparoscopic Skills developed by SAGES. • The system should enable trainee to provide full simulation of the following procedures: <ul style="list-style-type: none"> ○ <u>Lap Cholecystectomy skills and full procedures-</u> ○ Should have procedural task module to guide the trainee through the critical steps involved in the Lap Chole procedure with displayed guidance. ○ Should have at least 6 virtual patient cases with 16 anatomical variations enabling hands on in an unrestricted anatomical environment. ○ Should have task Expert's Critical View of Safety's which allows to perform a dissection of the cystic duct and artery using a reference of the expert's dissection. <p style="text-align: center;"><u>Lap Incisional Hernia –</u></p>

		<ul style="list-style-type: none"> ○ Should have at least 6 easy to difficult hernia repair cases. ○ Should feature cases of hernia removal using simulated tools common to real surgeries such as the Harmonic Scalpel. ○ The module should have simulated mesh, fixation devices, touch screen capabilities with external body view. <p><u>Lap Inguinal Hernia Module-</u></p> <ul style="list-style-type: none"> ○ The Module should provide virtual-reality hands-on simulation for Inguinal Hernia. ○ The module should allow users to practice the key steps of the Laparoscopic TransabdominalPreperitoneal (TAPP) Inguinal Hernia repair for the right defect. ○ Should include anatomy identification, peritoneal incision and dissection and , sac reduction steps. <p><u>Lap Appendectomy skills and full procedures-</u></p> <ul style="list-style-type: none"> ○ Should have a complete laparoscopic appendectomy curriculum. ○ Should include at least two guided tasks, three guided techniques and four complete procedures with different levels of appendix inflammation and anatomical variations. ○ Anatomy variations should include: retrocecal appendix, regular appendix, gangrenous pre-ileal appendix and perforated appendix. ○ Should include ability for complete exposure, dissection and clipping of the appendicular artery. ○ Should be able teaching surgical residents the basic steps of an appendectomy procedure and its techniques. ○ Should include <ul style="list-style-type: none"> i) Inspection of the abdominal cavity, ii) Pus removal, iii) Exposure of the retrocecal appendix, iv) Cecum mobilization, v) Division of the mesoappendix, vi) Control of the appendicular artery, division and extraction of the appendix and irrigation and inspection of the abdominal cavity. ○ Trainees should be able to learn to prevent and manage potential complications such as perforation of the appendix and injury to the surrounding structure. ○ Should have anatomical 3d Map and real life video. ○ Should include “Proctor Mode”- capability enabling real-time modification of mesoappendix blunt dissection difficulty. ○ Should include “Proctor Mode “– capability enabling real-time trigger of injury to the appendicular artery and bleeding control. ○ Should include “Protector Mode – capability that allows to enable/disable a specific tool from the tools menu in real time. ○ The Appendectomy module should be validated. <p><u>Cholangiography Module-</u></p> <ul style="list-style-type: none"> ○ The module should feature realistic visualization of the Cholangiogram procedures. ○ Should have didactic step by step guidance to lead the trainee through this complicated procedure. <p><u>Lap Full Gastric Bypass-</u></p> <ul style="list-style-type: none"> ○ Should help the trainee to understand and practice to complete a gastric bypass in its four primary steps. <ul style="list-style-type: none"> i) Creation of the gastric pouch, ii) Measurement and division of the jejunum, iii) Gastrojejunal anastomosis iv) Enteroenterostomy anastomosis with 2 anatomical positions
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		<p><u>Lap Sigmoidectomy and full procedures–</u></p> <ul style="list-style-type: none"> ○ Has to be full procedure module ○ TheModule should help the user to identify anatomy such as the ureter, IMA, IMV, gonadal, ○ Should include <ul style="list-style-type: none"> i) Incise the peritoneum, ii) Dissect in the correct tissue planes, iii) Expose and dissect vessels, and iv) Perform distal division and anastomosis. <p><u>Lap Nephrectomy and full procedures–</u></p> <ul style="list-style-type: none"> ○ Has to be full procedure module ○ Trainee should be able to identify the anatomy such as the ureter, gonadal vein, renal vein, renal artery, ○ Should allow trainee to decide about the adrenal gland and <ul style="list-style-type: none"> i) perform the Hilar Dissection ii) Perform the Colon Mobilization with a complete instrument set. iii) Perform mobilization of the upper pole <p><u>Lap Gyn – salpingostomy, oophrectomy etc. procedures</u></p> <p>=</p> <ul style="list-style-type: none"> ○ Should have at least 7 cases to encounter a range of patient pathologies and gain experience with various techniques and surgical instruments. ○ Should Include variety of complications and emergency situations. <ul style="list-style-type: none"> i)bleeding at the implantation site, ii)a ruptured fallopian tube and iii)a blood filled abdominal cavity. ○ Should allow trainee to make decision in a unrestricted clinical environment to perform <ul style="list-style-type: none"> i) Salpingostomy ii) Salpingectomy iii) Salpingo-Oophorectomy iv) Tubal sterilization <p>The module has to be validated in clinical studies</p> <p><u>Lap Hysterectomy skills and full procedures –</u></p> <ul style="list-style-type: none"> ○ Should offer complete hysterectomy procedure including <ul style="list-style-type: none"> i) Ureter exposure, ii) Uterine manipulation, iii) Superior pedicles division, iv) Bladder mobilization, v) Exposure and division of the uterine artery, and vi) Colpotomy. ○ The course of the ureters may be visualized transperitoneally, or through a retroperitoneal dissection ○ Should have an option to allow the infrared illumination of the ureters for ureters’s course identification. ○ Should have an option to perform, hysterectomy with or without a preservation of the fallopian tubes and ovaries. ○ Should include the option of ischemic appearance of the uterus after the division of the uterine vessels. ○ Should include an option of “Proctor Mode” –capability enabling real-time triggering of injuries to the vessels and bleeding control. ○ Should include an option of “Proctor Mode” – capability that allows to enable/disable a specific tool from the tools menu in real time. <p><u>Vaginal Cuff Suturing–</u></p> <ul style="list-style-type: none"> ○ The module should provide a unique opportunity to practice vaginal cuff suturing using unidirectional and bidirectional Barbed Sutures. ○ Should include a variety of potential complications such as suspected injury to the bladder, ureters, colon and iliac vessels. ○ Should offer both visually guided suturing techniques and free-hand training
