

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR GT ROAD, KALYANPUR, KANPUR – 208016 UTTAR PRADESH, INDIA

TENDER REFERENCE NO.: IITK/EE/MJA/2020/02

BID SUBMISSION END DATE- 01.12.2020

TENDER DOCUMENTS

For

"ESTABLISHMENT OF CONDUCTED IMMUNITY AND EMISSION TESTING FACILITY (INCLUDING ESD, SURGE, BURST, DIP AND INTERRUPTS, MAGNETIC FIELD, HARMONICS AND FLICKER)

FOR

TESTING OF MEDICAL, ELECTRICAL, AND ELECTRONIC DEVICES"

<u>INDEX</u>

S. No.	Section	Contents	Page No.
1	Section I	Bid Document	3
2	Section II	Instruction for Online Bid Submission	5
3	Section III	Instruction for e-Procurement	8
4	Section IV	Commercial Terms and Conditions	14
5	Section V	Tender Notice	22
6	Section VI	Tender Document	23
7	Section VI	Technical Specification of establishment of	24
		conducted immunity and emission testing facility	
		(including ESD, surge, burst, dip and interrupts,	
		magnetic field, harmonics and flicker)	
6	Section VII	Additional Terms and Conditions	40
7	Appendix – 1	Tender Acceptance Letter	43
8	Appendix – 2	Certificate for Tender	44
9	Appendix – 3	Certificate for Tender for Works involving possibility	45
		of sub-contracting	
10	Appendix – 4	Declaration for Local Content	46
11	Appendix – 5	Details of Earnest Money Deposit (EMD)	47
12	Appendix – 6	Bidder's Eligibility Criteria	48

SECTION I BID DOCUMENT

The Indian Institute of Technology Kanpur ("the IITK") invites Bids ("Bids") from eligible, qualified and capable companies for the supply and delivery of "the Goods" and provision of associated services ("Associated Services") according to the requirements as defined in the Tender document.

Name of Work	Conducted susceptibility Test System for Medical, Electrical, and Electronic Devices
	Establishment of Conducted Immunity and Emission Testing Facility (including ESD, Surge, Burst, Dip and Interrupts, Magnetic Field, Harmonics and Flicker) For Testing of Medical, Electrical, and Electronic Devices
Date of Publishing	09.11.2020 (16.00 hrs)
Clarification Start Date and Time	09.11.2020 (16.30 hrs)
Clarification End Date and Time	18.11.2020 (16.00 hrs)
Queries (if any)	Contact information, for any queries: email: contact@emcmedtest.org Phone: +91 7351462980 Phone: +91 512 679 6153 Phone: +91 512 259 6153 No queries will be entertained after clarification end date and time
Bid Submission Start Date	09.11.2020 (16.00 hrs)
Last Date and time of uploading of Bids	01.12.2020 (16.00 hrs)
Last Date and time of submitting , EMD and other documents at IIT Kanpur (if any)	02.12.2020 (12.00 hrs) EMD Amount: Rs.150,000/- (Rupees one lakh fifty thousand only)
	EMD Amount can be in the form of DD in favour of Registrar IIT Kanpur or online submission to the following account:
	Account Name: Registrar IIT Kanpur Account Number.: 10426002137 IFS Code: SBIN0001161
	If the amount is being paid through DD, a scanned copy of the draft should be uploaded

	along with the technical bid. The original draft should reach the Purchase Section, IIT Kanpur on or before the date of opening of the technical bid. In case the amount is being paid online to the above mentioned account, a scanned copy of the transaction slip should be uploaded along with the technical bid.
Date and time of opening of Technical Bids	02.12.2020 (16:00 hrs)
Date and time of opening of Financial Bids	Will be separately notified for Technically shortlisted/qualified bidders

Interested parties may view and download the tender document containing the detailed terms & conditions from the website http://eprocure.gov.in/eprocure/app

i.

ii.

iii.(The bids must be submitted online in electronic form on www.eprocure.gov.in only. No physical bids will be accepted.)

SECTION II INSTRUCTION FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal iehttp://eprocure.gov.in/eprocure/app, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

1. REGISTRATION

- (i) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "Online Bidder Enrolment" option available on the home page. Enrolment on the CPP Portal is free of charge.
- (ii) During enrolment/ registration, the bidders should provide the correct/ true information including valid email-id & mobile no. All the correspondence shall be made directly with the contractors/ bidders through email-id provided.
- (iii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv) For e-tendering possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY /nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/ SmartCard.
- (v) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (vi) Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- (vii) Bidders can than log into the site through the secured login by entering their userID/ password and the password of the DSC/ eToken.

2. SEARCHING FOR TENDER DOCUMENTS

- (i) There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords, etc., to search for a tender published on the CPP Portal.
- (ii) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.
- (iii) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

3. PREPARATION OF BIDS:

(i) For preparation of bid Bidders shall search the tender from published tender list available on

site and download the complete tender document and should take into account corrigendum if any published before submitting their bids.

After selecting the tender document same shall be moved to the 'My favourite' folder of bidders account from where bidder can view all the details of the tender document.

- (ii) Bidder shall go through the tender document carefully to understand the documents required to be submitted as part of the bid. Bidders shall note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- (iii) Any pre-bid clarifications if required, then same may be obtained online through the tender site, or through the contact details given in the tender document.
- (iv) Bidders should get ready in advance the bid documents in the required format (PDF/xls/rar/dwf/jpg formats) to be submitted as indicated in the tender document/schedule. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- (v) Bidders can update well in advance, the documents such as experience certificates, annual report, PAN, EPF & other details etc., under "My Space/ Other Important Document" option, which can be submitted as per tender requirements. This will facilitate the bid submission process faster by reducing upload time of bids.

4. SUBMISSION OF BIDS:

- (i) Bidder should log into the site well in advance for bid submission so that he/ she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay.
- (ii) Bidder should prepare the EMD as per the instructions specified in the NIT/ tender document. The details of the DD/BC/BG/ others physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- (iii) While submitting the bids online, the bidder shall read the terms & conditions (of CPP portal) and accepts the same to proceed further to submit their bid.
- (iv) Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.
- (v) Bidder shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (vi) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- (vii) Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document. For the file size of less than 1 MB, the transaction uploading time will be very fast.
- (viii) If price quotes are required in XLS format, utmost care shall be taken for uploading Schedule of quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.
 - Bidders shall download the Schedule of Quantities & Prices i.e. Schedule-A, in XLS format and save it without changing the name of the file. Bidder shall quote their rate in figures in

the appropriate cells, thereafter, save and upload the file in financial bid cover (Price bid) only.

If the template of Schedule of Quantities & Prices file is found to be modified/corrupted in the eventuality by the bidder, the bid will be rejected and further dealt as per provision of clause no 23.0 of ITB including forfeiture of EMD.

The bidders are cautioned that uploading of financial bid elsewhere i.e. other than in cover 2 will result in rejection of the tender.

- (ix) Bidders shall submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- (x) After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the bidders shall take print out of system generated acknowledgement number and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- (xi) Bidders should follow the server time being displayed on bidder's dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.
- (xii) All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology.
- (xiii) Bidder will get all benefits under Rule 153 GFR-2017.

5. ASSISTANCE TO BIDDERS:

- (i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender. The contact number of end user is 0512-259-6153, Please call between 10:30 hrs to 17:00 hrs, contact@emcmedtest.org.
- (ii) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24X7 CPP Portal Helpdesk. The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002 and 0120-4001005. The helpdesk email id is support-eproc@nic.in

SECTION III INSTRUCTION FOR e-PROCUREMENT

1. PREPARATION AND SUBMISSION OF BIDS:

- a. The detailed tender documents may be downloaded from http://eprocure.gov.in/eprocure/app
 till the last date of submission of tender. The Tender may be submitted online through CPP
 Portal http://eprocure.gov.in/eprocure/app
- **b.** The bidder should submit the bid online in two parts viz. Technical Bid and Financial Bid. Technical Bid should be upload online in cover 1 and Financial Bid in ".XIs" should be upload online in cover-2

2. SUBMISSION OF THE BID:

All interested eligible bidders are requested to submit their bids online on CPP Portal: http://eprocure.gov.in/eprocure/app per the criteria given in this document:

- a. Technical Bid should be upload online in cover-1.
- **b.** Financial Bid should be upload online in cover-2

Both Technical and Financial Bid covers should be placed online on the CPP Portal (http://eprocure.gov.in/eprocure/app).

3. TECHNICAL BID:

Signed and Scanned copies of the Technical bid documents as under must be submitted online on CPP Portal: http://eprocure.gov.in/eprocure/app.

