

**CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION  
SECTOR-30, CHANDIGARH-160 030 (INDIA)**

**BID DOCUMENT  
TWO BID SYSTEM**

**To be Addressed To**

**Stores & Purchase Officer  
Central Scientific Instruments Organisation,  
Sector-30, Chandigarh-160 030 (India)**

**NB: THIS BID DOCUMENT IS FREE OF COST IF DOWNLOADED FROM THE WEBSITE**



**CSIO**

**CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION**  
**Sector - 30/C, Chandigarh - 160 030 (India)**

Fax: 0172-2652651/2657082

**PRESS TENDER NOTICE**

The Director, Central Scientific Instruments Organisation, Chandigarh invites sealed tenders from reputed Indian/foreign Manufacturers and their Authorised Agents/Distributors for the supply, installation & commissioning of the following at CSIO, Chandigarh (India):-.

S. No.	Tender No.	Description of material	Qty	EMD (Indian Rupees)	Tender Document Fee (Indian Rupees)
1.	CSIO/3(692)/Pur	RF Ion beam Source	1 No.	1,00,000/-	300/-
2.	CSIO/3(713)/Pur	Camera System for Gait Lab	1 No.	1,20,000/-	300/-

Last date for submission of tender : 20<sup>th</sup> March, 2009 (2.30 P.M.)

Date for opening of Tender : 20<sup>th</sup> March, 2009 (3.30 P.M.)

For detailed specifications and terms & conditions please visit our website "<http://csio.gov.in>" and "<http://csio.res.in>". No Tender Document Fee will be leviable for Tender documents downloaded from our website

Stores & Purchase Officer  
Telefax 2652651

CHAPTER – I: NOTICE INVITING TENDER

Director Central Scientific Instruments Organisation, Chandigarh (India) invites *sealed* offers from reputed manufacturers or their authorized agents for the supply/installation/commissioning of the following items:

**No. CSIO/3(692)/Pur**

S. No.	ITEM & ENQUIRY/TENDER REF. NO.CSIO/3(692)/Pur-RG	Qty	BID TYPE	EMD (Rs.)
1.	<p><b>RF Ion Beam source with following features :</b></p> <p>a) RF Generator ( 13.56 MHz , 500 to 2000 Watts)                      b) Auto matching network                      c) Beam diameter : 100 to 150 mm                      d) Ion Current density : <math>\geq 3.0 \text{ mA/cm}^2</math>                      e) Ion beam energy range of 100 to 1000 eV or better                      f) Suitable for Argon gas                      g) Graphite extraction grid system for Collimated beam along with compatible power supply                      h) PB or RF beam neutralization system                      i) Essential Spares for three years                      j) Compatible Cooling system                      k) Operatable at 220 VAC, 50 Hz                      l) Any other item required for complete functioning of ion source</p> <p><b>Note 1 :</b> Installation &amp; demonstration of satisfactory working of ion source at (CSIO, Chandigarh) with at least one year warranty.</p> <p><i>Note 2 : Supplier shall inform about the facilities required at site / laboratory, for installation at CSIO, Chandigarh.</i></p>	One No.	Two Bid	1,00,000/-

**No. CSIO/3(713)/Pur**

S. No.	ITEM & ENQUIRY/TENDER REF. NO.CSIO/(713)/Pur-RG	Qty	BID TYPE	EMD (Rs.)
1.	<b>Camera system for Gait Lab with following specifications</b>	One	Two Bid	1,20,000/-

**Camera System for Gait Lab**

**Specifications: Six Infrared Optical Camera System with Software**

**1 (a) Hardware module having following specification**

Sr. No.	Specification/ features	
1.	Sensor Type	CMOS
2.	Camera Resolution:	2 Megapixel or higher
3.	Frame rate at full frame resolution (FPS)	240 or higher
4.	Lens type support	C mount 12.5 mm focal length
5.	Gray Scale Depth	10 bit or better
6.	Sub Pixel Resolution	1/256 or better
7.	Strobe Type	Infrared, Near Infrared, Visible Red
8.	Video Cameras (Two Numbers) for reference video application	Resolution 1.0 megapixel or higher FPS: 48 Synchronization: Via external trigger, software trigger, adjustable capture rate Data output type: Gigabit Ethernet

9.	System connectivity / Communication Interface	Gigabit Ethernet 1000MPs
10.	Analog interface	64 or higher channel analog module/card to connect different analog hardware like Kistler Force plate and Biometrics EMG system. The module must be able to synchronize the camera system with other analog module
11.	Calibration	Static and Dynamic Calibration kits/modules for performing must be provided. The software must be able to verify the calibration. 200 numbers of marker of different diameter for performing full body gait analysis to be supplied.

**1 (b) Software module having following specification**

**Full featured software suite including**

1. Data Acquisition software to acquire and synchronize real-time data from camera system, Kistler force plate and Biometrics EMG system. Overlaying of reference video and analog data on the top of optical data in real time. Adjustable capture rate (of reference video cameras).
2. Gait Analysis software able to identification, manual and automatic tracking of markers. 2D/3D motion Analysis. Calculation of co-ordinates, centre of Gravity, Vectors, Acceleration, Angles, with mathematical modelling and algorithms for Gait Analysis.
3. Report Generation software to generate Multimedia Reports containing 3D work space, video data, power point data, graphs etc.
4. Biomechanical Modeling software to perform Synchronized viewing of reconstructed data, patient video, kinematic graphs and kinetic parameters. Integration of kinetic, kinematic and EMG parameters and display of joint moments, force and muscle EMG
5. Software for Kinetic and kinematic modeling that must integrate with reporting software.

**1 (c) Computer System Specification**

Sr No	Specification	
1	Processor	T7400-Dual Intel Xeon E5420 (2.50GHz,1333FSB,2x6MB,Quad Core),
2	RAM	4096MB (4x1024) 667MHz DDR2
3	Hard Drive	300GB (15000Rpm) SAS 2 x Additional Hard Drive: 146GB (15000Rpm) SAS II
4	Graphics card	512MB nVIDIA Quadro FX1700 (MRGA14L) (DVI/VGA output, Dual Display) PCIe x16
5	Monitor	22" TFT Monitor
6	DVD combo Drive, Speakers, Optical Mouse, MM Keyboard, and Genuine Windows Vista Business Operating system	

### 1 (d) Installation & Training:

The manufacturer/supplier must be able to install, integrate and demonstrate the functioning of the camera system for gait lab with Kistler force plate and Biometrics EMG system. The company must be able to provide technical support after installation from company's Indian representative. All required accessories to install camera hardware, and integration with force plate, and EMG system to be provided.

