



Tender For
“Supply, Installation,
Testing &
Commissioning of XRD
Operando System
(Revised technical specifications after
Pre-bid conference)

By

Central Manufacturing Technology Institute
Tumkur Road, Bangalore-560022

सेन्ट्रल मैन्युफेक्चरिंग टेक्नोलॉजि इंस्टिट्यूट 
CENTRAL MANUFACTURING
TECHNOLOGY INSTITUTE

SL.NO.	Contents	Page No.
	INVITATION FOR BIDS	3-4
1.	INSTRUCTIONS TO BIDDER	5-17
2.	GENERAL CONDITION OF CONTRACT (GCC)	18-34
3.	SCHEDULE OF REQUIREMENTS	35
	PART-A	
4.	TECHNICAL SPECIFICATIONS	36-50
	PART-B	
5.	QUALIFYING CRITERIA	51-52
	PART-C	
6.	ACCEPTANCE CRITERIA	53-54
7.	CONTRACT FORM	55-56
8.	OTHER STANDARD FORM	56-72

CMTI - CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE

Tumkur Road, Bengaluru - 560022, Karnataka, INDIA

INVITATION FOR BIDS

Tender No. CMTI/PUR/07/2023-24/BS/MMG

Date: 08.12.2023

1. CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India, invites sealed Bids from Wholly-Owned Subsidiary of OEM in India or OEM's own Branch/Sales Office in India, for purchase of items listed below.

Sl. No.	Tender No.	Description of items	Qty	Two Bid	Bid Security (EMD) (Rs.)
1	CMTI/PUR/07/2023-24/BS/MMG	Supply, Installation, Testing & Commissioning of XRD Operando System	01 No.	Two Bid System [Techno - Commercial]	Rs.5,50,000.00

2. Interested Bidders may obtain further information from the office of the Group Head, Purchase & Stores, CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India, mail: purchase@cmti.res.in
2. The Bidding Documents can be downloaded at www.tenderwizard.com/CMTI/https://cmti.res.in/all-tender/.
3. The Director, CMTI- Bengaluru, reserves the right to accept any or all tenders either in part or in full or to split the order without assigning any reasons therefore.
4. Please note that, As per Gol notification, EMD exemption will be conceded for (a) Micro and small Enterprises if registered with any government bodies specified by Ministry of Micro, Small & Medium Enterprises (M/o MSME) with valid certificate duly issued by GOI are exempted for submitting the tender fee and earnest money deposit (EMD). **It will be applicable for those bidders who shall produce their own goods or provide their own services, and not applicable for trading purpose.** No entrepreneur or memorandum of application form is acceptable. Kindly provide the valid Udyam MSME Certificate in order to avail EMD Exception otherwise you have to pay the EMD Money.
5. **Currency of Bidding:** For Imported Goods/Services if supplied directly from abroad, prices shall be quoted in respective foreign currencies like US Dollar or Euro or Pound Sterling or Yen etc., Bidders supplying indigenous goods shall be quoted in INR only.
6. Indication of Price in Technical Bid in any manner directly or indirectly may lead to disqualification of the respective tender.

Supply, Installation, Testing & Commissioning of XRD Operando System

BID REFERENCE	CMTI/PUR/07/2023-24/BS/MMG
PRE-BID CONFERENCE WAS HELD ON	18-10-2023 @ 11.00 hrs
DEADLINE FOR RECEIPT OF BIDS	22.12.2023 – 12.00 hrs
DATE AND TIME OF OPENING OF BIDS (TECHNICAL BID ONLY)	22.12.2023 – 12.30 hrs
DATE AND TIME OF OPENING OF PRICE BIDS	Will be intimated to Technically Qualified Bidders only
VENUE FOR BID OPENING	E-Tender online opening
ADDRESS FOR COMMUNICATION	Group Head, (Purchase & Stores) Central Manufacturing Technology Institute, Tumkur Road, Bengaluru-560022, Karnataka, India Email ID: purchase@cmti.res.in

N.B.:

1. All the pages of the Bidding Document should be signed, stamped with company seal and submitted with the offer.
2. This Bidding Document is non-transferable.
3. Bidding Document can be downloaded free of cost from our website <https://cmti.res.in/all-tender/>

CHAPTER - 1

INSTRUCTIONS TO BIDDER

Table of Contents

Sl.No.	Contents
1.1	Eligible Bidders
1.2	Cost of Bidding
1.3	Fraud and Corruption
1.4	Cost of Bidding Documents
1.5	Content of Bidding Documents
1.6	Clarification of Bidding Documents
1.7	Amendment of Bidding Documents
1.8	Language of Bid
1.9	Documents Comprising the Bid
1.10	Bid form and price schedule
1.11	Bid Prices
1.12	Bid Currencies
1.13	Documents establishing Bidder's eligibility and qualifications.
1.14	Documents establishing Goods' eligibility and conformity to Bidding documents
1.15	Bid Security [BS] / Earnest Money Deposit [EMD]
1.16	Period of Validity of Bids
1.17	Format and Signing of Bid
1.18	Submission, Sealing and Marking of Bids
1.19	Opening of Bids by the Purchaser
1.20	Confidentiality
1.21	Clarification of Bids
1.22	Preliminary Examination
1.23	Responsiveness of Bids
1.24	Non- Conformity, Error and Omission
1.25	Examination of Terms & Conditions, Technical Evaluation
1.26	Conversion to Single Currency
1.27	Evaluation and Comparison of Bids
1.28	Comparison of Bids
1.29	Contacting the Purchaser
1.30	Post qualification
1.31	Negotiations
1.32	Award Criteria
1.33	Purchaser's right to Vary Quantities at Time of award
1.34	Purchaser's right to accept any Bid and to reject any or all Bids
1.35	Notification of Award
1.36	Signing of Contract
1.37	Order Acknowledgement
1.38	Performance Security

A-Introduction

1.1 Eligible Bidders

- 1.1.1 (a) Vendor shall be Wholly-Owned Subsidiary of OEM in India or OEM's own Branch/Sales Office in India or Authorized representatives of the OEM, (b) vendor shall have service center with trained service engineers in India preferably in Bangalore (c) vendor shall have supplied and installed XRD Operando System of similar specification in govt institutes/research organization/PSU in India, who fulfill the eligibility criteria mentioned in the Chapter-4.
- 1.1.2 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 For Bids.

1.2 Cost of Bidding

- 1.2.1 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.

1.3 Fraud and corruption

- 1.3.1 The Purchaser requires that the Bidders, Suppliers and Contractors observe the highest standard of ethics during the procurement process and execution of such contracts. In pursuit of this policy, the following are defined:

“Corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement processor in contract execution;

“Fraudulent practice” means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;

“Collusive practice” means a scheme or arrangement between two or more bidders, with or without the knowledge of the Purchaser, designed to establish bid prices at artificial, non- competitive levels; and

“Coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;

- 1.3.2 The Purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

B - The Bidding Documents

1.4 Cost of Bidding Documents

1.4.1 The Bidding Documents can be downloaded from Purchaser's website as indicate in the Invitation for Bids [IFB] free of cost.

1.5 Content of Bidding Documents

1.5.1 The Goods required, bidding procedures and contract terms are prescribed in the Bidding Documents which should be read in conjunction. The Bidding Documents, apart from the Invitation For Bids have been divided into 8 chapters asunder:

Chapter 1:	Instructions to Bidder (ITB)
Chapter2:	General Conditions of Contract (GCC) and Special Conditions of Contract (SCC)
Chapter3:	Schedule of Requirements
Chapter 4:	Specifications and Allied Technical Details PART A: Technical Specifications PART B: Acceptance Criteria
Chapter 5	Price Schedule Forms
Chapter 6	Contract Form
Chapter 7:	Other Standard Forms comprising: (a) Integrity Pact; (b) Bidder Information Form; (c) Bid Security Form; (d) Performance Statement Form; (e) Deviation Statement Form; (f) Service Support details Form; (g) Bid Form; (h) Performance Security Form; (i) Acceptance Certificate Form; (j) Eligibility Certificate Form; (k) Non-Black-Listed Self Certification Form

1.5.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

1.6 Clarification of Bidding Documents

1.6.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the Special Conditions of Contract (SCC). The Purchaser will respond in writing to request for clarification, provided that such request is received not later than ten (10) days prior to the deadline for submission of Bids. The Purchaser shall forward copies of its response to all those who have acquired the Bidding Documents directly from it, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under clause relating to amendment of Bidding Documents and Clause relating to Deadline for Submission of Bids. The clarifications

Bidding Document for Supply, Installation & Commissioning of XRD Operando System and amendments issued would also be hosted on the website of the Purchaser for the benefit of the other prospective Bidders.

1.7 Amendment of Bidding Documents

- 1.7.1 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 an amendment.
- 1.7.2 All prospective Bidders who have received the Bidding Documents will be notified of the amendment in writing or by cable or by fax, or by e mail and the said amendment will be binding on them. The same would also be hosted on the website of the Purchaser and all prospective Bidders are expected to surf the website before submitting their Bids to take cognizance of the amendments.
- 1.7.3 In order to allow prospective Bidders reasonable time to take the amendment into account, while preparing their Bids, the Purchaser, at its discretion, may extend the deadline for the submission of Bids and host the changes on the website of the Purchaser.

C - Preparation of Bids

1.8 Language of Bid

- 1.8.1 The Bidder shall bear all costs of translation, if any, to the English language and all risks of the accuracy of such translation, for documents provided by the Bidder.

1.9 Documents Comprising the Bid

- 1.9.1 The Offer is to be submitted in two parts. One part will be the Un-Priced Techno-Commercial Bid and the other shall be the Priced Bid in the manner described at ITB Clause 1.18.
- 1.9.2 The Un-Priced Techno-Commercial Bid prepared by the Bidder shall include, among other Documents [like Technical Literature, brochures, drawings, all relevant commercial terms, data sheets etc.] the following:
- (a) Bidder Information Form;
 - (b) Bid Security as specified in the Invitation For Bids;
 - (c) Service support details form;
 - (d) Deviation Statement Form;
 - (e) Performance Statement Form;
 - (f) Documentary evidence establishing that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
 - (g) Documents establishing Good eligibility and conformity to Bidding Documents;
 - (h) Current solvency certificate
 - (i) Eligibility Certificate
 - (j) Non-Blacklisted self-certificate
- 1.9.3 The Price Bid prepared by the Bidder shall include, among other Documents the following:
- (a) Bid form.
 - (b) Applicable Price Schedule Form (this forms shall be mandatorily be uploaded in the price bid)

1.10 Bid Form and Price Schedule Form

- 1.10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule Form furnished in the Bidding Documents. These forms must be completed without any alterations to its format

Bidding Document for Supply, Installation & Commissioning of XRD Operando System and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

1.11 Bid Prices

1.11.1 The Bidder shall indicate on the appropriate Price Schedule Form, the unit prices and total bid prices of the Goods it proposes to supply under the contract.

1.11.2 Prices indicated on the Price Schedule Form shall be entered separately in the following manner:

(a) For Goods manufactured within India

- (i) The price of the Goods quoted ex - works including taxes already paid.
- (ii) GST and other taxes & duties which will be payable on the Goods if the contract is awarded.
- (iii) The charges for inland transportation, insurance and other local Services required for delivering the Goods at the desired destination.
- (iv) The installation, commissioning and training charges including any incidental Services, if any.

(b) For Goods manufactured abroad

- (i) The price of the Goods, quoted on EXW/ FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the Price Schedule Form.
- (ii) The charges for insurance and transportation of the Goods to the port/place of destination. The agency commission charges, if any.
- (iii) The installation, commissioning and training charges including any incidental Services, if any

1.11.3 The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the INCOTERMS published-by the International Chambers of Commerce, Paris.

1.11.4 Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offer shall be rejected as incomplete.