- a. List of Documents to be scanned and uploaded (Under Cover-1) within the period of bid submission:
 - i. Scanned copy of Bank details. (Bank details of principal supplier in case of Import shipments)
 - ii. Scanned copy of certificate of GST. (GSTIN of Indian Agent in case of Import Shipments)
 - iii. Specifications or brochures of each item and complete list of equipment/ item that will be used in establishing a test facility.
 - iv. List of organizations (with contact information), where a similar type of test facility has been established by the bidder in the last 5 years.
 - v. Work completion Certificate provided by the respective organizations.
 - vi. Compliance sheet against the specification mentioned in technical bid.
 - vii. Annual report, audited balance sheet, and profit and loss account for preceding three years from the date of tender opening.
 - viii. Tender acceptance letter (Appendix-1).
 - ix. Certificate for Tender (Appendix-2) and Certificate for Tender for Works involving possibility of sub-contracting (Appendix-3).
 - x. Declaration for local content and Country of Origin of goods on Appendix 4
 - 1. For The tender value upto Rs. 10 Crores Self-Certificate for local content from the bidder.
 - 2. For the tender value above Rs. 10 Crores Certificate for local content from Statutory Auditor/Cost Auditor/Cost Accountant/CA.
 - xi. Receipt of EMD payment and details of EMD (Appendix-5).
 - xii. Bidder's elgibility criteria (Appendix-6).
 - xiii. Scanned copy of other documents as specified in Technical Bid.

NOTE - no indication of the rates/amounts be made in any of the documents submitted with the TC-BID.

4. FINANCIAL BID

- a. The currency of all quoted rates shall be Indian Rupees only.
- **b.** The bidder will quote the rates in Indian Rupees only. All comparison and evaluation of financial bids will also take place in Indian Rupees.
- c. For items in Section VI: the bidder shall provide the overall price in the BOQ excel file.
- **d.** The final tender will however be awarded to the bidder quoting the lowest total price, taking into account prices of all the items listed in the BOQ excel file and any other prices / Educational discount mentioned in the Additional sheet.
- **e.** The price quoted shall include the warranty and calibration charges as specified in the technical bid.
- f. All the prices should be FOR IIT Kanpur.
- g. In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified ".XIs" format i.e. Price Bid Excel sheet attached as '.XIs' with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.
- **h.** The Financial Proposal should be inclusive of all applicable taxes, duties, fees, levies, and other charges imposed under the applicable laws. The rates quoted in the Tender are inclusive of all applicable taxes, duties etc. except service tax. The service tax component shall be reimmersible by the department after receipt of paid challans etc. if applicable.

5. LAST DATE FOR SUBMISSION OF TENDER:

- **a.** Online bids complete in all respects, must be submitted on or before the last date and time specified in the schedule of events.
- **b.** The IIT, Kanpur may, at its own discretion, alter/extend the last date for submission of tenders.

6. BID VALIDITY

- **a.** All the Bids must be valid for a period of 90 days from the last date of submission of the tender for execution of Contract. However, the quoted rates should be valid for the initial/ extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the original Contract period.
- **b.** A bid valid for a shorter period shall be declared as non-responsive.
- c. In exceptional circumstances, prior to expiry of the original time limit, the IIT may request the bidders to extend the period of validity for a specified additional period beyond the original validity of 90 days. The request and the bidders' responses shall be made in writing. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.

7. MODIFICATION / SUBSTITUTION / WITHDRAWAL OF BIDS:

a. No Bid shall be modified, substituted or withdrawn by the Bidder after the Bid's due Date.

b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid's due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

8. REJECTION OF THE BID:

The bid submitted shall become invalid and tender fee shall not be refunded if:-

- a. The bidder is found ineligible.
- **b.** The bid does not meet the selection criteria mentioned in clause 9 of this section.
- c. The bidder does not upload all the documents as stipulated in the bid document.

9. SELECTION CRITERIA:

Phase-I: Technical Evaluation & Sample Approval

Technical evaluation will be done on the basis of information given by technical bids submitted by the bidders and demonstration of previously installed similar facilities.

Bid containing partial, incomplete, uncleared and superfluous and unwanted information will be summarily rejected. Technical declaration must be supported with relevant documents. Discrepancy in relevant supporting document and technical compliance sheets shall lead to rejection of technical bids.

Bidders should be willing to demonstrate the previous conducted and emission test facility of similar type installed by them at major institutions before the opening date of the financial bid. Non-demonstration of the previously installed facility by the bidder may result in disqualification.

Sample Approval:

Bidders should have to display their samples (if asked) on **07.12.2020** at the Central Store & Purchase Section of IIT Kanpur. Non-display of sample shall be considered as non-responsive technical bids.

Phase-II

- a. Financial bids of technically qualified and approve samples bidders shall be opened.
- **b.** Financial evaluation is purely done on the total financial implication.
- c. Any superfluous, unreasonable assets rate quotes will be summarily rejected.

10. Late Delivery:

Delivery must be completed within the period mentioned in tender document from the date of receipt of the order. Penalty @ 1% per week or part thereof subject to a maximum of 10% of the delivery price will be deducted from the balance payment if supply is not completed within stipulated period.

11. Instruction to the bidder of countries which share land border with India (Rule 144(xi) GFRs)

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Department for Promotion of Industry and Internal Trade (DPIIT).
- 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 from a country which shares a land border with India" for the purpose of this Order means: -
- a. An entity incorporated, established, or registered in such a country; or
- b. A subsidiary of an entity incorporated, established, or registered in such a country; or
- **c.** An entity substantially controlled through entities incorporated, established, or registered in such a country; or
- **d.** An entity whose beneficial owner is situated in such a country; or
- e. An Indian (or other) agent of such an entity; or
- f. A natural person who is a citizen of such a country; or
- **g.** A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The beneficial owner for the purpose of (iii) above will be as under:
 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.
- c. 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;
- **d.** 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;
- e. 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.
- **f.** 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. In case of tenders for Works contracts, including Turnkey contracts, 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.
- **12.** As per the Ministry of Commerce and Industry Order No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 preference shall be given to Make in India products for which it is mandatory for bidders to declare Country of Origin of goods and percentage of Local contents in the product.

Definitions:

"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.

"Class-I local supplier" means a supplier or service provider, whose goods, services or works offered for procurement, has local content to or more than 50%, as defined under this order.

"Class-II local supplier" means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this order.

"Margin of purchase preference" means the maximum extent to which the price quoted by a Class-I local supplier may be above the L1 for the purpose of purchase preference. (shall be 20%)

Purchase Preference:

- (a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.
- (b) In the procurements of goods or works, which are covered by para 3(b) above and which are divisible in nature, the Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:
 - i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is Class local supplier', the contract for full quantity will be awarded to L1.
 - ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and

- so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.
- (c) In the procurements of goods or works, which are covered by para 3(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-1 local supplier' shall get purchase preference over 'Class-ul local supplier' as well as 'Non-local supplier', as per following procedure:
 - iv. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-1 local supplier', the contract will be awarded to L1.
 - v. If L1 is not 'Class-1 local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
 - vi. In case such lowest eligible 'Class-1 local supplier' fails to match the L1 price, the 'Class-1 local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-1 local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.
- (d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

SECTION IV COMMERCIAL TERMS AND CONDITIONS

1. DEFINITIONS

These Commercial Terms and Conditions shall constitute the General Conditions of Contract, where no separate contract is signed with the selected Bidder(s), and, the Bidders by putting their signature and stamp on each page of this Section V are binding themselves to these Terms and Conditions. In the Commercial Terms and Conditions as defined below, words and expressions shall have the following meanings assigned to them:

- a. "Contract" means the agreement of the Parties relating to the procurement of Goods and / or the IITK Purchase Order (PO), and all attachments incorporated by reference, which shall form an integral part of the Contract. In the event of any discrepancy, the documents to prevail shall be given precedence in the following order: (i) the Contract (where separately signed), (ii) the IITK Purchase Order, (iii) its attachments, and (iv) these Commercial Terms and Conditions;
- **b.** "Contractor" means the person or entity named in the 'CONTRACTOR' named field of the IITK Purchase Order and any agreed in writing by the IITK legal successor(s) in title;
- c. "Day" means any calendar day;
- **d.** "Delivery Date" means the latest possible date by which the Goods shall be delivered by the Contractor to the IITK, as specified in the 'DELIVERY DATE' named field of the IITK Purchase Order:
- e. "Force Majeure" shall mean any unforeseeable exceptional situation or event beyond the Parties' control which prevents either of them from fulfilling any of their obligations under the Contract, was not attributable to error or negligence on their part (or of their partners, contractors, agents or employees), and could not have been avoided by the exercise of due diligence. Defects in equipment or material or delays in making them available, labour disputes, strikes or financial problems cannot be invoked as Force Majeure by the defaulting Party. Neither of the Parties shall be held liable for breach of its obligations under the Contract if it is prevented from fulfilling them by Force Majeure. The Party invoking Force Majeure shall notify the other without delay, stating the nature, likely duration and foreseeable effect, and take any measure to minimise possible damage;
- **f.** "Goods" means all of the goods to be supplied to the IITK by the Contractor under the Contract;
- g. "IITK" means the Indian Institute of Technology Kanpur;
- h. "IITK Purchase Order" means the IITK's official Purchase Order document;
 - (i) "Party" means the IITK or the Contractor and "Parties" means the IITK and the Contractor; and
 - (ii) "Place(s) of Delivery" means the location(s) or place(s) where the Goods are to be delivered, as specified in the 'SHIP TO' named field of the IITK Purchase Order.