- Camera cables, communication cables of sufficient length & camera power supply to be supplied with the above system.
- Accessories to install camera wall mount and tripod.
- Infrared Camera Hardware & Software should be compatible & from same manufacturer.

### Five days operational training on complete system at CSIO

#### Warranty:

One year warranty.

**NOTE:- The make and model of Video Camera for reference application should be clearly specified. Further parameters like sub pixel accuracy, compatibility with Kistler Force Plate, compatibility with Bio Metrics EMG system, Lens Type Support, Calibration Kit Hardware & software clearly indicated.**

#### IMPORTANT DATES & TIME

- ◆ Last Date & Time For Submission : 20<sup>th</sup> March, 2009 (2.30 P.M.)
- ◆ Date/Time of Opening of Bids : 20<sup>th</sup> March, 2009 (3.30 P.M.)
- ◆ Venue of Bid Opening at CSIO : Conference Room, Admn. Block, CSIO, Chandigarh

#### PLEASE NOTE:

- PLEASE STRICTLY ADHERE TO THE DATES/TIMES MENTIONED IN THIS DOCUMENT
- PLEASE FILL & ENCLOSE THE BRIEF SUMMARY OF QUOTATION & CHECKLIST AS PROVIDED AT THE END OF THIS CHAPTER & ENCLOSE WITH YOUR BID (WITH PRICE BID IN CASE OF TWO BID SYSTEM)

The bids (Technical Bids in case of Two Bid) will be opened in the presence of representatives of tenderers, if any. **If any unscheduled holiday occurs on the date of closing/opening, then next working day shall be the prescribed date of closing/opening. Requests for postponement will not be entertained.** Fax/email bids may not be accepted. CSIO will not be responsible for any POSTAL DELAY/DELAY IN TRANSIT. Late/Delayed tenders shall not be opened. Please send your bids to the Stores & Purchase Officer at the address mentioned above.

Thanking you,  
Yours faithfully,

(B.M.Khanna)  
Stores & Purchase Officer

## TERMS & CONDITIONS

### CHAPTER– II: INSTRUCTION TO BIDDERS

#### A. INTRODUCTION

##### 1 Eligible Bidders

- 1.1 This Invitation for Bids is open to all manufacturers or their dealers specifically authorised by the manufacturers to quote on their behalf for this tender as per manufacturer’s authorization form and Indian agents of foreign principals, if any.
- 1.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.

##### 2 Cost of Bidding

- 2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and “the Purchaser”, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

#### B. THE BIDDING DOCUMENTS

##### 3 Cost of Bid Document

- 3.1 The complete bid document can be downloaded FREE OF COST (No Bid Document Fee To Be Paid) from our website “<http://csio.gov.in>” and “<http://csio.res.in>”. Interested eligible bidders may also *purchase* the Bid Document copy on payment of the prescribed fee as indicated in the NIT above.

##### 4 Contents of Bid Document

- 4.1 The goods required, bidding procedures and contract terms are prescribed in this Bid Document which includes the following:

S. No.	Title	Chapter No.
01	Notice Inviting Tender	I
02	Instructions to Bidder	II
03	General Conditions of Contract (GCC)	III
04	Special Conditions of Contract (SCC)	IV
05	Bid Form	V
06	Bid Security Form	VI
07	Manufacturer’s Authorisation Form	VII
08	Bidder’s Performance Statement Form	VIII
09	Service Support Details	IX
10	Deviation Statement Form (ITB, GCC, SCC)	X
11	Technical Compliance Statement Form	XI
12	Contract Form	XII
13	Performance Security Form	XIII
14	Qualification Requirements	XIV
15	Technical Specifications	XV

- 4.2 The Bidder is expected to examine all instructions, forms, terms (ITB/GCC/SCC etc.), and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive shall result in rejection of the bid.

##### 5 Amendment To Bid Document

- 5.1 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 Bid Document by amendment. Such amendments shall form an integral part of bid documents and it shall amount to an amendment of relevant clauses of the Bid Document.
- 5.2 All prospective bidders who have *purchased* the Bid Document will be notified of the amendment in writing or by cable or by fax, or by e mail and will be binding on them.
- 5.3 The prospective bidders are **required** to keep a watch on the CSIO website w.r.t. any amendment to the tender document or to clarification to the queries raised by the bidders till 07 (seven) days prior to the opening of the tender. The Purchaser reserves the right to reject the bids if the bids are submitted without taking into account these amendments/clarifications. Further bidder will be fully responsible for downloading of the tender document and amendments thereto if any for their completeness.
- 5.4 In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.

## C. PREPARATION OF BIDS

### 6 Language of Bid

6.1 The Bid prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the bidder and the purchaser shall be written in English language, provided that any printed literature furnished by the bidder may be written in another language but it is to be accompanied by an English translation of its pertinent passage(s) duly signed and verified as true English translation. The responsibility for the correctness of the translation will be solely and completely on the bidder and CSIO shall not be responsible for any loss/likely loss due to error in translation whatsoever. In such cases, for the purpose of interpretation of the bid, the English translation shall only govern.

### 7 Documents Comprising the Bid

The bid is required to be submitted in two parts. One part is the Techno-Commercial Unpriced Bid and the other part is the Financial/Price Bid.

7.1 The Techno-Commercial Unpriced Bid prepared by the Bidder shall include the following without indicating the price in the Bid Form.

- (i) Bid Security/EMD As Specified In The Invitation To Bids.
- (ii) Service Support Details Form;
- (iii) T&C Deviation Statement Form;
- (iv) Technical Specification Compliance Form;
- (v) Performance Statement Form;
- (vi) Manufacturer's Authorization Form.
- (vii) Documentary evidence establishing that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted as per qualification requirements/criteria.
- (viii) Bid Form.
- (ix) The Comprehensive Annual Maintenance Contract (CAMC) terms & conditions detailing the exclusions, if any and the estimated life of the equipment offered.
- (x) If the demonstration of the goods/equipment is deemed essential as per the technical requirements then confirmation reflecting willingness to arrange demonstration of the equipment offered free of charge at CSIO or any other location on a mutually agreeable date, prior to opening of priced bid to ascertain conformity with the tendered specifications.