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		<p><u>Lap Lobectomy Module-</u></p> <ul style="list-style-type: none"> ○ The module should provide a unique opportunity to practice the complicated steps. <ul style="list-style-type: none"> i) The hilar dissection ii) Dissection and division of the blood vessels and bronchus, fissures division in order to separate the upper right lobe. ○ Should simulate complications such as <ul style="list-style-type: none"> i) injury to the pericardium, pulmonary artery and vein branches, phrenic nerve and azygos vein ○ Virtual cases Should have <ul style="list-style-type: none"> i) 3D anatomy atlas ii) step by step tutorials, iii) experts video iv) A fully guided case v) Breathing and pulse movements ○ Should have objective performance metrics that enhance the learning experience. ○ The system should have options of selecting various hand instruments. ○ Should have a “Proctor Mode” – capability enabling real-time modification of the tissue stiffness during blunt dissection. ○ Should have “Proctor Mode” –Capability enabling real-time trigger of mild and major injuries to the vessels and injuries control. ○ Should have “Proctor Mode” – capability that allows to enabling /disabling a specific tool from the tools menu in real time. <ul style="list-style-type: none"> ● The system processing unit should be latest generation. ● The system should be CE and ISO certified. ● 3D anatomical maps should be available on certain modules for better understanding of anatomy. ● Should have short video of real-life procedures for better understanding of the trainee. ● Should have custom building of training courses for learners of all levels. ● Should have viewing and exporting of performances reports to facilitates learning, analysis of training effect, showing the learning curve, research and future certification. ● Should have technical Skills Reporting and Assessment : <ul style="list-style-type: none"> ○ Time and economy of movements. ○ Safety and electrosurgical dissection. ○ Procedural errors. ○ Procedure specific checklist items relating to knowledge of procedures, handling of instruments , ● Should facilitate web based simulator curricula management system, providing the optimal solution for administration of users, Curricula design, Pre-preparation with didactic learning, Simulation and Reporting and assessment remotely. ● Should have ready to use designed Curricula from famous institutes. ● Should have a facility to access, assign, evaluate and administer the data of users remotely. ● Should have ready to use simulator based courses. ● Should have implementation of the ACS/APDS curricular. ● The system should have an option to be fully integrated online. ● The system should have an option for online centralized management of one or more simulators ● The system should have an option for online user and group registration and administration ● The system should have an option for online access to didactics content: descriptions, objectives module books, tutorials and real-life videos. ● The system should have an option for online access to ready to use course ● The system should have an option for online access to the
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		<p>performance reports.</p> <ul style="list-style-type: none"> • The system should have an option for online export of reports to files. • The system should have an option for online capability to create and modify benchmarks. <p>Curricula</p> <ul style="list-style-type: none"> • Should offer an implementation of the validated Proficiency Based Curriculum for the Cholecystectomy module • Should offer an implementation of the SORTED Bariatric Curriculum • Should offer an implementation of THE Patient Safety Course for OR Nurses • Should offer an implementation of the 1st MSMU (I.M.Sechenov First Moscow State Medical University) Scoring course. • Should offer an implementation of the LSS (Laparoscopic Surgical Skills) Curriculum – Grade 1 –Level1. • Comprehensive warranty for 5 years covering all parts of the equipments (hardware and software both). • Rate of CMC for next 5 years should be mentioned separately • L1 of the equipment will be decided based on cumulative cost inclusive of CMC of the next 5 years <ul style="list-style-type: none"> • Compatibility of the equipment with a debriefing room should be possible
3.	Bronchoscopy simulation	<p><u>Technical Specification for Bronchoscopy Simulator</u></p> <p>BASIC EQUIPMENT:</p> <ul style="list-style-type: none"> • The system should be fully computerised and interactive. • Should have PC with Virtual Reality simulation processor. • Should have a designating mobile stainless steel cart, supporting both posterior and lateral Bronchoscopic working positions. • Should offer height adjustment. • Should be upgradeable to Gastro Intestinal Simulator using the same platform. • Should have a 24” Flat LCD touch screen with a movable arm. • Should have a double foot switch. • Should have anthropomorphic orifices, supporting both oral and nasal approaches. • The system should be equipped with a reliable high end Haptic (force feedback) to provide realistic sensation of Bronchoscopic intubation and navigation. • The Haptic mechanism (force feedback) should allow calibration for harder/softer force feedback, per customer preferences. • Should use original OEM bronchoscope adapted to simulation purposes, to provide realistic feel and maneuverability. • Should have one master tool device, one 10cc syringe and one Olympus EBUS TBNA needle (adapted). • The system should be ISO / CE certified. <p>BASIC CHARACTERISTICS:</p> <ul style="list-style-type: none"> • Should simulate the full spectrum of the Bronchoscopic Procedure: <ul style="list-style-type: none"> ○ Patient management with moderate sedation and topical anaesthesia ○ Ongoing patient monitoring ○ Solving complications such as hypoxia, respiratory depression, dangerous levels of BP and HR • All virtual patient cases should offer an unrestricted clinical environment for inspecting, analyzing, diagnosing and treating accordingly. • Should provide real life patient environment with: <ul style="list-style-type: none"> ○ Reactive vital signs ○ Altering consciousness ○ Complications ○ True to life physiological responses such as cough • Should have designated tasks to support structured self-learning

