



सेन्टर फॉर मेटिरियल्स फॉर इलेक्टॉनिक्स टेक्नोलाजी (सी-मेट)
CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY (C-MET)
(Scientific Society, Ministry of Electronics and Information Technology (MeitY), Govt. of India)
IDA PHASE – III, CHERLAPALLY, HCL (PO), HYDERABAD – 500 051
Phone: +91-40-27265587, 27267006, 27261658 Web: www.cmet.gov.in



No. HD/PUR/CC-ADM/MRCS/178/2021-22/13348

Date: 13.04.2022

NOTICE INVITING TENDER

Sealed Tenders are invited under **Two Bid System** (Part I - TECHNO-COMMERCIAL BID & Part II – PRICE BID) from reputed Indian / Foreign Manufacturers / Authorized Distributors / Authorized Dealers OR their authorized Indian Agents for the supply, installation, commissioning and demonstration of "Magnetron Reactive Co-Sputtering System".

Sl. No.	Brief Description of Equipment	Quantity (in Nos.)	Tender Reference No.
1	Magnetron Reactive Co-Sputtering System	01	HD/PUR/CC-ADM/MRCS/ 178/ 2021-22/13348 Dated 13.04.2022

For further details, please visit our website <http://www.cmet.gov.in> and also CPPP Portal. The Tender document can be downloaded either from our website or from CPPP Portal. Tenders submitted as per the terms & conditions mentioned in the Tender Document only will be accepted. C-MET will not be responsible for postal or any other delay and reserves the right to reject any or all the tenders without assigning any reasons.

Bidders who download tender documents from our web site shall send an email to venkatesan@cmet.gov.in immediately giving the tender reference number, date of downloading, your full address and contact details. This will help us post any corrigendum or addendum to the tender taken place after the bidder downloaded it.

Last Date for Submission of Tenders : 18.05.2022 up to 17:00 Hrs

Tender Opening (only Technical Bid) at C-MET, Hyderabad : 19.05.2022 at 12:30 Hrs.

Sd/-
Administrative Officer

Tender Document

For Competitive Bidding for the Supply, Installation and Demonstration of Following Stores/Goods/Equipment

Sl. No.	Brief Description of Equipment	Quantity (in Nos.)	Tender Reference No.
1	Magnetron Reactive Co-Sputtering System	01	HD/PUR/CC-ADM/MRCS/ 178/ 2021-22/13348 Dated 13.04.2022



Centre for Materials for Electronics Technology (C-MET)

*(Scientific Society, Ministry of Electronics & Information Technology (MeitY),
Govt. of India)*

IDA Phase-III, Cherlapally, HCL (PO), Hyderabad – 500 051,
Telangana State, INDIA

Tel No.+91-40-27262437 / 27265587 / 27267006 / 27261658

Website: <http://www.cmet.gov.in>

TENDER DOCUMENT

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SECTION-I: DEFINITIONS

SECTION-I: DEFINITIONS

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

- i. **"C-MET"** means any one or more of the three laboratories of Centre for Materials for Electronic Technology at Pune, Hyderabad or Thrissur.
- ii. **"Bidder"(including the term „ tenderer“ , „consultant“ or „service provider“ in certain contexts)** means any person or firm or company, including any member of a consortium or joint venture(that is an association of several persons, or firms or companies),every artificial juridical person not falling in any of the description of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- iii. **"Bidder from a country which shares a land border with India" means:-**
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- iv. **"The beneficial owner"** means:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural persons(s),who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who Explanation---
 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. Of shares or capital or profits of the company;
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or

through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- v. **"The Purchaser(s) or Client(s)"** means the organization purchasing the Goods / services (i.e., Centre for Materials for Electronics Technology)
 - vi. **"The Supplier" or "The Vendor"** means the individual or firm supplying the Goods and Services under this Contract.
 - vii. **"The Contract"** means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form Signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein;
 - viii. **"The Contract Price"** means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;
 - ix. **"The Goods"** means all the hardware / equipment, machinery and /or other materials which the Supplier is required to supply to the Purchaser under the Contract;
 - x. **"Services"** means services ancillary to the supply of the Goods, such as transportation and insurance and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the Contract;
 - xi. **"GTC"** means the General Terms and Conditions of Contract contained in this section.
 - xii. **"STC"** means the Special Terms and Conditions of Contract.
 - xiii. **"The Client's Country"** is the country named in STC.
 - xiv. **"Day"** means a working day.
 - xiii. **"Local content"** means the amount of value added in India which shall, unless otherwise prescribed by Govt. of India, be the total value of the item procured(excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
 - xiv. **"Class-I local supplier"** means a supplier or service provider,

whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined by Govt. of India.

- xv. **"Class-II local supplier"** means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined by Govt. of India.
- xvi. *"Non- local supplier"* means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined by Govt. of India.

**SECTION-II: INVITATION FOR BIDS & INSTRUCTION TO BIDDERS
(IBIB)**

SECTION-II: INVITATION FOR BIDS & INSTRUCTION TO BIDDERS (IBIB)

1. Centre for Materials for Electronics Technology, Hyderabad invites sealed tenders from eligible Indian/Foreign Original Equipment Manufacturers or their authorized distributors, dealers or Indian Agent for supply, installation and commissioning of scientific equipment listed in Section VI of this document.

2. Interested eligible Bidders may either

obtain the Tender Document on submission of a written application from the Administrative Officer, Centre for Materials for Electronics Technology, I D A Phase-III, Cherlapally, HCL (Post), Hyderabad- 500 051, Telangana State, India.

OR

download the Tender Document from our website <http://www.cmet.gov.in> and also from CPPP Portal.

3. A bidder may bid for any one or more of the items/stores/goods/equipments mentioned in Section VI. A separate bid needs to be submitted for each item/store/goods/equipment as per norms given below.

4. Two bid system will be adopted for this tender;

In this system, tenderer must submit their offer in two separate sealed envelopes as mentioned below:

Envelope No. 1: Called "Technical Bid " shall contain (to be submitted in duplicate):

- a. Form of Details about Tenderer (Section XI) along with the following documents.
 - i. A certified Xerox copy of Partnership deed / memorandum of articles and associations.
 - ii. Power of attorney, if required
 - iii. Certified copy of valid latest Income Tax clearance certificate / PAN No.
 - iv. Details of service centers, international offices, point of presence, including registration details, if any.
 - v. List of service stations / Customer support stations in India, with detailed address and phone numbers and contact person through whom services will be provided (if required)

- vi. Documents of previous Experience of Bidder's Eligibility, Purchase order & Completion certificate of end users.
 - vii. Detailed information regarding previous experience of supply and installation of the similar equipment/systems to any Government Organization and list of the clients
 - viii. A copy of the Agency agreement of Indian agent with the Foreign Supplier, if applicable.
 - ix. A copy of registration with DGSD for Indian agent of Foreign Supplier, if applicable.
- b. Technical Compliance for all Clauses in Technical Specifications as given in Section VI.
 - c. Confirmation letter that the financial bid covers all the items of the tender document.
 - d. Guarantee Bond for Performance Security Deposit as given in Section XII.
 - e. Manufacturer's Authorization Form as given in Section XIII.
 - f. Any other related documents.

All Documents in the Technical Bid should be submitted in the above sequence with Index Page and Page numbers.

Envelope No. 2 : Called "Commercial Bid " shall contain:

- i) Duly filled prescribed Bid Form and Price Schedule (Section VII) and AMC (Section X) with proper seal and signature of authorized person on each paper of tender
- ii) Item-wise unit cost as well as total cost for total requirement should be quoted in clean and neat manner in figure as well as words.

Both the technical and commercial envelopes should be sealed separately and clearly indicate **"Envelope no. 1 - Technical Bid"** and **"Envelope no. 2 - Commercial Bid"**. Both the sealed envelopes should be kept in a third larger envelope and addressed to the Administrative Officer, Centre for Materials for Electronics Technology, I D A Phase-III, Cherlapally, HCL (Post), Hyderabad-500 051, Telangana State, India.

Please write the tender reference number on each envelope and seal all the envelopes as per IBIB Clause 15.

If it is found that the Tenderer does not submit any of the above documents or if it is found that the price quoted is submitted with technical bid, the tender will be rejected.

IMPORTANT DATES FOR SUBMISSION OF TENDER

Last Date for Submission of Tenders : 18.05.2022 up to 17:00 Hrs

Tender Opening (only Technical Bid) : 19.05.2022 at 12:30 Hrs.
at C-MET, Hyderabad

The envelope no. 1 containing Technical Bid will be opened at **12:30 Hrs on 19.05.2022 at C-MET Hyderabad Laboratory** in the presence of the nominated committee of C-MET Hyderabad & the participant bidders or their authorized representatives. Any change in this will be duly communicated to the bidders.

5. Eligible Bidders

- 5.1 This invitation for Bids is open to Indian/Foreign Original Equipment Manufacturing companies or their authorized distributors/dealers or Indian Agents who are to supply the equipment and provide warranty on behalf of respective original equipment manufacturers and who have their sales and support office(s) in India.
- 5.2 The Indian/Foreign Original Equipment Manufacturing companies (or their authorized distributors/dealers/Indian Agents) should have been in the business of supply of the stores/goods/equipments successively for the last three years.
- 5.3 The bidder should be preferably ISO-9000 Certified.

The bidder is required to submit the documentary evidence (Purchase order & Completion Certificate) for the above along with the Technical Bid.

- 5.4 Government-owned enterprises bidding jointly with private bidders will not be entitled for benefits of Government-owned enterprise.
- 5.5 Bidders should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by C-MET in accordance with IBIB Clause 27.

6. Eligible Goods and Services

- 6.1 All goods and ancillary services/spares to be provided under the Contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such goods and services.
- 6.2 For purpose of this clause, "origin" means the place from where the goods are supplied, through manufacturing, processing or substantial or major assembling of components from or from which the ancillary services/spares are supplied. Goods are produced, when a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

6.3 The country of origin of goods and services is distinct from the nationality of the Bidder.

7. Cost of Bidding

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

7.2 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.

8. Clarification of Bidding Documents

A prospective Bidder requiring any clarification of the bidding documents may notify

Administrative Officer
IDA Phase-III
Cherlapally, HCL (Post), Hyderabad – 50051,
Telangana State, India
Tel No.: +91-40-27262437 / 27265587
Email: venkatesan@cmet.gov.in

in writing at the address indicated above. C-MET will respond in writing to any request for the clarification of any bidding documents which it receives 10 day prior to deadline for submission of bids.

B. PREPARATION OF BIDS

9. Language of Bid

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and C-MET shall be in English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an appropriate translation of the relevant document in the English language and in such a case, for purpose of interpretation of the Bid, the English translation shall govern.

10. Bid Form

The Bidder shall complete the Bid Form (Section VII) and the appropriate Price Schedule furnished in the documents indicating the goods to be supplied and services to be offered, a brief description of the goods and services, their country of origin, quantity and price.

11. Documents establishing Good's Eligibility and Conformity to Bidding Documents.

- 11.1 The Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all goods and services, which the Bidder proposes to supply under the contract.
- 11.2 The documentary evidence of the goods and services eligibility shall consist of a statement in the price schedule on the country of origin of goods and services offered with a certificate of origin shall confirm at the time of shipment.
- 11.3 The documentary evidence of conformity of goods and services to the bidding documents may be in the form of literature, drawing 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 for the period for the three years following the commencement of the use of the goods by C-MET, and
 - c) An item-by-item commentary on C-MET's Technical Specification 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.
 - d) Bidder should give details of the complete details of all the configurations of the equipment offered along with Model and Modules of the product offered.
 - e) Bidder should give Bill of material in technical bid without commercial details.
- 11.4 For purposes of the commentary, the Bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers designated by C-MET in its Technical Specifications are intended to be descriptive only and not restrictive.

12. Bid Security Declaration [in lieu of Earnest Money Deposit (EMD)]:

The bidder has to sign a Bid Security declaration accepting that if the bidder withdraws or modify its bid during the period of validity i. e., not less than 120 (one hundred twenty) days from the bid due date or if the bidder is awarded the contract and fail to sign the contract or to submit a performance security before the deadline defined in the request for bid documents, the bidder will be suspended for participation in the tendering process for the tenders of C-MET, Hyderabad for a period of one year from the bid due date of this tender. The bid security declaration shall be submitted as per format (Format for Bid Security Declaration).

13. Period of Validity Bids

- 13.1 Bids shall be valid for 120 days after the date of bid opening prescribed by C-MET. A Bid valid for a shorter period shall be rejected by C-MET as non-responsive.
- 13.2 In exceptional circumstances, C-MET may solicit the Bidder's consent to extend the period of validity of the Bid. The request and the responses thereto shall be made in writing. The Bid Security period, shall also be suitably extended. A Bidder may refuse the request by forfeiting its EMD. A Bidder granting the request will not be permitted to modify its bid.
- 13.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

14. Format and Signing of Bid

- 14.1 Both the Bids envelopes and their contents shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. Written power-of-attorney accompanying the Bid shall support the latter authorization. The person or persons signing the Bid shall initial all pages of the Bid, except for un-amended printed literature.
- 14.2 Any interlineations, corrections, erasures or overwriting shall be valid only if the person or persons signing the Bid sign them.