1.11.5 The price quoted shall remain fixed during the contract period and shall not vary on any account.

1.11.6 All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.

1.11.7 The purchases made by the Purchaser for scientific purpose are exempt from Customs Duty at a concessional rate is livable [Government of India Notification No. 51/96 - Customs dated 22/07/1996].

1.11.8 The Purchaser shall not issue Exemption Certificates [Customs Duty Exemption Certificate / GST Exemption Certificate] for any raw materials / intermediary products that go into the manufacture of the Goods offered by Bidder.

1.12 Bid Currencies

1.12.1 Prices shall be quoted in **Indian Rupees** for offers received for supply within India and in freely convertible foreign currency in case of offers received for supply from foreign countries.

1.13 Documents Establishing Bidder's Eligibility and Qualifications

- 1.13.1 The Bidder shall furnish as part of its bid, documents establishing the Bidder's eligibility to bid and its qualification to perform the contract if its bid is accepted.
- 1.13.2 The documentary evidence of the Bidder's qualification to perform the contract if the bid is accepted shall establish to the Purchaser's satisfaction that; Bidder meets the qualification/eligibility Criteria listed in Bidding Documents, if any.
- 1.13.3 Conditional tenders shall not be accepted.

1.14 Documents Establishing Goods Eligibility and Conformity to Bidding Documents

- 1.14.1 To establish the Goods eligibility, 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 issued by a local chamber of commerce at the time of shipment.
- 1.14.2 To establish the conformity of the Goods and Services to the specifications and schedule of requirements of the Bidding Documents, the documentary evidence of conformity of the Goods and Services to the Bidding Documents may be in the form of literature, drawings and data, and shall consist of:
- (a) A detailed description of the essential technical and performance characteristics of the Goods;
 - (b) 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 following commencement of the use of the Goods by the Purchaser in the Priced - bid; and
 - (c) 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.
- 1.14.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standard workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only not restrictive The Bidder may substitute these 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.

1.15 Bid Security (BS) / Earnest Money Deposit (EMD)

- 1.15.1 The Bidder shall furnish, as part of its bid, a Bid Security (BS) / Earnest Money Deposit [EMD] for an amount as specified in the Invitation for Bids.
- 1.15.2 The Bid Security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture.
- 1.15.3 The Bid Security shall be in Indian Rupees for offers received for supply within India and denominated in the currency of the bid or in any freely convertible foreign exchange in the case of offers received for supplies from foreign countries in equivalent Indian Rupees. The Bid Security shall be in one of the following forms at the Bidder's option:
- (a) A Bank Guarantee [BG] issued by a Nationalized/Scheduled bank in the form provided in the Bidding Documents and valid for 45 days beyond the validity of the bid. In case a Bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Nationalized/Scheduled Indian bank, with all confirmation charges to Bidder's account. Purchaser reserves the right to verify the authenticity of the Bank Guarantees from the

issuing/confirming/controlling bank; or

(b) Fixed Deposit Receipt pledged in favour of the Purchaser; or

(c) Online payment in favour of the Purchaser.

1.15.4 The Bid Security shall be payable promptly upon written demand by the Purchaser in case the conditions listed in the ITB Sub-Clause 1.15.8 are invoked.

1.15.5 The Bid Security should be submitted in its original form. Copies shall not be accepted.

1.15.6 The Bid Security of unsuccessful Bidder will be discharged / returned as promptly as possible positively within a period of 30 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.

1.15.7 The successful Bidder's Bid Security will be discharged upon the Bidder furnishing the Performance Security, without any interest. Alternatively, the BS could also be adjusted against PS, if it is paid through DD/BC.

1.15.8 The Bid Security may be forfeited:

(a) If a Bidder withdraws or amends or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or

(b) In case of a successful Bidder, if the Bidder fails to furnish Order Acknowledgement within 15 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.

1.16 Period of Validity of Bids

1.16.1 Bids shall remain valid for a minimum period of 180 days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

1.16.2 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 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.

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

1.17 Format and Signing of Bid

1.17.1 Bids are invited on two-bid system, the Bidder shall submit the Bids in two separate parts. One part will be the Un-Priced Techno - Commercial Bid and the other shall be the Price Bid.

D – Submission of Bids

1.18 Submission of Bids

1.18.1 The Bidders may submit their Bids in Tender Wizard portal as two separate bids.

E - Opening and Evaluation of Bids

1.19 Opening of Bids by the Purchaser

1.19.1 The Purchaser will open all Bids at a time in Tender portal. The Price Bid shall be opened only after technical evaluation.

1.20 Confidentiality

1.20.1 Information relating to the examination, evaluation, comparison, and post qualification of Bids, and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until publication of the Contract Award.

1.20.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the Bids or contract award decisions may result in the rejection of its Bid.

1.21 Clarification of Bids

1.21.1 To assist in the examination, evaluation, comparison and post qualification of the Bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest Bidder, at the discretion of the Purchaser. Any clarification submitted by a Bidder in respect to its bid which is not in response to a request by the Purchaser shall not be considered.

1.22 Preliminary Examination

1.22.1 The Purchaser shall examine the Bids to confirm that all documents and technical documentation requested in ITB Clause 1.9 have been provided, and to determine the completeness of each document submitted.

1.22.2 The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.

- (a) Bid Form and Price Schedule Form, in accordance with ITB Clause 1.10. This condition pertains to opening of Price Bid only;
- (b) All the Bids received will first be scrutinized to see whether the Bids meet the basic requirements as incorporated in the Invitation for Bids [IFB]. The Bids, which do not meet the basic requirements, are to be treated as unresponsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
 - (i) The Bid is unsigned.
 - (ii) Bid Security/ Earnest Money Deposit has not been furnished
 - (iii) The Bidder is not eligible.
 - (iv) The Bid validity is shorter than the required period.
 - (v) The Bidder has quoted for Goods manufactured by a different firm without the required authority letter from the proposed Manufacturer.
 - (vi) Bidder has not agreed to give the required Performance Security.
 - (vii) The Goods quoted are sub-standard, not meeting the required specification etc.
 - (viii) Against the schedule of Requirement (incorporated in the tender enquiry), the Bidder has not quoted for the entire requirement as specified in that schedule.
 - (ix) The Bidder has not agreed to some essential condition(s) incorporated in the tender enquiry.
 - (x) Bidder has not mentioned charges related to packing, forwarding, freight, insurance charges, taxes etc. as required under Instructions to Bidders Clause 1.11 thus rendering such offers as incomplete.

1.23 Responsiveness of Bids

- 1.23.1 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each bid to the Bidding Documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the Bidding Documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:
- (a) Affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - (b) Limits in any substantial way, inconsistent with the bidding documents, the purchase's rights or the bidder's obligations under the contract; or
 - (c) If rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.
- 1.23.2 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.
- 1.23.3 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 material deviation, reservation or omission.

1.24 Non-Conformity, Error and Omission

- 1.24.1 Provided that a Bid is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Bid that do not constitute a material deviation.
- 1.24.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 1.24.3 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:
- (a) If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
 - (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 1.24.4 Provided that a bid is substantially responsive, the Purchaser may request that a Bidder may confirm the correctness of arithmetic errors as done by the Purchaser within a target date. In case, no reply is received then the bid submitted shall be ignored and its Bid Security may be forfeited.

1.25 Examination of Terms & Conditions, Technical Evaluation

- 1.25.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.

1.25.2 The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with ITB Clause 1.14, to confirm that all requirements specified in Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.

1.25.3 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 1.23, it shall reject the Bid.

1.26 Conversion to Single Currency

1.26.1 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 on the date of bid opening in the case of single part bidding and the rates prevalent on the date of opening of the Price Bids in the case of two - part bidding. For this purpose, exchange rate notified in www.xe.com or www.rbi.org or any other website could also be used by the Purchaser.

1.27 Evaluation and comparison of Bids

1.27.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.

1.27.2 To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined below. No other criteria or methodology shall be permitted.

1.27.3 The Bids shall be evaluated on the basis of final landing cost which shall be arrived as under:
For Goods manufactured in India.

- a. The price of the Goods quoted ex -works including all taxes already paid.
- b. GST and other taxes & duties like excise duty etc. which will be payable on the Goods if the contract is awarded.
- c. Charges for inland transportation, insurance and other local Services required for delivering the Goods the desired destination.
- d. The installation, commissioning and training charges including incidental Services, if any.

For Goods manufactured abroad

- a. The price of the Goods, quoted on EXW [duly packed] / FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the Bidding Documents.
- b. The charges for insurance and transportation of the Goods to the port/place of destination.
- c. The agency commission etc., if any.
- d. The installation, commissioning and training charges including incidental Services, if any.

1.27.4 The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF/ CIP basis respectively. However, the CIF/CIP prices quoted by any foreign Bidder shall be loaded further as under:

- a. Towards customs duty and other statutory levies as per applicable rates.
- b. Towards custom clearance, inland transportation etc.

Note: Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offers shall be rejected as incomplete.

- 1.27.5 In the case of Purchase of many items against one tender, which are not inter-dependent or, where compatibility is not a problem, normally the comparison would be made on ex works, (in case of indigenous items) and on FOB / FCA (in the case of imports) prices quoted by the firms for identifying the lowest quoting firm for each item.
- 1.27.6 Orders for imported stores need not necessarily be on FOB/FCA basis. Rather it can be on the basis of any of the INCOTERMS specified in ICC INCOTERMS 2020 as may be amended from time to time by the ICC
- 1.27.7 Wherever the price quoted on FOB/FCA and CIF/CIP basis are the same, the Contract would be made on CIF / CIP basis only.
- 1.27.8 The GCC and the SCC shall specify the mode of transport i.e. whether by air/road/rail.
- 1.27.9 In case optional items are specified in the tendered specifications, the Purchaser reserves the right to buy or not to buy the optional items. In case the option is exercised to buy the optional items after Bid opening, then the cost of optional items would be included to ascertain the Lowest Evaluated Responsive Bid. In case, the option is exercised not to buy the optional items, then the cost of the optional items would not be included in ascertaining the Lowest Evaluated Responsive Bid.

NOTE: Bidders not quoting the optional items entail the risk of their offer being summarily ignored in the event of the Purchaser deciding to buy the optional items after Bid opening.

1.28 Comparison of Bids

- 1.28.1 The Purchaser shall compare all substantially responsive Bids to determine the lowest-evaluated responsive bid, in accordance with ITB Clause 1.27.

1.29 Contacting the Purchaser

- 1.29.1 Subject to ITB Clause 1.21, 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.
- 1.29.2 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.

1.30 Post qualification

- 1.30.1 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 1.13.
- 1.30.2 The determination will take into account the eligibility criteria listed in the Bidding Documents and will be based up on Examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.30.3 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.

F- Award of Contract

1.31 Negotiations

- 1.31.1 There shall not be any negotiation normally. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the

lowest evaluated responsive Bidder. Counter offers tantamount to negotiations and shall be treated at par with negotiations in the case of one-time purchases.

1.32 Award Criteria

1.32.1 Subject to ITB Clause 1.34 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.

1.33 Purchaser's right to vary Quantities at Time of Award

1.33.1 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. Further, at the discretion of the Purchaser, the quantities in the contract may be enhanced by 30% within the delivery period.

1.34 Purchaser's right to accept any Bid and to reject any or All Bids

1.34.1 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.

1.35 Notification of Award

1.35.1 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 telex or fax or e-mail that the bid has been accepted and a separate Purchase Order shall follow through post.

1.35.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding contract.

1.35.3 Upon the successful bidder's furnishing of the signed contract form and performance security pursuant to ITB clause 1.38, the purchaser will promptly notify each unsuccessful bidder and will discharge its bid security

1.36 Signing of Contract

1.36.1 Promptly after notification, the Purchaser shall send the successful Bidder the Agreement/Purchase Order.

1.36.2 Within twenty - one (21) days of date of the Agreement / Purchase Order, the successful Bidder shall sign, date, and return it to the Purchaser.