		<p>of sampling methods with immediate performance feedback.</p> <ul style="list-style-type: none"> • Should have designated tasks to improve eye hand coordination and navigational skills. • Advanced modules should offer choice between moderate sedation by the trainee to pre-existing general anaesthesia. • Should offer a choice of didactic aids enhancing 3D and anatomical perception such as anatomy compass, external 3D Map, anatomy atlas and anatomical labels for bronchial segments and lymph nodes. • System should support the trainees' performance with real time guidance including efficiency, comments and patient safety alerts. • The performance assessment should be most advanced and include biopsy results per sampled location or lymph node, for advanced Modules. • Should incorporate electric tools such as electrocautery probe and APC probe. • Should offer the following Bronchoscopic tools and methods for the trainee to use at his clinical discretion: <ul style="list-style-type: none"> ○ Diagnostic Bronchoscopy, all clinical cases should offer: Topical anaesthesia and BAL using an actual syringe, cytology brushes, biopsy forceps, conventional TBNA needles with actual syringe to apply suction. ○ Essential EBUS, all clinical cases should offer: Topical anaesthesia using an actual syringe, EBUS-TBNA needle with actual syringe to apply suction. ○ Emergency Bronchoscopy, different cases should offer: basket, balloon, grasping forceps, V-shape forceps, electrocautery probe, APC probe, iced saline, epinephrine and mucomist endobronchially using an actual syringe • Should offer a structured curriculum and certification for essential Bronchoscopic skills and Diagnostic Bronchoscopy by a leading professional organization – The American College of Chest Physicians. • Should facilitate remote web based curricula management for administration of users, Curricula design, and performance assessment. • Should have ready to use designed Curricula. <p>TRAINING MODULES AND VIRTUAL PATIENT CASES:</p> <ul style="list-style-type: none"> • The system should have the following modules and virtual patient cases: <ul style="list-style-type: none"> ○ Essential Bronchoscopy Module which is developed and endorsed by the American Association for Bronchology and Interventional Pulmonology. Offering skill and procedural tasks: <ul style="list-style-type: none"> ▪ Bronchoscope control and maneuvering ▪ Anatomic navigation ▪ Anatomical recognition of bronchial segments ▪ Anatomical recognition of lymph node stations ▪ Step-by-step procedural performance of forceps biopsy, brushing and conventional TBNA ○ Diagnostic Bronchoscopy Module with: <ul style="list-style-type: none"> ▪ Biopsy result per the area sampled ▪ Cases with malignant endobronchial findings ▪ Sarcoidosis case ▪ Pediatric inflammation case ▪ Kaposi's sarcoma case ▪ Aspergillus ○ Emergency Bronchoscopy Module with cases of: <ul style="list-style-type: none"> ▪ Endobronchial bleeding in main airways ▪ Peripheral endobronchial bleeding following
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		<ul style="list-style-type: none"> biopsy <ul style="list-style-type: none"> ▪ Foreign body aspiration – pediatric ▪ Foreign body aspiration – adult ▪ Therapeutic aspiration - mucus filled airways ▪ Therapeutic aspiration - mucus filled airways hiding a tumor ○ Essential EBUS Module with: <ul style="list-style-type: none"> ▪ A step-by-step procedural task for complete EBUS-TBNA performance ▪ Tasks to learn and identify the different lymph node stations on the ultrasound view ▪ Radial peripheral EBUS basic training ▪ Cases with multiple lymph nodes, all of which can be sampled by the trainee ▪ Pathological finding results per the sampled lymph nodes ▪ A case with different pathological findings for different lymph nodes ▪ Malignant lymph nodes ▪ Benign lymph nodes ▪ Sarcoidosis case ○ Standardized CHEST Curriculum for Essential Bronchoscopic Skills and Diagnostic Bronchoscopy, offering: <ul style="list-style-type: none"> ▪ Highly structured curriculum by a leading medical association ▪ Theoretic learning and hands-on training are seamlessly combined in performance and assessment ▪ Huge knowledge base in Chest Medicine to learn and get tested on ▪ Curriculum covers both skills and clinical aspects ▪ Can be performed in a training mode for learning, or in a testing mode to be objectively assessed ▪ Certificate of Completion by CHEST will be issued directly from the simulator if acceptance criteria was met in testing mode (future development) • Comprehensive warranty for 5 years covering all parts of the equipments (hardware and software both). • Rate of CMC for next 5 years (starting from 6th year onwards) should be mentioned separately • L1 of the equipment will be decided based on cumulative cost inclusive of CMC of the next 5 years(starting from 6th year onwards) • Compatibility of the equipment with a debriefing room should be possible
4.	GI Simulator	<p style="text-align: center;"><u>Technical specifications for GI SIMULATOR</u></p> <ul style="list-style-type: none"> • The system should be fully computerised and interactive. • Should have PC with latest Intel i7 and Virtual Reality simulation processor with remote access. • Should have a stainless steel support 130cm L x 57cm W x 175cm H • Should have a 24” Flat LCD touch screen with a movable arm. • Should have a double foot switch. • Should have a mannequin withmouth and buttock for performing upper/lower GI procedures. • The system should be equipped with a reliable high end technological Haptic (force feedback) to provide realistic