C. SUBMISSION OF BIDS

15. Sealing and Marking of Bids

- 15.1 The Bidders shall seal the two envelopes in separate inner envelopes, duly marking the envelopes as Technical Bid and Commercial Bid. Tender Reference No. and name and address of Bidder should be marked on each of Technical Bid Envelope and Commercial Bid Envelope. These two envelopes should be placed inside an outer envelope. The outer envelope shall be sealed and indicate Tender Reference No. date and the name and address of the bidder.
- 15.2 The inner and outer envelopes shall be addressed to the Administrative Officer, Centre for Materials for Electronics Technology, I D A Phase-III, Cherlapally, HCL (Post), Hyderabad – 500051, Telangana State, India.
- 15.3 The inner envelope shall also indicate the name and address of the Bidder to be returned unopened in case it is declared "late".
- 15.4 If the outer envelope is not sealed and marked as specified, C-MET will assume no responsibility for the Bid's misplacement or premature opening.
- 15.5 Telex, cable, e-mail or facsimile bids will be rejected.

16. Deadline for Submission of Bids

- 16.1 **Bids must be received by C-MET at its address mentioned above not later than 17:00 Hrs on 18.05.2022.** Bids may be sent through courier/speed post or dropped in the Tender Box available in the Laboratory. In the event of the specified date for the submission of Bids being declared as a holiday for C-MET, the bids will be received upto the appointed time on the next working day.
- 16.2 C-MET may, at its discretion, extend this deadline for submission of bids by amending the tender document, in which case all rights and obligations C-MET and Bidders will thereafter be subject to the deadline as extended.

17. Late Bids

Any bid inadvertently received by C-MET after the deadline for submission of bids prescribed by C-MET, will not be considered and returned unopened to the Bidder.

D. BID OPENING AND EVALUATION OF BIDS

18. Opening of Bids by C-MET

- 18.1 **A nominated Committee of C-MET will open all Technical Bids, in the presence of Bidder or his representative, who choose to attend, at 12:30 Hrs onwards on 19.05.2022 at C-MET, Hyderabad.**
- 18.2 If quotation opening day happens to be holiday, the next working day will be treated as tender opening day.
- 18.3 The Bidder's representative who is present shall sign an attendance register evidencing their attendance. In the event of the specified date of Bid opening being declared holiday for C-MET, the Bid shall be opened at the appointed time and location on the next working day.
- 18.4 The Bidder's names, the presence or the absence of requisite EMD and such other details as C-MET, at its discretion, may consider appropriate, will be announced at the time of opening. No Bid shall be rejected at the opening, except for late bids, which shall be returned unopened to the bidders.
- 18.5 After the rigorous evaluation of the Technical Bid by C-MET (Centre for Materials for Electronics Technology), the qualified tenderers will be short-listed.
- 18.6 No clarification at the initiative of the bidder, after the technical bids are opened shall be entertained.
- 18.7 The Commercial Bids will be opened from the Short listed Bidders only at a time and place to be intimated to the Short listed Bidders. The bid prices, discounts and such other details as C-MET, at its

discretion, may consider appropriate, will be announced at the time of opening of Commercial Bids.

19. Clarification of Bids

During evaluation of bids, C-MET, at its discretion, may ask the Bidder for a clarification of its bid. The request for a 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 post bid clarification at the initiative of the bidder; shall be entertained.

20. Preliminary Examination

20.1 C-MET will examine the technical bids to determine whether they are complete, whether any computational errors have been made, whether sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bids from dealers, without proper authorization from the manufacturer as per **Section XIII**, shall be treated as non-responsive.

20.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.

20.3 C-MET may waive any minor formality or non-conformity in a bid, which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any Bidder. Prior to the detailed evaluation, C-MET will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this Clause, a substantially responsive bid is one, which confirms to all the terms and conditions of the bidding documents without material deviation. Deviations from or objections or reservations to critical provisions such as those concerning Guarantee Bond for Performance Security Deposit (IBIB Clause 4), Warranty (GTC Clause 15), Applicable law (GTC Clause 22) and Taxes and duties (STC Clause 1.4 & 1.5) will deemed to be material deviations. C-MET's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

20.4 If a Bid is not substantially responsive, it will be rejected by C-MET and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

21. Evaluation and comparison of Bids

21.1 C-MET will evaluate and compare the bids, which have been determined to be substantially responsive.

21.2 In C-MET's evaluation of a bid price, such price evaluation shall include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in

the goods, and excise duty on the finished goods, (if Payable) and price of incidental services, the following factors, in the manner and to the extent indicated in the Technical Specifications:

21.2.1 Cost of inland transportation, freight, transit insurance, and other costs within India incidental to the delivery of the goods to their final destination;

21.2.2 Delivery schedule offered in the bid;

21.2.3 Deviations in payment schedule from that specified in the General Terms and Conditions of Contract;

21.2.4 The availability in India of spare parts and after-sales services for the equipment offered in the bid;

21.2.5 Cost of AMC (Section X)

21.2.6 The lowest responsive bidder shall be determined on the basis of Section VII (Price Schedule for Goods being offered from abroad).

21.3 Delivery Schedule

C-MET require that the goods under the Invitation for Bids shall be delivered at the time specified in the Technical Specifications. The estimated time of arrival of goods at the C-MET site should be calculated for each bid after allowing for reasonable transportation time. The supplier will have to pay a penalty to C-MET in the form and at the rate mentioned in the GTC Clause No.19. No credit will be given to earlier deliveries and Bids offering delivery beyond 04 to 06 weeks of stipulated delivery period will be treated as unresponsive.

21.4 Deviation in Payment Schedule.

The Special Terms and Conditions of Contract stipulates the payment schedule offered by C-MET.

21.5 Spare parts and after sales services facilities in India

The cost to C-MET of establishing the minimum services facilities and parts inventories, as outlined elsewhere in bidding documents, if quoted separately, shall be added to the bid price.

22 Contacting C-MET

22.1 Subject to IBIB Clause 19, no Bidder shall contact C-MET, Hyderabad on any matter relating to its bid, from the time of the bid opening to the time of contract is awarded. If he wishes to bring additional information to the notice of C-MET, it should do so in writing. C-MET reserves its right as to whether such additional information should be considered or otherwise.

22.2 Any effort by a Bidder to influence C-MET in its decision on bid evaluation, bid comparison or contract award shall result in disqualification of the Bidder's Bid and also forfeiture of his EMD amount.

23 Purchase's Right to Accept Any Bid and to Reject Any or All Bids

C-MET reserve 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 Contracts, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or Bidders of the grounds for C-MET's action.

24 Notification of Awards

- 24.1 Prior to the expiration of the period of the bid validity, C-MET will notify the successful bidder in writing, to be confirmed in writing by registered letter, that his bid has been accepted unconditionally.
- 24.2 The notification of award will constitute the formation of the Contract at Bidder's cost.
- 24.3 Upon the successful Bidder's furnishing of Performance Security Deposit pursuant to IBIB Clause 26, C-MET will promptly notify each unsuccessful Bidder and will discharge its EMD or bid security; pursuant to IBIB Clause 12.

25 Signing of Contract

- 25.1 At the same time as C-MET notifies the successful Bidder that its bid has been accepted, C-MET will send the bidder the Purchase Order, incorporating all the terms and conditions.
- 25.2 Within 10 days of receipt of the Purchase Order/Contract, the successful bidder shall sign and date the Purchase Order/contract and return it to C-MET alongwith Performance Security Deposit as per IBIB Clause 26.

26 Performance Security Deposit

- 26.1 Within 15 days of the receipt of notification of award of purchase order / contract from C-MET, the Bidder shall furnish a Performance Security Deposit equivalent to 3% of the contract value in anyone of the forms as given below:
 - 26.1.2 Call Deposit Receipt duly endorsed in favour of C-MET or Pay Order or Demand Draft in favour of C-MET.
 - 26.1.3 Bank Guarantee from a Nationalized Bank in favour of C-MET - irrevocable and operative for the entire period starting from acceptance of the contract ending 60 days after completion of the warranty period or 60 months, whichever is longer.
 - 26.1.4 In case the vendor/supplier/contractor would like to submit security performance security Deposit by Bank guarantee (BG), then the original BG shall be routed through the banker to C-MET Hyderabad directly by registered post with acknowledgement due. In case the BG is handed over to the vendor/supplier/contractor by the bank for any genuine reasons, the BG issuing branch shall immediately send an

unstamped duplicate copy of the BG directly to C-MET Hyderabad by registered post with acknowledgement due with the covering letter to verify the BG issued by us and confirm that it is in order. The vendor/supplier/contractor shall comply this provision meticulously.

26.1.5 Fixed Deposit Receipt issued by Nationalized banks endorsed in favour of C-MET Hyderabad.

In case the Foreign Supplier does not have an Indian agent, Performance Security deposit may be paid either through Bank Guarantee issued by the foreign branches of Indian nationalized bank or Bank Draft in US\$ in favour of C-MET payable at Hyderabad.

26.2 The Performance Security Deposit is required towards fulfillment of the Purchase order / Contract obligations. This Security Deposit will be forfeited in case the successful Bidder fails to execute the Purchase order/ Contract.

26.3 Failure of the successful Bidder to comply with the requirement of the IBIB Clause 27 can constitute sufficient grounds for the annulment of the award in which event C-MET may call for new bids.

27 Corrupt or Fraudulent Practices.

27.1 C-MET requires that the bidders/suppliers/ contractors under this tender, observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, C-MET:

27.1.1 Defines for the purposes of this provision, the terms set forth as follows:

a) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of the public official in the procurement process or in contract execution; and

b) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or a execution of a contract to the detriment of C-MET, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive C-MET of the benefits of the free and open competition;

27.1.2 will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

27.2 C-MET will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

28 Interpretation of the clauses in the Tender Document / Contract Document

In case of any ambiguity in the interpretation of any of the clauses in Tender Document or the Contract Document, the interpretation of the Executive Director, C-MET shall be final and binding on all parties.

29 In case of any legal dispute the jurisdiction will be Hyderabad (India) only.

SECTION III: SPECIAL TERMS AND CONDITIONS (STC)

SECTION III: SPECIAL TERMS AND CONDITIONS (STC)

1. FOR INDIAN SUPPLIERS:

- 1.1 C-MET reserves the right to allow the public enterprises price preference facility as admissible under the existing policy.
- 1.2 C-MET shall be under no obligations to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reasons whatsoever.
- 1.3 In case of partnership firm or Joint Hindu concern, the names and full particulars of the partners or the members if the Joint Hindu family owning the concern, the information will have to be submitted on separate sheet along with the Tender. The Tender must be signed:-
 - (i) In the event of being a sole proprietary concern by the sole proprietor or by a constituted attorney duly authorized to enter into and sign agreements on his behalf including agreement to refute disputes arising under or relating to such agreement to arbitration by a power of attorney signed by the proprietor and authenticated by a Notary Public or Magistrate.
 - (ii) In the event of being a partnership firm, by all partners or by a constituted attorney duly authorized to enter into and sign on behalf of the partnership firm including agreements, to refute disputes arising under or relating to such agreements or arbitration by a power of attorney executed under the firm's common seal and authenticated by a Notary Public or a Magistrate.
 - (iii) In the event of being a Hindu Joint Family concern, by the Kartas of the Joint family

1.4 CONCESSIONAL GST:

Centre for Materials for Electronics Technology (C-MET) is registered under Department of Scientific and Industrial Research (DSIR) and eligible for concessional GST rates @ 5% for Research Institutions as per Notification No. 45/2017- Central Tax (Rate) dt. 14.11.2017 and Amendment Notification No. 10/2018-Integrated Tax (Rate) dated 25.01.2018.

1.5 PAYMENT TERMS

Payments shall be made promptly by C-MET, but in no case later than thirty (30) days, after submission of the pre-receipted invoice or bills in duplicate by the Supplier and successful installation and demonstration of the stores / goods / equipments by the supplier.

2. FOR FOREIGN SUPPLIERS

- 2.1 Cost of the items should be mentioned clearly in the Commercial Offer (Part-II) only. The optional and any other essential items / accessories required for the maintenance of the equipment for the next three years should also be specified in the offer separately.
- 2.2 All costs should be given in Indian rupees and/or in a convertible currency like US-\$, UK- Pounds, Japan- Yen, France- Francs or German Mark or Euro.
- 2.3 The Principal Supplier should clearly indicate the address of its Indian Agent, if any, and percentage (%) of Agency Commission payable, if any.
- 2.4 The Indian Agent should produce a copy of the Agency Agreement with the foreign principal giving the precise relationship between them and their mutual interest in business.
- 2.5 In case of tender submitted by an Indian agent, a copy of their registration certificate with DGS&D, New Delhi under the compulsory Scheme of Ministry of Finance regarding the registration of Indian Agent of foreign supplier has to be enclosed.
- 2.6 The Bidder should indicate the names of the reputed Indian organizations, CSIR Labs and other scientific and technical institutes where the Bidder has supplied similar equipment and attach satisfactory performance report of the equipment from the user organizations.
- 2.7 Details of services rendered by the Bidder as well as after-sales services offered by him should be made clear in the Bid.
- 2.8 The Tenderer's conditions printed on the tender or otherwise sent along with the tender shall not be binding on C-MET.
- 2.9 Supply means "Supply, Installation, Commissioning and satisfactory demonstration of the whole system and training". If there are any extra charges for Installation, Commissioning and training, the same should be specified in the commercial offer.
- 2.10 The address of Principal's/Manufacturer's and their Banker's details should be furnished.
- 2.11 C-MET'S import license is covered under EXIM policy of 2002 - 2007.
- 2.12 Installation is to be arranged by the supplier free of cost, and the same is to be done within 15 days of the arrival of the equipment at site.

