



No. A3(14536)2024/PUR/SERC

Date: 10.07.2024

OPEN TENDER DOCUMENT

FOR PROCUREMENT OF

SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRODYNAMIC SHAKER SYSTEM WITH CLIMATIC CHAMBER

<u>Critical Dates</u>			
Pre-Bid Conference Meeting		29.07.2024 at 11.00 a.m.	
Venue		CSIR- SERC, Chennai	
Publish Date / Time	10-07-2024 / 6.00pm	Bid Opening Date / Time	05-09-2024 / 3.30pm
Document Download/ Sale Start Date / Time	10-07-2024 / 6.00pm	Document Download/ Sale End Date / Time	04-09-2024 / 3.00pm
Clarification Start Date / Time	10-07-2024 / 6.00pm	Clarification End Date / Time	25-07-2024 / 4.30pm
Bid Submission Start Date / Time	05-08-2024 / 11.00am	Bid Submission End Date / Time	04-09-2024 / 3.00pm

**CSIR-STRUCTURAL ENGINEERING RESEARCH CENTRE,
Council of Scientific & Industrial Research
CSIR Road, Taramani
Chennai – 600 113
Tamil Nadu, INDIA
Tel: 91 - 44 – 22549108 / 22544777
Email: puroff@serc.res.in**

INVITATION FOR BIDS / NIT
(THROUGH E-PROCUREMENT – www.etenders.gov.in)

01. Director, CSIR – Structural Engineering Research Centre, Chennai - 600 113, INDIA, (CSIR - SERC) invites encrypted bids on www.etenders.gov.in from manufacturers, their authorized distributors for purchase of items listed below. **The tender is only open for local suppliers (Class – I Suppliers & Class – II Suppliers) as per Public Procurement Preference to Make in India, Order No. P-45021/2/2017-PP (BE-II) dt 16th September, 2020.**

Sl. No.	Tender No.	Description of Items	Qty	Single/ Double bid	Bid Security (BS) / EMD
1.	A3(14536)2024/ PUR/SERC	SUPPLY, INSTALLATION & COMMISSIONING OF ELECTRODYNAMIC SHAKER SYSTEM WITH CLIMATIC CHAMBER	1 Set	Single Stage Two Envelope System Bid (Double Bid System)	Rs. 21,00,000 (Rupees Twenty-One Lakhs Only) or BSD (Bid Securing Declaration). Bids without BS/EMD or BSD will summarily be rejected.

Interested Bidders may obtain further information from the office of the
STORES & PURCHASE OFFICER
CSIR-STRUCTURAL ENGINEERING RESEARCH CENTRE,
CSIR Road, Taramani
Chennai – 600 113
Tel: 044 – 22549108, 22544777
Email: puroff@serc.res.in

The Tender Document is available at www.etenders.gov.in and is downloadable at free of cost. The Tender Document can also be seen at our website <https://www.serc.res.in> under the heading Tenders.

03. All bids must be accompanied by a proof of bid security in favor of Director, CSIR – SERC as specified above. The EMD may be electronically transferred in the form of NEFT / RTGS and must be delivered to the above office prior to the due date and time for submission of the bid as indicated above. Bid Securing Declaration (Annexure - V) can be utilized in lieu of above EMD amount.
04. The tender is non-divisible in nature.
05. The Director, CSIR-SERC reserves the right to accept or reject any bids or accept all tenders either in part or in full or to split the order, or to annul the bidding process without assigning any reason.

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CRITICAL DATE SHEET

Sl. No.	Stage	Date & Time
1.	Publish Date & Time	As per e - Tender Portal (i.e. CPPP)
2.	Document Download Start Date & Time	
3.	Last Date & Time for receipt of queries	
4.	Bid Submission Start Date & Time	
5.	Bid Submission End Date & Time	
6.	Bid Opening Date & Time	

TENTATIVE TIME SCHEDULE OF PROCUREMENT PLANNING

Sl. No.	Stage	Tentative Frame (Days)
1.	Date of Bid Opening	XX
2.	Date of Completion of Technical Bid Evaluation	XX + 60
3.	Date of Communication of Rejection of Bids	XX + 70
4.	Date of Receipt of contest, if any, form Bidders	XX + 80
5.	Notification of Award	XX + 90

CHAPTER - 1

INSTRUCTIONS TO BIDDERS

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A. INTRODUCTION

1.1.1 Eligible Bidders

This Invitation for Bids is open to all manufacturers or their authorized distributors registered on www.etenders.gov.in having the credentials of local suppliers(Class – I Suppliers & Class – II Suppliers) as per make in India order No.P-45021/2/2017-PP (BE-II) dt 16th Sept. 2020. The offer(s) will not be entertained if the same distributor/dealer is representing more than one OEM. Similarly, one OEM should not authorize more than one distributor / dealer for this tender. Further, an authorized distributor/dealer and the OEM should not quote simultaneously.

1.1.2 A supplier or bidder shall be considered to be local supplier if the local content of the product is either

- (i) Minimum 50% (Class – I Suppliers - Eligible for preferential purchases)
- (ii) Minimum 20% (Class – II Suppliers)

As per public procurement (Preference to Make in India), Order 2017 – Revision No.P-45021/2/2017-PP (BE-II) dt: 16th September, 2020

- (iii) The bidders offering imported shall fall under the category of Non – Local Suppliers. They can't claim themselves as Class – I Local Suppliers / Class – II Local Suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales support like AMC / CAMC etc., profit, warehousing, marketing, logistics, freight etc. as local value additions as per OM No. P-45021/102/2019-BE-II-Part (E – 50310) dt: 04th March, 2021 issued by DPIIT, Ministry of Commerce & Industries, Government of India.
- (iv) The purchase preference and other conditions as detailed in OM No. F.1/4/2021 – PPD dt: 18.05.2023 issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India are also applicable in addition to other conditions mentioned in this Tender Document.

1.1.3 MSEs would be treated as owned by Scheduled Caste/Schedule Tribe enterprises as under:

- In case of proprietary MSE, proprietor(s) shall be SC/ST.
- In case of partnership MSE, the SC/ST partners shall be holding at least 51% (fifty-one percent) shares in the unit.
- In case of Private Limited Companies, at least 51% (fifty-one percent) share shall be held by SC/ST promoters

1.1.4 MSEs owned by women shall also be determined as per the above analogy/criteria.

- 1.1.5 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods / software to be purchased under this Invitation of Bids.
- 1.1.6 Bids from Joint Ventures, Consortium or Associations so long as they are formed and registered prior to the bid submission date is acceptable.
- 1.1.7 The bidders who have been temporarily suspended or removed from the list of registered suppliers by the purchaser or banned from Ministry/country wide procurement shall be ineligible for participation in the bidding process.
- 1.1.8 – I. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority i.e. Registration Committee constituted by the Dept for Promotion of Industry and Internal Trade (DPIIT). Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, shall also require to be registered with the same competent authority.
- 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 descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. “Bidder (or entity) from a country which shares a land border with India” for the purpose of this Order means: -
- An entity incorporated, established or registered in such a country; or
 - A subsidiary of an entity incorporated, established or registered in such a country; or
 - An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - An entity whose beneficial owner is situated in such a country; or
 - An Indian (or other) agent of such an entity; or
 - A natural person who is a citizen of such a country; or
 - A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The beneficial owner for the purpose of (iii) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

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. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.
- VII. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.
- VIII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution

1.1.9 Reciprocity clause

Entities of countries which have been identified by the nodal Ministry / Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry / Department, except for the list of items published by the Ministry / Department permitting their participation.

1.2 Cost of Bidding

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

1.3 Code of Integrity

1.3.1 The bidders/suppliers should sign a declaration about abiding by the Code of Integrity for Public Procurement in bid documents. In case of any transgression of this code, the bidder is not only liable to be removed from the list of registered suppliers, but it would be liable for other punitive actions such as cancellation of contracts, banning and blacklisting or action in Competition Commission of India, and so on.

1.3.2 **Code of integrity for Public Procurement:** The Purchaser as well as bidders, suppliers, contractors and consultants should observe the highest standard of ethics and should not indulge in the following prohibited practices, either directly or indirectly, at any stage during the procurement process or during execution of resultant contracts:

"Corrupt Practice": making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process or contract execution;

"Fraudulent Practice": any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract;

"Anti-Competitive Practice": any collusion, bid rigging or anti-competitive arrangement, or any other practice, coming under the purview of the Competition Act, 2002, between two or more bidders, with or without the knowledge of the purchaser, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels;

"Coercive Practice": harming or threatening to harm, persons or their property to influence their participation in the procurement process or affect the execution of a contract;

"Conflict of Interest": participation by a bidding firm or any of its affiliates that are either involved in the consultancy contract to which this procurement is linked; or if they are

part of more than one bid in the procurement; or if the bidding firm or their personnel have relationships or financial or business transactions with any officials of purchaser who are directly or indirectly related to tender or execution process of contract; or improper use of information obtained by the (prospective) bidder from the purchaser with an intent to gain unfair advantage in the procurement process or for personal gain; and

“Obstructive Practice”: materially impede the purchaser’s investigation into allegations of one or more of the above mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the purchaser’s Entity’s rights of audit or access to information;

1.3.3 Obligations for Proactive disclosures:

- i. The purchaser as well as bidders, suppliers, contractors and consultants, is obliged under Code of Integrity for Public Procurement to suo-motoproactively declare any conflicts of interest (coming under the definition mentioned above – pre-existing or as and as soon as these arise at any stage) in any procurement process or execution of contract. Failure to do so would amount to violation of this code of integrity; and
- ii. The bidder must declare, whether asked or not in a bid document, any previous transgressions of such a code of integrity with any entity in any country during the last three years of being debarred by any other Procuring Entity. Failure to do so would amount to violation of this code of integrity;
- iii. To encourage voluntary disclosures, such declarations would not mean automatic disqualification for the bidder making such declarations. The declared conflict of interest would be evaluated and mitigation steps, if possible, taken by the purchaser. Similarly, voluntary reporting of previous transgressions of Code of Integrity elsewhere may be evaluated and barring cases of various grades of debarment, an alert watch may be kept on the bidder’s actions in the tender and subsequent contract.

1.3.4 Punitive Provisions:

Without prejudice to and in addition to the rights of the Purchaser to other penal provisions as per the bid documents or contract, if the Purchaser comes to a conclusion that a (prospective) bidder/supplier, directly or through an agent, has violated this code of integrity in competing for the contract or in executing a contract, the purchaser may take appropriate measures including one or more of the following:

- i) **If his bids are under consideration in any procurement:**
 - a) Forfeiture or encashment of bid security or invocation of the bid securing declaration clauses pertaining to violation.

- b) Calling off of any pre-contract negotiations; and
- c) Rejection and exclusion of the bidder from the procurement process.
- ii) **If a contract has already been awarded**
 - a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the purchaser;
 - b) Forfeiture or encashment of any other security or bond relating to the procurement;
 - c) Recovery of payments including advance payments, if any, made by the purchaser along with interest thereon at the prevailing rate.
- iii) **Provisions in addition to above:**
 - a) Removal from the list of registered suppliers and banning/debarment of the bidder from participation in future procurements of the purchaser for a period not less than one year;
 - b) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India;
 - c) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.

B. THE BIDDING DOCUMENTS

1.4 Cost of Tender Documents

- 1.4.1 The bidding documents can be downloaded from our Website as indicated in the Invitation for Bids/NIT free of cost as also from www.etenders.gov.in under the relevant Tender-ID

1.5 Content of Bidding Documents

- 1.5.1 The goods required, bidding procedures and contract terms are prescribed in the bidding documents which should be read in conjunction. The bidding documents, apart from the invitation for bids have been divided into 7 chapters as under:

Chapter 1 : Instructions to Bidder (ITB)

Chapter 2: General Conditions of Contract (GCC) and Special Conditions of Contract (SCC)

Chapter 3 : Schedule of Requirements

Chapter 4: Specifications and Allied Technical Details

Chapter 5 : Price Schedule Forms

Chapter 6 : Contract Form

Chapter 7 : Other Standard Forms

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

1.6 Clarification of Tender Documents

- 1.6.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the Special Conditions of Contract (SCC), latest by the date specified in the critical date sheet or correspond through "seek clarification" online on www.etenders.gov.in. No request for clarification or query shall normally be entertained after the deadline/Pre-bid conference if any. Should the Purchaser deem it necessary to amend the Tender Documents as a result of a clarification, it shall do so following the procedure under Clause relating to amendment of Tender Documents and Clause relating to Deadline for Submission of Bids.

The queries, clarifications and amendments issued would also be hosted on the website of the Purchaser and as corrigendum on www.etenders.gov.in for the benefit of the other prospective bidders and also shall be sent to all bidders who have purchased the tender documents.

1.7 Amendment of Tender Documents

- 1.7.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the tender documents by amendment. The same would also be hosted on the website of the Purchaser and all prospective bidders are expected to surf the website before submitting their bids to take cognizance of the amendments. The modified tender document would also be available at www.etenders.gov.in as a corrigendum.
- 1.7.2 In order to allow prospective bidders' reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids and host the changes on the website of the Purchaser and on www.etenders.gov.in.

C. PREPARATION OF BIDS

1.8. Language of Bid

- 1.8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser shall be written in English language only.
- 1.8.2 The Supplier shall bear all costs of translation, if any, to the English language and bear all risks of the accuracy of such translation, for documents provided by the Supplier.

1.9. Purchase Preference Policies

- 1.9.1 The purchaser intends to give product reservation/purchase preference in line with current Govt. of India procurement policies to help inclusive national economic growth by providing long term support to small and medium enterprises and disadvantaged sections of the society and to address environmental concerns along with preferential market access in govt. procurements MSEs
- 1.9.2 Purchase preference would also be given to Micro and Small enterprises as per MSMED Act 2006 and subsequent amendments.
- 1.9.3 Traders are outside the ambit of MSMED Act and no purchase preference will be given to such bidders.

1.10. Documents Comprising the Bid

- 1.10.1 The bid prepared by the Bidder shall include documents as under:

Cover – 1 – Fee/Prequal/Technical/Finance (Techno-Commercial Details of Supply, Installation & Commissioning of Electrodynamical Shaker System with Climatic Chamber) (Document Type .pdf)

- 1. Bid Securing Declaration (Annexure - V) (.pdf)
- 2. **Bidder Information Form – Annexure – I; and if applicable Documentary evidence about the status of the bidder i.e. whether MSE or not, owned by SC/ST or not and whether the MSE is owned by a women entrepreneur or not. (.pdf)**
- 3. **Format for Declaration by the Bidder for Code of Integrity & Conflict of Interest (Annexure - II) (.pdf)**
- 4. Manufacturer's Authorization Form–Annexure – III; (.pdf)
- 5. Deviation Statement Form – Annexure – VII (.pdf)
- 6. **Format for Affidavit of Self Certification regarding Local Content in Letter head (Annexure - XII) (.pdf)**
- 7. Certificate with regard to the bidder not having a land border with India (Annexure - XIV) or Certificate with regard to the bidder having a land border with India (Annexure - XV) (.pdf)
- 8. Catalogue / Brochure and data sheet of the Model Quoted (.pdf)
- 9. Schedule of Requirement – Chapter – 3 (.pdf)

Cover -2 - Price - Bid

- 10. Bid Form - Annexure – IX (.pdf)
- 11. Price Bid (.xls)

1.11. Bid form & Price Schedule

- 1.11.1 The bidder shall complete the Bid Form and the appropriate price schedule form furnished in the bidding documents. These forms must be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. The Bid Form and the appropriate Price Schedule form shall be submitted in accordance with Clause 1.18.3 of the bidding documents.

1.12. Bid Prices

- 1.12.1 The Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the goods it proposes to supply under the contract.
- 1.12.2 Prices indicated on the price-schedule form shall be entered separately in the following manner:**
The price of the goods and services quoted FOR destination CSIR – SERC stores including all taxes already paid. Thereafter installation and commissioning charges. Packing and forwarding charges should be indicated wherever separately asked or should be included in the basic cost if it is not separately asked
- 1.12.3 The price quoted shall remain fixed during the contract period and shall not vary on any account**
- 1.12.4 All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.
- 1.12.5 The Purchaser is registered with Dept. of Scientific & Industrial Research, Govt. of India and concessional GST & IGST are payable vide notification No.47/2017- Integrated Tax (Rate) and Notification No. 45/2017-Central Tax (Rate) both dated 14th November, 2017, Notfn. No. 45/2017-Union Territory Tax (Rate) Dt: 14-11-2017, as per amended from time to time. However, CSIR –SERC will pay full GST as applicable as the case maybe as per Notification No. 11/2022 – Central Tax (Rate), Integrated Tax (Rate) and Union Territory (Rate) Dt: 13.07.2022 of ministry of Finance (Department of Revenue), Government of India.
- 1.12.6 Please state specifically in your offer whether the duties and taxes are extra over the prices quoted, failing which it will be presumed that the prices are inclusive of taxes and duties and no claim would be entertained for statutory variations at a later date.
- 1.12.7 Stipulations like “GST is presently not applicable but the same will be charged if it becomes leviable later on” is not acceptable unless in such cases it is clearly stated that GST will not be charged if the same becomes applicable later on due to increase in turn over etc. If a bidder fails to comply with this requirement, his quoted price shall be loaded with the quantum of duty which is normally applicable on the item in question for the purpose of comparison with the prices of other tenderers.

Note: All payments due under the contract shall be paid after deduction of all statutory levies at source (like TDS etc.), wherever applicable.

1.13. Bid Currencies

1.13.1 Prices shall be quoted in Indian Rupees.

1.14. Documents Establishing Bidder's Eligibility & Qualifications

1.14.1 The bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification to perform the contract if its bid is accepted.

1.14.2 The documentary evidence of the bidder's qualification to perform the contract if the bid is accepted shall establish to the purchaser's satisfaction that;

- (a) The bidder meets the qualification criteria listed in bidding documents if any.
- (b) Bidder who doesn't manufacture the goods it offers to supply shall submit Manufacturers' Authorization Form (MAF) using the form specified in the bidding document to demonstrate that it has been duly authorized by the manufacturer of the goods to quote and/or supply the goods.
- (c) In case a bidder not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post-warranty period.

1.14.3 Conditional tenders shall not be accepted at all.

1.15. Documents Establishing Goods' Eligibility & Conformity to Bidding Documents

1.15.1 To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.

1.15.2 To establish the conformity of the goods and services to the specifications and schedule of requirements of the bidding document, the documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of:

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

1.15.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

1.16. Bid Security

1.16.1 The Bidder shall furnish, as part of its bid, a bid security (BS) for an amount as specified in the e-procurement notice.

The copy of Bank Guarantee details should be uploaded on the e-procurement portal and the physical instrument should be available at the time of tender opening. Details of UTR No. should be uploaded on e-procurement portal in case of RTGS/NEFT and the remarks column should indicate Tender No. while remitting the amount.

1.16.2 The bid security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture.

1.16.3 The bid security shall be in Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:

- (a) A bank guarantee issued by a Nationalized/Scheduled bank/Foreign Bank operating in India in the form provided in the bidding documents and valid for 60 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Nationalised /Scheduled Indian bank; or
- (b) RTGS / NEFT to account of Director, CSIR – SERC
- (c) Bid Securing Declaration (BSD)

- 1.16.4 The bid security shall be payable promptly upon written demand by the purchaser in case the conditions listed in the ITB clause 1.16.10 are invoked.
- 1.16.5 The bid security should be submitted in its original form. Copies shall not be accepted.
- 1.16.6 The bid security of unsuccessful bidder will be discharged /returned as promptly as possible positively within a period of 30 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.
- 1.16.7 The successful Bidder's bid security will be discharged upon the Bidder furnishing the performance security, without any interest.
- 1.16.8 Bidders that are currently registered with the purchaser, registered as MSEs will continue to remain registered during the tender validity period also and are exempted from payment of EMD. In case the tenderer falls in these categories, the bidder should furnish a certified copy of its valid registration details. Except for MSEs, this exemption is valid for the trade group and monetary value of registration only. The MSEs are provided tender document free of cost and are exempted from the payment of Bid Security provided the goods are produced and the services are rendered by them and not for any trading activities undertaken by them. Further firms who are having Udyog Aadhar Memorandum are entitled to all benefits available for MSEs under the Public Procurement Policies for MSEs and can get registered with any of the following agencies:
- a) District Industries Centre
 - b) Khadi and Village Industries Commission
 - c) Khadi and Village Industries Board
 - d) Coir Board
 - e) National Small Industries Corporation
 - f) Directorate of Handicraft and handloom and
 - g) Any other body specified by the Ministry of MSME
- 1.16.9 Where any aggregator has been appointed by the Ministry of MSME, themselves quote on behalf of some MSE units, such offers will be considered as offer from MSE units and all such facilities would be extended to these aggregators also.
- 1.16.10 The bid securing declaration may be enforced:
- (a) If a Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
 - (b) In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 14 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/order.
- 1.16.11 **Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy**

of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

1.17. Period of Validity of Bids

- 1.17.1 Bids shall remain valid for minimum of **90** days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
- 1.17.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable, telex, fax or e-mail). The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.
- 1.17.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

1.18. Format & Signing of Bid

- 1.18.1 The bids may be submitted in single bid or in two parts as specified in the Invitation for Bids / NIT.
- 1.18.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid detailing his/her name and contact details.
- 1.18.3 Any interlineations, erasures or overwriting shall be valid only if they are initialed by the persons or persons signing the bid.

D SUBMISSION AND SEALING OF BIDS

1.19. Submission, Sealing and Marking of Bids

- 1.19.1 The bidders should submit their duly encrypted bids on the www.etenders.gov.in before the due date and time. You are requested to go through the uploading process well in advance so as to avoid last minute hitches. **(Bids received by FAX/E- mail would not be considered for evaluation.)**

1.20. Deadline for Submission of Bids

- 1.20.1 Bids must be uploaded on www.etenders.gov.in against the relevant Tender-ID before the due date and time.
- 1.20.2 The Purchaser may, at its discretion, extend the deadline for submission of bids by amending the bid documents in accordance with Clause relating to Amendment of Bidding Documents in which case all rights and obligations of

the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadlines as extended. Such amendments would appear as a corrigendum on www.etenders.gov.in against the applicable Tender – ID.

1.21. Withdrawal, Substitution and Modification of Bids.

1.21.1 It would be governed by the standard operating procedure of the e-procurement portal.

E. OPENING AND EVALUATION OF BIDS

1.22 Opening of Bids by the Purchaser

1.22.1 The decryption of the bids would be done at the time enumerated on the e-procurement portal. In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day. In two-part bidding, the financial bid shall be opened only after technical evaluation.

1.23. Confidentiality

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

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

1.24. Clarification of Bids

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

1.25. Preliminary Examination

1.25.1 The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in ITB Clause 1.10 have been provided, and to determine the completeness of each document submitted.

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

- (a) Bid Form and Price Schedule, in accordance with ITB Clause 1.10;
- (b) All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, are to be treated as unresponsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
 - (i) The Bid is unsigned.
 - (ii) The Bidder is not eligible.
 - (iii) The Bid validity is shorter than the required period.
 - (iv) The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
 - (v) Bidder has not agreed to give the required performance security or has not furnished the bid security.
 - (vi) The goods quoted are sub-standard, not meeting the required specification, etc.
 - (vii) Against the schedule of Requirement (incorporated in the tender enquiry), the tenderer has not quoted for the entire requirement as specified in that schedule.
 - (viii) The tenderer has not agreed to some essential condition(s) incorporated in the tender enquiry.

1.26 Bidder's right to question rejection.

1.26.1 A Bidder shall have the right to be heard in case he feels that a proper procurement process is not being followed and/or his tender has been rejected wrongly. Only a directly affected bidder can represent in this regard as under:

- i) Only a bidder who has participated in the concerned procurement process i.e. pre-qualification, bidder registration or bidding, as the case may be, can make such representation;
- ii) In case pre-qualification bid has been evaluated before the bidding of Technical bids, an application for review in relation to the technical bid may be filed only by a bidder who has qualified in pre-qualification bid;
- iii) In case technical bid has been evaluated before the opening of the financial bid, an application for review in relation to the financial bid may be filed only by a bidder whose technical bid is found to be acceptable.

- iv) Following decisions of the purchaser in accordance with the provision of internal guidelines shall not be subject to review:
 - a) Determination of the need for procurement;
 - b) Selection of the mode of procurement or bidding system;
 - c) Choice of selection procedure;
 - d) Provisions limiting participation of bidders in the procurement process;
 - e) The decision to enter into negotiations with the L1 bidder;
 - f) Cancellation of the procurement process except where it is intended to subsequently re-tender the same requirements;
 - g) Issues related to ambiguity in contract terms may not be taken up after a contract has been signed, all such issues should be highlighted before consummation of the contract by the vendor/contractor; and
 - h) Complaints against specifications except under the premise that they are either vague or too specific so as to limit competition may be permissible.

1.26.2 In case a Bidder feels aggrieved by the decision of the purchaser, he may then send his representation in writing to the Purchaser's address as indicated in special conditions of contract (SCC) within 05 working days from the date of communication of the purchaser intimating the rejection for reconsideration of the decision by the purchaser.

1.27 Responsiveness of Bids

1.27.1 Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:

- (a) Affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
- (b) Limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Contract; or
- (c) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

1.27.2 The purchasers' determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

1.27.3 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission.

1.28 Non-Conformity, Error and Omission

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

1.29 Examination of Terms & Conditions, Technical Evaluation

- 1.29.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.
- 1.29.2 The Purchaser shall evaluate the technical aspects of the Bid submitted in

accordance with ITB Clause 1.15, to confirm that all requirements specified in Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.

1.29.3 In the course of evaluation CSIR - SERC would request for submission of samples for evaluation purpose keeping in mind the special nature of this tender.

1.29.4 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 1.27, it shall reject the Bid.

1.30 Evaluation and Comparison of bids

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

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

1.30.3 Purchase preference shall be given in all procurements undertaken by the purchaser in the following manner:

The Class-I Local Suppliers, under PPP-MII Order, participating in any Government Tender, may or may not be MSEs, as defined under the MSME Act. Similarly, MSEs participating in any Government tender, may or may not be Class-I Local Suppliers. Suppliers may be categorized in following four broad categories for consideration or applicability of purchase preference:

Category	Terminology
Supplier is both MSE & Class-I Local Supplier.	"MSE Class-I Local Supplier"
Supplier is MSE but not Class-I Local Supplier.	"MSE but non-Class-I Local Supplier"
Supplier is not MSE but is Class-I Local Supplier.	"Non-MSE but Class-I Local Supplier"
Supplier is neither MSE nor Class-I Local.	"Non-MSE Non-Class-I Local Supplier"

1.30.4 The applicability of PPP-MSE Order and PPP-MII Order in various scenarios, involving simultaneous purchase preference to MSEs and Class-I local suppliers under PPP-MSE Order and PPP-MII Order respectively, shall be as under.

- a) **Items covered under para 3(a) of PPP-MII Order, 2017 for which Nodal Ministry has notified sufficient local capacity and competition:** For these items, only Class-I Local suppliers are eligible to bid irrespective of purchase value. Hence, Class-II local suppliers or Non-local suppliers, including MSEs which are Class-II local suppliers/ Non-local suppliers, are not eligible to bid. Possible scenarios can be as under:

- (i) L-1 is “MSE Class-I Local supplier” - 100% of the tendered quantity is to be awarded to L-1.
 - (ii) L-1 is “Non-MSE but Class-I local supplier” - Purchase preference is given to MSEs as per PPP-MSE Order. Balance quantity is to be awarded to the L-1 bidder.
- b) **Items reserved exclusively for procurement from MSEs as per PPP-MSE Order:** These items are reserved exclusively for purchase from MSEs. Hence, non-MSEs are not eligible to bid for these items. Possible scenarios can be as under:
- i) L-1 is “MSE Class-I local supplier” - 100% of the tendered quantity is to be awarded to L-1.
 - ii) L-1 is “MSE non-Class-I local supplier” - Purchase preference is to be given to Class-I Local supplier as per PPP-MII Order. Balance quantity, is to be awarded to the L-1 bidder.
- c) **If items are neither notified for sufficient local capacity nor reserved for MSEs, then the process will be as follows:**
- c (a) Items covered under Para 3A(b) of PPP-MII Order are divisible items and both MSEs as well as Class-I local suppliers are eligible for purchase preference. Possible scenarios can be as under:
- i) L-1 is “MSE Class-I local supplier”- 100% of the tendered quantity is to be awarded to L-1.
 - ii) L-1 is “MSE non-Class-I local supplier”- Purchase preference is to be given to MSEs, if eligible, as per PPP-MSE Order. Balance quantity is to be awarded to the L-1 bidder.
 - iii) L-1 is MSE but not -Class -I Local Supplier- Purchase Preference is to be given to Class-I Local Supplier, if eligible, as per PPP-MII order. Balance quantity is to be awarded to L-1 bidder.
 - iv) L-1 is “Non-MSE Non- Class-I local supplier” - Purchase preference is to be given to MSEs as per PPP-MSE Order. Thereafter, purchase preference is to be given to Class-I local suppliers for “50% of the tendered quantity minus quantity allotted to MSEs above” as per PPP-MII Order. For the balance quantity, contract is to be awarded to L-1 bidder.
- c (b) Items Covered under Para 3A(c) of PPP-MII Order, 2017 are non-divisible items both MSEs as well as Class-I local suppliers are eligible for purchase preference. Possible scenarios can be as under.
- (i) L-1 is “MSE Class-I local supplier”- Contract is awarded to L-1.
 - (ii) L-1 is not “MSE Class-I local supplier” but the “MSE Class-I local supplier” fall within 15% margin of purchase preference - Purchase preference is to be given to lowest quoting “MSE Class-I local supplier”. If lowest quoting “MSE Class-I local supplier” does not accept the L-1 rates, the next higher “MSE Class-I local supplier” falling within 15% margin of purchase preference is to be given purchase preference and so on.
 - (iii) if conditions mentioned in sub paras (i) and (ii) above are not met i.e. L-1 is neither “MSE Class-I local supplier” nor “MSE Class-I local supplier” is eligible to take benefit of purchase preference, the contract is to be awarded/ purchase preference to be given in different possible scenarios as under:

- A. L1 is “MSE but non-Class-I local supplier” or “Non-MSE but class-I local supplier”- Contract is be awarded to L1.
- B. L1 is “Non-MSE non-Class-I local supplier”- First purchase preference to be given to MSE as per PPP_MSE Order. If MSE not eligible / does not accept – purchase preference to be given to Class-I Local supplier as per PPP-MII Order. If Class-I Local supplier also not eligible / does not accept – contract to be awarded to L1.

1.30.5 **Items reserved for both MSEs and Class-I local suppliers:** These items are reserved exclusively for purchase from MSEs as well as Class-I local suppliers. Hence, only “MSE Class-I local supplier” are eligible to bid for these items. Non-MSEs/Class-II local suppliers/ Non-local suppliers cannot bid for these items. Hence the question of purchase preference does not arise.

1.30.6 Non - Local suppliers, including MSEs falling in the category of Non-local suppliers, shall be eligible to bid only against Global Tender Enquiry.

1.30.7 The bids shall be evaluated on the basis of final landing cost which shall be arrivedas under:

- i. The price of the goods quoted FOR destination CSIR – SERC Stores Section including all taxes already paid.
- ii. Packing & Forwarding, Insurance and Transportation charges
- iii. Installation and training charges
- iv. **Overall lowest will be considered.**
- v. **If any supplier is not quoted for any machine, in such a case preference will be given to supplier whoever quoted for all machines.**

1.30.8 The invitation to bid shall specify the mode of transport i.e., whether by air/road/rail.

1.30.9 There is no provision to purchase optional items. The specifications embodied in the tender documents would be the basis of evaluating the responsiveness of bids received.

1.30.10 The Purchaser shall compare all substantially responsive bids to determine the lowest valuated bid, in accordance with ITB Clause 1.31.

1.31 ***Contacting the Purchaser***

1.31.5 Subject to ITB Clause 1.24, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.

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

1.32 Post qualification

- 1.32.1 In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 1.14.
- 1.32.2 The determination will take into account the eligibility criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.32.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

F. AWARD OF CONTRACT

1.33 Negotiations

- 1.33.1 Normally, there shall not be any negotiation. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the lowest evaluated responsive bidder. Counter offers tantamount to negotiations and shall be treated at par with negotiations in the case of one time purchases.

1.34 Award Criteria

- 1.34.1 Subject to ITB Clause 1.38, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily. The details of the award would be hosted on the website of the Purchaser.

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

- 1.35.1 The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements to the extent of 25% without any change in unit price or other terms and conditions.

1.36 Option Clause

- 1.36.1 The Purchaser reserves the right to increase or decrease the quantity of the required goods up to 25% (Twenty-Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

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

- 1.37.1 The Purchaser reserves the right to accept or reject any bid, and to annul the

bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

1.38 Notification of Award

- 1.38.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or by cable or telex or fax or e mail that the bid has been accepted and a separate purchase order shall follow through post.
- 1.38.2 Until a formal contract is prepared and executed, the notification of award should constitute a binding contract.
- 1.38.3 Upon the successful Bidder's furnishing of the signed Contract Form and performance security pursuant to ITB Clause 1.42, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security.

1.39 Signing of Contract

- 1.39.1 Promptly after notification, the Purchaser shall send the successful Bidder the Agreement / Purchase Order.
- 1.39.2 Within twenty-one (21) days of date of the Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.

1.40 Order Acceptance

- 1.40.1 The successful bidder should submit Order acceptance within 14 days from the date of issue, failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited pursuant to clause 1.16.9 of ITB.
- 1.40.2 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation beyond the original date. Even after extension of time, if the order confirmation is not received, the contract is liable to be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained.

1.41 Performance Security

1.41.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security (PS) in the amount specified in SCC, valid till 60 days after the warranty period.

1.41.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

1.41.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries or in equivalent Indian rupees in case the performance security is submitted by the Indian Agent.

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

1.41.5 The Performance security shall be in one of the following forms:

(a) A Bank guarantee or Stand-by Letter of Credit issued by a Nationalized/ Scheduled bank located in India or a Foreign bank with preferably its operating branch in India in the form provided in the bidding documents.

Or

(b) RTGS / NEFT in favour of Director, CSIR-SERC

1.41.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.

1.41.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.

1.41.8 The performance security must be received within 21 days. However, the Purchaser has the powers to extend the time frame for submission of Performance Security (PS). Even after extension of time, if the PS is not received, the contract is liable to be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained.

1.41.9 Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

1.42 Pre-Bid Conference (PBC) – Applicable

1.42.1 A Pre-bid Conference shall be held as indicated in invitation to bid, if any. All prospective bidders are requested to kindly attend the Pre-Bid Conference. In order to facilitate the purchaser the proper conduct of the Pre-Bid Conference, all prospective bidders are requested to kindly submit their queries on www.etenders.gov.in under the applicable Tender ID so as to reach the purchaser before the pre-bid conference as indicated in invitation to bid. The purchaser shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-Bid Conference.

The proceeding of the Pre - Bid Conference would be hosted on the website of the purchaser and on www.etenders.gov.in under the relevant tender-id. Before formulating and submitting their bids, all prospective bidders are advised to surf through the purchaser's website and www.etenders.gov.in after the Pre-bid Conference, in order to enable them take cognizance of the revised tender conditions.

1.43 Integrity Pact (IP)

1.43.1 Integrity Pact binds both buyers and sellers to ethical conduct and transparency in all activities from pre-selection of bidders, bidding and contracting, implementation, completion and operation related to the contract.

1.43.2 The Integrity Pact essentially envisages an agreement between the prospective vendors/bidders and the buyer, committing the persons/officials of both sides, not to resort to any corrupt practices in any aspect/stage of the contract. Only those vendors/bidders, who commit themselves to such a Pact with the buyer, would be considered competent to participate in the bidding process. In other words, entering into this Pact would be a preliminary qualification. The essential ingredients of the Pact include:

- i) Promise on the part of the Purchaser to treat all bidders with equity and reason and not to seek or accept any benefit, which is not legally available;
- ii) Promise on the part of bidders not to offer any benefit to the employees of the Purchaser not available legally and also not to commit any offence under Prevention of Corruption Act, 1988 or Indian Penal Code 1860;

- iii) Promise on the part of bidders not to enter into any undisclosed agreement or understanding with other bidders with respect to prices, specifications, certifications, subsidiary contracts; etc.
 - iv) Undertaking (as part of Fall Clause) by the bidders that they have not and will not sell the same material/equipment at prices lower than the bid price;
 - v) Foreign bidders to disclose the name and address of agents and representatives in India and Indian Bidders to disclose their foreign principals or associates;
 - vi) Bidders to disclose the payments to be made by them to agents/brokers or any other intermediary;
 - vii) Bidders to disclose any past transgressions committed over the specified period with any other company in India or Abroad that may impinge on the anti-corruption principle;
 - viii) Integrity Pact lays down the punitive actions for any violation.
- 1.43.3 Each page of such Integrity pact proforma would be duly signed by Purchaser's competent signatory. All pages of the Integrity Pact are to be returned by the bidder (along with the technical bid) duly signed by the same signatory who signed the bid, i.e. who is duly authorized to sign the bid and to make binding commitments on behalf of his company. Any bid not accompanied by Integrity Pact duly signed by the bidder shall be considered to be a non-Responsive bid and shall be rejected straightway.
- 1.43.4 The SCC shall specify whether there is a need to enter into a separate Integrity Pact or not.
- 1.43.5 The Integrity Pact would be effective from the date of invitation of bids till complete execution of the contract.
- 1.43.6 The names and contact details of the Independent External Monitors (IEM) on the event of the need of IP is as detailed in the SCC.
- 1.43.7 The modal format of IP is at Chapter-7.

CHAPTER – 2

CONDITIONS OF CONTRACT

A GENERAL CONDITIONS OF CONTRACT (GCC)

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2.1 Definitions:

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

- (a) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
- (c) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- (d) "Day" means calendar day.
- (e) "Completion" means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (f) "GCC" means the General Conditions of Contract.
- (g) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (h) "Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (i) "SCC" means the Special Conditions of Contract.
- (j) "Subcontractor" means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- (k) "Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- (l) "Local content" means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, 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.

- (m) “Local supplier” means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed under this order or by the competent Ministries / Departments in pursuance of this order.
- (n) “Margin of purchase preference” means the maximum extent to which the price quoted by a local supplier may be above the L1 for the purpose of purchase preference.
- (o) The “Council” means the Council of Scientific & Industrial Research (CSIR), registered under the Societies Registration Act, 1860 of the Govt. of India having its registered office at 2, Rafi Marg, New Delhi-110001, India and the

“Purchaser” means Stores & Purchase Officer, on behalf of the Director, CSIR – Structural Engineering Research Centre, Taramani, Chennai – 600 113, India as specified in SCC.
- (p) “The final destination,” where applicable, means the place named in the SCC.
- (q) e-procurement portal would mean www.etenders.gov.in
- (o) For definitions regarding terms in Make in India please refer to order no. P-45021/2/2017-PP (BE-II) dated 16.09.2020 by Ministry of Commerce and Industry, Government of India and any amendment / revisions thereof.
- (p) For definitions regarding terms in MSE refer MSE order 2012 and amendments and revisions thereof.
- (q) For registration of bidders quoting for products from countries that share land border with India refer to Order No.P-45021/112/2020-PP(BE-II)(E-43780) dated 24.08.2020 of Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade and any amendments thereon.

2.2 Contract Documents

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

2.3 Code of Integrity

2.3.1 Without prejudice to and in addition to the rights of the Purchaser to other penal provisions as per the bids documents or contract, if the purchaser comes to a conclusion that a (prospective) bidder/supplier, directly or through an agent, has violated this code of integrity in competing for the contract or in executing a contract, the Purchaser may take appropriate measures including one or more of the following:

- a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the purchaser;
- b) Forfeiture or encashment of any other security or bond relating to the procurement;
- c) Recovery of payments including advance payments, if any, made by the Purchaser along with interest thereon at the prevailing rate.
- d) Provisions in addition to above:
 - 1) Removal from the list of registered suppliers and banning/debarment of the bidder from participation in future procurements of the purchaser for a period not less than one year;
 - 2) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India;
 - 3) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible

2.4 Joint Venture, Consortium or Association

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

2.5 Scope of Supply

2.5.1 The Goods and Related Services to be supplied shall be as specified in Chapter 4 i.e. Specifications and allied technical details.

2.6 Suppliers' Responsibilities

2.6.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and

the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.

2.7 Contract price

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

2.8 Copy Right

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

2.9 Application

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

2.10 Standards

- 2.10.1 The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and, 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.

2.11 Use of Contract Documents and Information

- 2.11.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.
- 2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

2.12 **Patent Indemnity**

- 2.12.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.12.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
- (a) The installation of the Goods by the Supplier or the use of the Goods in India; and
 - (b) The sale in any country of the products produced by the Goods.
- 2.12.2 If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

2.13 **Performance Security**

- 2.13.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security in the amount specified in SCC, valid till 60 days after the warranty period.
- 2.13.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 2.13.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries or in equivalent Indian Rupees in case the Performance Security is submitted by the Indian Agent.
- 2.13.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer/bidder.
- 2.13.5 The Performance security shall be in one of the following forms:

(a) A Bank guarantee or Stand-by Letter of Credit issued by a Nationalized/Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents.

(Or)

(b) NEFT / RTGS to the account of The Director, CSIR - SERC.

2.13.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.

2.13.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.

2.13.8 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order confirmation /PS are not received, the contract shall be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained.

2.13.9 Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, and then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

2.14 Inspections and Tests

2.14.1 The inspections & test, training required would be as detailed in Chapter-4 of the Bidding Document relating to Specification and Allied Technical details.

2.15 Packing

2.15.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

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

2.16 **Delivery and Documents**

- 2.16.1 Delivery of the Goods and completion and related services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 2.16.2 The mode of transportation shall be as specified in SCC. In case the purchaser elects to have the transportation done through Air, then air lifting needs to be done through Air India only. In case Air India does not operate in the Airport of despatch, then the bidder is free to engage the services of any other Airlines.

2.17 **Insurance**

- 2.17.1 Should the purchaser elect to buy on FOR destination basis, the Goods supplied under the Contract shall be fully insured against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.
- 2.17.2 Where delivery of the goods is required by the purchaser on FOR destination basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- 2.17.3 Where delivery is on ex-works basis, responsibility of insurance would be mutually decided depending on the tender terms.
- 2.17.4 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.

2.18 **Transportation**

- 2.18.1 ~~Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods~~

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

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

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

2.19 **Incidental Services**

2.19.1 The supplier may be required to provide any or all of the services, including training, if any, specified in Chapter 4.

2.20 **Spare Parts**

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

(a) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and

(b) In the event of termination of production of the spare parts:

(i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and

(ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

2.21 **Warranty**

- 2.21.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 2.21.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- 2.21.3 Unless otherwise specified in; the SCC the warranty shall remain valid for Twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port of place of loading in the country of origin, whichever period concludes earlier.
- 2.21.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 2.21.5 Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 2.21.6 If having been notified, the Supplier fails to remedy the defect within reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 2.21.7 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser if the warranty replacement are to be imported it should be supplied on DDP basis.

2.22 **Terms of Payment**

- 2.22.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.22.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfillment of other obligations stipulated in the contract.
- 2.22.3 Payments shall be made promptly by the Purchaser but in no case later than thirty (30) days after submission of the invoice or claim by the Supplier. While claiming the payment, the supplier should certify in the bill / invoice (Bill /

invoice should have E-Payment details like A/c No, IFSC etc.,) that the payment being claimed strictly in terms of the contract and all obligations on the part of the supplier for claiming the payment have been fulfilled as required under the contract.

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

2.23 Change Orders and Contract Amendments

2.23.1 The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:

- (a) Increase or decrease in the quantity required, exercise of quantity opinion clause;
- (b) Changes in schedule of deliveries and terms of delivery;
- (c) The changes in inspection arrangements;
- (d) Changes in terms of payments and statutory levies;
- (e) Changes due to any other situation not anticipated;

2.23.2 No changes in the price quoted shall be permitted after the purchase order has been issued except on account of statutory variations.