		<p>sensation that mimic the look and feel of an actual procedure.</p> <ul style="list-style-type: none"> • Should have adapted original true to life actual endoscope for upper/lower GI procedures. • Should have adapted original true to life actual endoscope for ERCP / EUS procedures. • The system should have over 100 and above tasks & cases and the following modules :: <p>Cyberscopy Module:</p> <ul style="list-style-type: none"> ○ Should have at least four designated tasks aimed at optimizing the acquisition of basic GI endoscopy capabilities. <p>GI Endoscopy Fundamental Skills Training Module:</p> <ul style="list-style-type: none"> ○ Should provide a comprehensive solution to learning and training in Flexible Endoscopy Skills, for both Surgery and Gastroenterology. ○ Should incorporate atleast 9 skills task covering navigation, mucosal evaluation, targeting, retroflexion. <p>Colonoscopy Module:</p> <ul style="list-style-type: none"> ○ Should have atleast 20 virtual patient cases to enable performance of a complete survey of the lower GI tract with an authentic forward viewing video-endoscope. ○ Trainees should encounter true to life situations such as intestinal looping, complex colon anatomies, patient discomfort, and be able to practice therapeutic procedures such as biopsy and polypectomy. <p>Gastrosocopy Module:</p> <ul style="list-style-type: none"> ○ Should have atleast 20 virtual patient cases to offer a safe environment to perform a complete survey of the upper GI tract with a forward viewing video endoscope. ○ Trainee should identify typical lesions in a variety of upper GI anatomies and pathologies, and perform diagnostic or therapeutic procedures according to his clinical judgment.
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		<p>Gastric Emergency Bleeding Module:</p> <ul style="list-style-type: none"> ○ Should have at least 10 virtual emergency bleeding cases to enable trainees encounter emergency situations of the upper GI tract. ○ The module should offer practice in both diagnostic stage of bleeding lesions and therapeutic procedures. ○ Should have various accessories for treatment of bleeding pathologies, such as spray catheter, a bipolar coagulation, an injection needle and a cold snare for clot removal. <p>Flexible Sigmoidoscopy Module:</p> <ul style="list-style-type: none"> ○ Should have at least ten virtual cases to enable practice of Flexible Sigmoidoscopy and biopsy techniques on difficult and unusual anatomies and pathologies. ○ Should enable Realistic anatomy of the lower GI tract for complete Sigmoidoscopy training including examination of the anus, rectum, sigmoid and descending colon, retro in the distal rectum for complete examination. ○ Should help trainees improve their decision making skills, identify pathologies and make appropriate recommendations based on findings. <p>ERCP Module:</p> <ul style="list-style-type: none"> ○ Should have at least eighteen virtual patient cases. ○ The module should feature simultaneous displays of both endoscopic and fluoroscopic views, as well as a wide variety of accessories to perform cannulation and therapeutic procedures. ○ The module should enable realistic environment of the upper GI tract to enable complete training tool of this challenging procedure. ○ Trainee should gain practice in papilla cannulation, fluoroscopic understanding of the biliary tree and pancreatic duct, sphincterotomy, stricture dilation and stone extraction and stent deployment. ○ Should have Variety of endoscopic instruments incorporated such as sphincterotome, needle knife, guide wire, stents, balloons and basket.
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		<p>Endoscopy Ultrasonography Module:</p> <ul style="list-style-type: none"> ○ Should offer systematic and didactic tasks, designed to train endoscopic ultrasound performance, identifying over 30 significant anatomical landmarks. ○ Should have separate education module and task module. ○ Should have both linear and radial ultrasound. <p>EMR/ESD Module</p> <ul style="list-style-type: none"> ○ Should provide a complete virtual patient environment featuring realistic anatomy and physiology, while including complication management as an integral part of the procedure. ○ Endoscopic Mucosal Resection (EMR) simulation, should offer practice of injection-assisted polypectomy for various pathological lesions, while using common injection materials, snaring devices and different complication treatments. The module should allow practice of lesion diagnosis, using on-demand optical endoscopic imaging technique. ○ Should have patient management including moderate sedation ○ Endoscopic Submucosal Dissection (ESD) simulations should offer practice of lesion border marking, circumferential incision and full submucosal dissection skills, all using common cautery devices with proper working modes. <ul style="list-style-type: none"> ● The system should be ISO / CE certified. ● Should have designated cyberscopy navigation tasks to improve eye hand coordination and navigational skills. ● The simulator should have an un restricted patient environment. ● Should offer a choice of aids enhancing 3D and anatomical perception such as external 3D Map. ● Should have a 3D map for the ease of users to learn and understand the anatomy better. ● Should support the trainees' performance with real time
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		<p>guidance, comments and patient safety alerts.</p> <ul style="list-style-type: none"> • The performance assessment should be most advanced with benchmark setting depending on the user level. • Should incorporate electric tools such as electro cautery probe. • Fluoroscopic view should be available on ERCP Modules. • Should facilitate web based simulator curricula management system, providing the optimal solution for administration of users, Curricula design, Pre-preparation with didactic learning, Simulation and Reporting and assessment remotely. • Should have ready to use designed Curricula from famous institutes. • Should have a facility to access, assign, evaluate and administer the data of users remotely. • Should have 35 and above validations studies. • Should be upgradable with modules Endoscopy mucosal resection (EMR) and Endoscopy sub mucosal resection. <ul style="list-style-type: none"> • Comprehensive warranty for 5 years covering all parts of the equipments (hardware and software both). • Rate of CMC for next 5 years (starting from 6th year onwards) should be mentioned separately • L1 of the equipment will be decided based on cumulative cost inclusive of CMC of the next 5 years(starting from 6th year onwards)
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Part-3

Contract

Section VII. General Conditions of Contract

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Section VII. General Conditions of Contract

1 Definitions

1.1 The following words and expressions shall have the meanings hereby assigned to them:

- (a) “University” means Banaras Hindu University established under Banaras Hindu University Act 1915 .
- (b) “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (c) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.
- (d) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- (e) “Day” means calendar day.
- (f) “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (g) “GCC” means the General Conditions of Contract.
- (h) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (i) “The Project Site,” term where applicable, means the place of work named in the Special Conditions of Contract (SCC).
- (j) “Purchaser” means Banaras Hindu University, institute, faculty, department and other entities of the University competent for purchasing Goods and Services, as specified in the SCC.
- (k) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (l) “SCC” means the Special Conditions of Contract.
- (m) “Subcontractor” means any person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution

of any part of the Related Services is subcontracted by the Supplier.