2. CONCLUSION OF THE CONTRACT

- **2.1.** The Contract is made between the IITK and the Contractor. The Contractor is engaged as an independent contractor for the sole purpose of delivering the Goods.
- **2.2.** The Contract shall be concluded upon the Contractor duly following the countersigning

procedure as stated in the IITK Letter of Intent (LOI).

3. FUNDING

This Contract shall become and remain effective only on the condition that an official Purchase Order is issued by IITK following the conclusion of tender exercise. In the event this is not or no longer shall the case, the IITK without unreasonable delay notify the Contractor thereof.

Any continuation of the Contractor's performance under this Contract after being notified by the IITK shall be at the Contractor's risk and expense.

4. DELIVERY AND TAKE-OVER OF GOODS

The Contractor shall deliver the Goods at the Place(s) of Delivery. On behalf of the IITK, a duly authorised representative(s), shall take-over the Goods upon delivery. Take-over of the Goods by the IITK shall not be deemed acceptance of the Goods by the IITK. The time of delivery as specified in the Contract / PO shall be strictly adhered to, and time shall be of the essence.

5. QUALITY OF GOODS

- a. The Contractor shall deliver Goods that are:
- o of the quality, quantity and description as required by the Contract / PO; and
- o free from any right or claim of a third party, including rights based on industrial property or other intellectual property.
- b. Should the Goods be of the type "homogeneously defined" or disposable, the Contractor shall provide a sample and undertake, certify, and guarantee that all Goods delivered shall be of the same quality and characteristics as the sample(s) provided.

6. INSPECTION AND ACCEPTANCE

- a. The duly authorised representative(s) of the IITK shall have the right, before payment, to inspect the Goods either at the Contractor's stores, during manufacture, at the ports and/or in places of shipment, or at the Place(s) of Delivery. The Contractor shall provide all facilities for such inspection. The IITK may issue a written waiver of inspection. Any inspection carried out by representative(s) of the IITK or any waiver thereof shall be without prejudice to other provisions of the Contract concerning obligations assumed by the Contractor, including specifications of the Goods.
- **b.** Upon delivery and inspection of the Goods, the IITK shall inspect the goods as soon as possible and complete the Goods Receiving Document. Should any Goods fail to conform to the technical specifications, codes and standards under the Contract, the IITK may reject the Goods. The Contractor shall, at no cost to the IITK, replace the rejected Goods or, alternatively, rectify the non-conformity.
- **c.** In the case of Goods ordered on the basis of specifications or samples, the IITK shall have the right to reject the Goods or any part thereof and terminate the Contract if the Goods do not conform to the specifications and/or samples. Nothing in this clause shall in any way release the Contractor from any warranty or other obligations under the Contract.

7. SHIPPING AND INSURANCE

For overseas orders, shipping arrangements shall be co-ordinated by IITK. Original shipping documents including the packing list shall be airmailed/emailed by the Contractor to the (Assistant Registrar (S&P), IIT, Kanpur – 208 016, UP, India).

8. OBSERVANCE OF LAW AND EXPORT LICENCES

The Contractor shall comply with all laws, ordinance, rules and regulations bearing upon the performance of its obligations under the terms of the Contract. If an export licence or any other governmental authorisation is required for the Goods, it shall be the obligation of the Contractor to obtain such licence or governmental authorisation. In the event of the Contractor's failure to obtain such licence or authorisation within a reasonable time, the IITK may immediately terminate the Contract. Where the award procedure or execution of the Contract is vitiated by substantial errors or irregularities or by fraud, the IITK shall suspend execution of the Contract.

Where such errors, irregularities or fraud are attributable to the Contractor, the IITK may also refuse to make payments or may recover monies already paid, in proportion to the seriousness of the errors, irregularities or fraud. The purpose of suspending the Contract shall be to verify whether presumed substantial errors and irregularities or fraud have actually occurred. If they are not confirmed, execution of the Contract shall resume as soon as possible. A substantial error or irregularity shall be any infringement of a contract or regulatory provision of India, resulting from an act or an omission that causes or might cause a financial loss.

9. PRICE

The price of the Goods shall be as stated in the Purchase Order and may not be increased.

10. PAYMENT

Unless otherwise stipulated in the Purchase Order, the IITK shall make payment within thirty (30) Days of the later of:

- **a.** Successful delivery of the goods to IITK as confirmed by the consignee (Assistant Registrar, Store & Purchase, IIT-Kanpur), endorsed by the indenter and approved by the indenters' Head of Department / Section;
- **b.** Receipt of customary shipping documents and any other documents specified in the Contract; and
- **c.** Receipt of the original invoice issued by the Contractor.
- d. All invoices shall be in original and shall contain the IITK Purchase Order number, and a description, the quantities, unit and total price(s) of the Goods delivered. The currency of invoice and payment shall be as specified in the Purchase Order. Unless otherwise authorised by the IITK, a separate invoice shall be submitted for each shipment under the Contract / PO. Subject to Clause 11 below ('Tax Exemption'), if applicable, the GST amount shall be separately identified in the invoice.
- **e.** Payments shall be made in the currency stated in the Contract / PO, on the basis of the equivalent value of INR on the day of payment and paid directly into the nominated bank account.
- f. The IITK shall not pay any charge for late payments.

11. TAX EXEMPTION

The Contractor's price shall reflect any tax exemption to which the IITK is entitled. If it is subsequently determined that any taxes that have been included in the price are not required to be paid or if, having been paid, any such taxes are subject to refunding, the IITK shall deduct the amount from the Contract price. Payment of such adjusted amount shall constitute full payment by the IITK. In the event that any taxing authority refuses to recognize the IITK's exemption from taxes, the Contractor shall immediately consult with the IITK to determine a mutually acceptable procedure for settling the applicable amount.

12. WARRANTY

- **a.** The Contractor warrants that the Goods furnished under the Contract conform to the technical specifications, description and standards specified in the Contract, and are new and unused, and free from defects in design, workmanship and/or materials.
- **b.** The Contractor shall provide a warranty for the Goods for a period of three year from the date of acceptance of the Goods by the IITK, unless the standard manufacturer's warranty period is longer in which case the longer period shall apply.
- **c.** In the case of "homogeneously defined" or disposable goods, should any portion of the Goods, at any time, not comply with clause 5.1 or 5.2 herein or otherwise prove to be defective, the Contractor shall, upon written notification from the IITK, replace that portion of the Goods and bear all costs associated with the replacement of same.

13. PACKING

- **a.** The Goods shall be packed and marked in a proper manner and in accordance with the Contract and any statutory requirements and any requirements of the carrier(s). In particular, the Goods shall be marked with the IITK Purchase Order number and the net, gross and tare weights, the name of the contents shall be clearly marked on each container and all containers of hazardous goods (and all documents relating thereto) shall bear prominent and adequate warnings.
- **b.** The Contractor shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination and the absence of appropriate handling facilities at all points in transit.
- c. All packaging materials shall be non-returnable.

14. DEFAULT AND DAMAGES

If due to reasons attributable to the Contractor, the Contractor fails or refuses to:

- **d.** deliver any or all of the Goods under the Purchase Order;
- e. comply with any or all of the terms and conditions set out in the Purchase Order; or
- **f.** deliver any or all of the Goods under the Purchase Order on or before the Delivery Date; the IITK may hold the Contractor in default under the Purchase Order.
- g. When the Contractor is thus in default, the IITK may, by written notice to the Contractor, immediately terminate the Purchase Order in whole or in such part or parts thereof in respect of which the Contractor is in default.
- **h.** Alternatively, to clause 14 above when the Contractor is thus in default, the IITK may, at its own discretion, set a reasonable period of time for the Contractor to remedy its default. Any new Delivery Date shall be specified in a written amendment to the Purchase Order, duly countersigned by the Contractor.
- i. The IITK may, at its discretion, impose penalties upon the Contractor calculated in accordance with clause 15 for each Day the Contractor is late in delivering the Goods past the Delivery Date initially specified in the Purchase Order.

- j. If the Contractor does not remedy its default within the period of time accorded under clause 16, the IITK may, by written notice to the Contractor, terminate the Purchase Order with immediate effect.
- **k.** Upon any termination of the Purchase Order, in whole or such part(s) thereof in respect of which the Contractor is in default, the IITK may engage another contractor to deliver the Goods and recover any difference in price and any additional costs from the Contractor.
- I. The Contractor shall indemnify the IITK for all losses, charges, costs and expenses, which the IITK may suffer or incur as a result the Contractor's default, including those resulting from engaging another contractor pursuant to this clause 14.

15. PENALTIES

If, in accordance with clause 15, the IITK imposes penalties on the Contractor, such penalties shall amount to One percent (1%) of the total Purchase Order price for each week following the initial Delivery Date specified in the Purchase Order but shall not amount to more than Ten percent (10%) of the total Purchase Order value. The penalties for the delay may be deducted by IITK from any sum(s) due, or to become due, by the IITK to the Contractor.

16. DELAY NOT ATTRIBUTABLE TO THE CONTRACTOR

If the Contractor is delayed at any time in the delivery of the Goods or fulfilment of any other of the Contractor's obligations by any act or omission of the IITK, or by any of its officials, or by any separate contractor(s) contracted by the IITK, or by changes ordered in the type and/or quantity of the ordered Goods, or the Place(s) of Delivery, or any causes beyond the Contractor's reasonable control, or by any other cause, which the IITK determines may reasonably justify the delay, the Delivery Date of the Goods, or fulfilment of any other of the Contractor's applicable obligations shall be extended for such reasonable period of time as the IITK and the Contractor mutually determine. The set reasonable period of time and any amended delivery date shall be specified in a written amendment to the Contract / PO, duly countersigned by the Contractor.

17. FORCE MAJEURE

As soon as possible after the occurrence of any event constituting Force Majeure, but no later than three (3) Days, the Contractor shall give notice and full particulars in writing to the IITK of the Force Majeure. If the Contractor is thereby rendered unable, wholly or in part, to meet its obligations under the Contract, the IITK may terminate the Contract / PO with immediate effect by providing written notice to the Contractor.

18. INDEMNITY

- **a.** The Contractor shall indemnify, hold and save harmless and defend at its own expense the IITK, and all of the foregoing's officials, agents, servants and employees from and against all suits, claims, demands and liability of any nature or kind, including costs and expenses, arising out of acts or omissions of the Contractor or its employees, agents or subcontractors in the performance of the Contract.
- b. Clause 18 shall include, without limitation, claims and liabilities in the nature of workmen's compensation and claims and liabilities arising out of the use of patented inventions or devices.

19. ASSIGNMENT

c. The Contractor shall not assign, transfer, pledge or make other disposition of the Purchase Order or any part thereof or of any of the Contractor's rights, claims or obligations under the

Purchase Order except with the express written consent of the IITK. Any assignment made without such consent shall be void and of no effect.

- **d.** The Contractor shall not subcontract any of its obligations under the Contract / PO without the express written consent of the IITK. The IITK may require the Contractor to furnish particulars of the proposed subcontract as the IITK deems necessary.
- **e.** The IITK's approval of any subcontracting shall not relieve the Contractor from any liability or obligation under the Contract. In any subcontract, the Contractor agrees to bind the subcontractor by the same terms and conditions by which the Contractor is bound under the Contract / PO.

20. INSOLVENCY AND BANKRUPTCY

- b. Should the Contractor become insolvent or should control of the Contractor change by virtue of insolvency, the IITK may with immediate effect and without prejudice to any other right or remedy available to it, suspend the performance of the Contractor's obligations or terminate the Purchase Order with immediate effect, by providing the Contractor with written notice thereof.
- **c.** Should the Contractor be adjudged bankrupt, or should the Contractor make a general assignment for the benefit of its creditors, or should a receiver be appointed on account of the Contractor's insolvency, the IITK may, without prejudice to any other right or remedy available to it, terminate the Purchase Order with immediate effect by providing the Contractor with written notice thereof.

21. TERMINATION

The IITK shall have the right to terminate the Purchase Order or any of the provisions thereof at any time by serving a three days' notice to the Contractor.

22. WAIVER

A waiver of any breach of or default under the Contract / PO shall not constitute a waiver of any other breach or default and shall not affect the other terms of the Contract / PO. The rights and remedies provided by the Purchase Order are cumulative and are not exclusive of any other rights or remedies.

23. ADVERTISING

The Contractor shall not advertise or otherwise make public the fact that it is a contractor to the IITK. The Contractor shall not in any way use the name, emblem, logo, official seal, or any abbreviation of the IITK.

24. DISCRETION AND CONFIDENTIALITY

The Contractor is required to exercise the utmost discretion in all matters relating to the Contract / Purchase Order. Unless required in connection with the performance of the Purchase Order or expressly authorised in writing by the IITK, the Contractor shall not disclose at any time to any third party any information which has not been made public and which is known to the Contractor by reason of its association with the IITK. The Contractor shall not, at any time, use such information to any private advantage. These obligations do not lapse upon any completion, expiration, cancellation or termination of the Contract / PO.

25. NOTICES

Any notice given in connection with the Contract shall be given in English and in writing and shall be deemed to be validly given if sent by registered mail or by fax or by email to the other Party at the following:

- **a.** for the IITK: the contact details set out in the 'IITK BUYER' name field of the Purchase Order; and
- **b.** for the Contractor: the contact details set out in the 'CONTRACTOR' named field of the IITK Contract/Purchase Order.

26. STAFF MEMBERS NOT TO BENEFIT

The Contractor shall not grant to any official of the IITK any direct or indirect benefit or preferential treatment on the basis of the Purchase Order or the award thereof. Any breach of this provision shall constitute a fundamental breach of the Purchase Order.

27. GOVERNING LAW

The Contract shall be governed by and construed in accordance with the substantive laws of the Republic of India.

28. SETTLEMENT OF DISPUTES

- **a.** The Parties shall use their best efforts to negotiate and amicably settle any disputes, controversies or claims arising out of, or in connection with, the Contract / Purchase Order or its interpretation.
- **b.** If the Parties fail to settle the dispute amicably within thirty (30) Days of commencement of the negotiations, the dispute shall be settled through arbitration. One (1) sole arbitrator shall be appointed by the Director of IITK who shall have full powers to make final and binding decisions subject to prevailing laws of India. The appointing authority shall be the Director of IITK. The place of arbitration shall be Kanpur and the language used in the arbitration proceedings shall be English.

29. PRIVILEGES AND IMMUNITIES

No provision of the Contract / Purchase Order shall be deemed, or interpreted as, a waiver of the privileges and immunities enjoyed by the IITK.

30. AMENDMENTS

No modification, amendment or change to the Contract/Purchase Order, or waiver of any of its provisions, or any additional contractual relationship with the Contractor shall be valid unless approved in the form of a written amendment to the Contract/Purchase Order, signed by a fully authorised representative of each Party.

31. VALIDITY

The invalidity in whole or part of any condition of the Contract / Purchase Order or clause thereof shall not affect the validity of the remainder of such condition or clause.

32. ENTIRE AGREEMENT

The Contract / Purchase Order constitute the entire agreement and understanding of the Parties and supersede any previous agreement, whether orally or in writing, between the Parties relating to the subject matter of the Contract.

33. GOVERNING LANGUAGE

The Contract / Purchase Order shall be executed in the English language which shall be the binding and controlling language for all matters relating to the meaning and interpretation of the Contract / Purchase Order.

SECTION V Tender Notice

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

E-tender /Online bids are invited for reputed firms from eligible bidders for the work of "Establishment of Conducted Immunity and Conducted Emission Test Facility (including ESD, Surge, Burst, Dip and Interrupts, Magnetic Field, Harmonics and Flicker) for Testing of Medical, Electrical, and Electronic Devices".

The Demand draft for 150,000/- towards Bid Security/ EMD in favour of **Registrar IIT Kanpur** payable at **Kanpur** must reach **Office, EE Department, IIT Kanpur-208016** latest by 12:00 Hrs on the bid opening day i.e. **02.12.2020.**

Please note all bid related documents scanned copy is to be submitted on the online portal, only Demand draft has to physical reach the aforementioned address.

The tender document along with other details may be downloaded from the CPP Portal: http://eprocure.gov.in/eprocure/app

IIT Kanpur reserves the right to accept or reject any or all the tenders without assigning any reasons thereof.

Sd/-Assistant Registrar **SECTION VI**

Tender document

Department of Electrical Engineering Indian Institute of Technology Kanpur

Kanpur (UP) 208016 India

Enquiry date: November 09, 2020

Enquiry No: IITK/EE/MJA/2020/02

Online quotations are invited for Establishment of Conducted Immunity and Conducted Emission

Test Facility (including ESD, Surge, Burst, Dip and Interrupts, Magnetic Field, Harmonics and Flicker)

for Testing of Medical, Electrical, and Electronic Devices. The detailed specification is described

below.

The test facility shall be a fully compliant fully automated conducted susceptibility and conducted

emission test system for testing of electrical/electronics and medical equipment as per IEC/EN/CISPR

standards. The scope is to design, supply, integrate, install and commission the complete system that

conforms to the standards which can then get accredited by appropriate agencies.

The facility including the test equipment should provide the capability to test products as per the

following standards (latest versions): IEC standards 60601-1-2, 61000-3-2, 61000-3-3, 61000-4-2,

61000-4-4, 61000-4-5, 61000-4-7, 61000-4-8, 61000-4-11, 61000-4-15, as applicable.

Bidder shall be responsible for complete design, construction, supply, testing and commissioning of

conducted Immunity and emission Testing (including ESD, Surge, Burst, Dip and Interrupts, Magnetic

Field, Harmonics and Flicker) as specified, along with necessary testing equipment and required

automation software, on turnkey basis.

The bidder shall write the specifications in each row in the following table. Mere writing "COMPLY" or

"YES/NO" is not sufficient and such offers are liable for rejection.

22

TECHNICAL SPECIFICATION OF ESTABLISHMENT OF CONDUCTED IMMUNITY AND EMISSION TESTING FACILITY (INCLUDING ESD, SURGE, BURST, DIP AND INTERRUPTS, MAGNETIC FIELD, HARMONICS AND FLICKER) FOR TESTING OF MEDICAL, ELECTRICAL, AND ELECTRONIC DEVICES

PART C: CONDUCTED SUSCEPTIBILITY TEST SYSTEM

S.No.	Parameter	Required Specification	Bidder's specification	Compliance (Yes or No)				
C: 1		ELECTROSTATIC DISCHARGE SIMULATOR AS PER IEC 61000-4-2:2008 ED 2.0 FOR TESTING ON ENCLOSURE PORT AND PATIENT COUPLING PORT						
C: 1.1	Output Voltage Contact Discharge mode	1 kV to 8 kV						
C: 1.2	Output Voltage Air Discharge mode	2 kV to 15 kV						
C: 1.3	Tolerance of Output Voltage	± 5%						
C: 1.4	Discharge mode of operation	Single Discharges						
C: 1.5	Repetition rate	> 20 discharges per second.						
C: 1.6	Resolution	100V steps						
C: 1.7	Polarity of Output Voltage	Positive and Negative						
C: 1.8	Holding time (AD)	≥ 5s						

C: 1.9 RC elements for ESD generator		150	0pF/330Ω						
C: 1.10 Discharge current waveform		As	per IEC 61	000-4-2 Ed	.2				
Conta	act (dischar	ge curren	t wa	veform pa	arameters			
Le vel	In ec Vo	dicat	First pea current discharg <u>+</u> 15% (A	ık of e	Rise time tr ±25% (ns)	Current +30% at 30 ns (A)	Current <u>+</u> 30% at 60 ns (A)		
1	2		7.5		0.8	4	2		
2	4		15		8.0	8	4		
3	6		22.5		0.8	12	6		
4	8		30		0.8	16	8		
C: 1.1	.1	Rise Ti	ime	0.8	ns ± 25%	,			
C: 1.1	C: 1.12 Discharge Mode & Tips		_	Contact Discharge (CD) and Air Discharge(AD) with suitable discharge tips					
C: 1.1	.3	Discha detect	_	Discharge detection in air- discharge mode					
C: 1.1	.4	Trigge	r mode	Gu	n trigger				
C: 1.1	.5	Operation panel		LCI)				
C: 1.1	C: 1.16 RC Network & Gun head verification before testing		RC Network and High Voltage recognizable (with an indicator to prevent the wrong combination).						
C: 1.17 Warning/indicator			Presence of high voltage at the tip should be indicated. Audio indication during discharge should also be present						
C: 1.1	.8	test le	ANDARD vels pre ammed	4.0 Air	kV, 6.0kV	arge mode and 8.0kV mode: 2.0 .0kV step	step.		

		•	· · · · · · · · · · · · · · · · · · ·
C: 1.19	Optical communicatio n connector	Optical connector (serial interface) for connecting to PC for programming	
C: 1.20	Power supply	230V/AC and battery powered	
C: 1.21	Bleeding option	Automatic bleeding option for residual voltage. 4 Bleeder resistors of 470 kΩ each	
C: 1.22	Length of discharge return cable	2m	
C: 1.23	Ease of use	ESD gun should be ergonomically designed, light weight. Parameters should be changed easily	
C: 1.24	Software for Report generation	Software should be able to generate complete reports.	
C: 1.25	Calibration Certificate	ISO 17025 accredited calibration certificate should be supplied along with the supply.	
C: 2	ACCESSORIES F 2:2008 ED 2.0	OR ELECTROSTATIC DISCHARGE SIMU	JLATOR AS PER IEC 61000-4-
C: 2.1	Calibration accessories	 Calibration current target 50 Ω conical target adapter line 	
C: 2.2	Test Environment as per IEC 61000-4-2 Ed 2.	 Test table should be 0.8 m high and should be non-conductive. Ground reference plane (GRP) thickness - 0.25mm (for Copper/Aluminium) or 0.65mm for other metals. Insulating support of 0.5 mm thick. Dimensions of Horizontal Coupling Plane (HCP) - 1.6m x 0.8m with an insulating support of 0.5mm for cables and EUT. 	

		 Dimensions of Vertical Coupling Plane (VCP) - 0.5m x 0.5m. Bidder can also suggest suitable 	
		sizes as per IEC 61000-4-2.	
C: 3		ST TRANSIENT (EFT) /BURST AS PER II ut AC/DC Power Port, & Signal Input,	D 3.0 For
C: 3.1	Phases	1-phase	
C: 3.2	Test voltage	250V - 4,400V ± 10% 125V - 2,200V ± 10% into 50 ohms	
C: 3.3	Output Voltage with 1000 Ω	0.24 kV to 3.8 kV	
C: 3.4	Output Voltage with 50 Ω	0.125 kV to 2 kV	
C: 3.5	Pulse shape	5/50 ns into and 1,000 ohm	
C: 3.6	Rise time 'tr'	(5 ± 1.5) ns into 50 ohm; (5 ± 1.5) ns into 1000 ohm;	
C: 3.7	Pulse width 'td'	(50 ± 15) ns into 50 ohm; (50 -15/+100) ns into 1,000 ohm	
C: 3.8	Polarity	Positive and Negative	
C: 3.9	Output Type	Coaxial , 50 Ω	
C: 3.10	DC Blocking Capacitor	(10 ± 2) nF	
C: 3.11	BURST repetition frequency	100 kHz	
C: 3.12	Burst duration 'td'	(15 ± 3) ms at 5 kHz (0.75 ± 0.15) ms at 100 kHz	
C: 3.13	Burst Period	(300 ± 60) ms	

C: 3.14	Phase Synchronizatio n	0° - 360°, resolution 1°			
C: 3.15	Capacitive Coupling	For testing on signal input/output port			
C: 3.16	Standard Test levels preprogramm ed	As per IEC/EN 61000-4-4, Levels 1 to 4 As per IEC/EN 61000-6-1, -6-2			
C: 3.17	Outputs	$50~\Omega$ for verification of pulse and connection to Capacitive clamp			
	General Specific	cations			
C: 3.18	Power	Should operate on 230V/AC			
C: 3.19	Safety standard	Should comply to IEC/EN 61010 safety standard			
C: 3.20	Computer interface	Ethernet/USB optical interface			
C: 3.21	Calibration Certificate	ISO 17025 accredited calibration certificate should be supplied along with the supply.			
C: 3.22	Control software and Report Generation	Software to control the equipment and Should be able to generate Test report.			
C: 4	COUPLING DECOUPLING NETWORK (CDN) FOR POWER LINE (Combined Coupling and Decoupling network for EFT & Surge)				
C: 4.1	EUT Power rating for EFT	AC: 230V/16A; 50/60Hz DC: 250V/16A			
C: 4.2	Safety EUT Power Control	Front Panel EUT Power ON/OFF			
C: 4.3	Automatic Coupling	Individual lines and any combination			

C: 5	ACCESSORIES FOR EFT/BURST TEST SETUP					
C: 5.1	Calibration accessories	 Calibration kit for EFT/Burst generator Calibration kit for Capacitive Coupling Clamp 				
C: 5.2	Test Environment as per IEC 61000-4-4 Ed 2.	 Test Table of suitable size Ground Reference Plane (GRP) Minimum size of GRP - 0.8m x 1m. Insulation support 0.1 m thick. Bidder can suggest suitable sizes as per IEC 61000-4-4. 				
C: 6		WAVE /SURGE AS PER IEC/EN 61000 Input AC/DC Power Port, & Signal In				
C: 6.1	Phase	1-phase				
C: 6.2	Voltage Range	250V to 4 kV ± 10%				
C: 6.3	Open circuit voltage pulse front time	1.2µs ± 30%				
C: 6.4	Open circuit voltage pulse time to half value	50μs ± 20%				
C: 6.5	Current Range	125A to 2kA ± 10%				
C: 6.6	Short circuit current pulse front time	8μs ± 20%				
C: 6.7	Short circuit current pulse time to half value	20μs ± 20%				
C: 6.8	Polarity	Positive, Negative and Alternating				
C: 6.9	Phase Synchronizatio n	0° - 360° relative to phase angle of a.c. line voltage to the EUT. Tolerance of ± 10°				

C: 6.10	Repetitio rate	on 1 per minute or faster				
C: 6.11	Open circ peak outp voltage		0.5 kV t	to the required test leve		
C: 6.12	Monitorir Outputs	ng	shape v for quic	tage and current with wave without high voltage pro on the kerification, within the cope measurement rang	be e	
C: 6.13	HV Outpu	its		ification of pulse and tion to external CDN		
C: 6.14	Standard levels preprogra ed		to 4	EC/EN 61000-4-5, Levels	5 1	
				Test Level	,	
	Level	Oper	n circuit 1	test voltage (kV)		
			to Line	Line to ground		
	1	-		0.5		
	2	0.5		2		
	3	1				
	4	2		4]
	Χ	Spec	ial	Special		
	X can be	any le	evel abov	ve , below , or between t	the others.	
C: 7	COUPLIN	G DEC	OUPLING	G NETWORK (CDN) FOR	POWER LINE	
C: 7.1	EUT Power		AC: 230 DC: 250	0V/16A; 50/60Hz 0V/16A		
C: 7.2	Safety EU Power Co		Front P	anel EUT Power ON/OFF	:	
C: 7.3	Automatic Individual li Coupling combinatio		ual lines and any ation			
C: 8	COUPLING DECOUPLING NETWORK (CDN) FOR INTERCONNECTION LINES				N LINES	
C: 8.1	No of line	!S	8			

C: 8.2	For Symmetrical line	Required		
C: 8.3	For Asymmetrical line	Required		
C: 8.4	Control software and Report Generation	Software to control the equipment and Should be able to generate Test report.		
C: 9	ACCESSORIES F	OR SURGE TEST SETUP		
C: 9.1	Calibration accessories	 Pulse verification surge Voltage probe Current monitor probe for surge current 		
C: 9.2	Test Environment as per IEC 61000-4-5 Ed 3.	 Test Table - 2.4 m (L) x1.2 m (W) x0.8 m(H) as per IEC 61000-4-5 Ground Reference Plane (GRP) as per IEC 61000-4-5 Isolation transformer of ≥ 5kVA Bidder can suggest suitable sizes as per IEC 61000-4-5. 		
C: 10		AND INTERRUPTIONS AS PER IEC/EN Input AC Power Port	61000-4-11 ED 3.0	
C: 10.1	Phase	1-phase		
C: 10.2	Auto Transformer	0 - 260V, 16A, 50/60Hz		
C: 10.3	Voltage Variation	Motorised control of voltage from 0% to 100%		
C: 10.4	Phase Synchronizatio n	0° - 360°, Resolution 1°		
C: 10.5	Switching time	< 5us with a 100 Ω resistive load		
C: 10.6	EUT Voltage & Current	Display on Front Panel		

C: 10.7	EUT Protection	Short-ci	rcuit protection	
C: 10.8	Inrush current	≥ 500A	A for 250 V to 600 V for 200 V to 240 V for 100V to 120 V	
C: 10.9	Output Current Capability	voltage. capable rated vo It shall b at 70 %	IS per phase at rated The generator shall be of carrying 20 A at 80 % of oltage for a duration of 5 s. be capable of carrying 23 A of rated voltage and 40 A of rated voltage for a	
C: 10.10	Zero crossing control of signal generator	± 10 °		
C: 10.11	Phase relationship of voltage dips and interruptions with the power frequency	≤ ± 10°		
C: 10.12	Voltage rise time	Betweer	n 1μs to 5μs	
C: 10.13	Output Voltage at no load	± 5 % of	the residual voltage value	
C: 10.14	Voltage change with load at the output of the	100 % Output 0 A to 16 A	Less than 5 % of the rms value of the voltage	
	generator	80 % Output 0 A to 20 A	Less than 5 % of the rms value of the voltage	
		70 % Output	Less than 5 % of the rms value of the voltage	

C: 12	MAGNETIC FIELDS - POWER FREQUENCY AS PER IEC/EN 61000-4-8 ED 3.0 For testing on: Enclosure Ports		
	Note: A compa Voltage dip is c	ct generator for EFT, Surge and lesirable	
C: 11.1	Calibration accessories	 100Ω low inductive resistor for rise/ fall time verification Calibration kit for inrush current drive capability 	
C: 11	ACCESSORIES FOR VOLTAGE DIP TEST SETUP		
C: 10.21	Control software and Report Generation	Software to control the equipment and Should be able to generate Test report.	
C: 10.20	Calibration Certificate	ISO 17025 accredited calibration certificate should be supplied along with the supply.	
C: 10.19	Computer interface	Ethernet / USB Optical interface	
C: 10.18	Manual Operation	From Front panel	
C: 10.17	Power	Should operate on 230V/AC	
	General Specifi	cation	
C: 10.16	Standard Test levels preprogramm ed	As per IEC/EN 61000-4-11 As per IEC/EN 61000-6-1, -6-2	
C: 10.15	Repetition rate	1s - 600s	
		40 % Less than 5 % of the rms Output value of the voltage 0 A to 40 A	
		0 A to 23 A	

C: 12.1	Field	30A/m, 50Hz and 60Hz	
C: 12.2	Inductive Coil	1m x 1m of approximately 2.5 microH with stand	
C: 12.3	Inductive Coil	2.6m x 1m of approximately 6 microH with stand	
C: 12.4	Standard Test Levels Preprogramm ed	As per IEC/EN 61000-4-8, Levels 1 to 4 As per IEC/EN 61000-6-1, -6-2	
C: 12.5	Test Generator	Specifications of the generator for different inductive coils are given below in table	
Specifica	ation of the gene	rator is given below in table	
Outpu	t Current Range ntinuous	1 A up to 120 A	
1 1	t Current Range	220 4 4 200 4	
	ort Operation t/ Magnetic Field orm	320 A up to 1 200 A Sinusoidal	
	t Distortion	≤ 8 %	
 	uous mode	Up to 8 h	
Short 7	Time Operation	1s up to 3 s	
Transf	ormer Output	Floating not connected to PE	
	General Specific	cation	
C: 12.6	Power	Operating Voltage AC 230 V	
C: 12.7	Safety standard	Should comply to IEC/EN 61010 safety standard	
C: 12.8	Manual Operation	From Front panel	
C: 12.9	Computer interface	Ethernet / USB Optical interface	
C: 12.10	Control software and	Software to control the equipment and Should be able to generate Test reports.	

	Report Generation		
C: 12.11	Calibration Certificate	ISO 17025 accredited calibration certificate should be supplied along with the supply.	
C: 13	ACCESSORIES F	OR MAGNETIC FIELD TEST SETUP	
C: 13.1	Test Environment as per IEC 61000-4-8 Ed 3.	Ground Reference Plane (GRP) - Minimum size of GRP is 1m x 1m. It should be a non-magnetic metal (copper or aluminium) sheet of > 0.25mm thick Bidder can suggest suitable size.	

PART D: HARMONIC & FLICKER EMISSION

S.No.	Parameter	Required Specification	Bidder's specifications	Compliance
D: 1	POWER SUPPL	Y AS PER IEC 61000-4-7 ED. 2.1		·
D: 1.1	Supply Voltage	230 <u>+</u> 2.0% V		
D: 1.2	Supply frequency	50 <u>+</u> 0.5% Hz		
D: 1.3	Maximum Current	16 A		
D: 1.4	Harmonic ratios in test voltage	Shall not exceed: 0.9% of 3 rd harmonic, 0.4% of 5 th harmonic, 0.3% of 7 th harmonic, 0.2% of 9 th harmonic 0.2% of 2 nd to 10 th harmonic and 0.1% of 11 th to 40 th harmonic		
D: 1.5	Peak value of test voltage	Should be 1.404 to 1.424 of rms value and shall be reached within 87° to 93° after zero crossing.		
	General requir	ements		
D: 1.6	Power	Should operate on 230V/AC, 50 Hz		
D: 1.7	Remote Operation	Should be programmable through software		
D: 1.8	Computer interface	Ethernet / USB Optical interface		

D: 1.9	Calibration	ISO 17025 accre	dited calibration		
D. 1.3	Certificate	certificate should			
		along with the su	• •		
D:	Documentati	Manufacturer sh			
1.10	on	rated operating			
2.20		possibly magnitu			
		introduced by ch			
		temperature, hu	-		
		instrument supp	• •		
			terferences, static		
		electricity discha			
		electromagnetic	•		
D: 2	HARMONICS M		61000-3-2, 61000-4	-7 ED. 2.1	
D: 2.1	Phases	Should be suitab			
		harmonics meas	•		
D: 2.2	For EUT of		of current rating		
	current rating	16A	0		
D: 2.3	Harmonics	Should measure	harmonics (2 nd -		
	and		nterharmonics as		
	interharmoni	per IEC 61000-4-			
	cs				
D: 2.4	Measurement	200 ms rectangu	llar window (for		
	window	50 Hz)			
D: 2.5	Current input	Should be able to	o carry 20A		
	circuit	continuous curre	ent supply and		
		160A for 1 s with	nout damage as		
		per IEC 61000-4-	-7		
D: 2.6	Voltage input	10V-530V rms, o	verload – 4000 V		
	circuit	peak			
D: 2.7	Algorithm	FFT, wavelet ana	llysis, better		
		techniques			
D: 2.8	Display	V_{rms} , I_{rms} , I_{peak} , V	peak		
D: 2.9	Power	P, Q, S, Power fa	•		
	information	THD(V),THD(I), C	rest factor(V),		
		Crest factor(I)			
D:	Overload	Required			
2.10	indication				
D:			nt, voltage & power	measurements as	
2.11	per IEC 61000-4	1	T		
	Measuremen	Conditions	Maximum error		
	t		<u> </u>		
	Voltage	U _m ≥ 1% U _{nom}	<u>+</u> 5% U _m		
		U _m < 1% U _{nom}	<u>+</u> 0.05% U _{nom}		
	Current	$I_{\rm m} \geq 1\% I_{\rm nom}$	<u>+</u> 5% I _m		
		I _m < 1% I _{nom}	<u>+</u> 0.05% I _{nom}		
	Power	P _m <u>></u> 150 W	<u>+</u> 1% P _m		

		P _m < 150 W <u>+</u> 1.5 W	
		<u> </u>	
	General requir		
D:	Power	Should operate on 230V/AC, 50 Hz	
2.12			
D:	Safety	Should comply to IEC/EN 61010	
2.13	standard	safety standard	
D:	Computer	Ethernet/USB optical interface	
2.14	interface		
D:	Control	Software to control the equipment	
2.15	software and	and Should be able to generate	
	Report	Test reports.	
	Generation		
D:	Calibration	ISO 17025 accredited calibration	
2.16	Certificate	certificate should be supplied	
		along with the supply	
D: 3		AS PER IEC 61000-3-3, 61000-4-15 EE	0. 2.0
D: 3.1	Programmabl	 Test Voltage − 230 V ±2% for 	
	e AC Power	1-phase	
	Source	• Test frequency – 50 Hz ± 0.25	
		1 1 -	
		Hz	
		• % THD in supply V – < 3%	
		% THD in supply V – < 3%4 kVA	
D: 3.2	Zref –	 % THD in supply V – < 3% 4 kVA As per IEC 60725, 	
D: 3.2	Reference	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz 	
D: 3.2	Reference Source	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 	
D: 3.2	Reference Source Impedance	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz 	
	Reference Source Impedance Flickermeter	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz 	
D: 3.2 D: 3.3	Reference Source Impedance Flickermeter Input Voltage	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz Input voltage - 230 V, 	
	Reference Source Impedance Flickermeter Input Voltage and	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz 	
D: 3.3	Reference Source Impedance Flickermeter Input Voltage and frequency	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz Input voltage - 230 V, Input frequency - 50 Hz 	
	Reference Source Impedance Flickermeter Input Voltage and frequency For EUT of	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz Input voltage - 230 V, 	
D: 3.3 D: 3.4	Reference Source Impedance Flickermeter Input Voltage and frequency For EUT of Phase	• % THD in supply V $-$ < 3% • 4 kVA As per IEC 60725, $R_{ph} = 0.24 \Omega$, $jX_{ph} = 0.15 \Omega$ at 50 Hz and $R_n = 0.16 \Omega$; $jX_n = 0.10 \Omega$ at 50 Hz Input voltage $-$ 230 V, Input frequency $-$ 50 Hz	
D: 3.3	Reference Source Impedance Flickermeter Input Voltage and frequency For EUT of	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz Input voltage - 230 V, Input frequency - 50 Hz 1-phase with input current ≤ 16A Should display instantaneous 	
D: 3.3 D: 3.4	Reference Source Impedance Flickermeter Input Voltage and frequency For EUT of Phase	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz Input voltage - 230 V, Input frequency - 50 Hz 1-phase with input current ≤ 16A Should display instantaneous perception (P_{inst}) 	
D: 3.3 D: 3.4	Reference Source Impedance Flickermeter Input Voltage and frequency For EUT of Phase	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz Input voltage - 230 V, Input frequency - 50 Hz 1-phase with input current ≤ 16A Should display instantaneous perception (P_{inst}) short term flicker severity (P_{st}) 	
D: 3.3 D: 3.4	Reference Source Impedance Flickermeter Input Voltage and frequency For EUT of Phase	 % THD in supply V - < 3% 4 kVA As per IEC 60725, R_{ph} = 0.24 Ω, jX_{ph} = 0.15 Ω at 50 Hz and R_n = 0.16 Ω; jX_n = 0.10 Ω at 50 Hz Input voltage - 230 V, Input frequency - 50 Hz 1-phase with input current ≤ 16A Should display instantaneous perception (P_{inst}) 	

	I	
		Should display d-meter outputs: dhp - relative half period rms value of the voltage dc - maximum steady state voltage change during an observation period d(t) - voltage deviation dmax - maximum absolute voltage change during the observation period
		U _{hp} – half period rms value of voltage
D: 3.6	Accuracy for sin	nusoidal voltage fluctuations
3.5		/oltage fluctuation (ΔU/U) in 230
		/, 50 Hz lamp
	· · · · · · · · · · · · · · · · · · ·	2.325
	 	1.067
		0.250
	 	0.704
		1.037
		2.128
D: 3.7	Accuracy for re	ctangular voltage fluctuations
	Frequency	Voltage fluctuation (ΔU/U) in
	(Hz)	230 V, 50 Hz lamp
	0.5	0.509
	3.5	0.342
	8.8	0.196
	18	0.446
	21.5	0.592
	25	0.764
D: 3.8	Easy	Toggle switch for sinusoidal and
	operation	rectangular waveforms
	General require	
D: 3.9	Power	Should operate on 230V/AC, 50 Hz
D:	Safety	Should comply to IEC/EN 61010
3.10	standard	safety standard
D:	Computer	Ethernet/USB optical interface
3.11	interface	6.6
D:	Control	Software to control the equipment
3.12	software and	and should be able to generate
	Report Generation	test reports, should also be a
D:	Calibration	ISO 17025 accredited calibration
3.13	Certificate	certificate should be supplied
3.13	23. 1110010	along with the supply
	<u> </u>	along with the supply

	Note: A compa	act device for Harmonics and Flicker irable		
D: 4	ACCESSORIES FOR HARMONIC AND FLICKER ANALYSIS			
D: 4.1	Test Environment asper IEC 61000-4- 15 Ed 2.	Test Table - 2.4 m (L) x1.2 m (W) x 0.8 m(H) Bidder can suggest suitable size as per 61000-4-15.		
E: 1	OTHER ACCESS	ORIES		
	HARDWARE	 Latest configuration branded i9 10th generation Desktop PC- 4 (Number) 24" LED monitor (full HD) FDW 16 GB RAM upgradable to 64 GB 1 TB HDD UPS for each PC (Rating: ≥ 600VA) with battery backup at least 30 minutes. HP LaserJet Pro M479fdw colour printer. Complete system solutions should be provided by the bidder as per respective standards of each test setup. 		
	SOFTWARE FOR ALL EQUIPMENT	 Software to remotely control all the equipment ESD Generator, Compact Generator (EFT/BURST, SURGE, Voltage Dips and Interruptions), Magnetic Field, Harmonics and Flicker. Should be able to generate Test reports. Windows 10 Professional MS office latest version Antivirus and PDF converter. 		
	FURNITURE	Chair: Chair (Revolving chair):5 Number Dimensions: W x H x D (cm) (76 x 99.5-108.8 x 76) approx Seat Height adjustable (cm) (44.5- 53.8) approx		

	 amide Upholstery Material: Knitted fabric Printer Table: 1 Number Computer Table: 4 Number 	
	Racks: 2 Number	
NOTE: Any accessory, which is not listed here and may be necessary for testing should be included.		

SECTION-VII

Additional Terms and Conditions:

- 1. Your quotation should contain Authorisation Letter from the manufacturer, if you are not manufacturer of the machine / software.
- 2. Bidder has to complete work within 3 months from the date of tender allotment.

- 3. The bidder will be responsible for the installation and commissioning of the testing facility including all the equipment and software.
- 4. Bidder will share floor planning, layout and draft for the entire facility.
- 5. Bidder should provide a complete list of equipment with its specification as per test defined in the tender.
- 6. Bidders will also be responsible for getting NABL Accreditation for established Test facility at IIT Kanpur.
- 7. Bidder will provide demonstration, and complete training at IIT Kanpur for the installed system including software.
- 8. All prices are to be FOR IIT Kanpur.
- 9. IIT Kanpur is partially exempted from payment. GST will be at 5%. We will provide GST Certificate.
- 10. IIT Kanpur reserves the right to remove any item/equipment that is listed in technical specification of tender.
- 11. The Institute reserves the right of accepting / rejecting any quotations without assigning any reason thereof.
- 12. The final tender will however be awarded to the bidder quoting the lowest total price, taking into account prices of all the items in the BOQ excel file and any other prices / Educational discount mentioned in the Additional sheet.

13. Patent Rights:

The bidder shall, at all times, indemnify and keep indemnified IIT Kanpur, free of cost, against all claims which may arise in respect of goods and services to be provided by the bidder under this contract for infringement of any intellectual property rights or any other rights protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trademarks etc. being made against IIT Kanpur, it shall be brought to the notice of the bidder and the bidder shall, at his/her own expenses, take care of the same for settlement without any liability to the institute.

14. Packing and Marking

The bidder shall ensure that the proper packing is used while shipping the goods, so that they arrive at IIT Kanpur in good working condition and without any damage. The packaging should be such that, on arrival at IIT Kanpur, the sanitization of the packaged goods should not affect the contents or the performance of the goods.

18. Insurance:

The bidder shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. The insurance shall include the entire transit from the source to IIT Kanpur. The insurance shall be valid for a period of 6 months beyond the date of receipt of goods by IIT Kanpur.

If the goods are not commissioned and handed over to IIT Kanpur within 6 months, the insurance will have to be extended by the bidder at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to

the bidder by IIT Kanpur, such extensions of the insurance will still be done by the bidder, but the insurance extension charges, at actuals, will be reimbursed.

20. Warranty, Calibration, Service and Maintenance:

- a. Warranty for all items under Section VI should be 3 years.
- b. AMC for all items under section VI for 2 years beyond the warranty period
- c. Calibration, comprehensive service, and maintenance should be for a minimum period of three years.
- d. Warranty must start from the date of installation (including calibration and verification) at IITK.
- e. Warranty, calibration, comprehensive service, and maintenance should cover both labour and spares.
- f. The technical maintenance personnel of the company responsible for supervision and maintenance should reach the site within 3 working days after getting the request for support. Troubleshooting and rectification of failure or maintenance issues should not be extended beyond one week.
- g. If the performance of any individual equipment or system is not satisfactory, the same shall be replaced/repaired by the bidder free of cost.
- h. Installation, testing, commissioning, operation, and maintenance, will be carried out in the presence of IIT Kanpur personnel.
- i. In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended till the completion of the original warranty period of the main equipment.
- j. All software and firmware updates should be provided free of cost during the warranty period.

21. Payment:

- **A.** On delivery: Seventy percent (70%) payment of the value of the delivered goods
- **B.** Installation and Commissioning: Twenty percent (20%) payment of the price of the delivered goods shall be paid on installation and commissioning.
- **C. On Acceptance:** Balance ten percent (10%) payment of the value of the delivered goods would be made against Final Acceptance.

22. Performance Guarantee:

As a contract security, bidder shall be required to furnish a Bank Guarantee for an amount equal to 5% of total bid value from any Nationalized Bank in prescribed form, in favour of "The Registrar, Indian Institute of Technology Kanpur" within 30 days from the date of Letter of Acceptance/work order. The Performance Guarantee shall remain valid for a period of 180 days beyond the date of completion of the work (on final acceptance). It shall be the guarantee for the faithful and due performance of the contract by the bidder in accordance with the terms and conditions specified in this tender. The Performance Guarantee will be returned to the bidder without any interest after its expiry subject to fulfillment of all contractual obligations by the bidder.

Prof. M. Jaleel Akhtar

Professor, Department of Electrical Engineering ACES – 326, Indian Institute of Technology Kanpur Kanpur 208 016, India

Date: _____

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

TENDER ACCEPTANCE LETTER (To be given on Company Letter Head)

To,

Sub: Acceptance of Terms & Co	onditions of Tender.	
Tende	r Reference No:	
Name of Tender / Work: -		
Dear Sir,		
 I/ We have downloaded / ol Tender/Work' from the web si 	btained the tender document(s) for the above rite(s) namely:	
advertisement, given in the abo	ove mentioned website(s).	as per your
from Page Noto	we have read the entire terms and conditions o (including all documents like annexure(s), so ement and I / we shall abide hereby by the tern	chedule(s), etc .,), which
	rom time to time by your department/ organisale submitting this acceptance letter.	ition too have also been
4. I / We hereby unconditionally / corrigendum(s) in its totality /	y accept the tender conditions of above mention / entirety.	ned tender document(s)
5. I / We do hereby declare tha any Govt. Department/Public s	et our Firm has not been blacklisted/ debarred/ sector undertaking.	terminated/ banned by
information is found to be inc shall without giving any notic	ation furnished by our Firm is true & correct and orrect/untrue or found violated, then your dele or reason therefore or summarily reject the any other rights or remedy including the fotely.	partment/ organisation e bid or terminate the

<u>Certificate for Tender</u> (To be given on Company Letter Head)

_	Date:	
То,		
Sub: Certificate of compliance as per Rule 144 (xi) GFR's 2017		
Tender Reference No:		
Name of Tender / Work: -		

"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 this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Yours Faithfully, (Signature of the Bidder, with Official Seal)

Appendix -3

Data

Certificate for Tender for Works involving possibility of sub-contracting (To be given on Company Letter Head)

To,	Date.
Sub: Certificate of compliance as per Rule 144 (xi) GFR's 2017	
Tender Reference No:	
Name of Tender / Work: -	

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Yours Faithfully, (Signature of the Bidder, with Official Seal)

Declaration for Local Content

(To be given on Company Letter Head - For tender value below Rs.10 Crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10
Crores)

	Date:
То,	
The Director,	
Indian Institute of Technology Kanpur,	
GT Road, Kalyanpur, Kanpur -208016	
Sub: Declaration of Local content	
Tender Reference No:	
Name of Tender / Work:	
4. Country of Origin of Goods being offered:	
5. We hereby declare that items offered has% I	ocal content.
<i>"</i>	
"Local Content" means the amount of value added in Ir	-
being offered minus the value of the imported content	in the item (including all customs duties) as a
proportion of the total value, in percent.	
"*False declaration will be in breach of Code of Integrity	under Rule 175/1)(i)(h) of the General Financial
Rules for which a bidder or its successors can be debar	
-	
the General Financial Rules along with such other action	ns as may be permissible under law.
	Yours Faithfully,
	(Signature of the Bidder, with Official Seal)

Details of Earnest Money Deposit (EMD)

Detail of the Tender	
Earnest Money Deposit (EMD)	
Name of The Bank	
Demand Draft Number / Netbanking Reference Number	
Date of DD / Netbanking transfer Date	
Amount	

	Demand Draft Number / Netbanking Reference Number	
	Date of DD / Netbanking transfer Date	
	Amount	
	canned Copy / E Copy of EMD pa	ayment receipt must be uploaded online and original in
Date:		
Place:		
	re of the Bidder ncy seal/rubber stamp)	

Appendix - 6

Bidder's Eligibility Criteria

S. No.	Description	Consideration (Yes/ No)	Proof attached at Page Number
1.	Does your company is registered under Companies Act and have valid Registration with PAN/TAN/GST/and Service Tax Registration?		
2.	Does your company have at least 5 years of experience in the installation of similar types of test facility in various organizations in India and abroad? (Provide a list of organizations with contact information).		
3.	Do the OEMs of all the products including test equipment, ferrite based absorbers, accessories etc. quoted by you to establish this facility have at least 5 years of experience in the supply of such products to various organizations in India and abroad?		
4.	Have you completed a similar work with a value of at least Rs. 60 Lacs?		
5.	Have you been black listed/debarred by any of the government agencies.		
6.	Does your quotation contain Authorization Letter from the manufacturer, if you are not manufacturer of the machine / software?		
7.	Whether the EMD amount paid online and scanned copy of receipt is enclosed?		
8.	Have you enclosed the compliance sheet against the technical specification mentioned technical bid?		
9.	Have you enclosed a complete list of instruments including accessories that will be required to set up this test facility?		
10.	Have you completed /submitted other required Information / documents, as mentioned in the Tender Document?		

(Signature of the Bidder with agency seal/rubber stamp)

(Signature)
Prof. M. Jaleel Akhtar (PI/Indentor)

(Signature) Prof. K.V. Srivastava (EE)

Vaibha Sinatara

(Signature)

Prof. N. Gupta (EE)

(Signature) | Prof. Nishchal K. Verma (EE)

Kamalkkar (Signature) Prof. Kamal K. Kar (ME)

(Sigháture) Tarun Gautam (SE IWD)

(Signature) V K Tiwari (EE) (IWD)

(Signature) (Signature) Raghvendra Singh (EE) (IWD)