7.2 The Price/Financial Bid shall comprise the Techno Commercial Bid with price indicated in the bid form.

### 8 Bid Prices

8.1 The Bidder shall indicate the unit prices and total bid prices of the goods it proposes to supply under the order and enclose it with the priced bid.

8.2 Prices indicated shall be entered separately in the following manner (**For Indigenous Items**):

- (i) The price of the goods, quoted (ex-works, ex-factory, ex-showroom, ex-warehouse, or off-the-shelf, as applicable), including all duties and sales and other taxes already paid or payable
- (ii) **Taxes:** We are exempted from payment of Excise Duty under notification number 10/97 dated 01.03.1997 and Customs Duty under notification No.51/96 dated 23.07.1996. **Hence Excise Duty and Customs Duty, if any, should be shown separately.** Please mention the applicable taxes (VAT/CST/Service) clearly. We don't issue any 'Form C' or 'Form D'. If there is no explicit mention of taxes in your offer then quoted price will be deemed inclusive of such taxes. **No other charges except those mentioned clearly in the quotation will be paid.**
- (iii) Rates should be quoted FOR at CSIO, Chandigarh inclusive of packing, forwarding, installation and commissioning charges etc. If ex-works prices are quoted then packing, forwarding, documentation, freight and insurance charges must be clearly mentioned separately. Vague terms like "packing, forwarding, transportation etc. extra" without mentioning the specific amount/percentage of these charges will NOT be accepted. Such offers shall be treated as incomplete and rejected. **Where there is no mention of packing, forwarding, freight, insurance charges, such offers shall be summarily rejected as incomplete.**

8.3 Prices indicated shall be entered separately in the following manner (**For Imported Items**):

- (i) The price of the goods, quoted FOB/FCA port of shipment. Please note that all FCA orders will be on FCA (International Carrier) INCOTERMS 2000 basis and as such Export Packing, Loading Charges, Inland Freight etc. in the shipper country will have to be paid by the Supplier. Items as per the purchase order duly cleared for export in shipping country would be required to be handed over to our nominated freight forwarder.
- (ii) The price for inland transportation, insurance and other local costs incidental to delivery of the goods upto their port of despatch.(CIF/CIP)

8.4 Prices quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non - responsive and rejected.

## **9 Bid Currencies**

9.1 Prices shall be quoted in Indian Rupees or in freely convertible foreign currency preferably in **USD (\$), Euro (€), Yen (¥), GBP (£) wherever possible for correct evaluation during comparison.**

## **10 Documents Establishing Bidder's Eligibility and Qualifications**

10.1 Pursuant to ITB 7, the bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification to perform the contract if its bid is accepted

10.2 That the bidder meets the qualification criteria listed in Bid Document.

## **11 Documents Establishing Goods' Eligibility and Conformity to Bid Document**

11.1 The documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.

11.2 Specifications are basic essence of the product. It must be ensured that the offers are strictly as per our specifications. At the same time it must also be kept in mind that merely copying our specifications in their quotation shall not make firms eligible for consideration. The documentary evidence of conformity of the goods and services to the Bid Document may be in the form of literature, drawings and data, and shall consist of:

- (i) A detailed description of the essential technical and performance characteristics of the goods;
- (ii) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of two years, following commencement of the use of the goods by the Purchaser; and
- (iii) An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

11.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications. Technically unsuitable offers, offers not conforming to tender schedule shall be rejected.

## **12 Bid Security**

12.1 The Bidder shall furnish, as part of its bid, a bid security for an amount as specified in the Invitation for Bids/NIT. The bid security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture.

12.2 The bid security shall be in Indian Rupees and shall be in one of the following forms:

- (i) A bank guarantee issued by a Nationalized/Scheduled bank, in the form provided in the Bid Document (Chapter VI) and valid for 45 days beyond the validity of the bid; or
- (ii) A Banker's cheque or demand draft in favour of the purchaser.

12.3 Any bid not secured in accordance with Clauses 12.1 and 12.2 above will be rejected by the Purchaser as non-responsive.

12.4 Unsuccessful bidder's bid security will be discharged/returned as promptly as possible but not later than 15 days after the expiration of the period of bid validity or placement of order which ever is later.

12.5 The successful Bidder's bid security will be discharged upon the Bidder furnishing the performance security.

12.6 The bid security may be forfeited:

- (i) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- (ii) In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 21 days the order and/or fails to furnish Performance Security in the prescribed format.

## **13 Period of Validity of Bids**

13.1 Bids shall remain valid for 90 days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period may be rejected by the Purchaser as non-responsive.

13.2 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 (or by cable, telex, fax or e mail). The bid security provided under Clause 12 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

13.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

## **14 Format and Signing of Bid**

14.1 The Bidder shall submit the bids in two separate envelopes. One envelop shall contain Techno commercial un-priced bid and the other shall contain the priced bid.

14.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialled by the person or persons signing the bid.

14.3 Any interlineations, erasures or overwriting shall be valid only if the persons or persons signing the bid initial them.

14.4 The Bidder shall furnish information on commissions or gratuities, if any paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract as per the bid form.

## D. SUBMISSION OF BIDS

### 15 Sealing and Marking of Bids

15.1 The bidder shall seal the Techno Commercial Unpriced Bid and the Price/Financial Bid in two separate envelopes duly marked as "Techno Commercial Unpriced Bid" and "Price/Financial Bid" respectively. Both the envelopes shall then be sealed in one outer (main) envelope.

### 15.2 The inner and outer envelopes shall:

(i) Be addressed to the Purchaser at the following address:

The Stores & Purchase Officer  
Central Scientific Instruments Organisation  
Sector-30, Chandigarh-160 030

(ii) Bear the Item Name /Reference No./ Last Date For Submission Of Tender / Date Of Opening Of Tender / Firm's Name & Address and a statement "Do not open before Time hrs(IST) on Date." As per the NIT details.

15.3 If the outer envelope is not sealed and marked as required Clause 15.2, the Purchaser will assume no responsibility for the bid's misplacement or premature opening.

15.4 Telex, Cable, Fax or e-mail bids will be rejected.

### 16 Deadline for Submission of Bids

16.1 Bids must be received by the Purchaser at the address specified under Clause 15.2 no later than the time and date specified in the Invitation for Bids. In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bids will be received upto the appointed time on the next working day.