1.37 Order Acknowledgement

1.37.1 The successful Bidder should submit Order Acknowledgement within 15 days from the date of issue of the Purchase Order / Contract, failing which it shall be presumed that the Supplier is not interested and his Bid Security is liable to be forfeited pursuant to clause 1.15.11 of ITB.

1.37.2 The Order Acknowledgement must be received within 15 days. However, the Purchaser has the powers to extend the time frame for submission of Order Acknowledgement and submission of Performance Security (PS). Even after extension of time, if the Order Acknowledgement /PS are not received, the contract shall be cancelled and limited tenders irrespective of the value shall be invited from the responding firms after forfeiting the Bid Security of the defaulting firm, where applicable, provided there is no change in specifications. In such cases the defaulting firm shall not be considered again for re-tendering in the particular

case.

1.38 Performance Security

- 1.38.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish Performance Security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the BS should be kept valid till such time the PS is submitted.
- 1.38.2 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.
- 1.38.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.
- 1.38.4 In the case of imports, the PS may be submitted either by the Principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the Manufacturer or their authorized dealer/Bidder.
- 1.38.5 The Performance Security shall be in one of the following forms:
- a. A Bank Guarantee [BG] or Stand- by Letter of Credit [SLC] issued by a Nationalized/Scheduled bank located in India or a Foreign bank [i.e. a bank located outside India] with preferably its operating branch in India. The BG shall be issued in the form provided with the Bidding Documents. In case of Performance Security being furnished in the shape of Bank Guarantee or Stand - by Letter of Credit issued by any foreign bank, the said BG/SLC shall have to be confirmed. All confirmation and other bank charges in this respect shall be borne by the Supplier. Purchaser shall independently verify the authenticity of the BGs from the issuing / confirming / controlling banks. Or;
 - b. Online payment in favour of the purchaser, or;
 - c. A Fixed Deposit Receipt pledged in favour of the Purchaser.
- 1.38.6 The Performance Security 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, without levy of any interest.
- 1.38.7 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, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 1.38.8 The Order Acknowledgement should be received within 15 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of Order Acknowledgement and submission of Performance Security (PS). Even after extension of time, if the Order Acknowledgement /PS are not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the Bid Security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for re-tendering in the particular case.

CHAPTER - 2

CONDITIONS OF CONTRACT

A. GENERAL CONDITIONS OF CONTRACT (GCC)

Table of Contents

Sl. No.	Clause
2.1.	Definitions
2.2.	Contract Documents
2.3.	Fraud and Corruption
2.4.	Joint Venture, Consortium or Association
2.5.	Scope of Supply
2.6.	Supplier's Responsibilities
2.7.	Contract price
2.8.	Copyright
2.9.	Application
2.10.	Standards
2.11.	Use of Contract Documents and Information
2.12.	Patent Indemnity
2.13.	Performance Security
2.14.	Inspections and Tests
2.15.	Packing
2.16.	Delivery and Documents
2.17.	Insurance
2.18.	Transportation
2.19.	Incidental Services
2.20.	Spare Parts
2.21.	Warranty
2.22.	Terms of Payment
2.23.	Change Orders and Contract Amendments
2.24.	Assignment
2.25.	Subcontracts
2.26.	Extension of time
2.27.	Penalty Clause
2.28.	Termination for default
2.29.	Force Majeure
2.30.	Termination for insolvency
2.31.	Termination for Convenience
2.32.	Settlements of Disputes
2.33.	Governing language
2.34.	Applicable law
2.35.	Notice
2.36.	Taxes and Duties
2.37.	Right to use Defective Goods
2.38.	Protection against Damage
2.39.	Integrity Pact

2.1. Definitions

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

- (a) "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.
- (b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
- (c) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments
- (d) "Day Means" calendar day
- (e) "Completion" means the fulfillment of the related services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (f) "GCC" means the General Conditions of Contract
- (g) "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.
- (h) "Related Service", means the services incidental to the supply of the Goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (i) "SCC" means the Special Conditions of Contract.
- (j) "Subcontractor" means any natural 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.
- (k) "Supplier" means the natural 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.
- (l) The "Institute" means CMTI, Central Manufacturing Technology Institute registered under the Societies Registration Act, 1860 of Govt. Of India having its registered office at Tumkur Road, Bengaluru - 560022, Karnataka, India and the "Purchaser" also means the above Institute situated at the above address in India as specified in SCC.
- (m) "Final Destination", where applicable, means the place named in the SCC.

2.2. Contract Documents

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.

2.3. Fraud and Corruption

2.3.1. The Purchaser requires that Bidders, Suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

- (a) The terms set forth below are defined as follows:
 - (i) "**Corrupt practice**" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
 - (ii) "**Fraudulent practice**" means a misrepresentation or omission of facts in order

to influence a procurement process or the execution of a contract;

(iii) **“Collusive practice”** Means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, noncompetitive levels; and

(iv) **“Coercive practice”** means harming or threatening to harm, directly or indirectly, persons or their Property to influence their participation in the procurement process or affect the execution of a contract;

- (b) The Purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

2.4. Joint Venture, Consortium or Association

2.4.1. 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 fulfillment 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.

2.5. Scope of Supply

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

2.6. Suppliers' Responsibility

2.6.1. The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.

2.7. Contract price

2.7.1. 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.

2.8. Copyright

2.8.1. 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

2.9. Application

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

2.10. Standard

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

2.11. Use of Contract Documents and Information

- 2.11.1. 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.
- 2.11.2. The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3. Any document, other than the Contract itself, enumerated above 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.

2.12. Patent Indemnity

- 2.12.1. The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.12.2, 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 or otherwise existing at the date of the Contract by reason of:
- (a) The installation of the Goods by the Supplier or the use of the Goods in India; and
 - (b) The sale in any country of the products produced by the Goods.
- 2.12.2. If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may as 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 claims.

2.13. Performance Security

- 2.13.1. Within 21 days of receipt of the notification of award/ PO, the Supplier shall furnish Performance Security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the BS should be kept valid till such time the PS is submitted.
- 2.13.2. 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.
- 2.13.3. The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of

Bidding Document for Supply, Installation & Commissioning of XRD Operando System offers received for supply from foreign countries.

2.13.4. In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the Manufacturer or their authorized dealer/Bidder.

2.13.5. The Performance Security shall be in one of the following forms:

- (a) A Bank Guarantee [BG] or Stand - by Letter of Credit [SLC] issued by a Nationalized/Scheduled bank located in India or a Foreign bank with preferably its operating branch in India. The BG shall be issued in the form provided with the Bidding Documents. In case of Performance Security being furnished in the shape of Bank Guarantee or Stand - by Letter of Credit issued by any foreign bank, the said BG/SLC shall have to be confirmed by any nationalized bank of India. All confirmation and other bank charges in this respect shall be borne by the Supplier. Purchaser shall independently verify the authenticity of the BGs from the issuing / confirming / controlling banks. Or;
- (b) Online payment in favour of the Purchaser. Or;
- (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.

2.13.6. The Performance Security 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, without levy of any interest.

2.13.7. 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, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.

2.13.8. The order confirmation should be received within 15 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS)- Even after extension of time, if the order confirmation /PS are not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the Bid Security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for re- tendering in the particular case.

2.14. Inspections and Tests

2.14.1. 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 or as discussed and agreed to during the course of finalization of contract.

2.14.2. 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. The Technical Specifications and SCC 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.

2.14.3. 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

Bidding Document for Supply, Installation & Commissioning of XRD Operando System 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.

- 2.14.4. Whenever the Supplier is ready to carry out any such test and inspection, it shall give 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.
- 2.14.5. Should any inspected or tested Goods fail to conform to the specifications, the Purchase or 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.
- 2.14.6. The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination 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.
- 2.14.7. The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 2.14.8. With a view to ensure that claims on insurance companies, if any, are lodged in time, the Bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the Bidder/ Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the Purchaser on the event of the delay.

2.15. Packing

- 2.15.1. 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.
- 2.15.2. 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.

2.16. Delivery and Documents

- 2.16.1. Delivery of the Goods and completion and related Services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/ or other documents to be furnished by the Supplier are specified in SCC.
- 2.16.2. The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the INCOTERMS published by the International Chambers of Commerce, Paris.

2.16.3. The mode of transportation shall be as specified in SCC.

2.17. Insurance

2.17.1. Should the Purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, Storage and delivery in the manner specified in SCC.

2.17.2. Where delivery of the Goods is required by the Purchaser on CIF or CIP basis the Supplier shall arrange and pay for Cargo Insurance, naming the Purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.

2.17.3. Where delivery is on FOB or FCA basis, insurance would be the responsibility of the Purchaser.

2.17.4. With a view to ensure that claims on insurance companies, if any, are lodged in time, the Bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the Bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the Purchaser on the event of the delay.

2.18. Transportation

2.18.1. Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the supplier, and the cost thereof shall be included in the Contract price.

2.18.2. Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

2.18.3. In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.

2.19. Incidental Services

2.19.1. The Supplier may be required to provide any or all of the Services, if any, specified in SCC.

2.20. Spare Parts

2.20.1. The Supplier shall be required to provide any or all of the following materials,

Bidding Document for Supply, Installation & Commissioning of XRD Operando System
notifications, and information pertaining to spare parts manufactured or distributed by
the Supplier:

- (a) 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
- (b) In the event of termination of production of the spare parts:
 - (i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - (ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.
- (c) In case of OEM Supplier companies merges, amalgamation, take over or bifurcation etc., it is the responsibility of the Original Supplier to maintain the spare parts requirements for 10 years with the new Entity.

2.21. Warranty

- 2.21.1. 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.
- 2.21.2. 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.
- 2.21.3. Unless otherwise specified in the SCC or technical specifications, the warranty shall remain valid as specified in the contract.
- 2.21.4. 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.
- 2.21.5. Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 2.21.6. If having been notified, the Supplier fails to remedy the defect within the reasonable period of time, the Purchaser expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 2.21.7. Goods requiring warranty replacements must be replaced on free of cost basis to the Purchaser at Purchaser site.

2.22. Terms of Payment

- 2.22.1. The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.22.2. 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 Delivery and document Clause of the GCC and upon fulfillment of other obligations stipulated in the contract.
- 2.22.3. Payments shall be made promptly by the Purchaser within a reasonable time after submission of the invoice or claim by the Supplier.

2.22.4. Payment shall be made in currency as indicated in the contract.

2.23. Change Orders and Contract Amendments.

2.23.1. The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC 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 shipping or packing;
- (c) The place of delivery; and/or
- (d) The Services to be provided by the Supplier.
- (e) The delivery schedule.

2.23.2. 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.

2.23.3. No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

2.24. Assignment

2.24.1. 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.

2.25. Sub contracts

2.25.1. 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 the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract.

2.26. Extension of time

2.26.1. 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.

2.26.2. 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). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may, at its discretion, extend the suppliers time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.

2.26.3. Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery Obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

2.27. Penalty clause

2.27.1. Subject to GCC Clause on Force Majeure, 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 or contract value 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 on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable.

2.28. Termination for Default

2.28.1. 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

- (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; or
- (b) If the Supplier fails to perform any other obligation(s) under the Contract; or
- (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in GCC Clause on Fraud or Corruption in competing for or in executing the Contract.

2.28.2. In the event the Purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:

- (a) The Performance Security is to be forfeited;
- (b) The Purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the Supplier shall be liable for all available actions against it in terms of the contract.
- (c) However, the Supplier shall continue to perform the contract to the extent not terminated.

2.29. Force Majeure

2.29.1. Notwithstanding the provisions of GCC Clauses relating to extension of time, penalty and Termination for Default 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.

2.29.2. 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, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

2.29.3. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. 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.

2.29.4. If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

2.30. Termination for Insolvency

2.30.1. The Purchaser may at anytime 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.

2.31. Termination for Convenience

2.31.1. The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. 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.

2.31.2. The Goods that are complete and ready for shipment within 30 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:

- (a) To have any portion completed and delivered at the Contract terms and prices
- (b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

2.32. Settlement of Disputes

2.32.1. 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.