- 2.13 The makes / brand and name and address of the manufacturer, Country of Origin, Country of Shipment and currency in which rates are quoted are to be mentioned.
- 2.14 The payment of local currency portion shall be payable in equivalent Indian Rupees, within 30 days after the receipt of the equipment in good condition and after satisfactory installation and commissioning and demonstration.
- 2.15 Details of onsite warranty, agency that shall maintain the supplied stores/ goods/equipments during warranty and undertake Annual Maintenance Contract (AMC)/Comprehensive Service Maintenance Contract beyond warranty shall be given in the offer. In case of foreign supplier, the Indian Agent who shall maintain supplied stores/goods/equipments during warranty and provide maintenance beyond warranty shall be given in the Technical Offer.
- 2.16 The supply of spare parts is to be guaranteed at least for a period of 5 years after the supply of the equipment. GTC Clause 14 for supply of spare parts shall apply in addition to this.
- 2.17 The price of imported stores/goods/equipments shall be quoted specifying:
- (a) FCA/FOB Prices in any foreign currency and/or Indian rupees equivalent and port of shipment.
 - (b) CIP/CIF Prices in any foreign currency and/or Indian Rupees equivalent.
F.O.R destination - in Indian Rupees only.
The estimated cost of the freight and insurance should be specified separately and individually.
 - (c) Agency Commission payable to Indian agent, if any, included in the FCA/FOB/CIP/CIF price should be given separately.
 - (d) The stores/goods/equipments are required to be installed at C-MET, Pune/Hyderabad/Thrissur and subsequent Training to be provided to C-MET's employees shall be arranged by the Seller, free of cost, at the place of consignee.

2.18 PAYMENT TERMS

Payment shall be made through irrevocable Letter of Credit (L.C.) in favour of the foreign supplier through C-MET's banker. Supplier should submit the following details/docs at the time of release of payment:

- (i) Tax Residency Certificate of the supplier issued by their Tax authorities
- (ii) Whether recipient has any Permanent Establishment (PE) in India?

- (iii) Whether, directly or indirectly, such activities of supply of articles or things done through the PE?
- (iv) If the supplier has a PE in India, please submit Self Declaration to the effect that the transaction, in respect of which the payment is being made, is not directly or indirectly connected with the activities of its PE in India.
- (v) If there is no PE in India, Self Declaration to the effect that it does not have a Permanent Establishment (PE) in India in terms of Article 5 of the applicable Tax Treaty.
- (vi) Signatory name and Fathers name of the Signatory.
- (vii) Digital Signature of the Signing Authority.
- (viii) Nature and Purpose of payment.
- (ix) Email id and telephone of the supplier.

2.19 Shipment should be effected as far as possible through Air India.

2.20 FORWARDING OF SHIPPING DOCUMENTS ETC. TO THE CONSIGNEE

2.20.1 Port of Delivery shall be intimated by the C-MET.

2.20.2 Advance shipment intimation shall be sent to C-MET, by the Tenderer, as required in the purchase order.

2.20.3 After completion of the shipping arrangements by the forwarding agent, he shall promptly provide C-MET with the original Airway bill and copies of Airway bill showing air freight charges, freight sheets, invoices, and packing slips to enable C-MET to arrange for the clearance of goods from the Indian Customs.

2.20.4 The Supplier shall also provide to C-MET a set of documents containing the following : -

- i) Commercial Invoice in triplicate
- ii) Packing list in triplicate
- iii) Evidence of Dispatch (A copy of non-negotiable AWB copy)
- iv) Certificate of origin

2.21 INSPECTION AND WARRANTY:

2.21.1 The inspection of the consignment on receipt in India shall also be carried out before taking over by C-MET, by the ultimate consignee or his nominee.

2.21.2 In all cases, whether inspection is carried out by C-MET's Inspector or not, Manufacturer's Test Certificate shall invariably accompany the equipment.

2.21.3 Instruments / Equipments / Components and all the materials, supplied against the order must be provided with 1 year (12 months) warranty against manufacturing and

functional defects and the date of warranty / guarantee shall commence from the date of installation / commissioning.

2.22 Other Terms:

2.22.1 Agency Commission: Shall be payable to Indian Agent, after installation and testing of the equipment. The payment shall be made in Indian Rupees only.

2.22.2 Banking / L.C. Charges: In India on C-MET's account and abroad on Supplier's account, at actual on opening of L.C. All charges for amendment of L.C. after its opening shall be on Supplier's account.

2.22.3 Freight, Clearing etc.: On C-MET's account, payable in Indian Rupees.

2.22.4 The supplier shall be responsible for obtaining permission for export from the govt. of the country of the origin. All expenses in this regard will be borne by the supplier.

SECTION IV: GENERAL TERMS AND CONDITIONS (GTC)

SECTION IV: GENERAL TERMS AND CONDITIONS (GTC)

1. Criteria for pre-qualification of tender and negotiations

Specifications conforming to the requirement or better than that, Past Performance, Financial Soundness, Technical Competence, Total Cost and Organizational Capability of the Tenderer to provide installation, commissioning, after sale service and spare parts supply shall be some of the crucial parameters for pre-qualification of tenderers to be called for negotiations.

2. Re-tendering

On finding inadequate response to Tender Notice or if the Prices quoted are substantially high and negotiations with the tenderers have not resulted in any positive response C-MET may accept or order re-tendering.

In case a ring is suspected, re-tendering will normally be resorted to.

3. Price escalation

Procurement will normally be based on firm prices, excepting where material costs are likely to be dependent upon statutory variation or are liable to wide fluctuations as in the case of non-ferrous metals. In such cases, to determine the escalation, documentary proof, shall be produced by the supplier.

4. Performance Security Deposit

4.1 The Performance Security Deposit as per IBIB Clause 26.1 shall be for entire period from acceptance of Contract to completion of warranty plus 60 days.

4.2 The proceeds of the Performance Security Deposit shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

4.3 The Performance Security Deposit will be discharged by C-MET and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including the warranty obligations under the contract.

4.4 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 Deposit, rendering the same valid for the duration of the Contract, as amended for further period of 60 days thereafter.

5. Country of Origin

- 5.1. All Goods and Services supplied under the Contract shall have their origin in the member countries and territories eligible.
- 5.2. For purposes of this Clause "origin" means the place where the Goods produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 5.3. The country of origin of Goods and Services is distinct from the nationality of the Supplier.

6. Standards

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

7. Patent Rights

The Supplier shall indemnify C-MET against all third-party claims of infringement of patent, trademark, Copy Right or industrial design rights arising from us of the Goods or any part thereof in India.

8. Tender Specifications

- 8.1 The specifications for the items quoted should be explicitly clear and all available technical literature, catalogues and other data in support of the specifications of the items should be furnished along with the Tender. In the event of an alternative offered by the Tenderer, full specifications, details, literature, etc., which may justify consideration of such alternative offer, need to be given.
- 8.2 It should specifically be mentioned as to whether the price quoted includes all taxes and duties. Sales tax and/or other duties and levies where legally leviable and intended to be claimed should be distinctly shown separately in the Tender. Packing, Forwarding and handling charges, etc., if any, to be quoted separately.
- 8.3 The Tenderer should provide all the information asked for in the Form for Details about the Tenderer.
- 8.4 The Tenderer has to state in detail the Electrical Power/UPS requirements, floor Space, head room, foundation needed and also to state whether Air-conditioned environment is needed to house the system and to run the tests, i.e., pre-installation facilities required for installation, may please be intimated in the Technical Bid.

9. Validity of Tender

The quotations should be valid, for a period of 120 days from the last date of receipt of the Tender.

10. Inspections and Tests

- 10.1 C-MET or its representative shall have the right to inspect and/or to test the Goods and services to confirm their conformity to the Contract specifications at no extra cost to C-MET. C-MET shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.
- 10.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data shall be furnished to the inspectors at no charge to C-MET.
- 10.3 Should any inspected or tested Goods fail to conform to the specifications, C-MET 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 C-MET.
- 10.4 C-MET's right to inspect test and, where necessary, reject the Goods after their arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by C-MET or its representative prior to the Goods shipment.
- 10.5 **Nothing in GTC Clause 10 shall in any way absolve** the Supplier from any warranty or other obligations under this Contract.

11. Packing

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, and the remoteness of the Goods final destination and the absence of heavy handling facilities at all point in transit.

12. Delivery and Documents

Delivery of the Goods and services shall be made by the Supplier in accordance with the terms specified by C-MET in the Purchase Order.

13. Insurance

Insurance shall be arranged by C-MET for the Goods supplied under the Contract in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

14. Spare Parts

The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- 14.1 Such spare parts as C-MET may elect to Purchase from the Supplier, providing that this election shall not absolve the Supplier of any warranty obligations under the Contract; and
- 14.2 In the event of termination of production of the spare parts:
 - i. advance notification to C-MET of the pending, termination, in sufficient time to permit C-MET to procure needed requirements; and
 - ii. Following such termination, furnishing at no cost to C-MET, the blueprints, drawings and specifications of the spare parts, if requested.
- 14.3 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares. Other spare parts and components shall be supplied as promptly as possible but in any case within one month of placement of order.

15. Warranty

- 15.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by C-MET's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for 1 years (12 months) after the Goods or any portion thereof as the case may be, have been delivered, commissioned and accepted at the final destination indicated in the Contract, or for 18 months after the date of receipt of goods at the final destination whichever period concludes earlier, **unless specified otherwise in the STC.**
- 15.3 C-MET shall promptly notify the Supplier in writing of any claims arising under this warranty
- 15.4 Upon receipt of such notice, the Supplier, with all reasonable speed, repair or replace the defective goods or parts thereof, free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on C-MET for the replaced parts/goods thereafter.

- 15.5 If the Supplier, having been notified, fails to remedy the defect(s) within a reasonable period of one month, C-MET may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which C-MET may have against the Supplier under the Contract.
- 15.6 If the down time is more than eight hours, supplier shall provide temporary replacement of the defective component and remove the defect. If the downtime is more than seventy two hours then the warranty period will be extended by one month for entire contract.
- 15.7 The Bidder must indicate who will maintain equipment/instrument after warranty period (post warranty) by giving the name of Firm, address, contact person, phone no. and fax no. etc in the Technical Bid.
- 15.8 The Bidder has to quote rates for Annual Maintenance Contract (AMC), if any, only in Commercial Bid in the format given in **SECTION VIII** (Price schedule for AMC after warranty period).

16. Payment

- 16.1 The methods and conditions of payment to be made to the Supplier under this Contract shall be specified in the STC.
- 16.2 The Supplier's request(s) for payment shall be made to C-MET in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GTC Clause 12, and upon fulfillment of other obligations stipulated in the contract.

17. Prices

Prices payable to the Supplier as stated in the Contract shall not be changed and remains applicable during the performance of the Contract.

18. Advance payment

C-MET being an autonomous organization of Govt. of India, normally no advance payment shall be made. However, Ninety (90) percent of the Contract Price of the Goods shipped shall be paid through irrevocable letter of credit opened in favor of the Supplier in a bank in its country. A Letter of Credit (LC) for 100% value can be established provided 10% Performance Bank Guarantee is submitted before establishment of LC. The balance 10% shall be released to the Supplier within 30 days of successful delivery, installation and demonstration of stores / goods/ equipments by the Supplier.

19. Penalty Clause

Subject to GTC Clause 20, 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, C-MET 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 Clause-21 of the delivered price of the delayed

Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to maximum deduction of the percentage specified therein. Once the maximum is reached, C-MET may consider termination of the Contract pursuant to IBIB Clause 26 resulting in forfeiture of the Performance Security Deposit.

20. Force Majeure

20.1 Notwithstanding the provisions of GTC Clause 19, the Supplier shall not be liable for forfeiture of its performance security, penalty 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.

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

20.3 If a Force Majeure situation arises, the Supplier shall promptly notify C-MET in writing of such conditions and the cause thereof. Unless otherwise directed by C-MET in writing, the Supplier shall continue to perform its obligations under the Contract as far as it is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure.

21. Liquidated Damages

The applicable rate is 0.5% of contract value per week and the maximum deduction is 10% of the contract price.

22. Applicable Law

The Contract shall be interpreted in accordance with the laws of the Union of India.

23. Applicability to Other Terms and Conditions

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

24. Exemptions and preferences to small scale industries

It shall be as per ORDER No.P-45021/2/2017-PP (BE-II) dated 28.5.2018 issued by Government of India, Ministry of Commerce and Industry, DIPP (Public Procurement Section).

25. Tenderers must ensure the following while submitting the Tender

- 25.1 Tenderer should state whether he is a relative of any employee of CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY (C-MET) and give the following certificate in the form for details of the Tenderer (s):
"I / We have fully understood the foregoing general terms & conditions **of tender as well as the special terms and conditions and** having accepted the same in toto and I / we have made my / our offer keeping in view those terms and conditions. I / we fully agree that once I / We have endorsed in whatsoever and whichever way my / our signatures herein below all conditions whatsoever way mentioned by me / us which may not be acceptable to you / your principals shall be deemed to be / withdrawn by me / us and am/ are fully aware that no grievances whatsoever shall be entertained by you if our tender / quotation is not accepted / finalized."
- 25.2 Tenderer sending their tenders by post/courier (mail) will do so solely at their own risk and C- MET will not be responsible for any loss in transit or postal delay.
- 25.3 Discount offered should be mentioned clearly in the commercial bid only.
- 25.4 The item should be supplied with manuals and the manuals including technical drawings should be complete in all respects to operate the system without any problem. If the manuals are on chargeable basis, the same should be specified in the offer.
- 25.5 It should be noted by the Tenderer(s) that by entering into this contract C-MET is not precluded from entering into similar contracts with anyone else of their choice at any time during the continuance of this contract.
- 25.6 The supplier on receipt of the Purchase order must acknowledge.
- 25.7 C-MET shall have the right to issue addenda to tender documents to clarify amend, modify, supplement or delete any of the conditions clauses or delete any of the conditions clauses or items stated therein. Each addendum so issued shall form part of original invitation to the Tender.
- 25.8 In case the Bid is not accepted, or otherwise C-MET has elected to withdraw or cancel the invitation to the Tender for which C-MET shall, have the right to do so, at any time, the Tenderer shall not be entitled to claim any cost/charges/expenses incidental to or incurred by the Tenderer through or in connection with the submission of the offer. The Earnest Money Deposit paid by the Tenderers with the Tender will be refunded to them in due course without interest.

26 **Installation:** Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.

26.1 The equipment is to be guaranteed for trouble free performance for a minimum period of one year after installation. The defects, if any, during the guarantee period are to be rectified free of charge by arranging free replacement wherever necessary.

26.2 Pre installation information to be supplied 3 months before dispatch date.

26.3 Electrical power supply - 220v, 50 Hz, 1 phase (or) 400v, 50 Hz , 3 phase $\pm 10\%$

27. Quantities given in the tender specifications are approximate only and one or more of the items of the stores/goods/equipment tendered for a portion of one or more of the items of such stores/goods/equipment may be accepted and notwithstanding that the tender has not been accepted in whole, supplier shall be bound to supply to C-MET such items and such portion or portions of one or more of the items as may be accepted by C-MET.

28. The Director General, C-MET reserves the right to accept the tender in full or in part or to reject the lowest or any or all tenders without assigning any reason.

29. No Sub-contracting will be allowed for installation or maintaining system/equipment/instrument during or after warranty period.

30. The Tenderer should note that the General Terms and Conditions are in addition to the Special Terms and Conditions of Tender, which form an integral part of the General Terms and Conditions of the Tender, and any of the General Terms and Conditions of Tender may be altered by the Special Terms and Conditions of Tender.

31. Cancellation of order

C-MET reserves the right to cancel the order without any liability in case the stores/goods/equipments are not supplied within the stipulated period and for non-fulfillment of specifications.

32. Replacement of parts

If any equipment or part thereof be lost or rendered defective during transit, a fresh order will be placed on the supplier for such loss or defective equipment, in which case the supplier shall arrange for the supply of the equipment or part thereof, as the case may be, within three months of date of such order at the same price as allowed in the original order on the same general terms and conditions.

33. Arbitration

Any dispute between the parties on the purchase would be settled by arbitration. The place of arbitration proceedings shall be at the place of the consignee. Applicable laws shall be laws of Union of India.

34. Price Reasonability Certificate:

A certificate indicating that the rates quoted are not more than as charged to other Govt. /PSU's for similar supplies made in recent past should accompany the bid in support of its price reasonability in **Envelope 2 (SECTION VIII)**. Copies of the supply orders received may also be enclosed with the bid.

SECTION V – TERMS AND CONDITIONS COMPLIANCE FORMAT

FORMAT/QUESTIONNAIR FOR COMPLIANCE OF TERMS AND CONDITIONS

Tender No.: _____

Due Date _____

NOTE:

- 1. Quotation will not be considered without submission of this format.**
- 2. If a particular question is not at all applicable please write NA in compliance part in Col. No. 4 below.**
- 3. Kindly see the relevant terms & conditions of the tender document as mentioned in Col. No. 3 in each question before replying to the questions mentioned in Col. 2 below).**

S No	Terms & conditions of Tender document	Whether acceptable (say Yes or No) Preferable use different colour ink for No	Deviation from tender terms, if any with reasons for non compliance or alternative condition quoted for
1	2	3	4
1	a) Whether quotation is direction from Principal Supplier/manufacturer or their own office in India (Please specify)		
	b) Whether quotation is being submitted by Indian Agent or authorized distributor/dealer		
	c) Whether the agent is registered with DGS&D/NSIC		
2	a) Whether the techno-commercial and price bids (for two bid tender system only) have been kept in separate envelopes duly marked with "Techno commercial Bid" and Prince Bid respectively		
	b) Whether the tender No., due date & opening dates have been written outside all the envelopes		
3	Whether techno-commercial Bid contains Bid Security Declaration EMD/Security deposit , technical literature/leaflet detailed specifications & commercial terms & conditions etc as applicable		
4	Whether the required Bid Security Declaration is being submitted with the technical bid		
5	a) If the prices are on Ex-works basis FOB or FCA (name place delivery abroad)		
	b) Whether specific amounts or percentage of expenses like packing, forwarding, handling, freight, insurance, documentation etc have been mentioned in quotation separately in clear terms		

6	Whether prevailing rates of GST & other Government levies (for indigenous supplies) have been given in quotation		
7	Have you mentioned the validity period of the quotation as per our requirements		
8	a) Whether the Price reasonability Certificate is submitted with quotation		
	b) Whether copies of last two supply orders of the same item from other customers have been attached with the quotation		
	c) If there is any difference in prices of last two orders and those quoted to u. If yes, please give reasons for the same		
	Whether supplied in Government organizations		
9	Whether rates/amount of AMC after the warranty period is over has been mentioned		
10	Have you gone through the specifications clause & complied with the same		
11	Whether the make/brand, model number and name of the manufacturer has been mentioned in the quotation and Printed technical literature/leaflets of quoted items have been submitted		
12	Whether compliance statement of specifications has been attached with the quotation		
13	a) Whether the delivery period for supply of the items has been mentioned		
	b) Whether mode of delivery & tentative size & weight of the consignment has also been indicated		
14	Do you agree to the submission of Performance bank Guarantee and have you mentioned in your quotation about this		
15	a) Do you agree with the payment terms for indigenous supplies?		
	b) Do you agree with the payment terms for import supplies?		
16	Do you agree about the date of commencement of warranty period & its extension if necessary		
17	a) Who will install/commission and demonstrate the equipment at C-MET		
	b) Will you be above to do it within 5 - 7 workings from the date delivery at C-MET		
18	Have you mentioned the guarantee/warranty period in your quotation and do you agree with the guarantee clause?		
19	Spare Parts		
20	After sales service		
21	a) Do you agree that on receipt of material in damaged condition or short supply, you will		

	replace the same on CIF basis on free of cost, pending settlement of the insurance claim		
	b) Do you agree with the clause of physical inspection		
22	For import cases only		
	a) Whether the Indian agent is registered with DGS&D		
	b) Whether the valid DGS&D registration certificate has been enclosed with the offer		
	c) if the firm is a subsidiary or corporate branch office of the foreign supplier, then whether the copy of the approval from Reserve Bank of India is attached with the offer		
23	Whether list of specific user's for the same item & model as quoted alongwith the performance certificates from the users is submitted with the offer.		
24	Whether you agree to the penalty clause for late/delayed delivery and installation		
25	Whether training to our scientist/technical staff will be given free of cost. If yes, have specified in your quotation. Whether it will be in our lab? or at supplier's site in India or abroad.		
26	a) whether all the pages have been page numbered, as per check list.		
	b) Whether quotation has been signed and designation & name of authorized signatory mentioned		
27	Do you agree to settle the issue as per the terms of clause 29 of section II - IBIB		

We hereby agree to abide of all other terms and conditions of the tender document.

Signatures of the authorized signatory_____

Name of the signatory _____

Designation _____

Name & Seal of the quoting party _____

Date:_____

SECTION VI - TECHNICAL SPECIFICATIONS

SECTION VI-Technical Specifications

A. IMPLEMENTATION

1. The delivery period of all items of the tender to be procured will be maximum 4 (four) - 6 (six) weeks [1- 1-1/2 months] from the date of opening of Letter of Credit (LC) unless otherwise mentioned in Part B of Section VI and commissioning period will be 15 working days.
2. The technical specifications given in the schedule of requirements is indicative and the suppliers are required to quote for all the models / makes which conform to the given specifications.
3. All suppliers are required to quote for the specifications mentioned in the schedule of requirements. The final price should be inclusive of all the components mentioned in the said configuration
4. All suppliers are required to furnish the details of the makes and specifications of each component(s) which is going to be supplied with the equipment and should be mentioned in the technical bid.
5. All suppliers are required to specify the delivery schedules of each of the equipment to be delivered.
6. Whichever latest versions of the operating and the applications software are available at the time of delivery, as mentioned in the schedule of requirements should be pre-loaded.
7. Suppliers are required to provide the technical literature of the equipment listed in the schedule of requirements such as data sheets, etc. along with the bid.
8. Suppliers are required to give compliance for following scope of work and technical requirements

B. SPECIFICATIONS:

TENDER REFERENCE NO.: HD/PUR/CC-ADM/MRCS/178/2021-22

TECHNICAL SPECIFICATIONS FOR MAGNETRON REACTIVE CO-SPUTTERING SYSTEM

1. General

- 1.1 Sputtering system with in-situ reaction capabilities for the deposition of co-sputtering of thin films (Metals, Oxides (SiO₂, Si₃N₄, Fe₂O₃, TiO₂, Ni, Fe, Co, Cr, Ti, Al, Au & Ag Intermetallic Alloys) on various substrates like silicon, quartz, pyrex, alumina etc. The required thickness of deposited film is from 50 Å - 50000 Å.
- 1.2 System shall support Pulsed DC and RF Sputtering modes
- 1.3 Deposition uniformity of $\pm 3\%$ or better over 100 mm diameter substrate
- 1.4 Substrate heating facility before and during deposition up to 850 degree Celsius, accuracy: ± 1 degreeC
- 1.5 Ultimate vacuum of 2×10^{-7} Torr in process chamber
- 1.6 Manual and Automatic operation of system
- 1.7 The system shall be compatible to Class 1000 or better clean rooms

2. Process Chamber:

- 2.1 Cylindrical style chamber with electro-polished high grade stainless steel 304L SS (box-style chamber not desired)
- 2.2 Chamber diameter must not exceed 14" ID (this allows for faster-pumpdown times) and height between 15-16"
- 2.3 Two 6" CF viewports to monitor sputtering process and plasma with integrated shutters, capable of removing shutter drive without breaking vacuum.
- 2.4 Ports available for (3) gauge heads, RGA and thickness monitor
- 2.5 Seven periphery confocal sputtering source ports and one direct deposition source port on chamber center axis
- 2.6 All chamber ports must be metal-sealed with exception of top lid
- 2.7 All unused ports must be blanked off
- 2.8 Internal and external photos of OEM's previously manufactured system with this type specific layout
- 2.9 Protective liners set: Set liners for protection against coating. Set liners (Walls door and base plate) will be easy removable and made of thin stainless steel sheet.
- 2.10 The inside of chamber shall be easily accessible and complete assembly shall be serviceable
- 2.11 Chamber designed to incorporate load-lock via CF flange and spare CF port located opposite load-lock for future expansion

- 2.12 Minimum five additional ports with blanks for future up gradation on process chamber

3. Substrate Holder:

- 3.1 Accommodates up to 4" diameter substrate
- 3.2 It shall also permit to place smaller irregular pieces of wafers
- 3.3 Substrate holder shall have provision for substrate rotation 0-40 RPM
- 3.4 Provision for substrate uniform heating from room temperature to 850 degree Celsius ± 1 degree Celsius using quartz halogen lamps.
- 3.5 Capable of heating in O₂ environment
- 3.6 Z-motion for target-to-substrate height adjustability
- 3.7 Substrate vertical movement with controlled speed during process
- 3.8 The Substrate holder shall be easily detachable / replaceable.
- 3.9 Must have substrate gas distributor positioned at substrate level to allow for reactive sputtering without poisoning of targets
- 3.10 Must have Dual PID heater control that automatically switches between high/low temp range without manual tuning
- 3.11 Overtemperature operational protection stability ± 1 degree C
- 3.12 Must include RF biasing capability of ≥ 50 W while rotating / heating / depositing with dedicated 100W RF generator and auto-matching network (already mentioned under power supply head)

4. Power supplies and energy sources :

A. DC Generators

- 4.1 One 750W DC power supply with integral automated 4-way DC switchbox
- 4.2 Power supplies must allow for simultaneous display of voltage, amperage, and power on the active front panel for diagnostic purposes. Changing display between different parameters are not desired.
- 4.3 Power supplies must have ability to control shutter actuation to allow manual operation outside computer control.
- 4.4 Power supplies must have kW hour monitoring ability
- 4.5 DC power supply must provide stable plasma under the following conditions: 1W at 2mTorr pressure

B. RF Generators 13.56 MHz: Make Advanced Energy, Comdell, Huttinger or equivalent ,

- 4.6 One 100W RF power supply with auto matching network for substrate biasing
- 4.7 One 300 Watt or higher RF generators, auto-matching network and cable set.
- 4.8 RF power supply must provide stable plasma under the following conditions: 3W at 3mTorr pressure

C. Pulsed DC Power Supply:

- 4.9 One Pulsed DC Power Supply, 1.5 kW Output Power (1050W in PulseDC mode), 0-1000VDC Output Voltage, 0-3 Amps Output Current, 10-300 kHz Output Frequency

- 4.10 Substrate cleaning through UV, vendor must ensure adequate power and frequency requirement of UV source to clean the substrate.
- 4.11 Multi position DC/RF switch

5. Sputtering Targets /Guns:

- 5.1 System should be capable of accommodating up to seven numbers of 2" UHV magnetron sputtering sources in con-focal orientation
- 5.2 System should be capable of accommodating One number of 3" UHV magnetron sputtering source on chamber bottom for direct deposition
- 5.3 Includes three numbers of 2" con-focal magnetron sputtering sources (Make M/s GENCOA, MEIVAC, USA) with chimney, pneumatic shutter, and individual gas injection capability.
- 5.4 Pneumatic shutters for confocal sources must be flip-top style. Domed style or rotary style are not desirable
- 5.5 2" sputtering gun must be able to accommodate up to 0.125" (3.175mm) thick magnetic targets, including pure iron.
- 5.6 All guns must have modular magnet design to allow balanced, unbalanced, and magnetic material configurations. Dedicated gun for magnetic material sputtering is not accepted, must have versatility.
- 5.7 Magnets must be located in vacuum, outside of cooling water, with Curie point of 200C.
- 5.8 UHV sources must be bakeable to 200C, eliminating the need to remove magnets prior to system bakeout
- 5.9 Vendors must be able to provide specialized backing plates, targets, and clamping rings for inherently brittle dielectric materials. In order to eliminate additional target stress, the clamping ring must not clamp down on the target material itself. Pictures of this design must be provided.
- 5.10 Targets to support both RF and DC Pulsed, Reactive sputtering Modes
- 5.11 All targets should be water cooled
- 5.12 Targets to be easily mountable and replaceable
- 5.13 Vendor must provide the financial and technical details of the entire listed targets.

6. Vacuum Pumps and Gauges:

- 6.1 Ultimate vacuum: 2.0×10^{-7} Torr in process chamber.
- 6.2 Roughing Dry Scroll Pump (Make ANESTA IWATA/ LEYBOLD / EDWARD /VARIAN/ KASHIYAMA/ PFEIFFER) Ultimate Vacuum less than 2×10^{-2} Torr 24m³/hrs nominal pumpingspeed and dry backing pump located on load-lock (used for main chamber roughing, load-lock roughing, and cryopump regeneration)
- 6.3 High Vacuum 8 inch flat Cryo Pump (Make CTI/AUSTIN Scientific / Oxford/ PFEIFFER) 4000liter / sec for Water, Ultimate Pressure less than 1×10^{-7}

⁷Torr or Turbo Molecular Pump 700 Liter/ Sec. Make LEYBOLD/ ALCATEL/ VARIAN / EDWARD/ KASHIYAMA/ PFEIFFER

- 6.4 Turbo pump with controller, cables and delayed vent valve.
- 6.5 N₂ purge on TMP for Oxygen plasma processing with pneumatic shut-off valve.
- 6.6 Maximum allowable leak rate < 1 X 10⁻⁹ mbar lt/sec Helium
- 6.7 Suitable Stainless Steel bellows sealed pneumatically operated Isolation Gate Valve, Roughing & Vent Valve (Make VAT / MKS / MDC I MEIVAC) should be provided
- 6.8 Pumping System should be fully automatic, fully interlocked, as well as service control option offering manual unprotected access.
- 6.9 Vacuum Gauging (Make GP / MKS / MDC) for Pirani & Penning for measuring Vacuum inside chamber from atmosphere to 1x 10⁻⁸ Torr
- 6.10 All vacuum pumps must be controlled outside of the system software (via breaker) to ensure on/off unison, pump safety, and potential software issues do not prevent vacuum pump operation
- 6.11 Gauge package must include (one) Convectron gauge, (one) 0.1 Torr Baratron gauge and (one) cold cathode gauge.
- 6.12 Vacuum gauge controller must have ability to display up to three gauge heads.

7. Load Lock Chamber:

- 7.1 The system should be supplied with manual load lock for loading sample holder up to 100 mm wafer or smallest pcs.
- 7.2 Aluminum chamber body machined from a single billet
- 7.3 Pfeiffer or Edwards Minimum 80 l/s oil free turbo molecular pump.
- 7.4 Minimum 4 cfm dry backing pump located on load-lock (used for main chamber roughing, load-lock roughing, and cryopump regeneration)
- 7.5 Full range vacuum gauge
- 7.6 Includes manual hand-crank actuator on transfer arm to allow user to look through viewport at any stage of transfer while actuating arm
- 7.7 Transfer arm must have heavy duty aluminum shaft to minimize transfer arm sag (transfer arm thickness must be specified when submitting quotation)
- 7.8 Load-lock must be located outside of electrical cabinet for easy atmospheric access (may not be enclosed)
- 7.9 Transfer arm must not extend outside of system footprint of instrument rack
- 7.10 Load-lock must be capable of reaching base pressure of 5.0x10⁻⁷ Torr or better
- 7.11 Includes VAT manual isolation gate valve between main chamber and load-lock
- 7.12 Design of the system permits to use it with load-lock sample loading as well as loading through the front door

8. Process Pressure Control

- 8.1 System must be designed for downstream pressure control (upstream pressure control is not desirable)
- 8.2 Process gas channel
- 8.3 Capacitance manometer Pressure Transducer
- 8.4 Mass flow controllers (0-20 scm)
- 8.5 Automatic pressure control for cryopump isolation and Includes interlocks to prevent cryopump from accidental exposure to atmosphere.
- 8.6 Manual vent valve

9. Gas Inlet System:

- 9.1 Three numbers of MFC gas lines for (one for) Ar (100 sccm), one for N₂ (20 sccm) and one for O₂ (20 sccm) (MFC's Make MKS / TYLAN / UNIT and AREA)
- 9.2 Ar plumbed to one of the sputtering source
- 9.3 N₂ gas plumbed to substrate gas ring and center 3" sputtering source
- 9.4 Nitrogen venting provision
- 9.5 Gas micro filters, moisture trap on each line
- 9.6 Pneumatic actuated isolation valves on each line after MFC's
- 9.7 Capable of expanding and adding one more additional MFC's (total four).
- 9.8 Must include mounting space and software/hardware capacity.

10. Film Thickness Monitors:

One single, low profile, quartz crystal sensor, heat sink, controller, oscillator, cable, feedthrough and 10 crystals. Also include rotary feedthrough assembly to allow positioning of crystal in substrate position for deposition calibration.

11. Instrument Rack:

- 11.1 Welded stainless steel frame with open frame work design
- 11.2 Chamber must not be enclosed with panels
- 11.3 Load-lock must not be enclosed with panels
- 11.4 Durable powder coated table top required for available workspace
- 11.5 Utilities must be located on backside of instrument rack mounted in removable boxes for ease of access (please show picture of design)
- 11.6 Instrument rack must have space available to accommodate additional future power supplies (not including those listed in the description)
- 11.7 Must have table top space available for work space at standing height.
- 11.8 Instrument rack must have adjustable leveling feet to allow ≥ 12 mm of height adjustment for future transfer alignment with adjoining vacuum chamber

11.9 Instrument rack and electronics cabinet must be (1) welded assembly. Detachable instrument rack is not preferred

12. Computer Control Panel and Operation:

12.1 Computer control software should be LabVIEW based and must utilize analog communication

12.2 Must use Windows OS

12.3 Interfaces with up to (5) DC & (4) RF generators for control of output mode, setpoint, ramping & plasma detection

12.4 Interfaces directly with solenoid pneumatics manifold, for control of shutters, gas isolation valves & spares

12.5 Interfaces with VAT valve for: open / closed / throttle position

12.6 Interfaces with Substrate Holder closed-loop PID heater controller for: on / off / temp. setpoint / T/C temp. feedback

12.7 Define and stack process layers to create processes

12.8 100+ separate password protected accounts for process layer & process security

12.9 Auto shutdown of power supplies if: plasma not detected

12.10 Auto abort of process if: plasma not detected / gas flow setpoint or temperature setpoint not reached

12.11 Displays and data logs: shutter position / DC power feedback / Pulse Frequency and Reverse Time / DC bias feedback (for RF) / plasma verification / process pressure / gas flow feedback / T/C temperature feedback / target kW hours / Abort Notifications

12.12 Must have rack-mounted computer with minimum 22" display, articulating arm, wireless keyboard and mouse.

12.13 Must include Software Emulator, which allows remote recipe creation from outside lab in line-by-line format to allow creation/modification of extensive recipes

12.14 Pre-wired receptacles to allow ease of upgrade

12.15 Recipe creation

13. Utilities:

13.1 Vendor shall provide the details of all the utilities/ facilities such as power requirement, running load, footprint, pressure and flow rates for compressed air, process gases, cooling water, exhaust requirement etc., along with the size and types of connectors required.

13.2 Electrical Requirement: The system shall conform to the Indian power supply standards.

13.3 Includes water and vacuum interlocks

13.4 Water and vacuum interlocks must be tied into mains power to prevent operation of power supplies without interlocks being satisfied. This prevents users from operating power supplies without proper safety restrictions in place.

- 13.5 Includes (two) breakers for vacuum pump control, allows single breaker to turn turbo and mechanical pump on/off. Ease of operation for pump safety.
- 13.6 Water Chiller must be quoted.
- 13.7 Residual Gas Analyzer
- 13.8 The Required Spares and Tool Kit must be quoted.

14. Must include photos and documentations

- 14.1 Vendor should be able to provide complete clean room compatible documentation/manuals soft copy/ hard copy for the systems. i.e. i. Installation manual, ii. Operation manual and iii. Maintenance manual.
- 14.2 The documentation/manual shall include all drawings, schematics, spares parts catalogues and also sub-vendor's manuals
- 14.3 Table top work space
- 14.4 Viewport design
- 14.5 Picture of similar sputter gun configuration to provide proof of experience.
- 14.6 Information on backing plate design for oxide targets, to ensure good cooling and target stability.
- 14.7 Video of load-lock system showing actuation of transfer system
- 14.8 Pictures and information on off axis sputtering gun design, and optimal positioning for maximum deposition rate / minimal charge particle bombardment.
- 14.9 Testing documentation on low power operation of DC and RF power supplies. Critical for ultra-thin film applications.

15. Inspection, Installation , Commissioning and Guarantees

- 15.1 The system shall be installed / commissioned at customer site. The quotation shall be inclusive of all charges, if any, for installation and commissioning of the equipment by the vendor.
- 15.2 Extensive operation and maintenance training of two persons for one week at manufacturer's premises before dispatch of the equipment.
- 15.3 The acceptance of the system will be after the demonstration of Magnetron reactive co-sputter deposition sputtering of thin composite films of Metals/ Magnetic Materials of target materials on three substrates with a uniformity of $\pm 3\%$ or better over a 100 mm diameter wafer in every run at our site. Three deposition cycles should be demonstrated.
- 15.4 Vendor must have in-house ellipsometry monitor to prove deposition uniformity at time of acceptance testing
- 15.5 Base Vacuum: Better than or equal to 2.0×10^{-7} Torr with 700l/s turbo pump.
- 15.6 Vendor shall provide on-site commissioning, installation, and training at customer's facility.

16. Warranty, Support and Maintenance:

- 16.1 System should include 1 year standard warranty
- 16.2 Extended warranty of three years after the exhaustion of the standard one-year warranty for the system, from the date of installation of system
- 16.3 Vendor shall commit to provide spares and support for 10 years after expiry of warranty period
- 16.4 Vendor must have supplied at least three such systems across India. The complete address details along with email and contact no., where the similar system has already been installed shall be provided.
- 16.5 Only reputed original equipment manufacturer (OEM) of international standard should submit the tender. The system being supplied should meet semi standards or European quality standard or certify by American Vacuum Society.
- 16.6 OEM should be ISO 9000 certified for the scope of supply, design, development, manufacture, installation & service of high vacuum systems

17. System Delivery:

- 17.1 Vendor should supply and install the system within 6-8 months after confirmation of the final engineering drawing or LC opening.

18. Optional (please provide separate quote)

- 18.1 All sputtering targets (listed tabulated) must be quoted ,
- 18.2 Three year period critical spare parts, list must be provided
- 18.3 Five year AMC after the completion of extended warranty period should be quoted separately

Required sputtering targets (being quoted separately):

Metals/Conductors/Semiconductors	Oxides
Au	SiO₂
Ni	Si₃N₄
Pt	Al₂O₃
Al	TiO₂
Ti	HfO₂
Pd	SiC
C (graphitic)	ZnO
Si	BST

SECTION VII : BID FORM AND PRICE SCHEDULE

PRICE BID

(TOBE KEPT IN SEPARTE ENVELOP)

PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD

BID FORM AND PRICE SCHEDULE

Tender Reference No. : HD/PUR/CC-ADM/MRCS/178/2021-22/13348

Date : 13.04.2022

Name of the Stores/
Goods/Equipment : Magnetron Reactive Co-Sputtering System

SI No	Description	Qty	Unit Price	Amount (INR/USD/GB/ EURO/JPY)
1.	SUPPLY, INSTALLATION, COMMISSINING & DEMONSTRATION OF MAGNETRON REACTIVE CO-SPUTTERING SYSTEM	1 No.		
	Packing & Forwarding charges			
	FCA charges, if any			
	Total FCA Price (INSERT PLACE/COUNTRY)			
	Freight charges up to Hyderabad, Telangana, India			
	Insurance charges			
	Total CIF up to Hyderabad, Telangana, India (INSERT PLACE/COUNTRY)			

Signature of Tenderer_____

Name_____

Business Address_____

Seal of the Tenderer_____

Date:

Place:

BID FORM AND PRICE SCHEDULE FOR OPTIONAL ITEMS

Tender Reference No. : HD/PUR/CC-ADM/MRCS/178/2021-22/13348

Date : 13.04.2022

Name of the Stores/
Goods/Equipment : Magnetron Reactive Co-Sputtering System

Sl. No.	Description	HSN/SN CODE	Qty.	Amount
	SUPPLY, INSTALLATION, COMMISSINING & DEMONSTRATION OF MAGNETRON REACTIVE CO-SPUTTERING SYSTEM – Optional Items			
1	All sputtering targets (listed tabulated) must be quoted			
2	Three year period critical spare parts, list must be provided			
	GRAND TOTAL			

Signature of Tenderer _____

Name_____

Seal of the Tenderer_____

Date:

Place:

BID FORM AND PRICE SCHEDULE FOR EXTENDED WARRANTY

Tender Reference No. : HD/PUR/CC-ADM/MRCS/178/2021-22/13348

Date : 13.04.2022

Name of the Stores/
Goods/Equipment : Magnetron Reactive Co-Sputtering System

Sl. No.	Description	HSN/SN CODE	No. of Years	Rate	Amount
1	SUPPLY, INSTALLATION, COMMISSINING & DEMONSTRATION OF MAGNETRON REACTIVE CO-SPUTTERING SYSTEM – Extended Warranty		3		

Signature of Tenderer _____

Name_____

Seal of the Tenderer_____

Date:

Place:

SECTION VIII : PRICE REASONABILITY CERTIFICATE

(in the company letter head)

PRICE REASONABILITY CERTIFICATE

It is certified that the rates quoted _____
(model/make) are not more than as charged to other Govt. /PSU's for similar
supplies made in recent past. Copies of the supply orders received from other
Govt/PSU's are enclosed alongwith the price bid.

Signature of Tenderer_____

Name_____

Business Address_____

Seal of the Tenderer_____

Date:

Place:

SECTION IX: PREVIOUS SUPPLY DETAILS

PREVIOUS SUPPLY ORDERS FORMAT

Name of the Firm _____

Order placed by <i>{Full address of Purchaser}</i>	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 and justification for price difference of their supply order & those quoted to us	Has the equipment been installed satisfactorily? <i>(Attach a certificate from the Purchaser/ Consigner)</i>	Contact Person along with Telephone no. Fax no. and e-mail address

Signature of Tenderer _____

Name _____

Business Address _____

Seal of the Tenderer _____

Place:

Date:

**SECTION X: PRICE SCHEDULE FOR ANNUAL MAINTENANCE CONTRACT
AFTER WARRANTY PERIOD**

(in the company letter head)

**PRICE SCHEDULE FOR ANNUAL MAINTENANCE CONTRACT
AFTER STANDARD WARRANTY PERIOD [1 YEAR] & EXTENDED WARRANTY PERIOD [3 YEARS]
FOR "MAGNETRON REACTIVE CO-SPUTTERING SYSTEM"**

{No. of Visits: AS AND WHEN REQUIRED BUT MINIMUM 2-3 VISITS PER ANNUM}

1	2	3					4	5	6
Name of the equipment	Quantity	Annual Maintenance Contract * (without GST)					Total Annual Maintenance Contract Cost for 5 Years [(3a+3b+3c+3d+3e)]	Applicable GST on the date of opening of tender	Per visit charges after the warranty period if AMC not entered (without GST). Quoted rate should be valid for 24 months after warranty/extended warranty period
		5 th year	6 th year	7 th year	8 th year	9 th year			
		a	b	c	d	e			
Magnetron Reactive Co-Sputtering System Make: Model:	1								

*** QUOTE AMC CHARGES WITHOUT GST**

NOTE:-

1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.
2. The cost of Annual Maintenance Contract (AMC) which includes preventive maintenance, operational manual and labour, after satisfactory completion of 1 year warranty (12 months).
3. The cost of AMC may be quoted along with taxes applicable on the date of Tender Opening.
4. The uptime warranty will be 98 % on 24 (hrs) x 7 (days) x 365 (days) basis or as stated in Technical Specification of the TE document.
5. The supplier shall keep sufficient stock of spares required during Annual Maintenance Contract period

Signature of Tenderer _____

Name _____

Business Address _____

Seal of the tenderer _____

Seal of the Tenderer _____

Place:

Date:

SECTION XI : FORM FOR DETAILS ABOUT THE TENDERER

FORM FOR DETAILS ABOUT THE TENDERER

(To be submitted with the Tender)

1. Tender Reference No :
2. Item No. :
3. Name of the Stores/Goods/Equipment :
4. Name of the Indian/Foreign Manufacturers :
or their authorized distributors, dealers or Indian Agent
5. Registered Office Address :
6. Address for Correspondence :
7. Please state whether party is Company/Firm/Agency:
Authorized Stockist/Dealer/Indian Agent
(In case of an Indian agent of a Foreign Supplier, please attach
copies of agency agreement and DGSD registration)
8. Total value of Annual Turn-Over/ Sales for the last 3 Years:
9. Sales Tax/Central Sales Tax Registration No :
and Date..... and Validity upto
10. Income Tax (PAN) No. :
G.I.R No./Circle / Ward
11. Name of the Bankers :
12. Address of the Bankers :
13. Past Performance of the firm/ Company :
Please enclose list of Parties (Scientific and
Technical Institutions) stating their Names and
addresses with telephone no. and the names of
same or similar items supplied to them during
Last three years. Please enclose the reference letters from clients.

S. No	Type of Stores/Goods/ Equipment	Name of the client	Value of the Purchase Order	Date of award of Purchase Order	Date of completion

14. Financial Soundness :
(Please enclose copies of certified financial
statements for the last three years.)
15. Technical Competence.& Work Experience in India :

16. Organizational Capability :

No. of qualified engineers:

Name of the key personnel & qualifications:

17. Whether any relative of Tenderer is working in C-MET. If so, give his name, designation and place of posting :

18. Details of EMD: Demand Draft/Pay Order No..... Dt.....
Amount Rs.....of.....(Name of Bank and Branch) Payable at (Name of City)
Bank Guarantee No..... Dt.....
FDR No.....Dt.....

19. Whether the extra terms quoted and the prices : Yes / No are open to negotiations.

"I/We have fully understood the foregoing general terms & conditions of Tender as well as the Special terms & conditions of Tender given in the Tender Document and having accepted the same in toto and I /We have made my / our offer keeping in view those terms and conditions. I/We fully agree that once I / We have endorsed in whatsoever and whichever way my/our signatures herein below all conditions whatsoever way mentioned by me / us which may not be acceptable to you / your principals shall be deemed to be withdrawn by me / us and am / are fully aware that no grievances whatsoever shall be entertained by you if our tender / quotation is not accepted / finalized"

Place
Date

Office Seal / Stamp

Name, Designation and
Signature of the Authorized
Signatory

FORM OF DETAILS ABOUT THE TENDERER

SI No	Description	Yes/No	Remarks/reference/ justification	Page
1	A certified Xerox copy of Partnership deed / memorandum of articles and associations.			
2	Power of attorney, if required			
3	Certified copy of valid latest Income Tax clearance certificate / PAN No.			
4	Details of service centers, international offices, point of presence, including registration details, if any.			
5	List of service stations / Customer support stations in India, with detailed address and phone numbers and contact person through whom services will be provided (if required)			
6	Documents of previous Experience of Bidder's Eligibility, Purchase order & Completion certificate of end users.			
7	Detailed information regarding previous experience of supply and installation of the similar equipment/systems to any Government Organization and list of the clients			
8	A copy of the Agency agreement of Indian agent with the Foreign Supplier, if applicable			
9	A copy of registration with DGSD for Indian agent of Foreign Supplier, if applicable.			
10	Confirmation letter that the financial bid covers all the items of the tender document.			
11	Any other relevant document			

Place
Date

Office Seal / Stamp

Name, Designation and
Signature of the Authorized
Signatory

**SECTION XII: GUARANTEE BOND FOR PERFORMANCE SECURITY
DEPOSIT**

GUARANTEE BOND FOR PERFORMANCE SECURITY DEPOSIT

(ON STAMP PAPER WORTH ₹100/-*)

Date :

Tender Reference No.:

Item No.:

Name of Stores/Goods/Equipment:

To :

The Administrative Officer
C-MET
I D A Phase-III
Cherlapally, HCL (Post)
Hyderabad – 500 051, A.P., India

Gentlemen:

Having examined the Bidding Documents including Addenda Nos. _____ (*insert numbers, if any*), the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver

_____ (*brief description of Goods and Services*) in conformity with the said bidding documents for the same for the price quoted in the Commercial Bid or such other sums as may be ascertained in accordance with the Schedule of Prices attached with the Commercial Bid and made part of this bid.

We undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Technical Specifications of the Tender Document.

If our bid is accepted, we will submit the performance security deposit as directed in IBIB Clause 26 of the Tender Document for the due performance of the Contract, in the form prescribed by C-MET.

We agree to abide by this bid for a period of 120 (one hundred and twenty days only) days after the date fixed for bid opening under IBIB Clause 18 of the Tender Document and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

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

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Amount : _____ Rupees: _____

Name : _____

Address : _____

Purpose of Commission or gratuity : _____

(if none, state "none")

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

Dated this _____ day of _____ 2022.

Signature (in the capacity of)
Duly authorized to sign Bid for and on behalf of

Note (*) – In case of a Foreign Supplier with no Indian agent, the Guarantee Bond can be given on the letterhead of the Supplier after notarizing it.

SECTION XIII: MANUFACTURERS' AUTHORIZATION FORM

MANUFACTURERS' AUTHORIZATION FORM

No. _____ dated _____

To :

The Administrative Officer
C-MET
I D A Phase-III
Cherlapally, HCL (Post)
Hyderabad - 500 051, TELANAGANA STATE,
INDIA

Tender Reference No. :

Item No. :

Name of Stores/Goods/Equipment :

Dear Sir,

We _____ who are established and
reputed _____ manufacturers _____ of
_____ having factories at
_____ (*address of factory*) do
hereby authorize _____ M/s. _____
_____ (*Name and address of Agent*) to submit a bid,
and sign the contract with you against the IBIB of the Tender Document.

We hereby extend our full guarantee and warranty as per Clause 15 of the
General Terms and Conditions and Clause 2.21.3 of the Special Terms and
Conditions of the Tender Document for the goods and services offered by the
above firm against this tender.

Yours faithfully,

(Name)

(Name of manufacturers)

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

SECTION - XIV
DETAILS ABOUT THE PRODUCT OFFERED

(In the letter head of the firm)

DETAILS ABOUT THE PRODUCT OFFERED

The following are the particulars about the Product offered:

Magnetron Reactive Co-Sputtering System

S No	Description	Product details	
1	Model/Make/Part No		
2	Year of launch of the model/Make		
3	Year of manufacturer of the model/make now offered to C-MET		
4	No of Magnetron Reactive Co-Sputtering System of the model now offered to C-MET were sold during last 1 year upto 31.12.2021 Globally/ India/Hyderabad	Globally	
		India	
		Hyderabad	
5	Feedback (if any) from the end user of the Product on model supplied		
6	Any other information supplier would like to offer about the Product offered		

Signature of Tenderer_____

Name_____

Business Address_____

Seal of the Tenderer_____

Date:

Place:

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

SECTION – XV

**PROFORMA OF CERTIFICATE
FOR ISSUE BY THE C-MET/PURCHASER AFTER SUCCESSFUL
SUPPLY, INSTALLATION, COMMISSIONING & DEMONSTRATION OF
MAGNETRON REACTIVE CO-SPUTTERING SYSTEM**

**PROFORMA OF CERTIFICATE FOR ISSUE BY THE C-MET/PURCHASER
AFTER SUCCESSFUL SUPPLY, INSTALLATION, COMMISSIONING &
DEMONSTRATION OF MAGNETRON REACTIVE CO-SPUTTERING SYSTEM
MODEL NO.**

SUBJECT: CERTIFICATE FOR ISSUE BY THE C-MET/PURCHASER AFTER SUCCESSFUL SUPPLY, INSTALLATION, COMMISSIONING & DEMONSTRATION OF MAGNETRON REACTIVE CO-SPUTTERING SYSTEM MODEL NO. SUPPLIED BY M/S _____

This is to certify that the Magnetron Reactive Co-Sputtering System as detailed below has been received in good condition along with all the standard and special accessories (subject to remarks in para No. 2) in accordance with the Contract/ Specifications the same has been supplied, installed and validated.

- (a) Purchase order No. _____ Date _____
- (b) Description of the equipment _____
- (c) Name of the consignee _____
- (d) Scheduled date of delivery of the consignment to the Lab./Institute _____
- (e) Actual date of receipt of consignment by the Lab./Institute _____
- (f) Scheduled date for completion of installation/commissioning _____
- (g) Actual date of completion of installation/commissioning _____
- (h) Penalty for late delivery(at Lab./Institute level)Rs. _____
- (i) Penalty for late installation (at Lab./Institute level Rs. _____

2. Details of accessories/items not yet supplied and recoveries to be made on that account:

Sl. No.	Description	Amount to be recovered.
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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).....

4. The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated at Sr. No. 2.

<p>For Supplier</p> <p>Signature.....</p> <p>Name.....</p> <p>Designation.....</p> <p>Name of the firm.....</p> <p>Date.....</p>	<p>For Purchaser (Indentor / End User)</p> <p>Signature.....</p> <p>Name.....</p> <p>Designation.....</p> <p>Name of the Lab./Instt.....</p> <p>Date.....</p>
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(TO BE SUBMITTED ALONG WITH TECHNICAL BID)

(in the company letter head)

Technical compliance statement in r/o Magnetron Reactive Co-Sputtering System

Make & Model (attach catalogue): _____

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
1.	General	1.1 Sputtering system with in-situ reaction capabilities for the deposition of co- sputtering of thin films (Metals, Oxides (SiO ₂ , Si ₃ N ₄ , Fe ₂ O ₃ , TiO ₂ , Ni, Fe, Co, Cr, Ti, Al, Au & Ag Intermetallic Alloys) on various substrates like silicon ,quartz, pyrex, alumina etc. The required thickness of deposited film is from 50 Å - 50000 Å. 1.2 System shall support Pulsed DC and RF Sputtering modes 1.3 Deposition uniformity of ± 3% or better over 100 mm diameter substrate 1.4 Substrate heating facility before and during deposition up to 850 degree Celsius, accuracy: ± 1 degreeC 1.5 Ultimate vacuum of 2 x 10 ⁻⁷ Torr in process chamber 1.6 Manual and Automatic operation of system 1.7 The system shall be compatible				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		to Class 1000 or better clean rooms				
2.	Process Chamber	<p>1.1 Cylindrical style chamber with electro-polished high grade stainless steel 304L SS (box-style chamber not desired)</p> <p>1.2 Chamber diameter must not exceed 14" ID (this allows for faster-pumpdown times) and height between 15-16"</p> <p>1.3 Two 6" CF viewports to monitor sputtering process and plasma with integrated shutters, capable of removing shutter drive without breaking vacuum.</p> <p>1.4 Ports available for (3) gauge heads, RGA and thickness monitor</p> <p>1.5 Seven periphery confocal sputtering source ports and one direct deposition source port on chamber center axis</p> <p>1.6 All chamber ports must be metal-sealed with exception of top lid</p> <p>1.7 All unused ports must be blanked off</p> <p>1.8 Internal and external photos of OEM's previously manufactured system with this type specific layout</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>1.9 Protective liners set: Set liners for protection against coating. Set liners (Walls door and base plate) will be easy removable and made of thin stainless steel sheet.</p> <p>1.10 The inside of chamber shall be easily accessible and complete assembly shall be serviceable</p> <p>1.11 Chamber designed to incorporate load-lock via CF flange and spare CF port located opposite load-lock for future expansion</p> <p>1.12 Minimum five additional ports with blanks for future up gradation on process chamber</p>				
3.	Substrate Holder	<p>1.1 Accommodates up to 4" diameter substrate</p> <p>1.2 It shall also permit to place smaller irregular pieces of wafers</p> <p>1.3 Substrate holder shall have provision for substrate rotation 0-40 RPM</p> <p>1.4 Provision for substrate uniform heating from room temperature to 850 degree Celsius ± 1 degree Celsius using quartz halogen lamps.</p> <p>1.5 Capable of heating in</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>O₂environment</p> <p>1.6Z-motion for target-to-substrate height adjustability</p> <p>1.7Substrate vertical movement with controlled speed during process</p> <p>1.8The Substrate holder shall be easily detachable / replaceable.</p> <p>1.9Must have substrate gas distributor positioned at substrate level to allow for reactive sputtering without poisoning of targets</p> <p>1.10 Must have Dual PID heater control that automatically switches between high/low temp range without manual tuning</p> <p>1.11 Overtemperatureoperationalprotection stability± 1 degree C</p> <p>Must include RF biasing capability of ≥50W while rotating / heating / depositing with dedicated 100W RF generator and auto-matching network (already mentioned under power supply head)</p>				
4.	Power supplies and energy sources	<p>D. DC Generators</p> <p>18.4 One 750W DC power supply with integral automated 4-way DC switchbox</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>18.5 Power supplies must allow for simultaneous display of voltage, amperage, and power on the active front panel for diagnostic purposes. Changing display between different parameters are not desired.</p> <p>18.6 Power supplies must have ability to control shutter actuation to allow manual operation outside computer control.</p> <p>18.7 Power supplies must have kW hour monitoring ability</p> <p>18.8 DC power supply must provide stable plasma under the following conditions: 1W at 2mTorr pressure</p> <p>E. RF Generators13.56 MHz: Make Advanced Energy, Comdell, Huttinger or equivalent ,</p> <p>18.9 One 100W RF power supply with auto matching network for substrate biasing</p> <p>18.10 One 300 Watt or higher RF generators, auto-matching network and cable set.</p> <p>18.11 RF power supply must provide stable plasma under</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>the following conditions: 3W at 3mTorr pressure</p> <p>F. Pulsed DC Power Supply:</p> <p>18.12 One Pulsed DC Power Supply, 1.5 kW Output Power (1050W in PulseDC mode), 0-1000VDC Output Voltage, 0-3 Amps Output Current, 10-300 kHz Output Frequency</p> <p>18.13 Substrate cleaning through UV, vendor must ensure adequate power and frequency requirement of UV source to clean the substrate.</p> <p>18.14 Multi position DC/RF switch</p>				
5.	<p>Sputtering Targets /Guns</p>	<p>1.1 System should be capable of accommodating up to seven numbers of 2" UHV magnetron sputtering sources in con-focal orientation</p> <p>1.2 System should be capable of accommodating One number of 3" UHV magnetron sputtering source on chamber bottom for direct deposition</p> <p>1.3 Includes three numbers of 2" con-focal magnetron sputtering sources (Make M/s GENCOA, MEIVAC, USA) with chimney, pneumatic shutter, and</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>individual gas injection capability.</p> <p>1.4 Pneumatic shutters for confocal sources must be flip-top style. Domed style or rotary style are not desirable</p> <p>1.5 2" sputtering gun must be able to accommodate up to 0.125" (3.175mm) thick magnetic targets, including pure iron.</p> <p>1.6 All guns must have modular magnet design to allow balanced, unbalanced, and magnetic material configurations. Dedicated gun for magnetic material sputtering is not accepted, must have versatility.</p> <p>1.7 Magnets must be located in vacuum, outside of cooling water, with Curie point of 200C.</p> <p>1.8 UHV sources must be bakeable to 200C, eliminating the need to remove magnets prior to system bakeout</p> <p>1.9 Vendors must be able to provide specialized backing plates, targets, and clamping rings for inherently brittle dielectric materials. In order to eliminate additional target</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>stress, the clamping ring must not clamp down on the target material itself. Pictures of this design must be provided.</p> <p>1.10 Targets to support both RF and DC Pulsed, Reactive sputtering Modes</p> <p>1.11 All targets should be water cooled</p> <p>1.12 Targets to be easily mountable and replaceable</p> <p>1.13 Vendor must provide the financial and technical details of the entire listed targets.</p>				
6.	<p>Vacuum Pumps and Gauges</p>	<p>1.1 Ultimate vacuum: 2.0×10^{-7} Torr in process chamber.</p> <p>1.2 Roughing Dry Scroll Pump (Make ANESTA IWATA/ LEYBOLD / EDWARD /VARIAN/ KASHIYAMA/ PFEIFFER) Ultimate Vacuum less than 2×10^{-2} Torr 24m³/hrs nominal pump speed and dry backing pump located on load-lock (used for main chamber roughing, load-lock roughing, and cryopump regeneration)</p> <p>1.3 High Vacuum 8 inch flat Cryo Pump (Make CTI/AUSTIN Scientific / Oxford/ PFEIFFER) 4000 liter / sec for Water,</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>Ultimate Pressure less than 1×10^{-7} Torr or Turbo Molecular Pump 700 Liter/ Sec. Make LEYBOLD/ ALCATEL/ VARIAN / EDWARD/ KASHIYAMA/ PFEIFFER</p> <p>1.4 Turbo pump with controller, cables and delayed vent valve.</p> <p>1.5 N_2 purge on TMP for Oxygen plasma processing with pneumatic shut-off valve.</p> <p>1.6 Maximum allowable leak rate $< 1 \times 10^{-9}$ mbar lt/sec Helium</p> <p>1.7 Suitable Stainless Steel bellow sealed pneumatically operated Isolation Gate Valve, Roughing & Vent Valve (Make VAT / MKS / MDC I MEIVAC) should be provided</p> <p>1.8 Pumping System should be fully automatic, fully interlocked, as well as service control option offering manual unprotected access.</p> <p>1.9 Vacuum Gauging (Make GP / MKS / MDC) for Pirani & Penning for measuring Vacuum inside chamber from atmosphere to 1×10^{-8} Torr</p> <p>1.10 All vacuum pumps must be controlled outside of the system software (via breaker)</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>to ensure on/off unison, pump safety, and potential software issues do not prevent vacuum pump operation</p> <p>1.11 Gauge package must include (one) Convectron gauge, (one) 0.1 TorrBaratron gauge and (one) cold cathode gauge.</p> <p>Vacuum gauge controller must have ability to display up to three gauge heads.</p>				
7.	Load Lock Chamber	<p>1.1The system should supplied with manual load lock for loading sample holder up to 100 mm wafer or smallest pcs.</p> <p>1.2Aluminum chamber body machined from a single billet</p> <p>1.3Pfeiffer or Edwards Minimum 80 l/s oil free turbo molecular pump.</p> <p>1.4Minimum 4 cfm dry backing pump located on load-lock (used for main chamber roughing, load-lock roughing, and cryopump regeneration)</p> <p>1.5Full range vacuum gauge</p> <p>1.6Includes manual hand-crank actuator on transfer arm to allow user to look through viewport at any stage of transfer while actuating arm</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>1.7 Transfer arm must have heavy duty aluminum shaft to minimize transfer arm sag (transfer arm thickness must be specified when submitting quotation)</p> <p>1.8 Load-lock must be located outside of electrical cabinet for easy atmospheric access (may not be enclosed)</p> <p>1.9 Transfer arm must not extend outside of system footprint of instrument rack</p> <p>1.10 Load-lock must be capable of reaching base pressure of 5.0×10^{-7} Torr or better</p> <p>1.11 Includes VAT manual isolation gate valve between main chamber and load-lock</p> <p>Design of the system permits to use it with load-lock sample loading as well as loading through the front door</p>				
8.	Process Pressure Control	<p>1.1 System must be designed for downstream pressure control (upstream pressure control is not desirable)</p> <p>1.2 Process gas channel</p> <p>1.3 Capacitance manometer Pressure Transducer</p> <p>1.4 Mass flow controllers (0-20</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		scm) 1.5Automatic pressure control for cryopump isolation and Includes interlocks to prevent cryopump from accidental exposure to atmosphere. 1.6Manual vent valve				
9.	Gas Inlet System	1.1Three numbers of MFC gas lines for (one for) Ar (100 sccm), one for N ₂ (20 sccm) and one for O ₂ (20 sccm) (MFC's Make MKS / TYLAN / UNIT and AREA) 1.2Ar plumbed to one of the sputtering source 1.3N ₂ gas plumbed to substrate gas ring and center 3" sputtering source 1.4Nitrogen venting provision 1.5Gas micro filters, moisture trap on each line 1.6Pneumatic actuated isolation valves on each line after MFC's 1.7Capable of expanding and adding one more additional MFC's (total four). 1.8Must include mounting space and software/hardware capacity.				
10.	Film Thickness	One single, low profile, quartz crystal sensor, heat sink,				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
	Monitors	controller, oscillator, cable, feedthrough and 10 crystals. Also include rotary feedthrough assembly to allow positioning of crystal in substrate position for deposition calibration				
11.	Instrument Rack	<p>1.1Welded stainless steel frame with open frame work design</p> <p>1.2Chamber must not be enclosed with panels</p> <p>1.3Load-lock must not be enclosed with panels</p> <p>1.4Durable powder coated table top required for available workspace</p> <p>1.5Utilities must be located on backside of instrument rack mounted in removable boxes for ease of access (please show picture of design)</p> <p>1.6Instrument rack must have space available to accommodate additional future power supplies (not including those listed in the description)</p> <p>1.7Must have table top space available for work space at standing height.</p> <p>1.8Instrument rack must have adjustable leveling feet to allow ≥ 12 mm of height adjustment for future transfer</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>alignment with adjoining vacuum chamber Instrument rack and electronics cabinet must be (1) welded assembly. Detachable instrument rack is not preferred</p>				
12.	Computer ControlPanel and Operation	<p>1.1 Computer control software should be LabVIEW based and must utilize analog communication 1.2 Must use Windows OS 1.3 Interfaces with up to (5) DC & (4) RF generators for control of output mode, setpoint, ramping & plasma detection 1.4 Interfaces directly with solenoid pneumatics manifold, for control of shutters, gas isolation valves & spares 1.5 Interfaces with VAT valve for: open / closed / throttle position 1.6 Interfaces with Substrate Holder closed-loop PID heater controller for: on / off / temp. setpoint / T/C temp. feedback 1.7 Define and stack process layers to create processes 1.8 100+ separate password protected accounts for process layer & process security 1.9 Auto shutdown of power</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>supplies if: plasma not detected</p> <p>1.10 Auto abort of process if: plasma not detected / gas flow setpoint or temperature setpoint not reached</p> <p>1.11 Displays and data logs: shutter position / DC power feedback / Pulse Frequency and Reverse Time / DC bias feedback (for RF) / plasma verification / process pressure / gas flow feedback / T/C temperature feedback / target kW hours / Abort Notifications</p> <p>1.12 Must have rack-mounted computer with minimum 22" display, articulating arm, wireless keyboard and mouse.</p> <p>1.13 Must include Software Emulator, which allows remote recipe creation from outside lab in line-by-line format to allow creation/modification of extensive recipes</p> <p>1.14 Pre-wired receptacles to allow ease of upgrade</p> <p>1.15 Recipe creation</p>				
13.	Utilities	1.1 Vendor shall provide the details of all the utilities/facilities such as power				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		<p>requirement, running load, footprint, pressure and flow rates for compressed air, process gases, cooling water, exhaust requirement etc., along with the size and types of connectors required.</p> <p>1.2Electrical Requirement:The system shall conform to the Indian power supply standards.</p> <p>1.3Includes water and vacuum interlocks</p> <p>1.4Water and vacuum interlocks must be tied into mains power to prevent operation of power supplies without interlocks being satisfied. This prevents users from operating power supplies without proper safety restrictions in place.</p> <p>1.5Includes (two) breakers for vacuum pump control, allows single breaker to turn turbo and mechanical pump on/off. Ease of operation for pump safety.</p> <p>1.6Water Chiller must be quoted.</p> <p>1.7Residual Gas Analyzer</p> <p>1.8The Required Spares and Tool Kit must be quoted.</p>				
14.	Must include	1.1Vendor shouldable to provide complete clean room				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
	photos and documentations	<p>compatible documentation/manuals soft copy/ hard copy for the systems. i.e. i. Installation manual, ii. Operation manual and iii. Maintenance manual.</p> <p>1.2The documentation/manual shall include all drawings, schematics, spares parts catalogues and also sub-vendor's manuals</p> <p>1.3Table top work space</p> <p>1.4Viewport design</p> <p>1.5Picture of similar sputter gun configuration to provide proof of experience.</p> <p>1.6Information on backing plate design for oxide targets, to ensure good cooling and target stability.</p> <p>1.7Video of load-lock system showing actuation of transfer system</p> <p>1.8Pictures and information on off axis sputtering gun design, and optimal positioning for maximum deposition rate / minimal charge particle bombardment.</p> <p>Testing documentation on low power operation of DC and RF power supplies. Critical for</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		ultra-thin film applications.				
15.	Inspection, Installation, Commissioning and Guarantees	<p>1.1 The system shall be installed / commissioned at customer site. The quotation shall be inclusive of all charges, if any, for installation and commissioning of the equipment by the vendor.</p> <p>1.2 Extensive operation and maintenance training of two persons for one week at manufacturer's premises before dispatch of the equipment.</p> <p>1.3 The acceptance of the system will be after the demonstration of Magnetron reactive co-sputter deposition sputtering of thin composite films of Metals/ Magnetic Materials of target materials on three substrates with a uniformity of $\pm 3\%$ or better over a 100 mm diameter wafer in every run at our site. Three deposition cycles should be demonstrated.</p> <p>1.4 Vendor must have in-house ellipsometry monitor to prove deposition uniformity at time of acceptance testing</p> <p>1.5 Base Vacuum: Better than or equal to 2.0×10^{-7} Torr with</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		700l/s turbo pump. Vendor shall provide on-site commissioning, installation, and training at customer's facility.				
16.	Warranty, Support and Maintenance	<p>1.1 System should include 1 year standard warranty</p> <p>1.2 Extended warranty of three years after the exhaustion of the standard one-year warranty for the system, from the date of installation of system</p> <p>1.3 Vendor shall commit to provide spares and support for 10 years after expiry of warranty period</p> <p>1.4 Vendor must have supplied at least three such systems across India. The complete address details along with email and contact no., where the similar system has already been installed shall be provided.</p> <p>1.5 Only reputed original equipment manufacturer (OEM) of international standard should submit the tender. The system being supplied should meet semi standards or European quality</p>				