16.2 The Purchaser may, at its discretion, extend this deadline for submission of bids by amending the bid documents in accordance with Clause 5, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

### 17 Late Bids

17.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser, pursuant to Clause 16, will be rejected and/or returned to the Bidder.

### 18 Modification and Withdrawal of Bids

18.1 The Bidder may modify or withdraw its bid after the bid's submission; provided that written notice of the modification or withdrawal is received by the Purchaser prior to the deadline prescribed for submission of bids.

18.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of Clause 15. A withdrawal notice may also be sent by cable or fax or e mail but followed by a signed confirmation copy, post marked not later than the deadline for submission of bids.

18.3 No bid may be modified subsequent to the deadline for submission of bids.

18.4 No bid may be withdrawn 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 bid form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to Clause 12.7.

## E. OPENING AND EVALUATION OF BIDS

### 19 Opening of Bids by the Purchaser

19.1 The Purchaser will open all Techno Commercial Unpriced Bids, in the presence of Bidders' representatives who choose to attend, as per the schedule given in invitation to bids.

19.2 The Bidders' representatives who are present shall sign the quotation opening sheet evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day.

19.3 The bidders' names, bid modifications or withdrawals, specifications, and the presence or absence of requisite bid security and such other details as the Purchaser, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bid.

19.4 Bids (and modifications sent pursuant to Clause 18.2) that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances.

19.5 If in response to our TWO BID enquiry, a single combined bid is submitted, it will be rejected straightway. Similarly if 'PRICE BID' has been found enclosed in the envelope marked 'TECHNICAL BID' the same shall also be rejected summarily.

### 20 Clarification of Bids

20.1 To assist in the examination, evaluation and comparison of bids, the Purchaser may, at its discretion ask the bidder for any clarification(s) of its bid. The request for clarification and the response shall be in writing and no change in the price substance of the bid shall be sought, offered or permitted. However no post Bid clarifications at the initiative of the Bidder shall be entertained.

### 21 Preliminary Examination

21.1 The Purchaser will examine the bids to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bids

from suppliers, without proper Authorization from the manufacturers and from Indian agents without DGS&D Registration Certificate in case the items fall under the restricted list of the current EXIM/Foreign Trade Policy shall be treated as non-responsive and rejected summarily.

- 21.2 Arithmetical errors in the priced bids will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between the price quoted in words and figures, whichever is the higher of the two shall be taken as the bid price.
- 21.3 The Purchaser may waive any minor informality, non-conformity, or irregularity in a bid, which does not constitute a material deviation, provided such a waiver, does not prejudice or affect the relative ranking of any Bidder.
- 21.4 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each bid to the Bid Document. For purposes of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the Bid Document without material deviations. Deviations from or objections or reservations to critical provisions such as those concerning Bid Security/ Performance Security. Warranty, Force Majeure, Applicable law and Taxes & Duties will be deemed to be a material deviation. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 21.5 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.
- 21.6 After downloading, the language of standard clauses etc. mentioned in this 'Bid Document' should not be tempered with/ changed/modified in any manner whatsoever. If any such modification etc. comes to our knowledge at any stage, the bid shall be rejected immediately and EMD shall also be forfeited.

## **22 Conversion to Single Currency**

- 22.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers/banks' website on the date of Price/Financial Bid opening.

## **23 Evaluation & Comparison Of Bids**

- 23.1 For the bids surviving the technical evaluation which have been found to be responsive the evaluation & comparison shall be made as under:
- (i) **Indigenous Offers**  
The final landing cost of purchase after all discounts, freight, forwarding, insurance, taxes etc. shall be the basis of evaluation.
- (ii) **Imported Offers**  
The FOB/FCA price shall be the basis of evaluation
- (iii) **Imported Vs. Indigenous Offers**  
The final landing cost of purchase taking into account, freight, forwarding, insurance, taxes etc. (CIF/CIP with customs clearance charges, Bank/LC charges, transportation upto CSIO as per available records with CSIO for imported goods) shall be the basis of evaluation
- 23.2 Conditional tenders/discounts etc. shall not be accepted. Rates quoted without attached conditions (viz. Discounts having linkages to quantity, payment terms etc.) will only be considered for evaluation purpose. Thus conditional discounted rates linked to quantities and prompt/advance payment etc, will be ignored for determining *inter-se* position. The Purchaser however reserves the right to use the discounted rate/rates considered workable and appropriate for counter offer to the successful tenderers.
- 23.3 Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offers shall be rejected as incomplete.

## **24 Contacting the Purchaser**

- 24.1 Subject to ITB Clause 20, no Bidder shall contact or attempt to contact the Purchaser or anyone related to 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 do so in writing.
- 24.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

## **25 Post Qualification**

- 25.1 In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 10.
- 25.2 The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 10, as well as such other information as the Purchaser deems necessary and appropriate.
- 25.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

## **26 Award Criteria**

- 26.1 Subject to ITB Clause 28, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

**27 Purchaser's Right To Vary Quantities At Time Of Award**

27.1 The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

**28 Purchaser's Right To Accept Any Bid And To Reject Any Or All Bids**

28.1 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 award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.

**29 Notification of Award**

29.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or by cable or fax or e mail that the bid has been accepted by way of a Purchase Order.

29.2 Upon the successful Bidder's furnishing of performance security pursuant to ITB Clause 30, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to Clause 12.

**30 Performance Security**

30.1 Within 21 days of the receipt of notification of award/purchase order from the Purchaser, the successful Bidder shall furnish the performance security, in the Performance Security Form provided in the Bid Document.

30.2 Failure of the successful bidder to accept the order shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security and call for new bids.

**31 Order Acceptance**

31.1 The successful bidder should submit acceptance of the Purchase Order immediately but not later than 21 days in any case from the date of issue of the Purchase Order failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited pursuant to clause 12. 7 of ITB.

**32 Buy Back Items**

32.1 If the goods are to be quoted on 'Buy Back' basis, then bidders must offer a separate buy back price for the old item. The Purchaser reserves the right to place the order with or without 'buy back' option. If required the condition of old buy back goods may be examined by the bidder before submission of its bid.