2.32.2. If, after twenty – one (21) days, 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 commence arbitration, as herein after provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

2.32.3. The dispute settlement mechanism/arbitration proceedings shall be concluded as under:

- (a) 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, Central Manufacturing Technology Institute 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.

- (b) 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.

2.32.4. The venue of the arbitration shall be the place from where the purchase order or contract is issued.

2.32.5. Notwithstanding any reference to arbitration herein,

- (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) The Purchaser shall pay the Supplier any monies due the Supplier.

2.33. Governing Language

2.33.1. The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

2.34. Applicable Law

2.34.1. 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.

2.35. Notices

2.35.1. 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, telex, FAX, e-mail or and confirmed in writing to the other party's address specified in the SCC.

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

2.36. Taxes and Duties

2.36.1. 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.

2.36.2. For Goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.

2.36.3. If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

2.37. Right to use Defective Goods

2.37.1. If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the Goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such Goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the purchaser's operation.

2.38. Protection against Damage

2.38.1. The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:

- a) Voltage 230 -V Single phase
- b) Frequency 50 Hz.

2.39. Integrity Pact

As per directive of CVC all organizations have to adopt an Integrity Pact (IP) to ensure transparency, equity and competitiveness in major Public procurement activities. The integrity Pact envisages an agreement between the prospective Bidders/Vendors with the buyer committing the persons/officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. Only these Bidders/Vendors who are willing to enter into such an Integrity Pact with the buyer i.e, CMTI would be competent to participate in the bidding.

B. SPECIAL CONDITIONS OF CONTRACT (SCC)

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 2.1(l)	The <i>Purchaser</i> is: CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India
GCC 2.1 (m)	The <i>Final Destination</i> is: CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India,
GCC 2.14.1	<p><i>Inspection and Acceptance Tests at Final Destination:</i></p> <p>The Inspection and Acceptance Tests at Buyer’s site (Final Destination) are as follows:</p> <p>The acceptance test will be conducted after the equipment/system is installed at Purchaser’s site by Supplier’s representatives to check conformity with the technical specifications and acceptance criteria. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment/system 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. In the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserves the right to get the equipment /system replaced by the Supplier at no extra cost to the Purchaser. Successful conduct and conclusion of the acceptance test for the installed Goods and equipment /system shall also be the responsibility and at the cost of the Supplier. Before the Goods and equipment /system are taken over by the Purchaser, the Supplier shall supply operation and maintenance Manuals together with Drawings of the Goods and equipment /system built. These shall be in such details as will enable the Purchase to operate, maintain, adjust and repair all parts of the works as stated in the specifications. The Manuals and Drawings shall be in the ruling language (English) and in such form and numbers as stated in the Contract. Unless and otherwise agreed, the Goods and equipment /system shall not be considered to be completed for the purposes of taking over until such Manuals and Drawing have been supplied to the Purchaser. On successful completion of acceptability test, receipt of deliverables, etc. and after the Purchaser is satisfied with the working of the equipment /system, the acceptance certificate signed by the Supplier and the representative of the Purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the equipment /system.</p>
GCC 2.15.2	<p><i>Packing</i></p> <p>The marking and documentation within and outside the packages shall be: Each package should have a packing list within it detailing the part No.(s), description, quantity, etc.</p> <p>Outside each package, the contract No., the name and address of the Purchaser and the final destination should be indicated on all sides and top. Each package should be marked as 1/x, 2/x,3/x.....x/x, where “x” is the total no of packages contained in the consignment. All the sides and top of each package should carry an appropriate indication / label / stickers indicating the precautions to be taken while handling / storage</p>

<p>GCC 2.16.1</p>	<p><i>Shipping/Dispatch documents</i></p> <p>Details of Shipping and other Documents to be furnished by the Supplier are</p> <p><u>A. For Goods manufactured within India</u></p> <p>Within 24 hours of dispatch, the Supplier shall notify the Purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/ E-mail.</p> <p>(a) Two copies of Supplier’s Invoice indicating, inter - alia description and specification of the Goods, quantity, unit price, total value;</p> <p>(b) Packing list;</p> <p>(c) Certificate of country of origin;</p> <p>(d) Insurance certificate, if required under the contract;</p> <p>(e) Railway receipt/Consignment note;</p> <p>(f) Manufacturer’s guarantee certificate and in- house inspection certificate;</p> <p>(g) Inspection Certificate issued by Purchaser’s inspector, if any and</p> <p>(h) Any other document(s) as and when required in terms of the contract.</p> <p>Note: 1. The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. Should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s)</p> <p>Note: 2. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses</p> <p><u>[B] For Goods manufactured abroad</u></p> <p>Within 24 hours of dispatch, the Supplier shall notify the Purchaser the complete details of dispatch and also supply following documents by Registered Post/courier and copies thereof by FAX.</p> <p>(a) Two copies of Supplier’s Invoice giving full details of the Goods including quantity, value, etc.;</p> <p>(b) Packing list;</p> <p>(c) Certificate of country of origin issued by a local chamber of commerce;</p> <p>(d) Manufacturer’s guarantee and Inspection Certificate;</p> <p>(e) Inspection certificate issued by the Purchaser’s Inspector, if any;</p> <p>(f) Insurance Certificate, if required under the contract;</p> <p>(g) Name of the Vessel/Carrier</p> <p>(h) Port of Loading;</p> <p>(i) Date of Shipment;</p> <p>(j) Port of Discharge & expected date of arrival of Goods and</p> <p>(k) Any other document(s) as and when required in terms of the contract</p>
	<p>Note: 1.The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s)</p> <p>Note: 2. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses</p>

<p>GCC 2.16.3</p>	<p>Transportation/ Dispatch</p> <p>In case of supplies from within India, the mode of transportation shall be by Air/Rail/Road. In case of supplies from abroad, the mode of transportation shall be by Air. For supplies from abroad, Supplier shall ensure that the Goods are transported through the authorized freight forwarder of Purchaser, whose name and other contact details shall be made available to Purchaser.</p> <p>Purchaser shall not accept dispatch / transportation of Goods through any other forwarder. Payment by L/C shall only be released against presentation of the House Air Way Bill issued by the authorized freight for warder of Purchaser.</p>
<p>GCC 2.17.1</p>	<p>Insurance</p> <p>The Insurance shall be for an amount equal to the 110% of the CIF or CIP value of the contract from within “warehouse to warehouse (final destination)” on “ALL- RISKS basis including strikes, riots and civil commotion”</p>
<p>GCC 2.19.1</p>	<p>Incidental Services</p> <p>The Incidental Services to be provided are:</p> <ol style="list-style-type: none"> 1. Pre-dispatch Equipment Audit. 2. Installation and Commissioning of Goods/ Equipment. 3. Training on use/application. 4. Warranty Support [to be effective from the date of final acceptance at site, [CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru, Karnataka, India-560022] <p>The Cost of the above incidental services shall be included in the Contract Price and a Price Break-up shall also be given</p>
<p>GCC 2.21.3</p>	<p>Warranty</p> <p>The period of validity of Warranty shall be effective from the date of acceptance of the Goods to the entire satisfaction of the Purchaser. The Warranty shall be Comprehensive in nature. The warranty period shall be for the period as stipulated in the Technical Specifications</p>
<p>GCC 2.22.1</p>	<p>Payment</p> <p>The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</p> <p><u>Payment for Goods supplied from abroad:</u></p> <p>Payment of foreign currency portion shall be made in the currency of the contract in the following manner:</p> <ol style="list-style-type: none"> (i) On Shipment: 80% (Eighty) percent of the Contract Price of the Goods shipped shall be paid through irrevocable letter of credit opened in favour of the Supplier in a bank in its country, upon submission of shipping documents specified in GCC Clause 2.16.1 (ii) On Acceptance: 20% (Twenty) percent of the Contract Price of Goods received shall be paid after successful installation & commissioning at CMTI upon submission of acceptance certificate.

GCC 2.22.1	<p>The L/C will be confirmed at the Suppliers cost, if requested specifically by the Supplier. All bank charges abroad shall be to the account of the beneficiary i.e. Supplier and all bank charges in India shall be to the account of the opener i.e. Purchaser. If L/C is requested to be extended/ reinstated for reasons not attributable to the Purchaser, the charges thereof would be to extended/ reinstated for reasons not attributable to the Purchaser; the charges thereof would be to the Suppliers’ account. 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. The LC for 100% value of the contract shall be established after deducting the agency commission payable if any, to the Indian agent from the FOB /FCA /CIF value.</p> <p><u>[B] Payment for Goods and Services supplied from India:</u></p> <p>Payment for Goods and Services supplied from within India shall be made in Indian Rupees, as follows:</p> <p>On shipment: 80% (Eighty) percent of the Contract Price shall be paid on receipt of the Goods and upon submission of the documents specified in GCC Clause 2.16.1</p> <p>On Acceptance: The remaining 20% (Twenty) percent of the Contract value shall be paid to the Supplier upon submission of the acceptance certificate.</p>
GCC 2.27.1	<p>Liquidated Damages</p> <p>(i) The penalty shall be: [0.5%] Percent per week or part of a week towards late delivery and towards delay in installation and commissioning.</p> <p>(ii) The maximum amount of liquidated damages shall be: [10%] TEN Percent. The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value.</p>
GCC 2.34.1	<p>The place of jurisdiction is BENGALURU [KARNATAKA]</p>
GCC 2.35.1	<p>For notices, the Purchaser’s address is: Attention: Group Head(Purchase & Stores) CMTI–Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India Email: purchase@cmti.res.in</p>

CHAPTER - 3**SCHEDULE OF REQUIREMENTS**

TO BE FILLED BY BIDDER AND ENCLOSED WITH THE TECHNO- COMMERCIAL BID

Brief Description of Goods and Services	Quantity
Supply, Installation & Commissioning of XRD Operando System [Technical Specifications and Other Details as per Chapter 4 of this Bidding Documents]	01 No.
Final Destination	CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India
Period of Delivery shall count from	< TO BE FILLED BY BIDDER>
Time period by which the goods shall be ready at manufacturer's site for pre-dispatch Equipment Audit	< TO BE FILLED BY BIDDER>
Delivery Period [Goods to be delivered in one lot at final destination CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru, Karnataka,India-560022]	< TO BE FILLED BY BIDDER>
Time frame required for conducting installation, commissioning of the Goods etc. after arrival of the Goods at Final destination	< TO BE FILLED BY BIDDER>

NOTE: The party has to offer their product /equipment strictly based on the specifications asked in the Bidding Documents.