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

2.24 Assignment

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

2.25 Sub - contracts

2.25.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract. The sub-contracts should also be in consonance with the land border regulations as specified in the tender.

2.26 Extension of time.

2.26.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.

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

evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.

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

2.27 Liquidated Damages

- 2.27.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default.

2.28 Termination for Default

- 2.28.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part
- (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; or
 - (b) If the Supplier fails to perform any other obligation(s) under the Contract.
 - (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in GCC Clause and ITB clause on code of integrity in competing for or in executing the Contract.
- 2.28.2 In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
- (a) The Performance Security is to be forfeited;
 - (b) The purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the supplier

shall be liable for all available actions against it in terms of the contract.

- (c) However, the supplier shall continue to perform the contract to the extent not terminated.

2.29 **Force Majeure**

- 2.29.1 Notwithstanding the provisions of GCC Clauses relating to extension of time, penalty and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 2.29.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.29.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 2.29.4 If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

2.30 **Termination for Insolvency**

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

2.31 **Termination for Convenience**

- 2.31.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to

which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

2.31.2 The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

(a) To have any portion completed and delivered at the Contract terms and prices; and/or

(b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

2.32 Settlement of Disputes

2.32.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

2.32.2 If, after Twenty-One (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

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

(a) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Delhi International Arbitration Centre (DIAC), Delhi High Court, New Delhi. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

(b) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with

provision of sub-clause

(a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

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

2.32.5 notwithstanding any reference to arbitration herein,

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

2.33 **Governing Language**

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

2.34 **Applicable Law**

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

2.35 **Notice**

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

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

2.36 **Taxes and Duties**

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

2.36.2 The Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.

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

2.36.4 All payments due under the contract shall be paid after deduction of all statutory levies (at source) (like ESIC, IT, etc.) (TDS on GST) wherever applicable.

2.36.5 ~~GST~~ If the supply is within India, this institute is eligible for concessional GST as per Notification No.45/2017 & 47/2017 dt 14.11.2017 by Ministry of Finance.

2.37 Right to use Defective Goods

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

2.38 Protection against Damage

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

- (a) Voltage 230 volts – Single phase/ 415 V 3 phase ($\pm 10\%$)
- (b) Frequency 50 Hz.

2.39 Site preparation and installation

2.39.1 The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the Purchaser's site immediately after notification of award/contract.

2.40 Import and Export Licenses

~~2.40.1 If the ordered materials are covered under restricted category of EXIM policy in India the Vendor / Agent may intimate such information for obtaining a necessary license in India.~~

~~2.40.2 If the ordered equipment is subject to Vendor procuring an export license from the designated government agency / country from where the goods are shipped / sold, the vendor has to mention the name, address of the government agency / authority. The vendor must also mention the time period within which the license will be granted in normal course.~~

2.41 Risk Purchase Clause

2.41.1 If the supplier fails to deliver the goods within the maximum delivery period specified in the Purchase Order, CSIR - SERC may procure, upon such terms and in such a manner as it deems appropriate, Goods or Services similar to those undelivered and the Supplier be liable to CSIR - SERC for any excess costs incurred for such similar goods or services.

2.42 Option Clause

2.42.1 The Purchaser reserves the right to increase or decrease the quantity of the required goods up to 25% (Twenty-Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

2.43 Integrity Pact

2.43.1 The SCC shall specify whether there is a need to enter into a separate Integrity pact or not.

2.43.2 The names and contact details of the Independent External Monitors (IEM) on the event of the need of IP is as detailed in the SCC.

2.44 Order Acceptance

2.44.1 The successful bidder should submit Order acceptance within 14 days from the date of issue of order/signing of contract, failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited pursuant to clause 1.16.9 of ITB.

2.45 Purchase Preference

2.45.1 The purchaser intends to give product reservation/purchase preference in line with current Govt. of India procurement policies to help inclusive national economic growth by providing long term support to small and medium enterprises and advantaged sections of the society and to address environmental concerns along with preferential market access in govt. procurements

B. SPECIAL CONDITIONS OF CONTRACT

<u>Sl. No.</u>	<u>GCC Clause</u>	<u>Page No.</u>
01.	GCC 2.1.1 (l)	50
02.	GCC 2.1.1 (m)	50
03.	GCC 2.13.1	50
04.	GCC 2.15.2	50
05.	GCC 2.16.1	51
06.	GCC 2.16.3	51
07.	GCC 2.22.1	51
08.	GCC 2.27.1	52
09.	GCC 2.27.1	52
10.	GCC 2.34.1	52
11.	GCC 2.35.1	52
12.	GCC 2.39.1	52
13.	GCC 2.43.1	52
14.	GCC 2.43.1	52
15.	GCC 2.45	52

SPECIAL CONDITIONS OF CONTRACT (SCC)

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

GCC 2.1.1(l)	The Purchaser is: The Director, CSIR – Structural Engineering Research Centre, Chennai - 600 113, INDIA,
GCC 2.1.1(m)	<p><u>The Final Destination is:</u></p> <p>CSIR-STRUCTURAL ENGINEERING RESEARCH CENTRE, Council of Scientific & Industrial Research CSIR Road, Taramani Chennai – 600 113 Tamil Nadu, INDIA Tel: 91 - 44 – 22549108 / 22544777 Email : puroff@serc.res.in</p>
GCC 2.13.1	<p>The amount of the Performance Security (PS) shall be 3% of the Contract/PO value + Applicable statutory taxes (GST) for a period of specified warranty + 60 days.</p> <p>Applicable</p>
GCC 2.15.2	<p>The marking and documentation within and outside the packages shall be:</p> <p>(a) Each package should have a packing list within it detailing the part No.(s), description, quantity etc.</p> <p>(b) Outside each package, the contract No., the name and address of the purchaser and the final destination should be indicated on all sides and top.</p> <p>(c) Each package should be marked as 1/x, 2/x, 3/x.....x/x, where “x” is the total No. of packages contained in the consignment.</p> <p>(d) All the sides and top of each package should carry an appropriate indication /label/stickers indicating the precautions to be taken while handling/storage.</p>

GCC 2.16.1	<p>Details of Shipping and other Documents to be furnished by the Supplier are: Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/Email.</p> <ul style="list-style-type: none"> a) Two copies of Supplier's Invoice indicating, <i>inter-alia</i> description and specification of the goods, quantity, unitprice, total value; b) Packing list; c) Certificate of country of origin; d) Insurance certificate, if required under the contract; e) Railway receipt/Consignment note;
	<ul style="list-style-type: none"> f) Manufacturer's guarantee certificate and in-house inspection certificate; g) Inspection certificate issued by purchaser's inspector, if any; and h) Any other document(s) as and when required in terms of the contract.
GCC 2.16.1	<p>Note:</p> <p>01. The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc., should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).</p> <p>02. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses</p>
GCC 2.16.3	The mode of transportation shall be by Road/Courier/Air/Multimodal.
GCC 2.17.1	The Insurance shall be for an amount equal to 110% of the F.O.R Destination, CSIR – SERC, Chennai value of the contract from within "warehouse to warehouse (final destination)" on "all risk basis" including strikes, riots and civil commotion.
GCC 2.21.3	The period of validity of the comprehensive onsite warranty shall be One Year from the date of installation & commissioning and acceptance.
GCC 2.22.1	The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

GCC 2.22.1	<p>The payment shall be made in Indian Rupees, as follows:</p> <p>100% Payment will be released after receipt of material, satisfactory installation, training and submission of 3% PBG.</p> <p>Note: All payments due under the Contract shall be paid after deduction of all statutory levies at source (like ESIC, Income Tax, etc.), wherever applicable.</p>
GCC 2.27.1	The penalty / LD (Liquidated Damages) shall be 0.5% per week or part of a week towards late delivery and towards delay in installation and commissioning.
GCC 2.27.1	The maximum amount of penalty shall be 10%. The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value.
GCC 2.34.1	The place of jurisdiction is Chennai, India.
GCC 2.35.1	<p>For notices, the Purchaser's address is</p> <p>Attention: The Director</p> <p>Location: CSIR – Structural Engineering Research Centre, CSIR Road, Taramani Chennai - 600 113, INDIA</p> <p>Telephone: 0091-44-22549108, 22544777</p> <p>Email address: puroff@serc.res.in</p>
GCC 2.39.1	<p>Site preparation and Installation to be done for the project at the following addresses:</p> <p>CSIR – Structural Engineering Research Centre, CSIR Road, Taramani Chennai - 600 113, INDIA</p> <p>Telephone: 044-22549108, 22544777</p> <p>Email address: puroff@serc.res.in</p>
GCC 2.43.1	The Integrity Pact – Applicable
GCC 2.43.2	<p>The Name and Contact details of the IEMs are as under: –</p> <ol style="list-style-type: none"> 1. DR. PRABAKARAN PALANIAPPAN, IAS (Rtd) Email: pprabakaranias@gmail.com 2. DR. RAJAN S KATOCH, IAS (Rtd) Email: rkatoch@nic.in
GCC 2.45	Purchase Preference MSE – Applicable for manufacturers
GCC 2.45	Purchase Preference Make in India – Applicable for Class - I and Class - II Local Suppliers

CHAPTER 3

SCHEDULE OF REQUIREMENT (To be filled by the bidder and enclosed with the Technical Bid.)

Sl. No.	Brief Description of goods and services	Quantity	Physical Unit	Final destination/ Place	Delivery Schedule (to be filled by the bidder)

Term of delivery: FOR Destination :

Period of delivery shall count from :
(to be filled by the bidder)

Scope of Supply :

Standards :

Date :

Place : **Signature of the Bidder**

PS: Authorization standards that ensure at least a equivalent quality than the standard mentioned in the Technical Specification, will also be acceptable.

CHAPTER 4

ELIGIBILITY CONDITIONS, SPECIFICATIONS AND ALLIED TECHNICAL DETAILS

Eligibility Conditions for Supply, Installation and Commissioning of Electrodynamic Shaker System with Climatic Chamber

4.1

Minimum Eligibility Criteria for Supply, Installation & Commissioning of Electrodynamic Shaker System with Climatic Chamber

Format for declaration by the Bidder for Code of Integrity & conflict of interest (Annexure II) (.pdf)

- ❖ **Format for Affidavit of Self Certification regarding Local Content (Annexure XII) (.pdf)**
- ❖ **Certificate with regard to the bidder not having a land border with India (Annexure XIV or Certificate with regard to the bidder having a land border with India (Annexure XV) (.pdf)**
- ❖ **The bidder should have supplied and commissioned atleast (i) five numbers of Electrodynamic Shaker System of same (or) similar capacity (ii) Two numbers of combined Electrodynamic Shaker System with Climate Chamber System in Govt. Institutes / Research Organisations in India in the last 10 years. The bidder should have the turn over of minimum Rs.20.00 Crore per year in the last three financial years.**

(Note: Firms not meeting the minimum eligibility conditions will not be considered for technical evaluation.)

4.1.1 General Criteria:-

- 1. List of installations of similar work with contact details should be provided. (Annexure - VIII)**
- 2. The bidder shall furnish documentary evidence to demonstrate that the bidder satisfies the bidders' eligibility criteria.**
- 3. Bidders shall invariably furnish documentary evidence (client's certificate) in support of the satisfactory operation of the similar plants executed by him.**
- 4. Spares and service support for the instrument for the period of 10 years from the date of installation.**
- 5. Details of make, model, service support for the outsourced items/ supporting accessories (Technical details in Technical bid)**
- 6. Details of Service Centre and information on service support facilities that would be provided after the warranty period (in the Service Support Form).**

4.2 SPECIFICATIONS AND ALLIED TECHNICAL DETAILS

Detailed Specifications for Electrodynamic Shaker with Climatic Chamber

CSIR-SERC is planning to setup a test facility which includes an Electrodynamic Shaker with Climatic Chamber system. The required system includes an electrodynamic shaker, head expander, slip table on a common base with air isolation configurations, power supply amplifier, vibration controller, hydraulic power supply, armature cooling blower with silencer and standard accessories. Additionally, a climatic chamber and its subsystems that work in tandem with the electrodynamic shaker system are needed to simulate various vibration testing conditions in a controlled environmental condition. The detailed technical specifications for the Electrodynamic Shaker with Climatic Chamber system is as follows:

Technical Specifications for Electrodynamic Shaker

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
1.	Shaker Type	Electro Dynamic			
2.	Sine Force Rating (peak)	≥ 6800 kgf			
3.	Random Force Rating (rms.)	≥ 6800 kgf			
4.	Shock force	≥ 14000 kgf			
5.	Displacement (continuous)	≥ 75 mm (peak to peak, sine)			
6.	Velocity of bare table	≥ 1.75 m/sec. peak (sine) ≥ 2 m/sec. peak (shock)			
7.	Static Payload support	≥ 800 kg			
8.	Max. runtime at full payload capacity	To be mentioned			
9.	Frequency range	Range Min: ≤ 5 Hz Range Max: ≥ 2500 Hz			
10.	Sine acceleration (peak) Rated	≥ 75 g			
	Horizontal with slip table & at max payload:	To be mentioned			
	Vertical with head expander & at max payload:	To be mentioned			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
11.	Random acceleration (rms) Rated	≥ 50 g			
	Horizontal with Bare table & at Max Payload:	To be mentioned			
	Vertical with head Expander & at Max payload:	To be mentioned			
12.	Type of Cooling	Air-cooled			
13.	Total Armature moving mass	≤ 80 kg			
14.	Total Armature Diameter	≤ 500 mm			
15.	Fundamental Armature Resonance Frequency	>1600 Hz			
16.	Armature Power Requirements (based on current drawn to run shaker at full capacity in sine & shock force rating)	To be mentioned in Amps rms Sine: Shock:			
17.	Field Coil Assembly Current rating in Amps DC : Voltage rating in V DC :	To be mentioned To be mentioned			
18.	Suspension Cross Axial Stiffness	≥ 15 kN/mm			
19.	Suspension Rotational Stiffness	≥ 150 kNm/rad			
20.	Stray Magnetic Field	≤ 1.5 mT			
21.	Armature Inserts	Metric coarse threaded, M8 or M10 or M12 type with center, 3",6",12", PCDs. Inserts should be equally spaced.			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
22.	Auto centering of armature	Auto centering of the armature for the rated static load should be provided. Please share the mechanism or technology used.			
23.	Armature over travel interlock	Armature over travel should be sensed using applicable sensor. Armature over travel interlock should trip the power amplifier.			
24.	Geared shaker rotation	Easy rotation of the shaker to 90 deg using manual effort rotation or better. Electrical cables, flexible hoses and hydraulic hoses are to be properly guided and secured during shaker rotation.			
25.	Armature Suspension	Rolling strut assembly or copper beryllium or carbon-carbon flexures or better. Fatigue life of the flexures with bare table should be estimated experimentally and details may be provided.			
26.	Air Isolation Trunnion	Required			
27.	Armature Guidance	Required			
28.	Shaker Cooling unit	The shaker should be provided with air blower			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		with silencer of suitable capacity. The acoustic noise during the cooling unit operation should not exceed 120 dBA at a distance of 1 meter. Rating and technical details of the blower and silencer should be provided along with technical quote.			
29.	Provision for different armature sizes	The bidder must provide a shaker capable of accommodating various armature sizes. It should be able to perform high-g tests on small payloads and support large-diameter armatures for direct mounting of the Device Under Test (DUT). The different armatures should be user-replaceable in the field.			
SLIP TABLE					
30.	Type	<ul style="list-style-type: none"> Common base type: Shaker trunnion and guiding system and slip table, mounted on a 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		<p>common steel structure providing permanent alignment with shaker and slip table</p> <ul style="list-style-type: none"> • Combo Base Isolation: The shaker unit along with common base should be isolated from floor by the use of air mounts of appropriate capacity. • Oil film guided type or equivalent • Slip plate supported by granite base with oil film and hydrostatic journal bearings or equivalent. 			
31.	Slip Table Dimension & Material	Minimum 2000mm (L) x 2000mm (W) x 50mm (Thk) Material: Magnesium or equivalent			
32.	Slip table mass	< 500kg			
33.	No of hydrostatic bearings	Minimum 4			
34.	Surface Finish	Roughness average ≤ 0.5 micron			
35.	Pitch	350 kN-m or better			
36.	Yaw	80 kN-m or better			
37.	Roll	280 kN-m or better			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
38.	Flatness	$\leq 0.2\text{mm}$ per meter			
39.	Maximum Stroke	Atleast 75 mm			
40.	Maximum load on the table	$\geq 10000\text{kg}$			
41.	Useful frequency range of shaker combined with slip table	Range Min: $\leq 5\text{ Hz}$ Range Max: $\geq 2000\text{ Hz}$			
42.	Bare Table resonance	$\geq 1000\text{ Hz}$ (nominal)			
43.	Mounting hole pattern	To be provided. Should be with standard type and grid hole pattern with SS inserts.			
44.	Driver Bar	<ul style="list-style-type: none"> Tension bolt type All welded construction 			
45.	Thermal barrier	Thermal barrier for the slip table is required. It should withstand -80 deg C to $+200\text{ deg C}$.			
HYDRAULIC POWER SUPPLY					
46.	Hydraulic Power Pack (Reputed Make)	Suitable for the bearing slip table.			
47.	Sound Pressure level of Hydraulic Power Pack	$\leq 100\text{ dB A}$ at a distance of 1m from the outer periphery of the HPP.			
48.	Hydraulic Power Supply	Suitable for the slip table operating at 380-480V AC, 50Hz, 3 Phase			
49.	Motor	Fully enclosed, fan-cooled Minimum 1 kW; 50 Hz			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
50.	Pressure pump	Type Gear; Operating pressure ≥ 150 bar Delivery rate 50 Hz: ≥ 2 liters/min @ 150 bar			
51.	Filtration	≤ 15 microns			
52.	Oil tank capacity	≥ 30 liters			
HEAD EXPANDER					
53.	Type	Table with additional frame for extra load support			
54.	Head expander table dimensions	$\geq 1500\text{mm} \times 1500\text{mm}$ with suitable thickness			
55.	Head Expander table material	Magnesium alloy or equivalent			
56.	Head Expander table mass	$\leq 400\text{kg}$			
57.	Useful frequency range	5Hz to 2000Hz or better			
58.	Top face flatness tolerance	≤ 0.2 mm/m			
59.	Thermal barrier	Thermal barrier for the head expander is required. It should withstand -80 deg C to +200 deg C			
60.	Head Expander table hole patterns and inserts	To be provided. Should be with standard type and grid hole pattern with SS inserts.			
61.	Head expander bottom dia. should be suitable to armature dia.	Should be satisfied			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
AMPLIFIER					
62.	Type of Amplifier	<ul style="list-style-type: none"> • IGBT based switching amplifier of Class D (Digitally Modulated Power Amplifier) • Modular in construction and scalable architecture 			
63.	Amplifier Capacity	a) Total capacity shall be suitable to run the shaker at the maximum rated capacity for sine and shock. b) Number of power modules to be specified.			
64.	Full Power Bandwidth	Range Min: ≤ 20 Hz Range Max : ≥ 2000 Hz			
65.	Frequency response	± 1.5 dB 20 Hz to 2500 Hz or better			
66.	Power Range	Atleast 120 kVA. Should be compatible with shaker for sine and shock rating			
67.	Rated Output Voltage	100 Vrms Should be compatible with shaker			
68.	Input Sensitivity	1 Vrms input for 100Vrms output. Compatible with all reputed make controllers.			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
69.	Continuous output current in Amps for sine and random Per power module : Total power range of amplifier :	To be mentioned To be mentioned			
70.	Transient Output current in Amps (peak) for 100ms Per power module : Total power range of amplifier :	To be mentioned To be mentioned			
71.	Amplifier Efficiency	> 90%			
72.	Signal to Noise Ratio	> 50 dB			
73.	Input Impedance	$\geq 50 \text{ k}\Omega$			
74.	Switching Frequency	>100 kHz			
75.	Modulation range	DC to 10 kHz			
76.	Total Harmonic Distortion	< 0.9 % when measured with matched resistive load at rated output			
77.	Field power supply voltage	$\geq 150 \text{ V DC}$			
78.	Maximum no-load voltage	Should not be more than 10% of the shaker rated capacity			
79.	Length of the cable between power amplifier and shaker	Atleast 10 meters			
80.	Peak current handling	Approximately 3 times or more than the continuous sine current rating for a period of 100ms			
81.	Amplifier Gain Control	Amplifier gain control should be available in continuous mode or in steps			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
82.	Soft start and stop	Soft start and stop to avoid transients due to switching ON & OFF of the amplifier.			
83.	Electrical wiring & Mains power	All tropicalized wiring suitable for 415VAC $\pm 10\%$, 50Hz. 3 Phase. Lower tappings for operation at 380VAC to be provided.			
84.	Power amplifier acoustic noise level	$\leq 80\text{dBA}$ at 1 meter distance from the amplifier.			
85.	Controls to be provided	ON/OFF controls from amplifier, local and remote panels for the following. <ul style="list-style-type: none"> • Field power supply • Cooling unit • Hydraulic Oil Supply Unit • Amplifier Gain. 			
86.	Power Amplifier operation	The user shall be able to operate, change settings or enable/disable interlocks in the power amplifier without intervention of the bidder. Passwords, licenses, if any for the above should be shared with the user during			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		the supply and should not require any update later.			
87.	Protection	<p>Amplifier should have all standard safety interlocks and monitoring.</p> <p>a) Interlocks</p> <ol style="list-style-type: none"> 1) Amplifier Cooling 2) Vibrator Cooling 3) Vibrator Over travel 4) Field Failure 5) Module Over Current 6) Cabinet door open <p>b) Metering</p> <ol style="list-style-type: none"> 1) Amplifier Output Voltage 2) Amplifier Output Current 3) Field Voltage & Current <p>c) Indication System level</p> <ol style="list-style-type: none"> 1) Output over current. 2) Output over voltage. 3) Output short circuit. 4) Output DC fault. 5) Aux power supplies ON 6) Amplifier cooling failure 7) Amplifier over temperature 8) Vibrator cooling 9) Vibrator over travel 10) Vibrator cooling failure 11) Vibrator over temperature 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		12) Field failure 13) Supply low / high voltage 14) Cabinet door open 15) Emergency stop			
88.	Power module	The power module should have independent cooling unit and RFI Filters.			
89.	Power Loss Protection	The amplifier should include synchronized loss protection to ensure a smooth shutdown in the event of a power amplifier failure.			
90.	System Interface	The amplifier should feature a microprocessor-based user interface to enhance system reliability and facilitate fault diagnosis.			
COOLING SYSTEM					
91.	Type of Cooling	Forced air cooling blower with silencer.			
92.	Capacity of the blower	Suitable to the shaker to remove the heat generated efficiently.			
93.	Hose/Pipe	Appropriate length from shaker to the blower location, (Minimum 20m)			
94.	Electrical power cable	Appropriate length from			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		blower to the input power supply point at the installation site.			
DIGITAL VIBRATION CONTROLLER					
95.	No of input & output channels	Min. 8 channels with possibility for future expansion. All simultaneous input. Min 2 output channels.			
96.	Resolution for Input channels	24 bit ADC (individual ADC for each input channel)			
97.	Input Voltage range	± 10 V (p-p), with input impedance >500 k Ω			
98.	Control signal checks	Input over load, open loop, loss of control signal etc.			
99.	Input Sensitivity	Programmable from 10mV/g to 1000mV/g			
100.	Input Signal Type/Coupling	AC/DC/IEPE/ICP/ICP+TEDS/GND/Float			
101.	TEDS Standards	IEEE 1451.4.2001 or latest version			
102.	ICP Power Supply	1mA to 18mA			
103.	Input Connector Type	BNC			
104.	Signal to noise ratio (Input)	Minimum 100 dB			
105.	Cross channel talk (Input)	< -100 dB			
106.	Harmonic distortion (Input)	Less than 105 dB			
107.	Frequency Range	Min DC to 4 kHz or better			
108.	Output Channel Resolution	24 bit Digital to Analog converter (DAC)			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
109.	Output Voltage Range	± 10 V (p-p)			
110.	Output impedance	$< 100\Omega$			
111.	Harmonic distortion (output)	< -95 dB			
112.	Continuous time domain data recording for Sine, Random, Classical shock & replaying and create data files for post-test analysis or post processing. Recorded time data should be exportable.	Required in software/ hardware			
113.	Vibration Controller Software	Professional type, latest version compatible with latest version of leading OS. License type: Perpetual validity.			
114.	Vibration Controller Signal Types	<p>The controller should have following signals.</p> <ul style="list-style-type: none"> • Sine vibration • Random Vibration • Sine on Random (SoR) • Random on Random (RoR) • Sine and Random on Random (SRoR) • Classical Shock • Resonance Search, Track & Dwell • Field Data Replication 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		<ul style="list-style-type: none"> Shock Response Spectrum Transient Time History (TTH) Sine Tracking, Analysis and Generation Self-Calibration Software 			
115.	Controller and control software version & year of launch.	The controller has to be latest model/ version, launched after 2018. Mention the controller model version and year of launch.			
Random vibration control					
116.	Frequency range	100Hz, 200, 400, 800, 1000, 2000, 4000Hz			
117.	Frequency bins (lines)	100, 200, 400, 800 lines			
118.	Dynamic range	≥ 95 dB			
119.	Loop time	≤ 100 msec			
120.	No of degrees of freedom	2 to 1000			
121.	Control accuracy	± 1 dB at 200 DOF			
122.	Control strategy	Single channel, multiple channel			
123.	Profile (spectrum) inputs	User must be able to enter the profile in the form of break point for acceleration,			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		displacements and velocity and it should be displayed graphically. Values like RMS peak acceleration, velocity and displacement must be displayed when the break point table is being updated.			
124.	Number of break points	More than 100, with right and left slopes (dB/Octave)			
125.	Signal display	Real time display of control spectrum/drive spectrum/ drive signal/ control signal			
126.	Number of windows	The user must be allowed to open a number of windows and monitor the desired signal			
127.	Test status display	Parameters like target grms, actual grms, dB ratio of full test level, total test time, elapsed test time etc. should be displayed during the test			
128.	Compliance	ISO, DIN, MIL- STD 810 and other relevant standards			
Sine Vibration Control					
129.	Frequency range:	0.5 to 3000 Hz			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
130.	Dynamic Range:	Excess of 95 dB			
131.	Control accuracy:	+ 1 dB through a peak notch of 50, at one octave/min			
132.	Control Strategy:	Single channel, multiple channel Notch channel programmable for different levels at different sectors for each channel			
133.	Profile inputs:	User must be able to enter the spectrum in the form of break point tables. Values like RMS, acceleration, velocity, and displacement must be displayed when break point table is being updated. (Number of break points > 100)			
134.	Abort:	Upper and lower abort level (Programmable for different sectors)			
135.	Signal display:	During the test, the user must be able to see the real time display of the signal (A,V and D)			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
136.	Sine Mode:	<ul style="list-style-type: none"> • Sweep (single, cycle, dwell) • Linear / log sweep • COLA (a fixed output at test frequency) • TIP (test in progress signal) • Level program abilities for acceleration, velocity displacement and sloped acceleration) 			
Sine on Random (SoR)/ Random on Random (ROR)					
137.	Frequency range:	0.5 to 4000 Hz			
138.	Dynamic Range:	Excess of 95 dB			
139.	Control accuracy:	± 1 dB through a peak notch of 50, at one octave/min			
Resonance Search, Track & Dwell (RSTD) Vibration Control					
140.	Transmissibility	Measurement shall be between any pair of inputs or an input and the control signals			
141.	Search range	User shall select Start and end frequencies within the frequency range defined by the Reference profile			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
142.	Sweep rate	Default to the sweep rate for the reference profile or user shall specify special sweep rate.			
Resonance Dwell and Tracked Dwell					
143.	Test modes	<ul style="list-style-type: none"> • Search and dwell as each resonance is detected during the sweep. • Search then automatically dwell using the generated dwell list • Search, pause for users review and editing of the dwell list, then automatically dwell using the edited Dwell list 			
144.	Dwell modes	Fixed frequency or tracked resonance dwell. Tracked dwell shall adjust the drive frequency to track the resonance as its frequency changes during dwelling.			
145.	Dwell duration	Time or cycles using true cycle counting			
Classical Shock Transient Control					
146.	Frequency range	0 to 22 kHz			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
147.	Frame size	128 to 16384 points or automatically optimized. Linear filter design minimizes distortion and preserves the true waveform shape.			
148.	Transfer function	Measure during pre-test or, for quickest test start-up, recall a function from disk			
149.	Averaging	User-specified coefficient from 1 to 500			
150.	Filtering	User specifies cut-off frequency for lowpass filtering applied to the reference waveform, drive, and all input channels.			
151.	Pulse delay	User-specified delay between pulses from 0 to 1000sec			
152.	Reference waveform	Convenient pulse selection from a waveform library. User-specified duration and peak acceleration			
153.	Pulse types	Half sine, haversine, initial and terminal peak sawtooth, triangle, rectangle and trapezoid			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
154.	Pulse duration	From 0.5 to 3000ms or better			

Technical Specifications for Environmental/Climatic Chamber

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
	GENERAL SPECIFICATIONS				
155.	Environmental/ Climatic chamber integrated with electrodynamic shaker	Required. It is the responsibility of the bidder to integrate with the electrodynamic shaker system, along with slip table, head expander etc. Required interfacing elements such as Temperature membrane cloth barrier has to be listed and supplied.			
156.	Parameters	Temperature, Humidity			
157.	Test Space Dimensions & Volume	Dimension: Atleast 2000mmx2000mm and the dimensions should compatible with slip table and head expander. Volume: Min 4500 Liters			
158.	Temperature Range	-70 to 180 deg C or better			
159.	Temperature Fluctuation	$\leq \pm 1$ deg C			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
160.	Temperature Gradient	< 1.5 deg C			
161.	Rate of change of heating	5 deg C per minute (Linear). Compliance to IEC 60068-3-5 without load and IEC 60068-3-7 With load			
162.	Rate of change of cooling	5 deg C per minute (Linear). Compliance to IEC 60068-3-5 without load and IEC 60068-3-7 With load			
163.	Humidity Range	10% to 95% RH or better			
164.	Humidity fluctuation	1% to 3% RH or better			
	Test Space Details				
165.	Test Space	<ul style="list-style-type: none"> • Pre-polished stainless steel or equivalent • 18SWG stainless steel with reinforced bottom floor to withstand a distributed load up to 500kg/m². (for standalone applications) • TIG welded seams to ensure vapor tight enclosure. • Double continuous seal rings of silicone rubber shall be mounted on a thermal breaker strip as the gasket to ensure 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		complete sealing and zero conduction from the test space to the exterior.			
166.	Insulation	Low 'k' factor, high density and non-hygroscopic nature. Asbestos free mineral fiber insulation.			
167.	Thickness of insulated material	Minimum 75 mm			
168.	Thickness of Inner & outer stainless-steel sheet	Minimum 1.2 mm			
169.	Test Space Conditioning	<ul style="list-style-type: none"> • The air circulation within the chamber shall be as close to laminar ensuring uniform airflow all across the workspace. • Standard frame TEFC motors shall be used with a detachable extended shaft • Only the co-axial fan blades shall be exposed in the conditioning plenum ensuring the drive motor will be placed outside. • The conditioning plenum shall be covered with a removable sheet providing easy access for 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		maintenance.			
	Heating & Cooling System				
170.	Heating System	<ul style="list-style-type: none"> • Stainless steel sheathed air heaters to achieve the desired positive set temperature. • The heaters shall be placed in the conditioning plenum such that there is no direct radiation from the heaters onto the test specimen. • Heater outputs shall be controlled for superior stability and control in temperature using suitable relays and thyristors. 			
171.	Refrigeration System	<ul style="list-style-type: none"> • Anti-corrosive components should be used. • The compressor shall be mounted on anti-vibration pads. • Eco-friendly Non-CFC refrigerant. • Oil return system for 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		<p>protection against oil migration from the compressor, with sight glass to monitor oil level</p> <ul style="list-style-type: none"> • The heat exchanger coils with Inner grooved copper tubes, finned for maximum heat transfer • The cooling in the chamber shall be accomplished by a cascade system (low stage, high stage). • All the refrigeration components shall be fixed in a separate compartment. The whole area shall be given adequate ventilation to avoid excess heat build-up inside the compartment. 			
172.	Type of Refrigerant	CFC free; Eco Friendly (Suitable refrigerant type to be mentioned, for high and low stage, in case of cascade refrigeration system)			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
173.	Compressor type	<ul style="list-style-type: none"> • Low Noise Type Suitable reciprocating low-temperature application compressors, preferably suction gas cooled, capable of operating in the entire temperature envelope. • Compressor should be with suitable oil type (like POE) compatible with eco-friendly refrigerants. 			
174.	Condenser type	<ul style="list-style-type: none"> • Water cooled • Preferably stainless brazed plate heat exchanger construction with suitable working pressure for waterside and refrigerant side • A water flow switch shall be provided to ensure adequate flow to the condenser • All the accessories such as Chiller, pipelines or pump that are required for operating the condenser/chamber in the specified working range 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		should be listed and provided by the bidder			
	Humidity System				
175.	Humidification	<ul style="list-style-type: none"> • A low-pressure droplet free vapor boiler using direct vaporization system or equivalent • Reservoir shall be provided at the side of the chamber with a PU tube quick connector and water level is automatically controlled through a water-in solenoid valve. 			
176.	Dehumidification	<ul style="list-style-type: none"> • Refrigeration based de-humidification coils. • The desired level of lower humidity shall be achieved by maintaining the precise dew point temperature. • The output shall automatically be activated based on the set point as well as in ramp up mode after a low-temperature cycle. 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
177.	Climatic Range	Atleast between +10 deg C to +85 deg C			
178.	DM water tank with water level indicator	Required capacity need to be supplied			
	Instrumentation, Controller and Display Unit				
179.	Sensors	<ul style="list-style-type: none"> All required sensors for measurement and control of temperature, RH etc., should be of reputable make (like Vaisala). Type and make with accuracy levels should be compatible with chamber operation requirement and need to be mentioned. 			
180.	Multichannel Temperature/ Humidity data logging system	Required			
181.	Remote access/control of the controller from the software for temperature/humidity inputs and changes	Required. It is the responsibility of the bidder.			
182.	Display Unit	<ul style="list-style-type: none"> Min 7" WVGA 800 x 480 LCD 6.1 Display Type or better Atleast 16M color touch screen type 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
183.	Instrumentation & Control	<ul style="list-style-type: none"> • Flame retardant cables shall be used for main and control unit. • USB provision for fast downloads, Data logging information, • Internal memory for data logging (> 50 GB) • Real Time trend graph to be viewed on the screen (temperature, Humidity versus time) • IP65 protected touch panel/touchscreen • PLC based system or equivalent of reputed make • High-end multi-loop PID controller for simultaneous control of temperature and humidity (like eurotherm) • User friendly test programming and test sequence • Instant program profile preview in graphical 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		format <ul style="list-style-type: none"> • Internal Fault alerts to be displayed on the monitor with HELP menu • Fault diagnostics with history • Low water indication for humidity system on the monitor • Power Resumption Modes : In case of a power failure, option of conditional restart based on temperature/ time or continuous 			
184.	Test Profiles	<ul style="list-style-type: none"> • Temperature cycling: Possible to set different temperature profile/cycle. • Humidity Testing: Possible to set different humidity profile/cycle. 			
185.	Test Standards	<ul style="list-style-type: none"> • All relevant latest international standards like MIL, JSS, RTCA related to environmental testing and vibration testing. Example MIL-STD- 810F, MIL-STD- 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		2164, JSS 55555, JSS 6625, RTCA-DO-160E etc.,			
	Overall Features				
186.	Viewing Window	<ul style="list-style-type: none"> • A multi pane insulated window for inspection should be provided with minimum dimensions of 400mmx400mm • The multi pane window shall consists of toughened glasses sealed with silicon and separated by spacers to form completely vacuumized window. • Halogen (or equivalent) lighting shall be provided to view the specimen under test. 			
187.	Front Door	<ul style="list-style-type: none"> • The door shall have full access to the test space and shall be hinged to the chamber. • The door lock should be pull-action type latch clamp or equivalent. • The door shall be fitted 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		<p>with a limit switch and when ajar shall indicate “door open” in the controller and also be interlocked with the air circulation.</p> <ul style="list-style-type: none"> • The door shall be fitted with heaters to avoid condensation during low temperature cycles 			
188.	Entry Ports / Port Holes	<ul style="list-style-type: none"> • 2 Nos with suitable sealing gasket/silicones plugs • 1 Nos on LHS, Min Diameter: 50 mm. • 1 Nos on RHS, Min Diameter: 150 mm. 			
189.	External Surface Finish	All exposed parts shall be painted with corrosion-resistant paint			
190.	Conditioning Space	<ul style="list-style-type: none"> • The conditioning space shall be isolated from the test space using a suitable ducting sheet, with easy removal for maintenance. • All allied components such as the air circulation fan, heaters, evaporator, 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		<p>dehumidification and thermostat should be positioned within this space.</p> <ul style="list-style-type: none"> • There shall be no direct contact to any of these components from the test space 			
191.	Mounting	<ul style="list-style-type: none"> • Chamber with conditioning units should be mounted on the rails, capable of manual or motorized movement in the horizontal space. Suitable installation for rails on the test floor should be done by the bidder. • When not in use, the chamber with conditioning space should be movable to a safer distance (minimum 1m clear distance from slip table), away from the shaker/ slip table area so as to enable the independent functionality of shaker/ slip table. 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
192.	Trolley or guideways to the Environmental/ Climatic chamber, to move from head expander to slip table. Rigid stand with height adjustable feature/ provision, so that Environmental/ Climatic chamber can be mounted on head expander and on slip table.	<ul style="list-style-type: none"> Chamber / test space unit should have motorized movement for integration with armature/ slip table. Required. It is in bidders' scope of supply and erection Temperature membrane cloth barrier or equivalent should be provided for Armature/Head Expander integration and Slip Table integration bottom panel 			
193.	Overall Dimensions	<ul style="list-style-type: none"> Overall dimensions of the Environmental/ Climatic chamber unit, with its weight must be provided Required railing length and area for movement of overall chamber unit must be marked and provided. 			
194.	Input Power Supply	<ul style="list-style-type: none"> 415V \pm 10%, 3 Phase, 50 Hz 			
195.	Noise level	< 90 dB			
196.	Safety and Maintenance	All necessary safeties for			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
	Features	electrical, vacuum, hydraulic systems (if any) are to be incorporated to ensure protection to both system & operator against malfunction. The system must be designed for easy maintenance and accessibility to electrical & other components.			
197.	Provision for independent operation of Environmental/ Climatic chamber	<ul style="list-style-type: none"> • Bottom closure plate with dead load capacity of 200 kg (minimum) must be provided for independent operation of the Environmental/ Climatic chamber • Necessary accessories for independent operation shall be listed and provided 			
198.	Accessories & others	<ul style="list-style-type: none"> • Adjustable and removable shelves • O & M (Operation & Maintenance) manual. • Detailed Service manual. • Any special tools required for routine/ 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		<p>preventive & Breakdown maintenance.</p> <ul style="list-style-type: none"> • All Relevant Software with manuals for control, operation and maintenance. • Necessary cables and connectors for interfacing with PC. • Chamber calibration certificate and detailed procedure for recommended routine calibration. • It is the responsibility of the supplier/ bidder/OEM to include all the essential accessories required for proper functioning of the Environmental/ Climatic chamber at CSIR-SERC. List of accessories to be given. 			
199.	Water lines, tubing, erection of lines, refrigeration lines/ tubing/ erection, electrical cable/cabling, erection of lines. Refrigeration	Supply and installation in scope of the bidder.			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
	tanks, any storage tanks. Trolley/Racks, Desiccant humidifier				

Other Requirements

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
	Computer Specifications				
200.	Preferred Make	Reputed Make			
201.	Processor	Intel Core i9 10900X 3.7GHz 2933MHz 10C 165W CPU or better			
202.	Chipset	Intel X299 or better			
203.	RAM	32 GB nECC, DDR4 2933MHz memory support to 256GB; Total 8 DIMM Slots or better			
204.	BIOS	BIOS of the Workstation to have tool for enhanced security features like self- healing, regular checks.			
205.	Drive Controllers	Onboard 6-Channel SATA @ 6Gbps (RAID 0,1,5,10) or better			
206.	Hard Disk	1TB M.2 2280 PCIe NVMe TLC Solid StateDrive & 1 TB SATA 7200 RPM HDD. Option for future expansion of additional up to 4 SATA/SSD Hard drives or			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		better			
207.	Graphics Card	NVIDIA Quadro P2200 (5 GB GDDRS dedicated or Radeon™ Pro W5500 or better			
208.	Bays	2 x External 5.25” 2 x Internal 3.5” 1 x M.2 PCIe x 4 Gen3 Slot for SSDs Slim Optical Drive bay or better			
209.	Keyboard and Mouse	Minimum USB Keyboard and USB Optical Scroll Mouse of reputed make			
210.	Audio	High-Definition Integrated Audio with internal Speaker			
211.	Operating System	Windows Professional- latest version with MS Office preinstalled (Perpetual license validity). Bidders should ensure all the software are compatible with the controller provided			
212.	Warranty for Desktop	1 year atleast from the date of commission and installation of the whole system			
213.	Display	Atleast 27 inch FHD Monitor IPS with LED backlight of reputed make			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
	Others				
214.	List of deliverables	List of deliverables to meet the functional requirements			
215.	Quality of finish	All equipment should have good finish with anti-corrosive protection			
216.	Utility requirements	Bidder should provide details of the utilities required for operation of the shaker system & Environmental/ Climatic chamber like power requirements, compressed air requirements, space requirements, overall dimension			
217.	Documentation (Two sets of Hard Copies in English). Backup copies of all software's and O.S should be supplied in CDROM / pen drive.	<ul style="list-style-type: none"> • Operation Manual • Service Manual • Electrical wiring and mechanical schematics, dimensional drawings • Parts list: System specifications including subsystems, subsystems data sheets, interface requirements, calibration requirements and procedures. • Factory acceptance test results. 			
218.	Installation and commissioning	The bidder or their representative should take full responsibility for unloading, unpacking,			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		installation, commissioning, carrying out site acceptance tests and handing over the system to CSIR-SERC			
219.	Integration of Electrodynamic shaker controller and the Environmental/ Climatic Chamber	The bidder or their representative should take full responsibility of integrating electrodynamic shaker controller with the Environmental/ Climatic chamber at CSIR-SERC.			
220.	Training at CSIR-SERC	Bidder should provide mandatory in-person training and demonstration on operation and routine maintenance of the system for atleast 1 week to CSIR-SERC staff (Min. 15 people) as part of installation and commissioning.			
221.	Delivery Period	15-16 weeks from the date of issuing the PO			
222.	Warranty for Electrodynamic shaker System, controller, Environmental/ Climatic chamber and their sub	One-year comprehensive on-site warranty for the complete system including all the equipment, sub systems etc. from the date of installation and acceptance of the system. All spare parts required for the trouble-free operation of			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
	systems, accessories including its third party items/products.	the complete system during standard warranty period, needs to be supplied by the bidder, without extra cost. Fault should be resolved on-site within 2 working days of fault reporting.			
223.	Requirement of CAMC & AMC for the period of 3 years after the expiry of warranty period.	<p>CAMC (Comprehensive Annual Maintenance Contract) is required for the complete system including hardware, software, third party items, components etc. after the expiry of warranty period. All the spare parts required for the trouble-free operation of the complete system during the CAMC period needs to be supplied by the bidder with least downtime. Fault should be resolved on-site within 2 working days of fault reporting.</p> <p>Similarly, AMC is also required for the maintenance of the complete system including hardware, software, third party items, components etc. after the expiry of warranty period.</p>			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure																
		<p><u>Note:</u> The bidder should necessarily quote separately for the required CAMC & AMC as detailed below:</p> <table><tr><th>Details of Years after the warranty period</th><th>Charges towards CAMC</th><th>Charges towards AMC</th><th>Remarks</th></tr><tr><td>1st year</td><td></td><td></td><td></td></tr><tr><td>2nd year</td><td></td><td></td><td></td></tr><tr><td>3rd year</td><td></td><td></td><td></td></tr></table> <p>But, CSIR-SERC will avail the service towards CAMC & AMC at its discretion. <u>The quoted charges towards CAMC & AMC will not be considered for the evaluation of the bids.</u></p>	Details of Years after the warranty period	Charges towards CAMC	Charges towards AMC	Remarks	1 st year				2 nd year				3 rd year						
Details of Years after the warranty period	Charges towards CAMC	Charges towards AMC	Remarks																		
1 st year																					
2 nd year																					
3 rd year																					
224.	Spare parts and service support	The quoted system should have a minimum product life cycle of 15 years. The OEM has to inform the CSIR-SERC, one year before discontinuing the model/product. The OEM has to provide spare parts and service support for minimum 7 years from the date of discontinuing the model/system.																			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
225.	Testing and Acceptance at CSIR-SERC	Bidder shall conduct acceptance testing of the shaker and chamber system after installation at CSIR-SERC as per the criteria given in Annexure-A. The bidder may conduct additional tests as per their standard acceptance procedure. Any special equipment required for the installation & acceptance test shall be arranged by the bidder, if required.			
226.	Shifting, Relocation and/or Reinstallation	The bidder should also provide support and associated charges towards shifting, relocation and/or reinstallation of the entire system within 5 years from date of commissioning (if needed) within the campus of CSIR-SERC. But, CSIR-SERC will avail the service towards relocation and reinstallation at its discretion. The quoted charges towards relocation and re-installation will not be considered for the evaluation of the bids.			
227.	Schematic drawing	Schematic diagram of quoted shaker and environmental/ climatic chamber assembly with insert configuration shall be			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		provided along with the quote.			
228.	Supplied software and hardware	All the listed software and hardware items that bidder quotes should be preferably be a catalogue product and proven.			
229.	OEM authorization certificate	If the bidder is not OEM, the OEM authorization certificate has to be submitted along with bidding documents.			
230.	Compliance Statement	<ul style="list-style-type: none"> The bidder should meet all the technical specifications to qualify the bid. The bidder has to furnish the values/units/parameters against each CSIR-SERC requirement in the compliance sheet. Offer without this information will be rejected without any further reference. Merely stating, “comply” does not constitute sufficient information. Exact numerical values are to be specified wherever applicable. Specified technical data should be supported by product catalogues, manuals, test procedures, and test 			

S.No.	Parameters	SERC Requirements	Offered Specification	Compliance (Yes/No)	Page no. reference in the technical document/ brochure
		<p>plots etc, along with page number reference to the specified values. In case of insufficient technical data, the quote is liable to be rejected without further intimation.</p> <ul style="list-style-type: none"> The bidder has to sign and stamp (company seal) on all the pages of technical compliance sheet. 			
231.	Eligibility for Participation in tender	The bidder should have commissioned the following (i) atleast five numbers of electrodynamic shaker system of similar capacity (ii) atleast two numbers of combined electrodynamic shaker with climatic chamber system (for which the bid is submitted) in Govt institutes/ research organizations in India in the last 10 years.			
232.	List of Installations	The bidder should submit a list of these installations giving the date of supply and contact details along with the quote, the committee may visit these installations and evaluate the system as part of tender evaluation. Offer without this information is liable to be rejected without any further reference.			

ANNEXURE-A: Criteria for testing and acceptance at CSIR-SERC

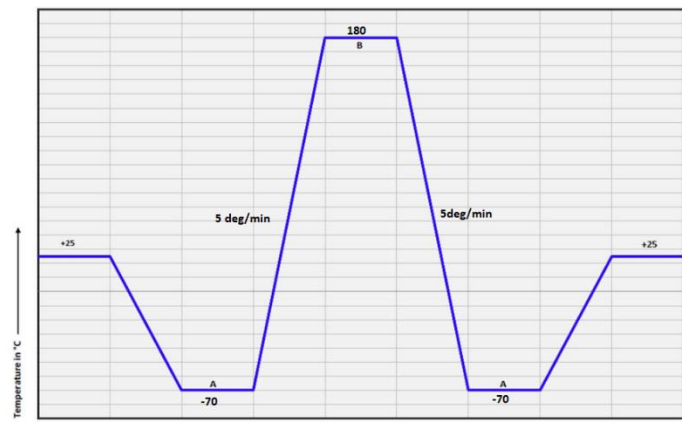
S.No.	Parameters	SERC Requirements
	BARE	
1.	Resonance test (Pre-signature)	<p>1g Constant control. Frequency 5 Hz to 2500 Hz at 1 Oct/min. Control at center of armature. Measurement at four points in outer most PCD/grid point 90^0 apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage.</p>
2.	Operation at Maximum rated parameter	<p>Max displacement, Max Velocity and Max Acceleration With frequency 5 Hz to 2500 Hz at sweep rate of 1 Oct/min, Multi point maximal Control at the armature top, Measurement at four points in outer most PCD/grid point 90^0 apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage. Envelope plot given below.</p> <div style="text-align: center;"> <p>Vibration Nomogram</p> </div>

S.No.	Parameters	SERC Requirements
3.	Resonance test (Post signature)	<p>1g Constant control.</p> <p>Frequency 5 Hz to 2500 Hz at 1 Oct/min. Control at center of armature.</p> <p>Measurement at four points in outer most PCD/grid point 90⁰ apart along mutually perpendicular directions</p> <p>Plot response accelerations for all three axes at locations.</p> <p>Plot Drive, O/P current, and O/P voltage.</p>
4.	Diaphragming and Cross axis response test	<p>5g Constant control from 5 to 2500 Hz with required slopes for Displacement and velocity, with sweep rate of 1 Oct/min.</p> <p>Control at center of armature.</p> <p>Measurement at four points in outer most PCD/grid point 90⁰ apart along mutually perpendicular directions</p> <p>Plot response accelerations for all three axes at locations.</p> <p>Plot Drive, O/P current, and O/P voltage.</p>
5.	Noise measurement on armature top	<p>With amplifier Set to 100% gain and zero input signal</p> <p>Measure accelerometer output at the armature top for 5 Hz to 20kHz analysis range. (Expected level< 0.2g)</p>
6.	Low g sine test	<p>Constant input acceleration level of 0.3g Frequency 5 Hz to 2500 Hz at 1 Oct/min.</p> <p>Control at center of armature.</p> <p>Measurement at four points in outer most PCD/grid point 90⁰ apart along mutually perpendicular directions</p> <p>Plot response accelerations for all three axes at locations.</p> <p>Plot Drive, O/P current, and O/P voltage.</p>
7.	Random rating test	<p>(20-100Hz:6dB/Oct, 100-2500Hz: flat PSD to obtain the max rms acceleration)</p> <p>Multi point maximal Control at armature top</p> <p>Measurement at four points in outer most PCD/grid point 90⁰ apart along mutually perpendicular directions</p> <p>Plot response accelerations for all three axes at locations.</p> <p>Plot Drive, O/P current, and O/P voltage.</p>
8.	Low g -rms random test	<p>Flat PSD from 20 Hz to 2500 Hz 0.3grms test level.</p> <p>Control at center of armature.</p>

S.No.	Parameters	SERC Requirements
		Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage.
9.	Shock Test	50 g, 10 ms half sine with 10% pre and post pulse Control at center of armature. Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage.
10.	Resonance test (Post signature)	1g Constant control. Frequency 5 Hz to 2500 Hz at 1 Oct/min. Control at center of armature. Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage.
11.	Wave form distortion tests	With input of 1g between 5 Hz to 100 Hz The THD should be $\leq 10\%$ between 5Hz – 100Hz THD computation should be carried as per ISO
LOAD TEST (With payload mass 2 times weight of armature, to be arranged by Bidder)		
12.	Resonance test (Pre signature)	1g Constant control. Frequency 5 Hz to 2000 Hz at 1 Oct/min. Control at center of armature. Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage.
13.	Sine test	Max displacement, max velocity and max acceleration to achieve max sine force rating of the shaker. Multi point maximal Control Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions

S.No.	Parameters	SERC Requirements
		Frequency 5 Hz to 2000 Hz at 1 Oct/ min. Plot Drive, O/P current, and O/P voltage. Check waveform distortion of accelerometer output and Amplifier output using Digital data acquisition system. Acceleration limited to maximum force rating of shaker.
14.	Random test	20-100Hz: 6dB/Oct, 100-2000Hz: flat PSD for full random force rating. Multi-point maximal Control Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Plot acceleration, Drive, O/P current and O/P voltage.
15.	Endurance test	Shaker should run continuously for 1 hour with maximum displacement, maximum velocity, Acceleration limited to maximum force rating of shaker. Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Multi point maximal Control. Plot acceleration, Drive, O/P current and O/P voltage.
16.	Resonance test (Post signature)	1g Constant control. Frequency 5 Hz to 2000 Hz at 1 Oct/min. Control at center of armature. Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage.
	SLIP TABLE	
17.	Resonance test (Pre signature)	1g Constant control. Frequency 5 Hz to 2000 Hz at 1 Oct/min. Control at slip table end along shaker axis Measurement at four points in outer most PCD/grid point 90 ⁰ apart along mutually perpendicular directions Plot response accelerations for all three axes at locations. Plot Drive, O/P current, and O/P voltage.

S.No.	Parameters	SERC Requirements
18.	Operation at Maximum rated parameter	<p>Max displacement, Max Velocity and Max Acceleration with frequency 5 Hz to 2000 Hz at sweep rate of 1 Oct/min.</p> <p>Control at slip table end along shaker axis</p> <p>Measurement at four points in outer most PCD/grid point 90⁰ apart along mutually perpendicular directions</p> <p>Plot response accelerations for all three axes at locations.</p> <p>Plot Drive, O/P current, and O/P voltage.</p>
19.	Cross-axis response test	<p>5g Constant control from 5 to 2000 Hz with required slopes for Displacement and velocity Control at slip table end along shaker axis.</p> <p>Measurement at four points in outer most PCD/grid point 90⁰ apart along mutually perpendicular directions</p> <p>Plot response accelerations for all three axes at locations.</p>
20.	Resonance test (Post signature)	<p>1g Constant control.</p> <p>Frequency 5 Hz to 2000 Hz at 1 Oct/min. Control at slip table end along shaker axis.</p> <p>Measurement at four points in outer most PCD/grid point 90⁰ apart along mutually perpendicular directions</p> <p>Plot response accelerations for all three axes at locations.</p> <p>Plot Drive, O/P current, and O/P voltage.</p>
POWER AMPLIFIER		
21.	Noise measurement	<p>Bare table</p> <p>With amplifier Set to 100% gain and zero input signal</p> <p>Measurement of output voltage and current with input shorted and amplifier set to 100% gain</p>
22.	Wave form distortion tests	<p>Test-A</p> <p>With an acceleration of 1g on armature bare table top between 5 Hz to 100Hz record output voltage and current wave forms.</p> <p>Test-B</p> <p>Record output voltage and current waveforms for</p> <ul style="list-style-type: none"> Maximum displacement sine dwell

S.No.	Parameters	SERC Requirements
		<ul style="list-style-type: none"> Maximum velocity sine dwell Maximum acceleration sine dwell
23.	Shaker system interlocks	Over travel limit by test Cooling unit flow switch Temperature switch Field power supply Emergency Abort switches
ENVIRONMENTAL/ CLIMATIC CHAMBER		
24.	Tolerance	Check has to be done to know whether the Environmental/ Climatic chamber achieves and maintains the required condition within specified tolerance limits
25.	Humidity and temperature measurement	-70 ⁰ C to +180 ⁰ C & 10% to 95% RH
26.	Typical load test	Calibration of the chamber with a typical load
27.	Repeatability	Demonstrate repeatability of conditions (temperature and humidity) in the chamber during the test
28.	Test profile	Replicate acceptance test profile for high and low-temperature test as given below Replicate profile for combined temperature and Humidity test as per the specifications <div data-bbox="732 820 1411 1308">  <p>Note: 1. Where A & B are Lowest & Highest specified temperatures respectively. 2. Ramp rates will be as mentioned in Scope of Supply. 3. Dwell or soak time is limited to 1 hr. 4. Number of cycles are limited to 2.</p> </div>

ACCEPTANCE TERMS

1. Specifications should be strictly adhered to without compromise. At the time of supply, all the parts supplied should be the latest one i.e. should there be a new and improved version of the part(s) developed after the quote was furnished the improved versions should only be supplied and without any additional cost to the buyer.
2. A simple step-by-step operating procedure (max 2 pages) which will be kept near the equipment indicating the precautions for eg. Safe pressures, dos and don'ts for safe and correct use of the entire equipment including software should be provided to help extend the life of the system.
3. The service manual to be given.

4.2.1 Pre-dispatch Inspection by CSIR - SERC

Not Applicable

4.2.2 Manufacturer's Inspection Certificate

After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser reserves the options to be present at the supplier's premises during such inspection and testing.

4.2.3 Third Party Inspection

Not Applicable

4.2.4 Acceptance Test

The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the item is installed at Purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation as per the acceptance criteria mentioned in Annexure A. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the item is expected to occur. The Supplier shall maintain necessary log, in respect of result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified. In the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance

test, failing which, the Purchaser reserve the right to get the item replaced by the Supplier at no extra cost to the Purchaser. Successful conduct and conclusion of the acceptance test for the installed goods and items shall also be the responsibility and at the cost of the Supplier.

4.3 **Training**

Free training should be imparted to **Minimum 15 No. of persons** of the purchaser at the purchaser's premises for a **minimum period of one week** on operation, trouble shooting and maintenance of the supplied item

4.4 **Warranty**

Comprehensive onsite warranty of the equipment should be for a period of **One year** from the date of acceptance and Installation & Commissioning. During the warranty period upgrades of the software, if any should be provided free of cost.

CHAPTER 5

PRICE SCHEDULE FORM

Please upload the prices in the .xls sheet uploaded in cover 2 – Price Bid.

Kindly follow instructions hereunder to fill Bill of Quantities (BoQ). Any discrepancy in following instructions would lead to rejection of the bid.

Instructions:-

- On Opening the BOQ (Bill of Quantity) “Please Enable Macros to View BOQ Information”. Please go to **enable editing** just below the task bar.
- As macros have to be enabled please click on **enable content**.
- **BoQ1**
Bidders are requested to fill columns marked in blue only i.e i) **BASIC RATE in Figures to be entered by the Bidder Rs. P (Column M), ii) Make / Model (Column AJ)**

CHAPTER 6

CONTRACT FORM

Contract No. _____ Date: _____

THIS CONTRACT AGREEMENT is made

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

- (1) The Director, CSIR - SERC, Taramani, Chennai, a constituent Laboratory of Council of Scientific and Industrial Research registered under the Societies Registration Act 1860 of the Government of India having its registered office at 2, Rafi Marg, New Delhi-110001, India represented by Stores & Purchase Officer, CSIR- SERC, Taramani, Chennai, INDIA, (hereinafter called “the Purchaser”), and
- (2) *[insert name of Supplier]*, a corporation incorporated under the laws of *[insert: country of Supplier]* and having its principal place of business at *[insert: address of Supplier]* (hereinafter called “the Supplier”).

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of *[insert Contract Price in words and figures, expressed in the Contract currency (ies)]* (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

01. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
02. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
 - (a) This Contract Agreement
 - (b) Special Conditions of Contract
 - (c) General Conditions of Contract
 - (d) Technical Requirements (including Schedule of Requirements and Technical Specifications)
 - (e) The Supplier’s Bid and original Price Schedules
 - (f) The Purchaser’s Notification of Award
 - (g) *[Add here any other document(s)]*

03. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
04. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
05. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the Council of Scientific & Industrial Research

Signed: *[insert signature]*

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

in the presence of *[insert identification of official witness]*

Signed: *[insert signature]*

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

in the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

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

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

in the presence of *[insert identification of official witness]*

CHAPTER - 7

Annexures to be enclosed with Techno-Commercial Bid

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ANNEXURE- I

BIDDER INFORMATION FORM

(a) *[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]*

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

Tender No.: *[insert number from Invitation for bids]*

01.	Bidder's Legal Name <i>[insert Bidder's legal name]</i>
02.	In case of JV, legal name of each party: <i>[insert legal name of each party in JV]</i>
03.	Bidder's actual or intended Country of Registration: <i>[insert actual or intended Country of Registration]</i>
04.	Bidder's Year of Registration: <i>[insert Bidder's year of registration]</i>
05.	Bidder's Legal Address in Country of Registration: <i>[insert Bidder's legal address in country of registration]</i>
06	NAME AND ADDRESS OF BANK: BANK ACCOUNT NUMBER: TYPE OF ACCOUNT: IFSC CODE:
07.	Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
08	COUNTRY OF ORIGIN OF PRODUCT (S):
09	Are you a manufacturer? If yes, indicate factory premises address ADDRESS OF THE PLACE MANUFACTURE / FACTORY / PLACE WHERE LOCAL CONTENT VALUE ADDITION IS DONE BY MANUFACTURER:
10	If item is imported and is from a country sharing land border with India, then Registration certificate details like number, date and validity date:

11	Are you a MSE registered for the Item under procurement: if Yes then furnish details of the certificate, date and validity along with copy of the same.
13	Attached are copies of original documents of: As per document upload.

Signature of Bidder _____

Name _____

Business Address _____

ANNEXURE – II

Format for declaration by the Bidder for Code of Integrity & Conflict of interest
(On the Letter Head of the Bidder)

Ref.No: _____

Date: _____

To,

(Name & address of the Purchaser)

Sir,

With reference to your Tender No. _____ dated _____ I/We hereby declare that we shall abide by the Code of Integrity for Public Procurement as mentioned under Para 1.3.0 of ITB of your Tender document and have no conflict of interest.

The details of any previous transgressions of the code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity are as under:

- a.
- b.
- c.

We undertake that we shall be liable for any punitive action in case of transgression/ contravention of this code.

Thanking you,

Yours sincerely,

Signature
(Name of the Authorized Signatory
Company)

ANNEXURE - III

MANUFACTURERS' AUTHORIZATION FORM

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

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

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

To: *[insert complete name and address of Purchaser]*

WHEREAS

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

We hereby extend our full guarantee and warranty in accordance with Clause 2.21 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

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

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

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

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

ANNEXURE - IV

BID SECURITY FORM

Whereas _____ (hereinafter called the tenderer")
has submitted their offer dated _____ for the supply of
_____ (hereinafter called the tenderer")
Against the purchaser's tender enquiry No. _____

KNOW ALL MEN by these presents that WE _____ of _____ having
our registered office at _____ are bound unto _____
(hereinafter called the "Purchaser")

In the sum of _____
For which payment will and truly to be made to the said Purchaser, the Bank binds itself, its
successors and assigns by these presents. Sealed with the Common Seal of the said Bank
this _____ day of _____ 20____.

THE CONDITIONS OF THIS OBLIGATION ARE:

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

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

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

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

Note: Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

ANNEXURE - V

BID-SECURING DECLARATION FORM

Date: _____

Bid No. _____

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of : (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

ANNEXURE - VI

PERFORMANCE STATEMENT FORM

(For a period of last 5 years)

Name of the Firm.....

Order Placed by (full address of Purchaser)	Order No. and date	Description and quantity of ordered equipment	Value of order	Date of completion of deliver as per Contract	Date of actual completion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been installed satisfactory ? (Attach a certificate from the purchaser/ Consignee)	Contact person along with Telephone No., FAX No. and e-mail address

Signature and Seal of the manufacturer/Bidder

Place :

Date :

ANNEXURE - VII

DEVIATION STATEMENT FORM

Sl.No.	Name of Specifications / Parts / Accessories of Tender Enquiry	Specifications of Quote Model / Part /Accessory	Compliance Whether Yes of No	Deviation, if any to be indicated in unambiguous terms (The compliance / Deviation should be supported by relevant Technical Literature)	Technical justification for the deviation, if any. If specification is superior /inferior than asked for in the enquiry, it should be clearly brought out in the justification

Signature of Bidder

- ✓ The technical and commercial deviations should be indicated separately.
- ✓ If the bidder fails to enclose the compliance statement, his bid is likely to be rejected.

Place:

Date:

Signature and seal of the
Manufacturer/Bidder

NOTE:

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

ANNEXURE - VIII

SERVICE SUPPORT DETAIL FORM

Sl. No.	Nature of training imparted	List of similar type of serviced in the past 3 years	Address, TelephoneNos. , Mobile Nos and e-mail address

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

Place :

Date :

ANNEXURE - IX
Bid Form

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

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

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

Invitation for Bid No.: *[insert No of IFB]* To: *[insert complete name of Purchaser]*

We, the undersigned, declare that:

- a) We have examined and have no reservations to the Bidding Documents, including Addenda No.: *[insert the number and issuing date of each Addenda]*;
- b) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services *[insert a brief description of the Goods and Related Services]*;
- c) The total price of our Bid, excluding any discounts offered in item (d) below, is: *[insert the total bid price in words and figures, indicating the various amounts and the respective currencies]*;
- d) The discounts offered and the methodology for their application are:
Discounts: If our bid is accepted, the following discounts shall apply. *[Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]*
- e) Our bid shall be valid for the period of time specified in ITB Sub-Clause 1.17.1 from the date fixed for the bid opening, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- f) If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 1.41 and GCC Clause 2.13 for the due performance of the Contract and also submit order acceptance within 21 days from the date of contract in accordance with ITB Clause 1.40 and GCC Clause 2.43;

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

Place :

Date :

ANNEXURE - X

PERFORMANCE SECURITY FORM

MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To,

.....

WHEREAS (name and address of the supplier) (hereinafter called “the supplier”) has undertaken, in pursuance of contract No. datedto supply (description of goods and services) (herein after called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the day of, 20.....

(Signature of the authorized officer of the Bank)

.....

Name and designation of the officer

.....

Seal, Name & Address of the Issuing Branch of the Bank

Note: Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

ANNEXURE - XI

ACCEPTANCE CERTIFICATE FORM

No. _____

Dated: _____

M/s. _____

Sub: Certificate of commissioning of equipment

01. This is to certify that the equipment as detailed below has/have been received in good condition along with all the standard and special accessories (subject to remarks in Para 2). The same has been installed and commissioned.

(a) Contract No. _____ Date _____

(b) Description of the equipment _____

(c) Name of the consignee _____

(d) Scheduled date of delivery of the consignment to the Lab./Instts. _____

(e) Actual date of receipt of consignment by the Lab./Instts. _____

(f) Scheduled date for completion of installation/commissioning _____

(g) Training Starting Date _____

(h) Training Completion Date _____

(i) Names of People Trained _____

(j) Actual date of completion of installation/commissioning _____

(k) Penalty for late delivery (at Lab./Instts. level) ₹ _____

(l) Penalty for late installation (at Lab./Instts. level ₹ _____

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

Sl. No.	Description	Amount to be recovered

02. The acceptance test has been done to our entire satisfaction. The supplier has fulfilled his contractual obligations satisfactorily

or

The supplier has failed to fulfil his contractual obligations with regard to the following:

- (a)
- (b)
- (c)
- (d)

The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated at Sr. No. 3.

For Supplier

Signature

Name

Designation

Name of the firm.....

Date

For Purchaser

Signature.....

Name.....

Designation.....

Name of the Lab/Instt.....

Date.....

ANNEXURE - XII

Format for Affidavit of Self Certification regarding Local Content to be provided on Letter

Head

Tender No. _____

Date: _____

I _____ S/o, D/o, W/o _____, Resident of _____ do hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the policy of Government of India issued vide Notification – Public procurement (preference to Make in India) Order 2017 dt 16th September, 2020.

That the information furnished hereinafter is correct to be of my knowledge and belief and I undertake to produce relevant records before the procuring entity or any authority so nominated for the purpose of assessing the local content.

That the local content for all inputs which constitute the said R&D equipment as per the enclosed list has been verified by me and I am responsible for the correctness of the claims made therein.

That in the event of the domestic value addition of the product mentioned herein is found to be incorrect and not meeting the prescribed value-addition norms, based on the assessment of an authority so nominated for the purpose of assessing the local content, action will be taken against me as per Order No. P-45021/2/2017/-PP (BE-II) dated 16.09.2020.

I agree to maintain the following information in the Company's record for a period of 8 years and shall make this available for verification to any statutory authority: (Kindly fill up the below mentioned particulars)

- i. Name and details of the Domestic Manufacturer (Registered Office, Manufacturing Unit location, nature of legal entity)
- ii. Date on which this certificate is issued
- iii. R &D consumable for which the certificate is produced
- iv. Procuring entity to whom the certificate is furnished – CSIR - SERC
- v. Percentage of local content claimed
- vi. Name and contact details of the unit of the manufacturer

Sale Price of the product, Ex-Factory Price of the product, Freight, insurance and handling, Total Bill of Material, List and total cost value of inputs used for manufacture of the R &D equipment, List and total cost of inputs which are domestically sourced, value addition certificates from suppliers, if the input is not in-house to be attached, List and cost of inputs which are imported, directly or indirectly which go into calculation of Local content and like records shall be produced in case of any verification.

For and on behalf of

(Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Director)

ANNEXURE –XIII
Format of Integrity Pact

INTEGRITY PACT

Between

Council of Scientific & Industrial Research (CSIR) a Society registered under the Indian Societies Act 1860 represented by _____ hereinafter referred to as “The Principal”.

And herein referred to as “The Bidder/ Contractor.”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s forThe Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - (c) The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action.

Section 2 – Commitments of the Bidder(s)/Contractor(s)

- (1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - (a) The Bidder(s)/Contractor(s) will not, directly or through any other Person or firm, offer, promise or give to any of the Principal’s employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- (b) The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, Certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- (c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- (d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annexure.
- (e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future Contracts

- (1) If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings". Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annex - "B".

Section 4 – Compensation for Damages

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- (2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

- (1) The Bidder declares that no previous transgressions occurred in the last 3 Years with any other Company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in “Guidelines on Banning of business dealings.”

Section 6 – Equal treatment of all Bidders / Contractors/ Sub-contractors

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all Subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidders / Contractors/ Subcontractors

- (1) If the Principal obtains knowledge of conduct of a bidder, Contractor or Subcontractor or of an employee or a representative or an associate of a bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 - Independent External Monitors

- (1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the JS (A), CSIR.
- (3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Subcontractor(s) with confidentiality.
- (4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notice, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinuor take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- (6) The Monitor will submit a written report to the JS(A), CSIR within 8 to 10 weeks from the date of reference or intimation to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.

- (7) Monitor shall be entitled to compensation on the same terms as being extended to/provided to Independent Directors on the CSIR.
- (8) If the Monitor has reported to the JS(A), CSIR, a substantiated suspicion of an offence under relevant IPC/PC Act, and the JS(A), CSIR has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- (9) The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by JS(A), CSIR.

Section 10 – Other provisions

- (1) This agreement is subject to Indian Law. Place of performance and Jurisdiction is the Registered Office of the Principal, i.e. New Delhi
- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & On behalf of the Principal)

(Office Seal)

Place.....

Date.....

(For & On behalf of Bidder/Contractor)

(Office Seal)

Place.....

Date.....

Witness 1:(Name & Address): _____

Witness 2:(Name & Address): _____

Certificate with regard to the bidder not having a land border with India

(Ref.- Govt. of India, Ministry of Finance, Dept. of Expenditure Order No. F.No.6/18/2019-PPD dated 23.07.2020 {Public Procurement No.1} and subsequent orders on the subject)

Tender No: _____

Date _____

To,

The Director,
CSIR – SERC
CSIR Road, Taramani,
Chennai – 600 113.

Sir,

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that M/s. _____ is not from such a country.

For and on behalf of

(Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Director)

Certificate with regard to the bidder having a land border with India

(Ref.- Govt. of India, Ministry of Finance, Dept. of Expenditure Order No. F.No.6/18/2019-PPD dated 23.07.2020 {Public Procurement No.1} and subsequent orders on the subject)

Tender No: _____

Date _____

To,

The Director,
CSIR – SERC
CSIR Road, Taramani,
Chennai – 600 113.

Sir,

I hereby certify that, M/s. _____ fulfills all requirements in this regard and is eligible to be considered. [Evidence of valid registration by the Competent Authority should be attached.]

For and on behalf of

(Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Director)

ISO 9001 Organisation
सी.एस.आई.आर-संरचनात्मक अभियांत्रिकी अनुसंधान केन्द्र
CSIR-STRUCTURAL ENGINEERING RESEARCH CENTRE
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद Council of Scientific and Industrial Research)
सी.एस.आई.आर परिसर CSIR CAMPUS, तारमणि TARAMANI, चेन्नै CHENNAI - 600 113. भारत INDIA
दूरभाष Tel: 044-22549108/09, 22541238 फैक्स Fax: 044-22542211
ई-मेल E-mail: puroff@serc.res.in

Electronic Fund Transfer Account Details:

01.	Name of the Account Holder	Director, CSIR-SERC
02.	Address	CSIR Road, CSIR Campus, Taramani, Chennai – 600 113
03.	E-Mail address	finoff@serc.res.in
04.	Phone Number/Mobile Number	044-22549105/06/07
05.	(1) Permanent Account Number (PAN) (2) GSTIN	AAATC2716R 33AAATC2716R3ZK
06.	Particulars of Bank Account	
	(i) Name of the Bank	State Bank of India
	(ii) Name of the Branch	Taramani Branch
	(iii) Branch Code	010673
	(iv) Address	State Bank of India, CSIR Campus, Taramani Branch, Chennai 600 113.
	(v) Telephone Number	044-22544519/22541848
	(vi) Account Number	30225927924
	(vii) Type of Account	Saving Bank Account
	(viii) IFSC Code (RTGS/NEFT)	SBIN0010673
	(ix) MICR Code	600002130