## **CHAPTER – III: GENERAL CONDITIONS OF CONTRACT (GCC)**

### **1 Definitions**

1.1 In this Contract, the following terms shall be interpreted as indicated:

- (i) "The Order" means the Purchase Order placed by the Purchaser including all the attachments and appendices thereto and all documents incorporated by reference therein;
- (ii) "The Contract Price" means the price payable to the Supplier under the Order for the full and proper performance of its contractual obligations;
- (iii) "The Goods" means all the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Purchaser under the Contract;
- (iv) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the Contract;
- (v) "GCC" mean the General Conditions of Contract contained in this section.
- (vi) "SCC" means the Special Conditions of Contract.
- (vii) "The Purchaser" as specified in Special Conditions of Contract.
- (viii) "The Purchaser's country" is "India".
- (ix) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.
- (x) "Day" means calendar day.

### **2 Application**

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

### **3 Standards**

3.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

### **4 Use of Contract Documents and Information**

4.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance. The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in GCC Clause 4.1 except for purposes of performing the Contract.

4.2 Any document, other than the Contract itself, enumerated in GCC Clause 4.1 shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

4.3 The purchaser may be under obligation to make any document/information submitted by the bidder in response to this bid public if required under the provision of Right to Information Act 2005. Therefore bidder may explicitly indicate if any document/information in his tender includes information of commercial confidence, trade secrets or intellectual property, the disclosure of which would jeopardize the competitive position of the bidder.

### **5 Patent Rights**

5.1 The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

### **6 Submission of the bids**

6.1 All bids complete in every respect must reach this office within the last date and time of receipt of bid. No extension shall be allowed for any reason what so ever. Late tenders, Tenders received without Bid security/Earnest Money, cost of bidding documents, if applicable etc. shall be rejected summarily.

6.2 Tender documents are available for sale as per the information specified in Invitation for Bids. Interested bidders may purchase the tender documents on payment of the cost there of or download directly from our website, as indicated in invitation for bids. The Purchaser is not liable for either non-receipt of the tender document or for late receipt of the tender documents.

### **7 Performance Security**

7.1 Within 21 days of receipt of the notification of contract award/purchase order, the Supplier shall furnish performance security for the amount specified in SCC.

7.2 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.

7.3 The Performance Security shall be submitted in one of the following forms:

- (i) Indian manufacturers/suppliers or Authorized Indian Agents of the Foreign Principals can submit the performance security on behalf of their foreign principals in the form of Bank Guarantee issued by a Nationalized/Scheduled bank located in India on the format provided in the bidding documents. Or
  - (ii) Foreign Principals can also submit performance security directly in the form of Standby Letter of Credit which must be advised and confirmed by any bank in India located preferably in Chandigarh (UT). India
- 7.4 The performance security/Standby LC will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC.
- 7.5 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security/SLC, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.

## **8 Inspections and Tests**

- 8.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. SCC and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.
- 8.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser.
- 8.3 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 8.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.
- 8.5 Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

## **9 Packing**

- 9.1 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. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit 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.
- 9.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

## **10 Delivery and Documents**

- 10.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the order within the period as indicated in the SCC. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

## **11 Insurance**

- 11.1 The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.

## **12 Transportation**

- 12.1 Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.

## **13 Incidental Services**

- 13.1 The supplier may be required to provide any or all of the following services, including additional services, specified in SCC, if any:
- (i) Performance or supervision of the on-site assembly and/or start-up of the supplied Goods;
  - (ii) Furnishing of tools required for assembly and/or maintenance of the supplied Goods;
  - (iii) Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
  - (iv) 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
  - (v) 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.

#### **14 Spare Parts**

- 14.1 As specified in the SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
- (i) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
  - (ii) In the event of termination of production of the spare parts:
  - (iii) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
  - (iv) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.
- 14.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.

#### **15 Warranty**

- 15.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. **The warranty should be comprehensive and on site.**
- 15.2 This warranty shall remain valid for a period as mentioned in specification sheets, otherwise it will be for 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 Contract, or for 16 months after the date of shipment whichever period concludes earlier, unless specified otherwise in the SCC.
- 15.3 The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately within in 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.

#### **16 Payment**

- 16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 16.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 10, and upon fulfilment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the Purchaser normally within thirty (30) days after submission of the invoice or claim by the Supplier.
- 16.4 Payment shall be made in currency as indicated in the order.

#### **17 Prices**

- 17.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

#### **18 Change Orders**

- 18.1 The Purchaser may at any time, by written notice given to the Supplier pursuant to GCC Clause 30, make changes within the general scope of the Contract in any one or more of the following:
- (i) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
  - (ii) The method of shipping or packing;
  - (iii) The place of delivery; and/or
  - (iv) The Services to be provided by the Supplier.
  - (v) The delivery schedule.
- 18.2 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 delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.

#### **19 Contract Amendments**

- 19.1 Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

## **20 Assignment**

20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

## **21 Subcontracts**

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

21.2 Sub-contract shall be only for bought-out items and sub-assemblies.

## **22 Delays in the Supplier's Performance**

22.1 Since time is the essence of the contract, delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Contract.

22.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s).

22.3 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 with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.

22.4 Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalty clause.

## **23 Penalty**

23.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in 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 SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 24.

## **24 Termination for Default**

24.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- (i) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 22; or
- (ii) If the Supplier fails to perform any other obligation(s) under the Contract.
- (iii) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

24.2 For the purpose of this Clause:

- (i) "Corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
- (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;"

24.3 In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

## **25 Force Majeure**

25.1 Notwithstanding the provisions of GCC Clauses 22, 23 and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

25.2 For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

25.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions 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 practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

**26 Termination for Insolvency**

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

**27 Resolution of Disputes**

27.1 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.

27.2 If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and national or international arbitration.

**28 Governing Language**

28.1 The contract shall be written in English language. Subject to GCC Clause 30, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.

**29 Applicable Law**

29.1 The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

**30 Notices**

30.1 Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, FAX or e mail and confirmed in writing to the other party's address specified in the SCC.

30.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

**31 Taxes and Duties**

31.1 Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, VAT in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.

## CHAPTER – IV: SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions is indicated in parentheses.

### **1 Definitions (GCC Clause 1)**

1.1 The Purchaser is 'The Director, Central scientific Instruments Organisation, Chandigarh (UT), India

### **2 Performance Security (GCC Clause 7)** Substitute clause 7.1 of the GCC by the following:

- 2.1 Within 21 days after the Supplier's receipt of order, the Supplier shall furnish Performance Security to the Purchaser for an amount of 10% of the contract value, valid upto 60 days after the date of completion of performance obligations including warranty obligations, where 100% payment is paid against delivery/Letter of Credit
- 2.2 If the performance security is not furnished within the stipulated time as per 2.1 above, the contract shall be deemed terminated in pursuance of GCC Clause 24.