CHAPTER - 4**Part-A: Technical Specifications****Supply, Installation & Commissioning of XRD Operando System**

Important Note: Merely stating, "comply" does not constitute sufficient information. Exact numerical values are to be specified wherever applicable. **Specified technical data should be supported by product catalogues, manuals, test procedures and test plots etc. and demonstrated at site. In case of insufficient technical data, the quote will be summarily rejected without seeking any clarifications.**

S.no.	Parameter Description	Technical specifications	Remarks
1.	Application	The proposed X-ray Diffraction (XRD) operando system should be equipped with capability of in-situ (simultaneous data accumulation from both XRD and electrochemical analyser system in the same desktop computer) phase analysis during electrochemical analysis i.e., charge discharge and cyclic voltammetry together with general phase analysis by high resolution XRD, grazing incidence XRD (GI-XRD) for thin film, small angle x-ray scattering (SAXS), X-ray reflectivity (XRR), mapping through microdiffraction, in-situ non-ambient XRD (high temperature XRD), crystalline phase determination and quantification, pair distribution function study and, upgradable to residual stress measurement, etc. For the above-mentioned purpose offers are invited from the reputed manufacturers / representatives for supply, installation and commissioning of XRD system. The system should meet all the technical requirements as detailed below:	Essential (Specify)
2.	General Function	The XRD system must be having following facilities/capabilities	
a.	Optics Modes	Powder diffraction analysis should have reflection as well as transmission mode while keeping the sample horizontal	Essential (Specify)
b.	Grazing Incidence X-Ray Diffraction	Thin film grazing incidence x-ray diffraction (GI-XRD)	Essential (Specify)
c.	Small Angle X-ray Scattering	Small angle x-ray scattering (SAXS) to be provided for the analysis for particle size distribution and pore size distribution analysis in the range of 1 nm to 100 nm for powder & liquid samples	Essential (Specify)
d.	X-ray reflectivity	X-ray reflectivity (XRR) for mass density from critical angle study to be available in the system	Essential (Specify)

e.	High Temperature XRD Study	XRD system should be capable of non-ambient phase transition experiments up to 1200°C	Essential (Specify)
f.	Electrochemical analyser	XRD system should be capable of in-situ measurement during operando experiments by control and synchronization between electrochemical analyser and XRD system for studying phase transition during electrochemical analysis for at least charge-discharge and cyclic-voltammetry analysis.	Essential (Please specify the control and synchronization method)
g.	CdTe detector	XRD operando system should be equipped with CdTe detector for thick wall cell samples and quick data acquisition	Essential (Specify)
h.	Programmable control	Fully programmable and controlled through software should be provided	Essential (Specify)
i.	Sensors and control	XRD system should be capable of sensing and recognizing all the components in the beam path including X-ray tube, optics (both primary and secondary side), and detectors for automatic selection of configuration of the system to support for different types of analytical experiments in order to enable ease in operation	Essential (Specify)
j.	Auto-alignment facility	XRD system must have auto alignment facility for entire optical path except for elliptical mirror and stages	Essential (Specify)
k.	Remote control diagnostics	Equipped with remote control diagnostics features inclusive of software and hardware	Essential (Specify)
l.	Safety standard	XRD Operando system should follow and comply Indian standards like AERB and International standards for X-ray safety, RoHS directive, Electromagnetic compatibility directive, Machinery directive and harmonized standards.	Essential (Specify)
m.	Latest model condition	Quoted system should be the latest model from manufacturer (available in OEM's current website / catalogue during submission of tender quotation)	Essential (Specify)
n.	Preinstallation requirement	Pre-installation requirements must be provided within 30 days of receipt of the order	Essential (Specify)
o.	Installation anywhere in India	Minimum 2 nos. of recent PO copies & installation certificates of quoted model in India to be provided. The PO copies of proposed model must not be more than 5 years old The vendor should have at least 2 installations of offered system within India in last 2 years	Essential (Specify)

p.	Service centres	The vendor offering the required XRD system should have their service centre in India such that the engineer can attend any service call within 72 hours	Essential (Specify)
3.	Dimension, weight and environmental conditions requirement of instrument	To be specified	Essential (Specify)
4.	High temperature accessories	The XRD system must be provided with high temperature accessories upto 1200°C for non-ambient XRD	Essential (Specify)
5.	X-ray generator		
a.	Output generator power	Output generator to be solid state type with power of 3 kW or higher.	Essential (Specify)
b.	Auto ramp facility	Output generator should be with auto ramp facility.	Essential (Specify)
c.	Maximum Voltage	Maximum voltage should be 60 kV with increment of 1 kV	Essential (Specify)
d.	Maximum Current	Maximum current should be 60 mA or better with increment of 1 mA	Essential (Specify)
e.	X-ray sources	The generator should support operation of different X-ray source including Cu and Mo for best excitation efficiency of 90% or better	Essential (Specify)
f.	Voltage stability	Voltage stability should be $\leq 0.005\%$ per $\pm 10\%$ variation of main voltage or better	Essential (Specify)
g.	Safety and regulation	The system should trip upon overload, over voltage, over current, interruption of water flow, failure of warning lamps, X-ray shutter open. It should also follow all the international and Indian safety norms (Please specify details)	Essential (Specify)
6.	Goniometer		
a.	Goniometer geometry	Vertical goniometer to be with high resolution θ - θ and/or θ - 2θ geometry	Essential (Specify)
b.	θ and 2θ drives	The goniometer should be equipped with independent θ and 2θ drives for accurate positioning and with design to support for zero backlash.	Essential (Specify)
c.	Minimum Step size	Minimum step size of θ should be $\leq 0.0001^\circ$ or better	Essential (Specify)
d.	Angular reproducibility	Angular reproducibility to have $\pm 0.0002^\circ$ 2θ or better	Essential (Specify)
e.	2θ Angular range	2θ Angular range to have lower limit $\leq -95^\circ$ and upper limit $\geq 162^\circ$ or better in both reflection and transmission geometries while keeping the sample stage in horizontal position.	Essential (Specify)
f.	Goniometer diameter	Goniometer diameter should be 400 mm or higher	Essential (Specify)
g.	Linearity	Linearity should be $\pm 0.01^\circ$ of 2θ throughout the angular range of goniometer or better with NIST traceable SRM	Essential (Specify)

7.	X-ray anode tube		
a.	Ceramic insulation in X-ray targets	Target should be Cu target and Mo target with ceramic insulation	Essential (Specify)
b.	Maximum output power	Maximum output power: for Cu tube ≥ 1.8 kW (should comply with monochromator) for Mo tube ≥ 2.5 kW (should comply with elliptical mirror)	Essential (Specify)
c.	Beta filter compatibility	X-ray Anode tube should be compatible with beta filters for both X-ray tubes for automatic control of configuration based on analytical requirement by computer	Essential (Specify)
d.	Auto component recognition for line to point focus changeover	X-ray tube must have auto component recognition facility to indicate anode target type, its operation time and its exchange from one source type to another type and changeover from line to point focus type together with auto alignment facility	Essential (Specify)
e.	Long fine focus (LFF) tube	X-ray tube should have ceramic insulated body and long fine focus (LFF) tube	Essential (Specify)
f.	Changeover of LFF to true point focus	The tube should have the facility to rotate from LFF to true point focus and vice versa	Essential (Specify)
g.	Switch between line focus to point focus	Easy / quick switch between line focus to point focus without loss of intensity to be provided	Essential (Specify)
h.	True point focusing	Point focus should not use slits and must be true point focus of the X-ray tube	Essential (Specify)
i.	Hard X-ray radiation protection	To be provided beam attenuator / radiation protection kit for hard X-ray radiation (Mo) in equipment design	Essential (Specify)

8.	Optics		
a.	Primary beam	<ul style="list-style-type: none"> • All optical components and settings must be automatically recognized, changed and aligned by XRD control software for error free analysis with the latest X-ray optics technologies. • Software controlled motorized divergence slits, two numbers of suitable soller slits (high resolution and high intensity) to be provided. • Motorized exchangeable with motorized mask or manual alignment free exchangeable beta filters to be offered • For Cu radiation, changeover from motorized slit based Bragg Brentano geometry to X-ray mirror based parallel and transmission geometry must be fully computer controlled without any manual intervention. • Multilayer monochromatic X-ray optics for Cu X-ray source to be offered for thin film (GIXRD), transmission geometry and SAXS experiments • Multilayer elliptical focusing mirror (manual or automatic alignment) for Mo X-ray source to be offered for in operando measurement of pouch cell in transmission geometry and PDF (Pair distribution function) experiments 	Essential (Specify)
b.	Secondary Beam	<ul style="list-style-type: none"> • Computer controlled motorized anti-scatter slits, two numbers of suitable soller slits (one for high resolution and one for high intensity data collection) with motorized changeover, long soller slit / parallel plate collimator to be offered for parallel beam geometry • Changeover from Bragg Brentano geometry to parallel and transmission geometry must be fully computer controlled without any manual intervention 	Essential (Specify)

9.	Sample stages and Sample holders		
a.	Programmable rotating sample stage	Programmable rotating sample stage for powder samples suitable for reflection and transmission geometries to be provided	Essential (Specify)
b.	Sample holder for reflection and transmission geometry	Powder sample holder must be in horizontal position for reflection and transmission geometry	Essential (Specify)
c.	GI-XRD / XRR / mapping / micro-diffraction sample stage	Programmable motorized xyz movement of the XRD sample to be provided (either inbuilt with the XRD stage or provided as separate accessory) for mapping, micro-diffraction analysis of solids, thin film samples (GI-XRD) and XRR applications (dimension and weight capacity of the sample stage – please specify).	Essential (Specify)
d.	Multiple sample holder stage	Sample stage should be capable to accommodate at least 10 samples with automatic sample changer and, spinning facility to be available	Essential (Specify)
e.	Capillary mounting stage	This stage should be available for spinning capillary mounting with suitable capillary alignment tool	Essential (Specify)
f.	Sample Stage / holders for transmission, reflection and SAXS mode	Sample holders / stage for transmission, reflection and SAXS mode to be provided (Please provide numbers of sample holders)	Essential (Please specify details)
g.	Zero background sample holder	Zero background holder for analysis of low sample quantities to be provided	Essential (Specify)
h.	Sample stage for operando application for pouch and coin cell	Suitable sample stages to be provided, which include adaptor and holder for in operando measurement using coin cell and pouch cell and suitable connectors to facilitate electrochemical operations i.e., charge-discharge cyclic voltammetry etc	Essential (Specify)
i.	In-situ Electrochemical stage	<ul style="list-style-type: none"> • Test cell to be provided for in-situ XRD analysis of electrodes for electrochemical studies • Test cell should include X-ray windows (beryllium and sapphire) to allow in-situ X-ray diffraction in reflection geometry as the cell is electrochemically tested. 	Essential (Specify)
j.	Sample holder for air sensitive sample	Suitable sample holder for air sensitive sample analysis to be provided	Essential (Specify)
k.	Flat type and cavity type sample holders	Flat type and cavity type sample holders to be provided	Essential (Specify)
l.	High temperature sample stage accessories	Suitable sample stage with sample rotation facility to support non-ambient atmosphere in-situ analysis from ambient to 1200 ⁰ C and software-controlled Z stage for sample height compensation due to thermal expansion	Essential (Specify)

10.	Detector		
a.	CdTe detector	Advanced solid-state hybrid photon counting detector with CdTe sensor with > 99% quantum efficiency and > 99% linearity for all types of radiations including Cu and Mo to be offered with following specifications	Essential (Specify)
b.	Dynamic range	Dynamic range should have $\geq 10^9$ CPS with very less background noise	Essential (Specify)
c.	Maximum count rate	Maximum count rate should have $\geq 10^9$ CPS	Essential (Specify)
d.	Spatial resolution	Spatial resolution should be 60 μm or less	Essential (Specify)
e.	Pixels	Detector should have 256 x 256 pixels / sensors or higher	Essential (Specify)
f.	Achievable resolution	Please mention the best achievable resolution (FWHM) for first peak of LaB_6 standard sample	Essential (Please specify and demonstrate)
g.	Capturing angle	Detector should have minimum 2° of 2θ capture angle in a single snap	Essential (Specify)
h.	Detector mode of operations	Detector should work in continuous, fast scan, slow scan and static modes	Essential (Specify)
i.	Detector cooling system	If applicable suitable cooling device for this detector to be included	Essential (Specify)
11.	Standards		
a.	X-ray beam positioning	Fluorescent screen / disc for positioning the X-ray beam to be provided	Essential (Specify)
b.	Reference Standard for SAX	Suitable reference standard for SAXS analysis to be supplied along with system	Essential (Specify)
c.	Standard for peak position	Necessary standard sample for checking the accuracy of the peak position to be provided	Essential (Specify)
d.	Standard for peak broadening	Necessary standard sample for checking the accuracy of the peak broadening to be provided	Essential (Specify)
12.	Electronics	The system electronics should have an integrated shutter control and should be capable of monitoring and controlling all diffractometer functions such as angles, counts, slits, generator safety etc.	Essential (Specify)