- (n) “Supplier” means the person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- (o) “The Project Site,” where applicable, means the place named in the SCC.

- 2 Contract Documents**
 - 2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

- 3 Corrupt and Fraudulent Practices**
 - 3.1 The University requires compliance with its policy against the corrupt and fraudulent practices as set forth Section- V.
 - 3.2 The Purchaser requires the Supplier to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

- 4 Interpretation**
 - 4.1 Unless the context requires otherwise, singular means plural and vice versa.
 - 4.2 The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.
 - 4.3 Amendment
No amendment or other variation of the Contract shall be valid unless it is reduced to writing, dated, expressly refers to the Contract, and is signed by the duly authorized representative of each party thereto.
 - 4.4 Nonwaiver
 - a. Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under

the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

- b. Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.5 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5 Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the SCC. Supporting documents and printed literature that are part of the Contract may be in any language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, such translation shall govern.

5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

6 Joint Venture, Consortium or Association

6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

7 Eligibility

7.1 The Bidder should not have been declared insolvent by the competent court.

7.2 The Bidder should not be disqualified for contract under the law of the land.

7.3 The Bidder should not be adjudged defaulter of Tax Payment under Income Tax Law or any other Law for the time being in-force.

- 7.4 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. Nationality must be disclosed by the supplier
- 7.5 All Goods and Related Services to be supplied under the Contract shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.
- 8 Notices**
- 8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term “in writing” means communicated in written form with proof of receipt.
- 8.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.
- 9 Governing Law**
- 9.1 The Contract shall be governed by and interpreted in accordance with the laws of India, unless otherwise specified in the SCC.
- 9.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in India when
- (a) as a matter of law or official regulations, India prohibits commercial relations with that country; or
- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, India prohibits any import of goods from that country or any payments to any country, person, or entity in that country.
- 10 Settlement of Disputes**
- 10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 10.2 If the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to settle the issue by arbitration, as hereinafter provided, as to the matter in dispute, no arbitration in respect of the matter be

commenced unless such notice is given in accordance with this Clause for the final settlement of the matter. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

10.3 All questions, disputes and differences arising shall be referred by the Vice-Chancellor, Banaras Hindu University to the sole arbitrator for arbitration under the provision of the Arbitrations and Conciliation Act, 1996.

11 Obligations During Arbitrations

11.1 Notwithstanding any reference to arbitration in Clause 10,
(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
(b) the Purchaser shall pay any amount due to the Supplier.

12 Scope of Supply

12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

13 Delivery and Documents

13.1 Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.

14 Supplier's Responsibilities

14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.

15 Contract Price

15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC.

16 Terms of Payment

16.1 Ordinarily, payments for services rendered or supplies made shall be released only after the services have been rendered or supplies appropriate to the requirement made. However in following cases advance payments may be made if specified in SCC:
(i) Advance payment demanded by firms holding maintenance contracts for servicing of Air-conditioners, computers, other costly equipment, etc.

- (ii) Advance payment demanded by firms against fabrication contracts, turnkey contracts etc.

Such advance payment should not exceed the following limits :-

- (i) Thirty percent of the contract value to private firms;
- (ii) Forty percent of the contract value to a State or central Government agency or a Public Sector Undertaking; or
- (iii) In case of maintenance contract, the amount should not exceed the amount payable for six months under the contract.

16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfilment of all other obligations stipulated in the Contract.

16.3 Payments shall be made promptly by the Purchaser, within ninety (90) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.

16.4 The currencies in which payment shall be made to the supplier under this contract shall be Indian currency unless otherwise agreed.

17 Taxes and Duties

17.1 For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.

17.2 For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent or country or origin, the supplier shall provide benefit from any such tax saving to the purchaser.

18 Performance Security

18.1 If required as specified in the SCC, the Supplier shall, within twenty-one (21) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the SCC.

18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the

Supplier's failure to complete its obligations under the Contract.

- 18.3 As specified in the SCC, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Purchaser; and shall be in one of the format stipulated by the Purchaser in the SCC, or in another format acceptable to the Purchaser.
- 18.4 Performance security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligation.
- 18.5 Bid security shall be refunded to the successful bidder within 30 days of receipt of performance security.

19 Copyright

- 19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

20 Confidential Information

- 20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.
- 20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.
- 20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
 - a. now or hereafter enters the public domain through no

fault of that party;

- b. can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- c. otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21 Subcontracting

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later on shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22 Specifications and Standards

22.1 Technical Specifications and Drawings

(a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section-VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin or India.

(b) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.

23 Packing and Documents

23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme

temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.

24 Insurance

24.1 Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.

25 Transportation and Incidental Services

25.1 The Supplier is required under the Contract to transport the Goods to a specified place of final destination within India, defined as the Project Site, transport to such place of destination in India, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price"; or any other agreed upon trade terms (specify the respective responsibilities of the Purchaser and the Supplier)

25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- (a) performance or supervision of on-site assembly and/or start up of the supplied Goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

25.3 Prices charged by the Supplier for incidental services, if not

included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services otherwise shall be at the cost of suppliers.

26 Inspections and Tests

- 26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC.
- 26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in India as specified in the SCC. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.
- 26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier, if permitted by the purchaser, shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the

specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.

26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall absolve the Supplier from any warranties or other obligations under the Contract.

27 Liquidated Damages

27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 33.

28 Warranty

28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

28.2 Subject to Sub-Clause 22.1(b) of GCC, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or warranty period mentioned by supplier whichever period concludes later unless mutually agreed.

28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace

the defective Goods or parts thereof, at no cost to the Purchaser.

28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

29 Patent Indemnity

29.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered.

29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

29.3 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.