### **3 Inspection and Tests:** Inspection and tests prior to shipment of Goods and at final acceptance, if required/stipulated in contract are as follows:

- 3.1 After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier's premises during such inspection and testing if need is felt. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance.
- 3.2 The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.
- 3.3 In the event of the ordered item failing to pass the acceptance test, a period not exceeding one weeks will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.
- 3.4 Successful conduct and conclusion of the acceptance test for the installed goods and equipments shall also be the responsibility and at the cost of the Supplier.

### **4 Manuals and Drawings**

- 4.1 Before the goods and equipments are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
- 4.2 The Manuals shall be in the ruling language (English) in such form and numbers as stated in the contract.
- 4.3 Unless and otherwise agreed, the goods equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.

### **5 Packing (GCC Clause 9)** Add as Clause 9.3 of the GCC of the following:

- 5.1 **Packing Instructions:** Each package will be marked on three sides with proper paint/indelible ink, the following:
- (i) Item Nomenclature
  - (ii) Order/Contract No.
  - (iii) Country of Origin of Goods
  - (iv) Supplier's Name and
  - (v) Packing list reference number

### **6 Delivery and Documents (GCC Clause 10)**

- 6.1 Delivery of the goods should be made within the time stipulated in the purchase order. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by fax/ the full details of the shipment including contract number, railway receipt number/ AWB etc and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:
- (i) 4 Copies of the Supplier invoice showing contract number, goods' description, quantity, unit price, total amount;
  - (ii) Acknowledgment of receipt of goods from the consignee(s) by the transporter;
  - (iii) Insurance Certificate if applicable;
  - (iv) Manufacturer's/Supplier's warranty certificate;
  - (v) Inspection Certificate issued by the nominated inspection agency, if any, and the Supplier's factory inspection report; and
  - (vi) Certificate of Origin.
  - (vii) Two copies of the packing list identifying the contents of each package.

- 6.2 The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.
- 7 Insurance (GCC Clause 11)**
- 7.1 For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning. *However, in case of orders placed on FOB/FCA basis, the purchaser shall arrange Insurance.*
- 8 Incidental services (GCC clause 13)** The incidental services also include:
- 8.1 Furnishing of 01 set of detailed operations & maintenance manual.
- 9 Warranty (GCC Clause 15)**
- 9.1 Warranty period shall be for a period as mentioned in specification sheets, otherwise it will be 12 months from date of acceptance of Goods or 16 months from the dates of Shipment, whichever occurs earlier. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion 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. **The warranty should be comprehensive on site.**
- 9.2 If a different period of warranty has been specified in the 'Technical Specifications' Chapter then the period mentioned in Clause 9.1 above shall stand modified to that extent.
- 10 Payment (GCC Clause 16)**
- 10.1 No advance payment would be made
- 10.2 **For indigenous Cases,** 100% payment shall be made by the Purchaser after delivery, inspection, successful installation, commissioning and acceptance of the equipment at CSIO in good condition and to the entire satisfaction of the Purchaser and on production of unconditional performance bank guarantee as specified in Clause 2.1 of SCC.
- 10.3 **For Imported item, the L/C would be opened for 100% order value, while 90% payment would be made against shipping documents, the balance 10% shall be paid after satisfactory installation/training etc. & on submission of Performance Bank Guarantee for 10% value & valid upto 60 days of completion of warranty obligation.**
- 10.4 Agency commission, if any shall be paid after satisfactory installation & commissioning of the goods at the destination at the exchange rate prevailing on the date of negotiation of LC documents, subject to DGS&D registration for restricted items.
- 11 Penalty Clause (GCC Clause 23)**
- 11.1 **For delays: GCC Clause 23.1 -- The applicable rate is 1% per week and the maximum deduction is 10% of the contract price.**
- 12 Resolution of Disputes (Clause 28):** Add as GCC Clause 27.3 the following:
- 12.1 The dispute resolution mechanism to be applied pursuant to GCC Clause 27 shall be as follows:
- (i) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director General, Council of Scientific & Industrial Research and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
  - (ii) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
  - (iii) The venue of the arbitration shall be the place from where the order is issued.
- 13 Applicable Law (GCC Clause 29)** Add as Clause 29.2 of the GCC the following:
- 13.1 The place of jurisdiction would be Chandigarh (UT) INDIA.



## CHAPTER – V: BID FORM

The Director,  
Central Scientific Instruments Organisation  
Sector-30, Chandigarh

Sir,

Having examined the bidding document the receipt of which is hereby duly acknowledged, we the undersigned offer to supply and deliver \_\_\_\_\_(Description of Goods) in conformity with the said bidding documents for a sum or such other sums as may be ascertained from the bid.

We undertake that if our bid is accepted to deliver the goods in accordance with the delivery schedule specified.

If our bid is accepted we will obtain the guarantee of the bank as specified in SCC for the due performance of the contract, in the form prescribed by your goodself.

We agree to abide by this bid for requisite period of time after the date fixed for bid opening as per the instructions to the bidders and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding contract between us.

Commissioning and gratuities, if any, paid or to be paid by us to the agents relating to this bid, and to contract executions if we are awarded the contract, are listed below:

Name and address of agent	Amount in Rupees	Purpose of Commission
(if none, state "none")		

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

Signature \_\_\_\_\_  
In the capacity of \_\_\_\_\_

Duly authorized to sign the bid for and on behalf of \_\_\_\_\_

**CHAPTER – VI: BID SECURITY FORM**

Whereas .....<sup>1</sup> (*hereinafter called “the Bidder”*) has submitted its bid dated ..... (*Date of submission of bid*) for the supply of ..... (*Name and/or description of the goods*) (Hereinafter called “the Bid”).

KNOW ALL PEOPLE by these presents that WE ..... (*Name of bank*) of ..... (Name of country), having our registered office at ..... (*Address of bank*) (Hereinafter called “the Bank”), are bound unto *Director, Central Scientific Instruments Organisation, Chandigarh (India)* (Hereinafter called “the Purchaser”) in the sum of \_\_\_\_\_ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this \_\_\_\_ day of \_\_\_\_\_ 19 \_\_\_\_.