Sl. No.	Description	Technical Specification	Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks														
		standard or certify by American Vacuum Society. OEM should be ISO 9000 certified for the scope of supply, design, development, manufacture, installation & service of high vacuum systems																		
17.	System Delivery	Vendor should supply and install the system within 6-8 months after confirmation of the final engineering drawing or LC opening																		
18.	Optional (please provide separate quote)	1.1 All sputtering targets (listed tabulated) must be quoted , 1.2 Three year period critical spare parts, list must be provided Five year AMC after the completion of extended warranty period should be quoted separately																		
19.	Required sputtering targets (being quoted separately):	<table border="1"> <thead> <tr> <th>Metals/Conductors/Semiconductors</th> <th>Oxides</th> </tr> </thead> <tbody> <tr> <td>Au</td> <td>SiO2</td> </tr> <tr> <td>Ni</td> <td>Si3N4</td> </tr> <tr> <td>Pt</td> <td>Al2O3</td> </tr> <tr> <td>Al</td> <td>TiO2</td> </tr> <tr> <td>Ti</td> <td>HfO2</td> </tr> <tr> <td>Pd</td> <td>SiC</td> </tr> </tbody> </table>	Metals/Conductors/Semiconductors	Oxides	Au	SiO2	Ni	Si3N4	Pt	Al2O3	Al	TiO2	Ti	HfO2	Pd	SiC				
Metals/Conductors/Semiconductors	Oxides																			
Au	SiO2																			
Ni	Si3N4																			
Pt	Al2O3																			
Al	TiO2																			
Ti	HfO2																			
Pd	SiC																			

Sl. No.	Description	Technical Specification		Specifications of quoted Model	Compliance whether "YES" OR "NO"	Deviation, if any, to be indicated in unambiguous terms	Remarks
		C (graphitic)	ZnO				
		Si	BST				

Signature of Tenderer _____

Name _____

Business Address _____

Seal of the tenderer _____

Place:

Date:

SECTION XVI

**ACCEPTANCE OF TERMS & CONDITIONS OF TENDER ENQUIRY AND IN
LIEU OF SIGNING EACH AND EVERY PAGE OF TENDER DOCUMENT**

(In the letter head of the firm)

To

Date:

The Administrative Officer
C-MET, IDA Phase III
Cherlapally,
Hyderabad 500 051

Subject: Acceptance of Terms & Conditions of Tender - in lieu of signing each and every page of the tender document as token of acceptance- regarding

Tender Reference No No.

Name of the Tender :

Sir/Madam,

I/We have downloaded/obtained the tender document(s) towards supply, installation, commissioning & demonstration of _____ as per your advertisement given in the mentioned website(s)/enquiry letter etc.

2. I/we hereby certify that I/we have read the entire terms & conditions of the tender documents from **Page No.** _____ (including all documents like Annexure(s), schedules(s), etc.) which form part of the contract for supply of captioned item.

3. The corrigendum(s) issued from time to time by your department/organization too have all been taken into consideration, while submitting our proposal.

4. NOW, I/We hereby unconditionally accept the tender conditions of above mentioned tender document (s)/Corrigendum(s) in its totally/entirely. I/We, shall abide hereby by the terms/conditions/clauses contained therein from Page No _____ and by signing of this letter shall be *in lieu of signing each and every page of the tender document as token of acceptance.*

5. In case any provisos of this tender are found violated, then your Department/ Organizations shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Signature of Tenderer _____

Name _____

Business Address _____

Seal of the Tenderer _____

Date:

Place:

SECTION XVII
BID SECURITY DECLARATION IN LIEU OF EMD

BID SECURITY IN LIEU OF EMD
(ON STAMP PAPER WORTH Rs.500/-*)

Date:

Tender Reference No.:
Item No.:
Name of Stores/Goods/Equipment:

To
The Administrative Officer
C-MET, IDA Phase III
Cherlapally,
Hyderabad 500 051

Sir,

Having examined the Bidding Documents of TenderNo. _____
(Insert Tender No.), We the undersigned, offer to supply and deliver
_____ (brief description of Goods and Services) in
conformity with the said bidding documents for the same for the price quoted
in the Commercial Bid or such other sums as may be ascertained in accordance
with the Schedule of Prices attached with the Commercial Bid and made part of
this bid.

We undertake, if our bid is accepted, to deliver the goods in accordance with the
delivery schedule specified in the Techno-Commercial bid of the Tender Document.

If our bid is accepted, we will submit the performance security deposit as directed
in Tender Document for the due performance of the Contract, in the form
prescribed by C- MET.

We agree to abide by this bid for a period of 90 (ninety only) days after the date
fixed for bid opening and it shall remain binding upon us and may be accepted at
any time before the expiration of that period.

We accept that if we withdraw or modify our Bids during the period of validity, or if
we are awarded the contract and we fail to sign the contract, or to submit a
performance security before the deadline defined in the bid document, we will be
suspended for a period of three years from being eligible to submit Bids for
contracts with C-MET.

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

(Signature of the authorized representative of the Bidder)

.....
Name and designation of the officer

.....
.....

Seal,

**Note (*) – In case of a Foreign Supplier with no Indian agent, the
Guarantee Bond can be given on the letterhead of the Supplier after
notarizing it**

INDEX

(In the letter head of the firm)

**CHECK LIST OF DOCUMENTS TO BE SUBMITTED ALONG WITH
TECHNICAL BID (TECHNO-COMMERCIAL BID) AND PRICE BID**

INDEX

Documents to be submitted along with the bids
(TECHNICAL BID)

S No	Description	Yes/No	Page No
1	Covering/introduction letter from the Firm referring to C-MET's tender enquiry No and date towards their interest in participation in the tender.		
2	Bid Security Declaration refer to clause IBIB – 12 (SECTION XVIII)		
3	Acceptance of terms & conditions of tender enquiry and in lieu of signing each and every page of tender document. (SECTION XVII)		
4	Price Reasonability Certificate (SECTION VIII)		
5	Previous experience details alongwith documents like PO/WO etc. (not more than 3 years old) (SECTION IX)		
6	Undertaking and declaration		
7	Compliance statement of Technical Specifications (SECTION VI) (format at page _____ of tender document)		
8	Compliance of Scope of supply (SECTION VI)		
9	Technical brochure of the Product offered		
10	GST Registration certificate (if applicable)		
11	Bank details for NEFT/RTGS/ FOR LC OPENING		
12	Bid form and Price schedule with commercial terms and conditions WITHOUT PRICE (SECTION VII)		
13	AMC (if applicable) in Prescribed format but WITHOUT PRICE (SECTION X)		
14	Form of details about Tenderer (SECTION XI)		
15	Guarantee bond for Performance security Deposit (SECTION XII)		
16	Manufacturers Authorization form (SECTION XIII)		
17	Details about the Product offered (SECTION XIV)		

Documents to be submitted alongwith Commercial bid/Price bid

(in the letter head of the firm)

COMMERCIAL PRICE BID

(IN SEPARATE ENVELOP)

**FOR SUPPLY OF MAGNETRON REACTIVE CO-SPUTTERING SYSTEM,
OPTIONAL ITEMS, EXTENDED WARRANTY AND AMC**

S No	Description	Page No
1	Bid form and Price schedule with commercial terms and conditions WITH PRICE (SECTION VII)	
2	Bid form and Price schedule for optional items	
3	Bid form and Price schedule for extended warranty	
4	AMC in Prescribed format but WITH PRICE (SECTION X)	