13.	Electrochemical Workstation		
a.	General Specifications	<ul style="list-style-type: none"> • Should be Single-channel PC controlled electrochemical workstation 1 channels in a single chassis for Testing, Characterizing and Evaluating Supercapacitors, Corrosion, Fuel cell and All Battery components in single unit cells simultaneously with high accuracy and precision and Solar Cells. • Should be capable of in-situ measurement during operando experiments by control and, synchronization between electrochemical analyser and XRD system for at least charge-discharge and cyclic voltammetry analysis. • Multichannel Single Chassis – expandable upto 2 Channels • Two electrodes as well as Three Electrodes Tests should be possible with provision to connect Independent Reference Electrodes. • Electrochemical Impedance Spectroscopy (EIS) measurements at channel with Equivalent Circuit Modelling • Software Controlled Data Acquisition with Minimum Sampling rate • Dummy cells to be provided for internal validation with appropriate reference electrodes (Ag/AgCl and Calomel) • Swagelok type cell to be provided for electrochemical analysis • EIS Quality Indicator should be available. 	Essential (Specify)

<p>b.</p>	<p>Electrochemical workstation Specification</p>	<ul style="list-style-type: none"> • Should have 2-3-4 and 5 electrodes (+ground) cell connection. • At least 1 no. of channels with impedance to be provided. • Should have applied potential of ± 10 V with accuracy of $\leq 0.1\%$ of Full Scan Range (FSR) or better • Should have applied potential resolution of 0.0015% of FSR • Should have measured current range – 10 μA to 1 A or better with accuracy of $< 0.1\%$ FSR (min 20 nA) or better • Should have Measured current resolution 0.004% of FSR or better • Impedance Frequency range: 10 μHz to 1 MHz or better • Input Impedance: 1TΩ or better for both channels • Impedance accuracy of 1% & 1° at 1Hz • Acquisition: 200,000 samples/second or better • Should have cyclic voltammetry (CV) and linear sweep voltammetry (LSV) rate up to 2000 V/s or better • Should have potential increment during scan: 0.1 mV @ 1000 V/s. • Should have CA and CC pulse width: 0.0001 to 1000 s • Should have power supply 220V/50Hz • Should have LAN Interface Cable for Serial & USB Port and Cell Cable • Manuals (2 No. of hardcopy and softcopy) & Installation to be provided • Should have floating option CE to ground • Safety limits in software on the current and voltage Max and Min values to avoid hazards. • Possibility to Record/Measure and control Ewe (potential difference between Working and reference) and Ece (potential difference between Counter and Reference) simultaneously in one experiment and in real time on both channels • On site calibration of the channels should be available 	<p>Essential (Specify)</p>
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14.	Software		
a.	Synchronization of XRD system and electrochemical analyser	Should be capable of control and synchronization between electrochemical analyser and XRD system for at least charge-discharge and cyclic voltammetry analysis.	Essential Please specify the method of control and synchronization in detail
b.	XRD operation software	<ul style="list-style-type: none"> Licensed latest version of the software to control the complete XRD instrument including all the components, system diagnosis, data evaluation, qualitative and quantitative analysis software and search match etc., to be offered 	Essential (Specify)
c.	Data analysis software	Data analysis - Licensed version of data evaluation software for background correction, profile fitting, search match, qualitative analysis, lattice parameter refinement, crystallite size determination, Rietveld based standard less quantitative analysis to be offered	Essential (Specify)
d.	ICDD PDF4 + AXIOM	Latest version of ICDD PDF4 + AXIOM database with minimum 3 years validity must be quoted.	Essential (Specify)
e.	Software capability	Software for data collection and data analysis of powder XRD, XRD electrochemical operando operations, thin film GI-XRD, SAX, XRR, PDF, Non-ambient XRD, residual stress analysis, Rietveld refinement and phase quantification to be offered	Essential (Specify)
f.	Licensing for Data analysis software for XRD system	Data analysis software for XRD system should be with minimum 6 users licenses	Essential (Specify)
g.	XRD software Upgradation	Analysis software upgradation for XRD system, if any, within 6 years of installation should be free of cost	Essential (Specify)

h.	Electrochemical workstation operation software	<ul style="list-style-type: none"> • Complete Electrochemistry Software with Cyclic Voltammetry, Linear Sweep Voltammetry, Staircase Voltammetry, Chronoamperometry, Analysis (PSA), Open Circuit Voltage (OCV), Integrated Pulse Amperometry Detection Chrono Potentiometry, Galvanostatic Charge / Discharge (Including C rate control) with voltage vs. time • Real-time fit and simulation analysis as well as live data plotting option for simulation plot must be available as default software protocol. Real time needed for Lissajous curve, Nyquist, Bode, Admittance and Dielectric & Mott-Schottky. The fit and simulation software should include basic options such as find circle, element subtraction and an equivalent circuit library with all the modern EIS equivalent circuit models. Minimum visible plots in real time should be 8 or more. EIS Modelling with Equivalent Circuit Fits. Simultaneous impedance measurement at counter electrode and working electrode. 	Essential (Specify)
i.	Electrochemical workstation Data analysis software and Licencing	Data analysis software for electrochemical workstation should be with minimum 6 users licenses	Essential (Specify)
j.	Electrochemical workstation software upgradation	Analysis software upgradation for electrochemical workstation if any, within 4 years of installation should be free of cost	Essential (Specify)
15.	Computer and printer	<ul style="list-style-type: none"> • Computer with minimum i7, 8 cores or more, 11th generation processor or better, 2.10 GHz to 4.80 GHz Turbo, 20 MB cache, 16 GB DDR4 / DDR5, 512 GBM.2 SSD + 1 TB HDD, external graphics card. Indian standard power cord, keyboard, optical mouse & mouse pad should be provided. Provision for optical drive - DVD (read and write) should be provided. Windows 10 Professional operating software or better, anti-virus software to be provided for XRD data evaluation and electrochemical analysis purpose • 2 nos. of 28" LED monitor for control and data collection of the system for various measurements. panel type- IPS, resolution - 1920 x 1080 (Full HD) or higher, aspect ratio- 16:9, brightness- 250 nits or higher • One colour laser printer with Wi-Fi, ethernet and Bluetooth connectivity to be provided. 	Essential Please specify details, model & make of PC and printer

		<ul style="list-style-type: none"> • Make & Model of PC system and printer (Please specify) • Warranty of 3 years to be provided for the whole PC system 	
16.	Safety		
a.	Failure Detection	Provision for detection of abnormal cooling water flow, pressure and temperature, abnormal generator overload and shutter malfunction detection should be available.	Essential (Specify)
b.	International standards and regulations	As per the highest international standards and regulations, fully X-ray protected enclosure safety system is essential, X-ray protected enclosure as per international safety norms and CE certified. XRD Operando system should follow and comply international standards for X-ray safety, RoHS directive, Electromagnetic compatibility directive, Machinery directive and harmonized standards.	Essential (Specify)
c.	X-ray leak rate	The X-ray leak rate should be $< 1\mu\text{Sv/hr}$ which should be measured and certified by the supplier.	Essential (Specify)
d.	Risk management	X-ray safety and risk management to be followed as per directives/guidelines of international organization for standardization such as ISO 12100:2010	Essential (Specify)
e.	Indian standard AERB approval	The quoted XRD model must have valid AERB approval and necessary approval document to be submitted along with offer	Essential (Specify)
17.	Cooling system		
a.	Water Chiller	Suitable external water chiller compatible with main XRD instrument with dust filter or traps	Essential (Specify)
b.	Indian ambient conditions	The chiller should be able to work in Indian ambient temperature environment i.e., up to 46°C	Essential (Specify)
18.	Uninterrupted power supply		
a.	UPS specification	Minimum 15 kVA or more IGBT based Online UPS with built-in isolation transformer and minimum 30 minutes back up	Essential (Specify)
b.	UPS for both XRD and Electrochemical Workstation requirement	UPS must be able to handle XRD system, electrochemical analyser, computer and pump of the external water chiller	Essential (Specify)
c.	UPS	Make & Model	Please specify
d.	Battery	Make & Model	Please specify
e.	Capacity of battery	--	Please specify
f.	Battery warranty	Minimum 3 years	Essential
19.	Manual	All the operational manual, application manual, programming manual, spare parts list and service manual along with schematic (2 sets of hard copy and 1 set of soft copy) in	Essential (Specify)

		English for XRD system and electrochemical analyser are to be provided	
20.	Miscellaneous	<ul style="list-style-type: none"> To provide a table (minimum size- H x W x D: 750 mm x 1800 mm x 800 mm respectively) with drawers for housing computer and X-ray accessories and 2 office chairs. Glass top to be provided. To provide a table (minimum size- H x W x D: 750 mm x 800 mm x 600 mm respectively) with drawers for keeping Electrochemical cell preparation accessories and electrochemical analyzer. Glass top to be provided. To provide a Steel Cupboard (minimum size- H x W x D: 1900 mm x 900 mm x 480 mm respectively) with locking provision for storing sample holders, sample stages and manuals etc. Make and model of office chair, table and cupboard (Please specify) 	Essential (Specify)
21.	Installation		
a.	Installation and commissioning	At CMTI must be done by OEM authorized personnel free of cost	Essential
b.	Proving machine accuracies after installation & commissioning	The capabilities of the machine, part accuracies must be proved by the supplier as per CMTI acceptance criteria at CMTI after installation based on the accessories purchased	Essential
c.	Application and Operation Training at OEM	Application and operation training at Original Equipment Manufacturer (OEM) for 2 personnel for minimum 5 working days to be provided free of cost	Essential (Specify)
d.	Pre-dispatch Inspection	Pre-dispatch Equipment Audit: Manufacturer shall arrange free pre-dispatch equipment audit for two CMTI personnel on hardware & software, operation, maintenance, application and safety at manufacturer place for a period of one week. All the travel expenses including to and fro Air fare, lodging, local travel is to be borne by the supplier.	Essential
e.	Training at CMTI	Following pre-dispatch equipment audit, comprehensive training to ensure the equipment specifications, smooth daily operation and maintenance shall be provided at free of cost by the manufacturer <ul style="list-style-type: none"> Basic Training: For a batch of CMTI personnel for 8 business days at site immediate after installation. Advanced Training: For batch CMTI personnel for 10 business days at site after 3 months from installation. 	Essential

22.	Warranty & Service Support (Labour & parts)		
a.	Warranty	<ul style="list-style-type: none"> The quoted XRD system must be provided with minimum 36 months warranty The warranty must include all spares, X-Ray Tube, optics and detector including engineering labour cost The warranty replacement part must be supplied free of cost on DDP (Duty Delivery Paid) basis without any financial implication to the Purchaser The quoted electrochemical analyser workstation must be provided with minimum 36 months warranty. 	Essential (Specify)
b.	Replacement of parts and labour during warranty	To be done free of cost	Essential
c.	Breakdown calls	Must be attended within 72 hrs of receiving information	Essential
d.	Replacement of parts under warranty clause	Shall be made by the vendor free of all charges on site including freight, insurance and other incidental charges	Essential
e.	Service support in India	The firm should have well established Service Support Facility in India, preferably in Bangalore for prompt after sales service support	Essential
f.	Additional Annual Maintenance Contract (AMC) for 36 months after Standard warranty period	To be quoted as an option	Essential and undertaking to be provided by the vendor
g.	Spares for 3 years trouble free of operation of the system after standard warranty	To be quoted as an option	Essential
h.	Supply of spares & accessories	Commitment for service contract to maintain the system, required calibrations and supply of spares & accessories for next 10 years as post warranty support	Essential
i.	Service support record	Good track record of service support preferably other government organizations; copies of Maintenance Contracts preferably with Govt. R&D establishment to be provided	Essential
23.	Mandatory requirements		
a.	Preinstallation requirement	Pre-installation requirements must be provided within 30 days of receipt of the order	Essential (Specify)
b.	Installation anywhere in India	Recent PO copies & installation certificates of quoted model in India -2 nos. The PO copies of proposed model must not be more than 5 years old	Essential (Specify)