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
  - (a) Fails or refuses to execute the Contract Form if required; or
  - (b) Fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including forty-five (45) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(Signature with Seal of the Bank)  
(Complete Contact Details with Tel./Fax/email etc)

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<sup>1</sup> *Name of Bidder*

**CHAPTER – VII: MANUFACTURERS' AUTHORIZATION FORM**

No. \_\_\_\_\_

Dated \_\_\_\_\_

The Director,  
**Central Scientific Instruments Organisation,**  
**Sector-30, Chandigarh (India)**

Dear Sir:

We \_\_\_\_\_ who are established and reputable manufacturers of having factories at \_\_\_\_\_ (*address of factory*) do hereby authorize M/s \_\_\_\_\_ (*Name and address of Agent*) to submit a bid, negotiate and receive the order from you against your tender enquiry.

No company or firm or individual other than M/s \_\_\_\_\_ is authorized to bid, and conclude the contract in regard to this business.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract and Clause of the Special Conditions of Contract for the goods and services offered by the above firm.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the **letterhead of the manufacturer** and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial unpriced bid.

**CHAPTER – VIII: BIDDER’S PERFORMANCE STATEMENT FORM**

(For A Period Of Last 3 Years)

Name of the Firm.....

Order placed by (full address of purchaser)	Order No. and date	Description and quantity of ordered equipment	Price	Date of completion of delivery as per Contract/Actual	Remarks indicating reasons for late delivery, if any	Has the equipment been installed satisfactory? (Attach a certificate from the purchaser/Consignee)	Contact Person alongwith Tel. NO., Fax No. & e-mail address

Place :

Date :

Signature  
Rubber stamp

CHAPTER IX: SERVICE SUPPORT DETAILS FORM

S. N.	Nature of training imparted	List of similar type equipments serviced in the past 3 years	Address, Telephone Nos. , Fax and e mail address of the firm located in Chandigarh	Value of minimum stock of consumable spares held at all times.

Signature and Seal of the manufacturer/Bidder.....

Place :

Date :

**CHAPTER – X: DEVIATION STATEMENT FORM (ITB, GCC, SCC)**

The following are the particulars of deviations (ITB, GCC, SCC Clauses) from the requirements of the tender document and specifications:

<b>CLAUSE</b>	<b>DEVIATION</b>	<b>REMARKS (INCLUDING JUSTIFICATION)</b>

Place:

Date:

Signature and seal of the  
Manufacturer/Bidder

**NOTE:**

Where there is no deviation, the statement should be returned duly signed with an endorsement indicating “No Deviations”.

## **CHAPTER – XI: TECHNICAL COMPLIANCE STATEMENT FORM**

An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

<b>ITEM NAME</b>			
<b>S.No.</b>	<b>Tender Specifications</b>	<b>Bidder's Specifications</b>	<b>Remarks/Deviation If any</b>

(Technical literature/brochures/manuals should be attached alongwith this format)

**Please note:**

1. Compliance/Deviation statement comparing the specifications of the quoted model to the required specifications. This statement should also give the page number(s) of the technical literature where the relevant specification is mentioned.
2. Bids must have supporting documents ( technical literature or copies of relevant pages from the service manual or factory test data) for all the points noted above, failure regarding which may result in rejection of bid.

**CHAPTER – XII: CONTRACT FORM**

**THIS AGREEMENT** made the .....day of .....200...between..... Director, Central Scientific Instruments Organisation, Chandigarh, India (hereinafter “the Purchaser”) of the one part and .....(Name of Supplier) of .....(City and Country of Supplier) (hereinafter called “the Supplier”) of the other part:

**WHEREAS** the Purchaser invited bids for certain Goods and ancillary services viz., .....(Brief Description of Goods and Services) and has accepted a bid by the Supplier for the supply of those goods and services in the sum of .....(Contract Price in Words and Figures) (hereinafter called “the Contract Price”).

**NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:**

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
  - (a) the Bid Form and the Price Bid submitted by the Bidder;
  - (b) the Technical Specifications;
  - (c) the General Conditions of Contract;
  - (d) the Special Conditions of Contract; and
  - (e) the Purchaser’s Notification of Award/Purchase Order.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein 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.

Brief particulars of the goods and services which shall be supplied/provided by the Supplier are as under:

ITEM DESCRIPTION & QTY.		AMOUNT
		EXW/FOB/FCA/CIF/CIP
<b>Payment Terms</b>		<b>Agency Commission</b>
<b>Delivery Schedule</b>		[TO BE PAID IN EQUIVALENT INR]

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the  
 Said.....(For the Purchaser)  
 In the presence of .....

Signed, Sealed and Delivered by the  
 Said.....(For the Supplier)  
 In the presence of .....

**CHAPTER – XIII: PERFORMANCE SECURITY FORM**

The Director,  
**Central Scientific Instruments Organisation,**  
**Sector-30, Chandigarh-160 030 (India)**

**WHEREAS** ..... (Name of Supplier)

Hereinafter called "the Supplier" has undertaken, in pursuance of Contract no..... dated,..... 200... to supply.....(Description of Goods and Services) hereinafter called "the Contract".

**AND WHEREAS** it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

**AND WHEREAS** we have agreed to give the Supplier a Guarantee:

**THEREFORE WE** hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of ..... (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of ..... (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the .....day of.....19.....

Signature and Seal of Guarantors

(Complete Address/Contact Details with Tel./Fax/email etc)

Date

## **CHAPTER XIV: QUALIFICATION REQUIREMENTS**

- 1** The Bidder should be a manufacturer or their dealer specifically authorised by the manufacturer to quote on their behalf for this tender as per manufacturer authorisation form and Indian agents of foreign principals, if any who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the “Technical Specification”. Such equipments must be of the most recent series/models incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening.
- 2** The Indian Agents of foreign manufacturers/ suppliers quoting directly on behalf of their principals for items appearing in the restricted list of the current Foreign Trade Policy must be registered with DGS&D. One Indian Agent cannot represent two different foreign principals for the same item in one tender.
- 3** The bidder should have supplied at least one such system/equipment to any Central Govt./State Govt./PSUs/Autonomous bodies. The details should be incorporated in the performance statement form along with documentary evidence.
- 4** If required, the bidder may be asked and should be willing to arrange demonstration of the equipment offered, free of charge at on a mutually agreeable place and date prior to opening of priced bids to ascertain their conformity with tendered specifications.
- 5** Details of service support facilities that would be provided after the warranty period should be submitted in the Service Support Details Form.
- 6** That, in the case of a Bidder not doing business in India, the Bidder is/or will be (if successful) represented by an Agent in India who shall be equipped and able to carry out the Supplier’s maintenance, repairs and spare parts, stocking obligations prescribed by the conditions of the contract.
- 7** That adequate and specialized expertise is already available or will be made available following the execution of the contract in the Purchaser’s country, to ensure that the support services are responsive and adequate.
- 8** That the Bidder will assume total responsibility for the fault-free operation of equipment, application software, if any, and maintenance during the warranty period and provide necessary maintenance services for five years after end of warranty period if required.
- 9** Bidders who meet the criteria given above are subject to be disqualified, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have a record of poor performance, not properly completing the contract, inordinate delays in completion or financial failure, etc.
- 10** *Any additional bid participation criteria / eligibility conditions etc. mentioned in the Technical Specifications sheet will also form part of the Qualification Requirements alongwith those mentioned in this chapter.*

CHAPTER XV: TECHNICAL SPECIFICATIONS

**No. CSIO/3(692)/Pur**

S. No.	ITEM & ENQUIRY/TENDER REF. NO.CSIO/3(692)/Pur-RG	Qty	BID TYPE	EMD (Rs.)
1.	<p><b>RF Ion Beam source with following features :</b></p> <ul style="list-style-type: none"> <li>a. RF Generator ( 13.56 MHz , 500 to 2000 Watts)</li> <li>b. Auto matching network</li> <li>c. Beam diameter : 100 to 150 mm</li> <li>d. Ion Current density : <math>\geq 3.0 \text{ mA/cm}^2</math></li> <li>e. Ion beam energy range of 100 to 1000 eV or better</li> <li>f. Suitable for Argon gas</li> <li>g. Graphite extraction grid system for Collimated beam along with compatible power supply</li> <li>h. PB or RF beam neutralization system</li> <li>i. Essential Spares for three years</li> <li>j. Compatible Cooling system</li> <li>k. Operatable at 220 VAC, 50 Hz</li> <li>l. Any other item required for complete functioning of ion source</li> </ul> <p><b>Note 1 :</b> Installation &amp; demonstration of satisfactory working of ion source at (CSIO, Chandigarh) with at least one year warranty.</p> <p><i>Note 2 : Supplier shall inform about the facilities required at site / laboratory, for installation at CSIO, Chandigarh.</i></p>	One No.	Two Bid	1,00,000/-

**No. CSIO/3(713)/Pur**

S. No.	ITEM & ENQUIRY/TENDER REF. NO.CSIO/(713)/Pur-RG	Qty	BID TYPE	EMD (Rs.)
1.	<b>Camera system for Gait Lab with following specifications</b>	One	Two Bid	1,20,000/-

**Camera System for Gait Lab**

**Specifications: Six Infrared Optical Camera System with Software**

**1 (a) Hardware module having following specification**

Sr. No.	Specification/ features	
1.	Sensor Type	CMOS
2.	Camera Resolution:	2 Megapixel or higher
3.	Frame rate at full frame resolution (FPS)	240 or higher
4.	Lens type support	C mount 12.5 mm focal length
5.	Gray Scale Depth	10 bit or better
6.	Sub Pixel Resolution	1/256 or better
7.	Strobe Type	Infrared, Near Infrared, Visible Red

8.	Video Cameras (Two Numbers) for reference video application	Resolution 1.0 megapixel or higher FPS: 48 Synchronization: Via external trigger, software trigger, adjustable capture rate Data output type: Gigabit Ethernet
9.	System connectivity / Communication Interface	Gigabit Ethernet 1000MPs
10.	Analog interface	64 or higher channel analog module/card to connect different analog hardware like Kistler Force plate and Biometrics EMG system. The module must be able to synchronize the camera system with other analog module
11.	Calibration	Static and Dynamic Calibration kits/modules for performing must be provided. The software must be able to verify the calibration. 200 numbers of marker of different diameter for performing full body gait analysis to be supplied.

### 1 (b) Software module having following specification

#### Full featured software suite including

1. Data Acquisition software to acquire and synchronize real-time data from camera system, Kistler force plate and Biometrics EMG system. Overlaying of reference video and analog data on the top of optical data in real time. Adjustable capture rate (of reference video cameras).
2. Gait Analysis software able to identification, manual and automatic tracking of markers. 2D/3D motion Analysis. Calculation of co-ordinates, centre of Gravity, Vectors, Acceleration, Angles, with mathematical modelling and algorithms for Gait Analysis.
3. Report Generation software to generate Multimedia Reports containing 3D work space, video data, power point data, graphs etc.
4. Biomechanical Modeling software to perform Synchronized viewing of reconstructed data, patient video, kinematic graphs and kinetic parameters. Integration of kinetic, kinematic and EMG parameters and display of joint moments, force and muscle EMG
5. Software for Kinetic and kinematic modeling that must integrate with reporting software.

### 1 (c) Computer System Specification

Sr No	Specification	
1	Processor	T7400-Dual Intel Xeon E5420 (2.50GHz,1333FSB,2x6MB,Quad Core),
2	RAM	4096MB (4x1024) 667MHz DDR2
3	Hard Drive	300GB (15000Rpm) SAS 2 x Additional Hard Drive: 146GB (15000Rpm) SAS II
4	Graphics card	512MB nVIDIA Quadro FX1700 (MRGA14L) (DVI/VGA output, Dual Display) PCIe x16
5	Monitor	22" TFT Monitor

6	DVD combo Drive, Speakers, Optical Mouse, MM Keyboard, and Genuine Windows Vista Business Operating system
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**1 (d) Installation & Training:**

The manufacturer/supplier must be able to install, integrate and demonstrate the functioning of the camera system for gait lab with Kistler force plate and Biometrics EMG system. The company must be able to provide technical support after installation from company's Indian representative. All required accessories to install camera hardware, and integration with force plate, and EMG system to be provided.

- Camera cables, communication cables of sufficient length & camera power supply to be supplied with the above system.
- Accessories to install camera wall mount and tripod.
- Infrared Camera Hardware & Software should be compatible & from same manufacturer.

**Five days operational training on complete system at CSIO**

**Warranty:**

One year warranty.

**NOTE:- The make and model of Video Camera for reference application should be clearly specified. Further parameters like sub pixel accuracy, compatibility with Kistler Force Plate, compatibility with Bio Metrics EMG system, Lens Type Support, Calibration Kit Hardware & software clearly indicated.**