30 Force Majeure

30.1 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

30.2 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably possible, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

30.3 The Supplier shall not be liable for forfeiture of its

Performance Security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

31 Change Orders and Contract Amendments

- 31.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:
- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - (b) the method of shipment or packing;
 - (c) the place of delivery; and
 - (d) the Related Services to be provided by the Supplier.
- 31.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's change order.
- 31.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.
- 31.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

32 Extensions of Time

- 32.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 32.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its

Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

33 Termination

33.1 Termination for Default

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
 - (i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 32;
 - (ii) if the Supplier fails to perform any other obligation under the Contract; or
 - (iii) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 33.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

33.2 Termination for Insolvency.

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

33.3 Termination for Convenience.

- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date

upon which such termination becomes effective.

- (b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
 - (i) to have any portion completed and delivered at the Contract terms and prices; and/or
 - (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

34 Assignment

- 34.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

Section VIII. Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC Clause Ref. No.	SCC
GCC 1.1 (i)	The Purchaser's country is: India.
GCC 1.1 (k)	The Purchaser is: Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre complex, Institute of Medical Sciences, BHU, Varanasi -221005
GCC 1.1 (j)	The Project Site(s)/Final Destination(s) is/are: Skill Centre and Simulation Lab, Trauma Centre complex, Institute of Medical Sciences, BHU, Varanasi -221005
GCC 5.1	The language shall be: Hindi or English
GCC 8.1	For notices, the Purchaser's address shall be: Attention : Prof. S.K. Mathur Street Address : Professor Incharge, Skill Centre and Simulation Lab, Trauma Centre complex, Institute of Medical Sciences, BHU, Varanasi Floor/ Room number : City : Varanasi ZIP Code : 221005 Country : India Telephone : 91-9450955143 Facsimile number : 91-542-0000000 Electronic mail address : skmathurbhu@gmail.com
GCC 9.1	The governing law shall be the law of India.
GCC 10.2	The rules of procedure for arbitration proceedings pursuant to GCC Clause 10.2 shall be as follows: <i>Contracts with Supplier for arbitral proceeding</i> In the case of a dispute between the Purchaser and a Supplier, the dispute shall be referred to adjudication or arbitration in accordance with the laws of India by the arbitrator appointed by vice-chancellor, BHU, unless otherwise agreed.
GCC 13.1	Details of Shipping and other Documents to be furnished by the Supplier

	<p>are:</p> <ul style="list-style-type: none"> (i) An airway bill (ii) Insurance Certificate, (iii) Manufacturer's or Supplier's Warranty Certificate, (iv) Inspection Certificate issued by nominated inspection agency, (v) Supplier's factory shipping details etc. <p>The above documents shall be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.</p>
GCC 15.1	The prices charged for the Goods supplied and the related Services performed shall not be adjustable.
GCC 16.1	<p>GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</p> <p>Payment for Goods supplied from abroad:</p> <p>Payment of foreign currency portion shall be made in Indian Rupees in the following manner:</p> <ul style="list-style-type: none"> (i) On Shipment: Ninety (90%) percent of the Contract Price of the Goods shipped shall be paid through irrevocable confirmed letter of credit opened in favor of the Supplier in a bank in its country, upon receiving equipment in good condition and documents specified in GCC Clause 13.1 under Section-VII. (ii) On Acceptance: Remaining (10%) percent of the Contract Price of Equipment received shall be paid within thirty (30) days of receipt of the equipment upon submission of claim supported by the acceptance certificate issued by the Purchaser by bank draft/wire transfer. <p>Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed.</p> <p>Payment for Goods and Services supplied from within India:</p> <p>Payment for Goods and Services supplied from within India shall be made in Indian Rupees, as follows:</p> <ul style="list-style-type: none"> (i) On Delivery & Acceptance: Hundred (100%) percent of the Contract Price shall be paid on receipt of the Goods in good conditions and acceptance certificate for satisfactory installation and functioning.
GCC 18.1	A Performance Security shall be required @ 5% of contract price.
GCC 18.3	If required, the Performance Security shall be in the form of : Bank

	<p>Guarantee</p> <p>If required, the Performance security shall be denominated in Indian Rupees.</p>
GCC 23.2	The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract.
GCC 24.1	<p>The insurance coverage shall be as specified in the Incoterms.</p> <p>If not in accordance with Incoterms, insurance shall be as follows: NA</p>
GCC 25.1	<p>Responsibility for transportation of the Goods shall be as specified in the Incoterms.</p> <p>If not in accordance with Incoterms, responsibility for transportations shall be as follows: NA</p>
GCC 25.2	<p>Incidental services to be provided are:</p> <p style="padding-left: 40px;">Selected services covered under GCC Clause 25.2 and/or other should be specified with the desired features. The price quoted in the bid price or agreed with the selected Supplier shall be included in the Contract Price.</p>
GCC 26.1	The inspections and tests shall be: Equipment should be installed at site by designated engineer of the firm. Demonstration should be made to the satisfaction of the P.I. At least four free visits should be made by the engineer during the first year after installation to clarify and rectify any doubts or problems as may be faced by the user.
GCC 26.2	The Inspections and tests shall be conducted at the Department where the equipment is installed. For the rest please refer to GCC 26.1.
GCC 27.1	The liquidated damage shall be: 1% per week
GCC 27.1	The maximum amount of liquidated damages shall be: 10%
GCC 28.3	<p>The period of validity of the Warranty shall be 05 Years from date of acceptance/ satisfactory installation of the equipment.</p> <p>For purposes of the Warranty, the place(s) of final destination(s) shall be the Department where the equipment is installed.</p> <p style="padding-left: 40px;">The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract (if any). If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:</p>

	<p>(a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 4, or</p> <p>(b) pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be 1% per week of actual value of the equipment (maximum 10%).</p>
GCC 28.5	The period for repair or replacement shall be: 60 days

Part-4
Bidding Forms &
Contract Forms

Section IX: Bidding Forms

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(i) Tender Form

(Techno commercial un-priced Bid)

(On the letter head of the firm submitting the bid)

Tender No.

To

The _____

Dear Sir,

1. I/We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders;
2. I/We meet the eligibility requirements and have no conflict of interest ;
3. I/We have not been suspended nor declared ineligible in India;
4. I/We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: ***[insert a brief description of the Goods and Related Services];***
5. I/We offer to supply the items as listed in the schedule to this tender hereto/portion thereof as you may specify in the acceptance of Tender at the price given in the said Schedule and agree to hold this offer open for a period of 90 days from the date of opening of the tender.
6. I/we shall be bound by a communication of acceptance issued by you.
7. I/We have understood the Instruction to bidders and Conditions of Contract in the form as enclosed with the invitation to the tender and have thoroughly examined the specifications quoted in the Schedule hereto and am/are fully aware of the nature of the goods required and my/our offer is to supply the goods strictly in accordance with the specifications and requirements.
8. A crossed Bank Draft in favor of the Registrar, BHU for Rs. (Rupees.....only) as Earnest Money is enclosed. The Draft is drawn onBank payable at Varanasi.

9. The following have been added to form part of this tender.
- (a) Samples of items quoted for, as per instructions provided in the schedule of requirement.
 - (b) Schedule of requirements, quoting the make only duly signed and stamped.(without indicating price)
 - (c) Income Tax clearance certificate.
 - (d) Copy of last audited balance sheet.
 - (e) Copy of Valid Central/State sales tax registration certificate.
 - (f) Copy of relevant major purchase orders valuing more than Rs. 20000/- executed during last two years for Govt. Depts., PSUs & Central Autonomous bodies..
 - (g) Proof of manufacturing Unit, dealership certificate/general order suppliers.
 - (h) Statement of deviations from financial terms & conditions, if any.
 - (i) Any other enclosure. (Please give details)
10. We undertake to execute all orders which have been placed to meet emergent requirements on priority basis.
11. Certified that the bidder is:
- (a) A sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of the sole proprietor,
Or
 - (b) A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.
Or
 - (c) A company and the person signing the document is the constituted attorney.
- (NOTE: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document).***
12. We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof shall constitute a binding contract between us.
13. If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;
14. We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process, other than alternative bids submitted;
15. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption

Name of the Bidder* **[insert complete name of person signing the Bid]**

Name of the person duly authorized to sign the Bid on behalf of the Bidder** **[insert complete name of person duly authorized to sign the Bid]**

Title of the person signing the Bid **[insert complete title of the person signing the Bid]**

Signature of the person named above **[insert signature of person whose name and capacity are shown above]**

Date signed _ **[insert date of signing]** day of **[insert month]**, **[insert year]**

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

** : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.

Yours faithfully,

(Signature of bidder)

Dated this day of _____

Address:

.....

.....

Telephone No. : _____

FAX _____

E-mail _____

Company seal

(ii) Tender Form

(Priced Bid)

(On the letter head of the firm submitting the bid document)

To,

The _____

Ref: Tender No.....Dated:

Sir,

Having examined the bidding documents and having submitted the techno commercial unpriced bid for the same, we, the undersigned, hereby submit the priced bid for supply of goods and services as per the schedule of requirements and in conformity with the said bidding documents.

1. We hereby offer to supply the Goods/Services at the prices and rates mentioned in the enclosed schedule of requirement.
2. We do hereby undertake that, in the event of acceptance of our bid, the supply of Goods/Services shall be made as stipulated in the schedule of requirement and that we shall perform all the incidental services.
3. The prices quoted are inclusive of all charges net F.O.R University. We enclose herewith the complete Financial Bid as required by you. This includes:
 - a. Price Schedule (Bill of Quantity-BOQ).
 - b. Statement of deviations from financial terms and conditions.
4. We agree to abide by our offer for a period of 90 days from the date fixed for opening of the bid documents and that we shall remain bound by a communication of acceptance within that time.
5. We have carefully read and understood the terms and conditions of the bid document and we do hereby undertake to supply as per these terms and conditions. The Financial Deviations are only those mentioned in the statement of deviations from financial terms and conditions.
6. We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: **[insert complete name of each**

Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

7. We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
8. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Certified that the bidder is:

A sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of sole proprietor,

Or

A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney,

Or

A company and the person signing the bid document is the constituted attorney.

(NOTE: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document.)

We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.

Dated this day of _____

Signature of Bidder _____

Details of enclosures _____

Full Address: _____

Telephone No. _____

Mobile No. : _____

Fax No. : _____

E-mail: _____

Company Seal

Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Bid Submission]*

ADVT. No.: *[insert number of bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

Page _____ of _____ pages

1. Bidder's Name <i>[insert Bidder's legal name]</i>
2. In case of JV, legal name of each member : <i>[insert legal name of each member in JV]</i>
3. Bidder's actual or intended country of registration: <i>[insert actual or intended country of registration]</i>
4. Bidder's year of registration: <i>[insert Bidder's year of registration]</i>
5. Bidder's Address in country of registration: <i>[insert Bidder's legal address in country of registration]</i>
6. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement. <input type="checkbox"/> In case of Government-owned enterprise or institution, documents establishing: <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not dependent agency of the Purchaser
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Manufacturer's Authorization

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the BDS.]

Date: *[insert date (as day, month and year) of Bid Submission]*

ADVT. No.: *[insert number of bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Purchaser]*

WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Dated on _____ day of _____, _____ *[insert date of signing]*

Section X. Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

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Tender Acceptance Letter

(To be given on Company Letter Head)

Date:

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No. _____

Name of Tender/ Work: -

Dear Sir,

1. I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

as per your advertisement, given in the above mentioned website(s).

2. I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/ clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
4. I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in its totality/entirety.
5. In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

Contract Agreement

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS AGREEMENT made

the [*insert: number*] day of [*insert: month*], [*insert: year*].

BETWEEN

- (1) [*insert complete name of Purchaser*], a [*insert description of type of legal entity, for example, an agency of the Ministry of ... of the Government of { insert name of Country of Purchaser }, or corporation incorporated under the laws of { insert name of Country of Purchaser }*] and having its principal place of business at [*insert address of Purchaser*] (hereinafter called “the Purchaser”), of the one part, and
- (2) [*insert name of Supplier*], a corporation incorporated under the laws of [*insert: country of Supplier*] and having its principal place of business at [*insert: address of Supplier*] (hereinafter called “the Supplier”), of the other part :

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [*insert brief description of Goods and Services*] and has accepted a Bid by the Supplier for the supply of those Goods and Services

The Purchaser and the Supplier agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
 - (a) the Letter of Acceptance
 - (b) the Tender Forms
 - (c) the Addenda Nos. _____ (if any)
 - (d) Special Conditions of Contract
 - (e) General Conditions of Contract
 - (f) the Specification (including Schedule of Requirements and Technical Specifications)
 - (g) the completed Schedules (including Price Schedules(BOQ))
 - (h) any other document listed in GCC as forming part of the Contract

3. In consideration of the payments to be made by the Purchaser to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[insert the name of the Contract governing law country]* on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: *[insert signature]*
in the capacity of *[insert title or other appropriate designation]*
in the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*
in the capacity of *[insert title or other appropriate designation]*
in the presence of *[insert identification of official witness]*

Performance Security

Option 1: (Bank Guarantee)

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Purchaser]*

Date: *_ [Insert date of issue]*

PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *_ [insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the supply of *_ [insert name of contract and brief description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (_____) *[insert amount in words]*⁵, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of, 2...⁶, and any demand for payment under it must be received by us at this office indicated above on or before that date.

⁵ The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

⁶ Insert the date twenty-eight days after the expected completion date as described in GC Clause 18.4. The Purchaser should note that in the event of an extension of this date for completion of the Contract, the Purchaser would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Purchaser might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Option 2: Performance Bond

By this Bond *[insert name of Principal]* as Principal (hereinafter called “the Supplier”) and *[insert name of Surety]* as Surety (hereinafter called “the Surety”), are held and firmly bound unto *[insert name of Purchaser]* as Obligee (hereinafter called “the Supplier”) in the amount of *[insert amount in words and figures]*, for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Supplier and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Contractor has entered into a written Agreement with the Purchaser dated the _____ day of _____, 20 ____, for *[name of contract and brief description of Goods and related Services]* in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW, THEREFORE, the Condition of this Obligation is such that, if the Supplier shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Supplier shall be, and declared by the Purchaser to be, in default under the Contract, the Purchaser having performed the Purchaser’s obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- (1) complete the Contract in accordance with its terms and conditions; or
- (2) obtain a Bid or bids from qualified Bidders for submission to the Purchaser for completing the Contract in accordance with its terms and conditions, and upon determination by the Purchaser and the Surety of the lowest responsive Bidder, arrange for a Contract between such Bidder and Purchaser and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Purchaser to Supplier under the Contract, less the amount properly paid by Purchaser to Contractor;
or
- (3) pay the Purchaser the amount required by Purchaser to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Purchaser named herein or the heirs, executors, administrators, successors, and assigns of the Purchaser.

In testimony whereof, the Supplier has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this _____ day of _____ 20____.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

Advance Payment Security

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[Insert name and Address of Purchaser]*

Date: *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of *[insert name of contract and brief description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum *[insert amount in figures]* () *[insert amount in words]* is to be made against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (_____) *[insert amount in words]*¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

(a) has used the advance payment for purposes other than toward delivery of Goods;

or

(b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to

¹ The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Purchaser.

above has been credited to the Applicant on its account number *[insert number]* at *[insert name and address of Applicant's bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, has been certified for payment, or on the *[insert day]* day of *[insert month]*, *[insert year]*, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

INVITATION FOR BIDS **Notice Inviting Tender (NIT)**

BANARAS HINDU UNIVERSITY
SKILL CENTRE AND SIMULATION LAB
INSTITUTE OF MEDICAL SCIENCES
VARANASI-221005

e-Procurement Notice

Ref: IMS/BHU/SCSL/2018-19/05

Dated: 01.02.2019

Online tenders are hereby invited **in two cover system** from reputed **manufacturer/ authorized representative of a manufacture/whole sale dealer/importer** for supply of :-

- **Adult & Paediatric Simulation Training System,**
- **Laparoscopy Training System,**
- **Bronchoscopy simulation,**
- **GI Simulator**

Bidders can download complete set of bidding documents from e- procurement Platform <http://eprocure.gov.in/eprocure/app> from 07.02.2019 onwards. Bidders need to submit the bids online for the interested items by uploading all the required documents through <http://eprocure.gov.in/eprocure/app>.

Last Date/ Time for receipt of bids through e-procurement is: 04.03.2019 upto 05:00PM. (Server time). Late bids shall not be accepted.

For further details regarding Tender Notification & Specifications please visit website: <http://eprocure.gov.in/eprocure/app> and www.bhu.ac.in.

CRITICAL DATE SHEET

Published Date	07.02.2019 (04:00 PM)
Bid Document Download Start Date	07.02.2019 (04:00 PM)
Clarification Start Date	07.02.2019 (04:00 PM)
Clarification End Date	12.02.2019 (04:00 PM)
Pre bid meeting	NA
Bid Submission Start Date	13.02.2019 (04:00 PM)
Bid Document Download End Date	04.03.2019 (05:00 PM)
Bid Submission End Date	04.03.2019 (05:00 PM)
Bid Opening Date	06.03.2019 (03:15 PM)

sd/-
Registrar