		The vendor should have at least 2 installations of offered system within India in last 2 years A list of such users shall be submitted with their full contact details	
c.	Technical bid qualification	Before price bid opening if required supplier has to arrange for demonstration of features & testing on their machines with CMTI samples for technical qualification	Essential
d.	Performance certificate from users	Vendor shall submit minimum 2 performance certificates of proposed XRD Operando System. The Reference / recommendation letter from the user is mandatory	Essential
e.	Submission of compliance statement	All manufacturers / supplier must submit the compliance statement along with the technical bid. All details need to be specified wherever applicable. In case of "Please specify in detail" mentioned in remarks column OK / Not OK remarks by vendor; an email communication will be sent by indenter and if no information provided within 3 working days the bid will be summarily disqualified technically	Essential
f.	Certificate of origin	A certificate of origin to be provided	Essential
g.	Authorization certificate for sales from the OEM	Vendor should submit authorization certificate for sales from the OEM along with the quote	Essential
24.	Environmental Conditions		
a.	Ambient temperature requirement	--	Please specify
b.	Relative Humidity	--	Please specify
c.	Protection to the system (electronic & magnetic interferences) if any	Shall be specified and provided	Essential
d.	Power supply conditions	Either single phase 220 V AC 50 Hz or 3 phase 440 V AC 50 Hz	Please specify
e.	Requirement of isolation and voltage stabilization if any	--	Please specify
f.	Power consumption	--	Please specify
g.	Any other utility for operation of the equipment	--	Please specify

PART B **QUALIFYING CRITERIA**

A. TECHNICAL DOCUMENTATION

A.1 Following information in full shall be submitted along with the offer:

- The supplier/builder should produce a proof of certificate that XRD Operando System supply to government organizations or MNSS or any Indian organization from last 5 years.
- Printed catalogue of the offered machine.
- Actual test certificate of similar machine by the manufacturer.
- Details of customers to which similar machines have been supplied from last 5 years
- The OEM/supplier should demonstrable Quality Systems and should have ISO 9001-2015/AS9100 OR equivalent Certifications.

A.2 Two sets of the following technical documentation in 'English' shall have to be supplied along with the machine:

- Instruction/ Operational manual
- Spare parts manual
- Maintenance manual for mechanical, electrical/electronic systems.
- Electrical wiring diagrams.
- Preventive maintenance check list, troubleshooting charts and guidelines.

B. DISPATCH CLEARANCE

- After ensuring XRD Operando System is manufactured as per CMTI specifications, the dispatch clearance will be given by CMTI at supplier location.
- Dispatch clearance shall be based on the results of acceleration test done for conforming machine accuracies and performance during Pre-dispatch Inspection.

C. INSTALLATION & COMMISSIONING

C.1 The machine shall be delivered, installed and commissioned at CMTI

C.2 The site preparation and positioning of the machine shall be carried out by CMTI

C.3 Following pre-dispatch equipment audit, the supplier shall provide comprehensive training to ensure the equipment specifications, smooth daily operation and maintenance shall be provided at free of cost by the manufacturer

- **Basic Training:** For a batch of CMTI personnel for 8 business days at site immediate after installation.
- **Advanced Training:** For batch CMTI personnel for 10 business days at site after 3 months from installation.

C.4 Final acceptance of the machine shall be based on satisfactory completion of the activities mentioned at SI No. C.1 & C.3, and proving the machine accuracies after Installation & Commissioning at CMTI.

D. OTHER TERMS AND CONDITIONS:

1. All the listed software and hardware items in tender, that vendor/supplier quotes should be preferably be a catalogue product and proven.
2. If the vendor is not OEM, the OEM authorization certificate has to be submitted along with bidding documents.
3. The vendor should meet all the technical specifications to qualify the bid. The vendor/supplier has to furnish the values/units/parameters against each CMTI requirement in the compliance sheet. Offer without this information will be rejected without any further reference.

4. The bidder has to submit all necessary technical information documents/data sheets & compliance sheet as per the technical specifications.
5. The vendor/supplier has to sign and stamp (company seal) on all the pages of technical compliance sheet.
6. The vendor/supplier has commissioned XRD Operando System, similar specification in govt. institutes/research organization in India.
7. The vendor/supplier should submit a list of these installations giving the date of supply and contact details along with the quote, so that CMTI engineers may visit these installations and evaluate the system as part of tender evaluation. Offer without this information will be rejected without any further reference.
8. Merely stating, "comply" does not constitute sufficient information. Exact numerical values are to be specified wherever applicable. Specified technical data should be supported by product catalogues, manuals, test procedures, and test plots etc. In case of insufficient technical data, the quote will be summarily rejected without seeking any clarifications.
9. Seaworthy/roadworthy packing of machine and its accessories is under scope of the supplier.
10. The supplier shall bear the cost of packing, FOB/forwarding charges, freight charges etc.
11. The machine shall have standard warranty for a period of minimum 36 months from the date of machine acceptance at CMTI site.
12. After sales service shall be provided by the party for a minimum period of 10 years from date of machine acceptance.
13. Foundation requirements for the machine including drawings should be communicated to CMTI within one month of ordering to ready machine installation site if required. The foundation will be readied by CMTI as per the drawing to be supplied by the party.
14. The supplier shall deliver and commission the machine at CMTI site within 6-8 months from the date of release of purchase order.

Part C
Acceptance Criteria

The equipment/system shall be tested for its functionality and performance at CMTI as per our technical specifications - table - 1 & 2 (for all the parameters) and also detailed specifications given in the supplier data sheets. The supplier equipment/system has to meet all these technical specifications parameters/values.

All forms of certificates, documents, letters etc shall be in English and should not be older than 45 calendar days from the date of dispatch of complete system

S. No.	Parameter	Specification	Testing Method
1	XRD operations	<ul style="list-style-type: none"> • Powder XRD, Grazing Incident angle XRD (GI-XRD), Small angle X-ray scattering (SAXS), X-ray reflectivity (XRR), Non-ambient XRD, Capillary tube XRD, PDF, qualitative analysis, lattice parameter refinement, crystallite size determination, Rietveld based standard less quantitative analysis and operando analysis to be demonstrated at CMTI • The best achievable resolution (FWHM) for first peak of LaB₆ standard sample quoted in the tender to be demonstrated at CMTI 	Physical and functional verification and demonstration at CMTI
2	Standards	<ul style="list-style-type: none"> • XRD should provide international standard given in the technical specification • X-ray beam positioning to be demonstrated using fluorescent screen • Linearity NIST or equivalent standard sample at CMTI • The accuracy of the peak position and broadening to be demonstrated using NIST or equivalent standard sample • Small Angle X-ray Scattering (SAXS) application to be demonstrated using NIST or equivalent standard sample 	Physical and functional verification and demonstration at CMTI
	X-ray generator	X-ray generator for XRD operando system to be satisfied as per the technical specification requirement (given above)	Physical and functional verification and demonstration at CMTI
	X-ray tubes	Cu and Mo X-ray tube for XRD operando system to be satisfied as per the technical specification requirement (given above)	Physical and functional verification and demonstration at CMTI
3	Goniometer	To be satisfied as per the technical	Physical and functional

		specification requirement (given above)	verification and demonstration at CMTI
4	Detector	Detector for XRD operando system to be satisfied as per the technical specification requirement (given above)	Physical and functional verification and demonstrated at CMTI
5	Optics	Optics for XRD operando system to be satisfied as per the technical specification requirement (given above)	Physical and functional verification and demonstration at CMTI
6	Sample stages and Sample holders	Sample stage and sample holder to be satisfied as per the technical specification requirement (given above) and, demonstrated and verified at CMTI	Physical and functional verification at CMTI
	Electrochemical Analyzer	Electrochemical Analyzer for XRD operando system to be satisfied as per the technical specification requirement (given above)	Physical and functional verification and demonstration at CMTI
7	Electrochemical study	XRD operando system should demonstrate synchronized data collection operation of XRD with electrochemical analysis for atleast charge-discharge and cyclic voltammetry analysis and steady state operation as per the technical specification requirement (given above) Vendor should demonstrate operando operation with coin cell, pouch cell and Electrochemical Cell	Physical and functional verification and demonstration at CMTI
8	User and Service Manuals	2 copies in English	Physical verification and demonstration at CMTI
9	High temperature analysis	Ambient to 1200 °C	Physical and functional verification and demonstration at CMTI
10	Software	Vendor should demonstrate all technical software features as per the technical specification (given above)	Functional verification and demonstration at CMTI

Note:

- 1 The equipment will be finally accepted based on the compliance of the equipment with the Acceptance Criteria. The final Acceptance Criteria will be based on mutual agreement and will be finalized at the time of placing the order. Hence, the bidder has to go through the Acceptance Criteria and convey their acceptance unambiguously. They may also suggest a suitable method of verification if the proposed method is not acceptable to the bidder.

CHAPTER - 5

CONTRACT FORM

Contract No. _____ Date: _____

THIS CONTRACT AGREEMENT is made
the [] day of [] month of, [] year

BETWEEN

The Central Manufacturing Technology Institute (CMTI), a registered Government of India Society under the administrative control of the Ministry of Heavy Industry and Public Enterprises, Government of India having its registered office at Tumkur Road, Bengaluru - 560022, Karnataka, India represented by [Insert complete name and address of Purchaser (hereinafter called "the Purchaser"), and

[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] (herein after called "the Supplier").

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 in the sum of [insert Contract Price in words and figures, expressed in the Contract currency(ies)](herein after 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 constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
 - (a) This Contract Agreement
 - (b) Special Conditions of Contract
 - (c) General Conditions of Contract
 - (d) Technical Requirements (including Schedule of Requirements and Technical specifications)
 - (e) The Supplier's Bid and original Price Schedules
 - (f) The Purchaser's Notification of Award
 - (g) [Add here any other document(s)]
- 3 This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
- 4 In consideration of the payments to be made by the Purchaser to the Supplier as here in after mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein inconformity in all respects with the provisions of the Contract.
- 5 The Purchaser here by 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 where of the parties here to have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the Central Manufacturing Technology Institute

Signed: [insert signature]

In the capacity of [insert title or other appropriate designation] in

the presence of [insert identification of official witness]

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]

CHAPTER - 6

OTHER STANDARD FORM

Table of Contents

SL. No.	Name
1.	Integrity Pact
2.	Bidder Information form
3.	Bid Security Form
4.	Performance Statement Form
5.	Deviation Statement form
6.	Bid form
7.	Performance Security Form
8.	Acceptance certificate form
9.	Eligibility certificate form
10.	Non Black-listed Self certificate form

INTEGRITY PACT

Tender Ref. No.& Date:.....

1. This Integrity pact Agreement is made at..... on this.....day of..... 20.....
BETWEEN **Central Manufacturing Technology Institute(CMTI)** represented by its **Purchase Officer/ Executive Engineer/ Chief Administrative Officer**, Hereinafter referred as the **Buyer/ Owner**, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns) AND **M/s** hereinafter referred to as the (Details of duly authorized signatory) **“Bidder/Contractor”** and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

2. Preamble

WHEREAS the Owner/ Buyer has floated the Tender under organizational procedures (hereinafter referred to as **“Tender/Bid”**) and intends to procure/ award contract for..... hereinafter referred to as the **Goods/ Services/ works/ Contract**. AND WHEREAS the Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s). AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as **“Integrity Pact”** or **“Pact”**), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties. NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

3. Commitment of the Buyer/ Owner

3.1 The Buyer/ Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

- a. No employee of the Buyer/ Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b. The Buyer/ Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Buyer/ Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
- c. The Buyer/ Owner shall endeavour to exclude from the Tender process all known prejudiced persons or any person, whose conduct in the past has been of biased nature.

3.2 If the Buyer/ Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or if there be a substantive suspicion in this regard, the Buyer/ Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

4. Commitment of the Bidder(s)/ seller(s)/ Contractor(s)

4.1 It is required that each Bidder/Contractor (including their respective officers, employees and

agents) adhere to the highest ethical standards, and report to CMTI all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

4.2 The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution.

- a. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Buyer/ Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
- b. The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
- c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act Indian Legislation, Prevention of Corruption Act 1988 as amended from time to time. Further the Bidder(s)/Contractor(s) will not use improperly, for the purpose of competition or personal gain, or pass on to others, any information or documents provided by the Buyer/ Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign principals/ agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
- e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- f. The Bidder(s)/Contractor(s) have not sold and will not sell the same material/equipment at prices lower than the bid price.

4.3 The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4.4 The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice (means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of CMTI's interests).

4.5 The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

4.6 The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s)

of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.

- a. The Buyer/ Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- b. The Buyer/ Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Buyer/ Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process

5. Previous Transgression

- a. The Bidder declares that no previous transgressions occurred in the last 3 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process. The date of such transgression, for the purpose of disclosure by bidders in this regard, would be the date on which cognizance of the said transgression was taken by the competent authority. The Transgression(s), for which cognizance was taken even before the said period of three years, but are pending conclusion, shall also be reported by the bidders.
- b. If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Buyer/ Owner.
- c. If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Buyer/ Owner may, at its own discretion, revoke the exclusion prematurely.

6. Consequences of Breach

Without prejudice to any rights that may be available to the Buyer/ Owner under law or the Contract or its established policies and laid down procedures, the Buyer/ Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Buyer/ Owner's absolute right:

- a. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Clause 4 & Clause 5 above, or in any other form such as to put his reliability or credibility in question, the Buyer/ Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Buyer/ Owner. Such exclusion may be forever or for a limited period as decided by the Buyer/ Owner.
- b. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Buyer/ Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- c. Criminal Liability: If the Buyer/ Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Buyer/ Owner has substantive suspicion in this regard, the Buyer/ Owner will inform the same to law enforcing agencies for further investigation.

7. Compensation for Damages

- a. If the Buyer/ Owner has disqualified the Bidder(s) / Seller(s) from the tender process prior to the award according to Clause 8, the Buyer/ Owner is entitled to demand and recover the damages equivalent to Earnest Money Deposit in case of open tendering.
- b. If the Buyer/ Owner has terminated the contract according to Clause 6, or if the Buyer/ Owner is entitled to terminate the contract according to Clause 6, the Buyer/ Owner shall be entitled to encash the advance bank guarantee and performance bond/ warranty bond, if furnished by the Bidder(s)/Seller(s), in order to recover the payments, already made by the Buyer/ Owner for undelivered Goods and / or Services and / or Works.
- c. The Bidder(s)/Seller(s) shall also be liable to refund to the Buyer/ Owner, the Agency Commission / payments made by the Seller(s) / Bidder(s) along with interest at the rate of 2% per annum above LIBOR (London Inter Bank Offer Rate) (for foreign vendors) and Base Rate of SBI (State Bank of India) plus 2% (for Indian vendors).

8. Independent External Monitor(s)

- a. The Buyer/ Owner has appointed Independent External Monitor(s) for this Integrity Pact after approval by the Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- b. For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- c. The IEM is not subject to instructions by the representatives of the parties and performs his/ her functions neutrally and independently. The IEM would be provided access to all documents/ records pertaining to the contract for which a complaint or issue is raised before them, as and when warranted. However, the documents/ records/ information having national Security Implications and those documents which have been classified as Secret/ Top Secret are not to be disclosed. He/ she reports to the Director, CMTI.
- d. If any complaint with regard to violation of the IP is received by the Buyer/ Owner in a procurement case, the Buyer/ Owner shall refer the complaint to the Independent External Monitor(s) for their report. Contact details of IEMs are given in the bid/ tender documents as well as in the website of CMTI <https://cmti.res.in>
- e. The Bidder(s)/Contractor(s) accepts that the IEM has the right to access without restriction to all Project documentation of the Buyer/ Owner including that provided by the Contractor. The Contractor will also grant the IEM, upon his/her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.
- f. The IEM is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sub-contractor(s) with confidentiality. The IEM has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Director, CMTI and recuse himself / herself from that case.
- g. The Buyer/ Owner will provide to the IEM sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Buyer/ Owner and the Contractor. The parties offer to the IEM the option to participate in such meetings.
- h. As soon as the IEM notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Buyer/ Owner and request the Management to discontinue or take corrective action, or to take other relevant action. The IEM can in this regard submit

non-binding recommendations. Beyond this, the IEM has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

- i. The IEM will submit a written report to the Director, CMTI, within 4 weeks from the date of reference or intimation to him by the Buyer/ Owner and, should the occasion arise, submit proposals for correcting problematic situations
- j. If the IEM has reported to the Director, CMTI, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Director, CMTI has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the IEM may also transmit this information directly to the Central Vigilance Commissioner.
- k. The word 'Monitor' would include both singular and plural.

9. Duration of the Pact

- a. This Pact will be effective from the date of issue of tender (NIT).It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other unsuccessful bidders, within 6 months from date of placement of order / finalization of contract against this tender till the Contract has been awarded.
- b. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Director, CMTI.
- c. Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10. Other Provisions

- a. Changes and supplements need to be made in writing. Side agreements have not been made.
- b. After award of work, the IEMs shall look into any issues relating to execution of contract, if specifically raised before them.
- c. The Bidder(s)/Seller(s) signing this IP shall not initiate any Legal action or approach any court of law during the examination of any allegations/complaint by IEM and until the IEM delivers the report.
- d. In the event of any dispute between the management and the Bidder(s)/Seller(s), relating to those contracts where Integrity Pact is applicable, the same will be settled through mediation before the panel of IEMs within 4 weeks. In case the dispute remains unsolved even after mediation by the panel of IEMs, CMTI will take further action as per the terms and conditions of the contract in respect of dispute resolution/ arbitration.
- e. Nothing contained in this Integrity Pact shall be deemed to assure the Bidder(s)/ Seller(s) of any success or otherwise in the tendering process.
- f. If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- g. Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- h. This Integrity pact is subject to Indian Laws, and exclusive Jurisdiction of Courts at Bangalore, India.
- i. The Parties hereby sign this Integrity Pact at _____ on _____ (Bidder(s)/contractor) and at _____ on _____ (Buyer/ Owner)

11. LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following

Witnesses:

(For and on behalf of Buyer/ Owner)

(For and on behalf of Bidder/Contractor)

WITNESSES: 1.....
(signature, name and address)

2.....
(signature, name and address)

Place:

Date:

BIDDER'S INFORMATION FORM

a) [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. This should be done of the letter head of the firm]

Date: [insert date (as day, month and year) of Bid Submission] Tender No.: [insert number from Invitation for Bids]

Page 1 of _____ pages

1. Bidder's Legal Name [insert Bidder's legal name]
2. In case of JV, legal name of each party: [insert legal name of each party in JV]
3. Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration]
4. Bidder's Year of Registration: [insert Bidder's year of registration]
5. Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration]
6. Bidder's Authorized Representative Information Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address]
7. Attached are copies of original documents of: [check the box(es) of the attached original documents] Articles of Incorporation or Registration of firm named in 1, above.

Signature of Bidder Name

Business Address

BID SECURITY FORM

Whereas (hereinafter called the tenderer") has submitted their offer dated for the supply of (Hereinafter called the tender")

Against the Purchaser's tender enquiry no..... Know all men by these Presents that we _____ of _____ having our registered office at _____ are bound unto _____ (hereinafter called the "Purchaser")

In the sum of _____

For which payment will 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 20

THE CONDITIONS OF THIS OBLIGATION ARE:

- (1) If the tenderer withdraws or amends, impairs or derogates from the Tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:
 - (a) If the tenderer fails to furnish the Performance Security for the due Performance of the contract.
 - (b) Fails or refuses to accept/execute the contract.

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 the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date. _____

(Signature of the authorized officer of the Bank)

Name and designation of the officer Seal, name & address of the Bank and address of the Branch

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	Value of order	Date of completion of delivery as per contract	Date of actual completion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been installed Satisfactory? (Attach a certificate from the purchaser/consignee)	Contact person along with telephone No: Fax No: And e-mail address

Signature and Seal of the Manufacturer/Bidder_____

Place:

Date:

DEVIATION STATEMENT FORM

The following are the particulars of deviations from the requirements of the tender specifications:

CLAUSE DEVIATION REMARKS (INCLUDING JUSTIFICATION)

Place:

Date:

Signature and seal of the
Manufacturer/Bidder

NOTE:

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

BID FORM

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

Tender No.: [insert number from Invitation for Bids]

Invitation for Bid No.: [insert No of IFB]

To: [insert complete name of Purchaser]

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda No.: [insert the number and issuing date of each Addenda];
- (b) 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 and Related Services [insert a brief description of the Goods and Related Services];
- (c) The total price of our Bid, excluding any discounts offered in item (d) below, is: [insert the total bid price in words and figures, indicating the various amounts and the respective currencies];
- (d) The discounts offered and the methodologies for their application are:
Discounts. If our bid is accepted, the following discounts shall apply. [Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]
- (e) Our bid shall be valid for the period of time specified in ITB Sub-Clause 1.16.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, we commit to obtain a Performance Security in accordance with ITB Clause 1.38 and GCC Clause 2.13 for the due performance of the Contract;
- (g) The following commissions, gratuities, or fees have been paid or are to be paid 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
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(If none has been paid or is to be paid, indicate "none.")

- (h) 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.
- (i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed: [insert signature of person whose name and capacity are shown]

In the capacity of [insert legal capacity of person signing the Bid Submission Form]

Name: [insert complete name of person signing the Bid Submission Form]

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____

_____ [Insert date of signing]

PERFORMANCE SECURITY FORM

To: ___(Name of Purchaser)

WHEREAS.....(Name of Supplier) hereinafter called "the Supplier" has undertaken, in
pursuance of ContractNo..... dated, 20.....to supply (Description of
Goods and Services) hereinafter called "the
order".

AND WHEREAS it has been stipulated by you in the said order 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 order

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 order 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 theday of20.

Signature and Seal of Guarantors

Date20

Address:

All correspondence with reference to this guarantee shall be made at the following address:

(Name & address of the Purchaser)

ACCEPTANCE CERTIFICATE FORM

No.

Dated:

M/s

Sub: Certificate of commissioning of equipment

1. This is to certify that the equipment as detailed below has/have been received in good condition along with all the Standard and special accessories (subject to remarks in Para 2). The same has been installed and commissioned.
 - (a) Contract No. _____ Date _____
 - (b) Description of the equipment _____
 - (c) Name of the consignee _____
 - (d) Scheduled date of delivery of the consignment to the Institute _____
 - (e) Actual date of receipt of consignment by the Institute _____
 - (f) _____ Scheduled date for completion of installation/commissioning _____
 - (g) Actual date of completion of installation/commissioning _____
 - (h) Penalty for late delivery Rs. _____
 - (i) Penalty for late installation at Institute Rs. _____
2. Details of accessories/items not yet supplied and recoveries to be made on that account: SI. No. Description Amount to be recovered
3. The acceptance test has been done to our entire satisfaction. The Supplier has fulfilled his contractual obligations satisfactorily or The Supplier has failed to fulfill his contractual obligations with regard to the following:
 - (a) _____
 - (b) _____
 - (c) _____
 - (d) _____

The amount of recovery on account of failure of the Supplier to meet his contractual obligations is as indicated above.

For supplier signature _____ Name _____ Designation _____ Name of Firm _____ Date _____

For purchase signature _____ Name _____ Designation _____ Name of the Institute _____ Date _____

ELIGIBILITY CERTIFICATE FORM

[To be provided on the letter head of the Bidder and should be signed by a person with the proper authority to sign documents that are binding on the Bidder]

This is to certify that we are not 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/Tender No. _____ Dated _____

Authorized Signatory

Name:

Designation:

NON-BLACK LISTED SELF CERTIFICATION FORM

[To be provided on the letter head of the Bidder and should be signed by a person with the proper authority to sign documents that are binding on the Bidder]

This is to certify that M/s. _____ [Name of Bidder] has not been blacklisted by any Indian Central/ State Government Department / any other Purchasing authority /organization in last 3 years.

Authorized Signatory

Name:

Designation:
