



**Department of Electrical Engineering
Indian Institute of Technology, Kanpur
Kanpur – Uttar Pradesh
208016**

Invites

**Bid Reference Number: IITK/EE/UIASSIST/SRS/2019/01
Bid Submission Last Date: 10.01.2020**

For

**Purchase of Oscilloscope with Data Logger Facility and
Related Accessories**

BID DOCUMENT

Online bids (Technical & Financial) from eligible bidders which are valid for a period of 90 days from the date of Technical Bid opening (i.e. 13.01.2020) are invited for and on behalf of the Assistant Registrar, IIT Kanpur for “**Purchase of Oscilloscope with Data Logger Facility and Related Accessories**”.

Name of Work	Purchase of Oscilloscope with Data Logger Facility and Related Accessories
Estimated Cost	Rs. 44,00,000/-
Date of Publishing	20.12.2019 (17:30 hrs)
Clarification Start Date and Time	23.12.2019 (10:00 hrs)
Clarification End Date and Time	03.01.2020 (17:00 hrs)
Queries (if any)	No queries will be entertained after clarification end date and time
Bid Submission Start Date	20.12.2019 (10:00 hrs)
Last Date and time of uploading of Bids	10.01.2020 (15:30 hrs)
Last Date and time of submitting , EMD and other documents at IIT Kanpur (if any)	NA
Date and time of opening of Technical Bids	13.01.2020 (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 bid document containing the detailed terms & conditions from the website <http://eprocure.gov.in/eprocure/app>

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

INSTRUCTION FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal ie <http://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.

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-bidding 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-bidding, 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 then log into the site through the secured login by entering their userID/ password and the password of the DSC/ eToken.

SEARCHING FOR BID DOCUMENTS

- 1) There are various search options built in the CPP Portal to facilitate bidders to search active bids by several parameters. These parameters could include Bid ID, organization name, location, date, value, etc. There is also an option of advanced search for bids, 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 bid published on the CPP Portal.
- 2) Once the bidders have selected the bids they are interested in, they may download the required documents / bid schedules. These bids can be moved to the respective ‘My Bids’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the bid document.
- 3) The bidder should make a note of the unique Bid ID assigned to each bid, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS:

- (i) For preparation of bid Bidders shall search the bid from published bid list available on site and download the complete bid document and should take into account corrigendum if any published before submitting their bids.
After selecting the bid document same shall be moved to the ‘My favourite’ folder of bidders

- account from where bidder can view all the details of the bid document.
- (ii) Bidder shall go through the bid 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 bid site, or through the contact details given in the bid 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 bid 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 bid requirements. This will facilitate the bid submission process faster by reducing upload time of bids.

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/ bid 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 in order 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 bid document.
- (vi) Bidders shall note that the very act of using DSC for downloading the bid document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the bid document without any exception and have understood the complete bid document and are clear about the requirements of the bid 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 bid.

- (ix) Bidders shall submit their bids through online e-bidding system to the Bid 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 bid site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-bid 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.

ASSISTANCE TO BIDDERS:

- (i) Any queries relating to the bid document and the terms and conditions contained therein should be addressed to the Bid Inviting Authority for a bid or the relevant contract person indicated in the bid. The contact number for the helpdesk is **0512-259-5420** between 10:30 hrs to 17:00 hrs.
- (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

INSTRUCTION FOR e-PROCUREMENT

1. PREPARATION AND SUBMISSION OF BIDS :

- a. The detailed bid documents may be downloaded from <http://eprocure.gov.in/eprocure/app> till the last date of submission of bid. The Bid 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 “.Xls” 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> as 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 GST. (GSTIN of Indian Agent in case of Import Shipments), Bank details. (Bank details of principal supplier in case of Import shipments)
 - ii. Scanned copy of turnover details, work experience certificates.
 - iii. Scan copy of bid acceptance letter Annexure (‘A’, ‘B’), Warranty.
 - iv. Scanned copy of Warranty Annexure ‘C’ after filling the details.
 - v. Scanned copy of technical specifications or brochures.
 - vi. Scanned copy of other document mentioned in bid document (if any)
- b) **For Import Shipments – Shipping Terms Ex-Works/FOB are preferred.**

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. All payment shall be made in Indian Rupees.
- b. In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Bid document. The financial bids should be uploaded online as per the specified “.Xls” format i.e. Price Bid Excel sheet attached as ‘.Xls’ with the bid and based on

the scope of work, service conditions and other terms of the Bid document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.

- c. 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 Bid are inclusive of all applicable taxes, duties etc. **except service tax**. The service tax component shall be re-immersible by the department after receipt of paid challans etc. if applicable.

5. Last Date for Submission of Bid:

- 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 bids.

6. Bid Validity

- a. All the Bids must be valid for a period of **90 days** from the last date of submission of the bid 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 bid fee shall not be refunded if:-

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents as stipulated in the bid document.

**INDIAN INSTITUTE OF TECHNOLOGY, KANPUR
ELECTRICAL ENGINEERING DEPARTMENT**

Bid Notice

Bid Reference No: IITK/EE/UIASSIST/SRS/2019/01

E-bid/Online bids are invited for reputed firms from eligible bidders for the **“Purchase of Oscilloscope with Data Logger Facility and Related Accessories”**.

The bids for the purchase of items are invited on two-bid system (technical and financial). The technical bid and financial bid will have to be upload technical and financial bids separately. The financial bid of only technically qualified bidders will be opened.

The scanned copies of the online bids complete in all respects should be uploaded online and Demand draft of **Rs. 88,000/-** towards Bid Security/ Earnest Money Deposit (EMD) in favour of **“Registrar, IIT Kanpur”** must reach **Dr. S. R. Sahoo, Western Lab 216A, Department of Electrical Engineering, IIT Kanpur-208016** latest by **01:30 PM** Hrs on the bid opening day i.e. **13 January 2020, 16:00 PM**

The bid 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 bids without assigning any reasons thereof.

Date:

Sd/-
Joint Registrar

Contents

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**INDIAN INSTITUTE OF TECHNOLOGY, KANPUR
DEPARTMENT OF ELECTRICAL ENGINEERING**

I. NOTICE INVITING TENDER

Item rate tenders are invited on behalf of the DORD, Indian Institute of Technology Kanpur from eligible original equipment manufacturer or their authorised dealers\agencies of lab testing instruments for the following work **“Purchase of Oscilloscope with Data Logger Facility and Related Accessories”**.

1. The estimated cost of work is **Rs. 44 Lacs (only)**. This estimate, however, is given merely as a rough guide.

2. Technical Bid Evaluation

A. Criteria of eligibility

1. Details of average annual financial turnover on similar works should be at least 100% of the estimated cost during the last 3 consecutive financial years.

Year	Value (in INR)
2018-19	
2017-18	
2016-17	

2. List of works completed of the requisite magnitude along with the attested copies of certificates of satisfactory completion.

3. The bidder must be OEM / authorized partner and a letter of authorization for the bid from the OEM must be enclosed.

4. Technical evaluation of the bidders which will be meeting the criteria of eligibility will be evaluated.

5. The bidder should upload the signed Technical specifications (details) of items, which shall meet the desired requirements as per specified parameter in the bid.

3. The bid shall be accompanied by earnest money of **Rs. 88,000/-** (Rs. Eighty Eight Thousands only) in the form of Receipt Demand Draft in favour of **“Registrar, IIT Kanpur”**. The offers received without earnest money or not in the prescribed form shall be rejected summarily. No interest shall be paid on the earnest money.

4. The Director/DORD/PI, IIT Kanpur does not bind himself to accept the lowest or any other bid, and reserves to himself the authority to reject any or all of the bids received without the assignment of a reason. All bids in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.

5. The Director/DORD/PI, IIT Kanpur reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.

6. Bids, which do not fulfill all or any of the conditions stipulated in the bid document or are incomplete in any respect, are liable for rejection. Bidders shall sign the declaration in Annexure – ‘D’ and ‘E’ enclosed, and if the declaration is not found to represent a true statement of facts, the contract is liable to be cancelled, earnest money forfeited, and the contractor shall have no claim on the Institute.

7. The bidders are not allowed to make additions and alterations in the bid document. Such additions and alterations shall be at bidders' risk. Conditional / modified bids are liable to be rejected.
8. The bid for the work shall remain open for acceptance for a period of 90 (ninety) days from the date of opening of bids. If any bidder withdraws his bid before the said period or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Institute shall, without prejudice to any other right or remedy, be at liberty to forfeit 50 (fifty) % of the said earnest money as aforesaid.
9. This notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the Accepting Authority, shall within 15 (fifteen) days from the stipulated date of start of the work sign the contract consisting of:
 - a. The notice inviting bid, all the documents including General Conditions of Contract, Special Conditions, specifications forming the bid as issued at the time of invitation of bid, letter of negotiation and acceptance thereof together with any correspondence leading thereto.
10. **Payment shall be regulated as under:**
 - a) 90% of the bid rate on successful delivery of the items listed in the bid document.
 - b) 10% after getting successful testing report of the items.

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**For and on behalf of
DORD, IIT Kanpur**

II. GENERAL DETAILS OF BID

BoQ: Bill of Quantities is uploaded separately.

Name of Work: **“Purchase of Oscilloscope with Data Logger Facility and Related Accessories”.**

i)	Estimated Cost of the work	:	Rs 44 Lacs.
ii)	Earnest Money	:	Rs 88,000/-

Officer inviting bid : PI, Dept. of EE, IIT Kanpur

Definitions:

1. Engineer-in-charge : PI (Project Investigator)
2. Bid accepting authority : Director / DORD / PI, IIT Kanpur.
3. Standard Schedule of Rates : Market Rate for all Items
4. Department : Dept. of EE, IIT Kanpur.

i) Time allowed for **submission of performance** guarantee from the date of issue of letter of acceptance, in days. :

15 Days.

ii) Maximum allowable extension beyond the period provided in (i) above in days :

7 (seven) days.

iii) Authority for fixing compensation : PI (Project Investigator)
Number of days from the date of issue of letter of acceptance for reckoning date of start :

22 Days.

5. Time allowed for execution of work : 30 days

Authority to decide:

- i)** Extension of time for completion of work. : PI, Dept. of EE, IIT Kanpur
- ii)** Rescheduling of mile stones : DORD, IIT Kanpur

(Annexure-A)

MINIMUM TECHNICAL SPECIFICATIONS ARE MENTIONED BELOW

Minimum desired technical specifications of **Purchase of Oscilloscope with Data Logger Facility and Related Accessories**

Item required	Specifications	Quantity
Oscilloscope with data logger facility	<ul style="list-style-type: none">• Modular design to incorporate different plug-in modules to enable simultaneous measurements of isolated voltage, temperature and communication protocols.• It should have provision for future connection of CAN measurement modules.• Should have at least 8 slots for different plug-in modules.• It should have capability to expand to 16 nos. analogue channels, each 100 MS/s, 20 MHz, 1000 V isolated channels. Record Length: At least 1 Gpts record length for one channel.• Internal HDD – At least 500GB• Continuous PC based data acquisition.• Should have Ethernet port for connecting to LAN and to other computers for data acquisition.• Minimum time /div $\leq 100\text{ns/div}$, maximum time /div ≥ 20 days/div with time axis accuracy $\pm \leq 0.005\%$.• Trigger: with any channel, rising, falling, enhanced and time triggering.• Display: At least 10.4-inch TFT color LCD monitor with 1024x768 resolution integrated with the product.• Acquisition mode: should have at least normal, envelope, averaging and box averaging acquisition mode.• Real time hard disc recording, sampling rate of $\geq 1\text{MS/s}$ (1CH used) and $\geq 100\text{kS/s}$ (16CH used)• Memory history- should be at least 5000 waveforms.• Should have facility of at least, not limited to, cursor-based measurement, zoom, waveform parameter and statistical processing display, math operation.• Fast Fourier Transform (FFT) should be built in for both channel and math mode.• Maximum 64 trace per display group.• Acquisition software: max transmission rate-100KS/s (16 ch) compatible with Windows 8 / 10.• PC Connectivity: Both USB and Ethernet Power source: 230V, 50Hz nominal supply.• Should have inbuilt option for supplying power to the different external voltage / current probes.	2

	<ul style="list-style-type: none"> • Operating temperature range 5 °C to +40 °C • The product must be tested and calibrated at manufacturer's facility before shipping. • Should have at least 3 years complete warranty including labour, parts and transportation charges. 	
High Frequency Voltage Module	<ul style="list-style-type: none"> • Same manufacture as that of above-mentioned Oscilloscope, • Should be compatible to the above-mentioned Oscilloscope, • Isolated 2 analogue input channels per module 12-bit resolution • Sampling rate:100Ms/s • Frequency range: DC to 20 MHz Maximum Input voltage=> 1000V. • DC accuracy=<+-0.5% of 10 division • CMRR=> 80dB • Probe attenuation setting: 1:1,1:10,100:1,1000:1 (for voltage probe) • 1A:1V,10A:1 V (for current probe) • Input connector type: BNC connector (isolated type) • Should have at least 3 year complete warranty. 	8
Voltage probe	<ul style="list-style-type: none"> • Same manufacture as that of above-mentioned Oscilloscope, • Should be compatible to the above-mentioned module. • Bandwidth: DC to 100MHz • Attenuation ratio: 10:1 • Connector Type: BNC • Maximum input voltage>=1,000V (DC + AC peak) and CAT II • Should have at least 3 year complete warranty. 	12
Low Frequency Voltage Module	<ul style="list-style-type: none"> • Same manufacture as that of above-mentioned Oscilloscope, • Should be compatible to the above-mentioned Oscilloscope, • Isolated 2 analog input channels per module 16-bit resolution • Sampling rate:1MS/s • Frequency range: DC to 300kHz • Maximum Input voltage=> 850V. • DC accuracy=<+-0.25% of 10 division • CMRR=> 80dB • Input connector type: Plug in terminal or BNC connector (isolated type) • Include probes required for voltage measurement using this module (if any) • Should have at least 3 year complete warranty. 	2

<p>High Bandwidth Current Probe</p>	<p>Same manufacture as that of above-mentioned Oscilloscope, Should be compatible to the above-mentioned Oscilloscope, Should have standard bnc connector for connecting it to oscilloscopes, Should draw its power for operation from an internal power supply in aforementioned oscilloscope. Rating at least 30 ARMS continuous, at least 50A Peak Pulse (non-continuous), Amplitude accuracy*=$\pm 1.0\%$ rdg ± 1 mV; 0 to 30 Arms Bandwidth ≥ 50MHz, Operating temperature: 0 to 40oC Should have degauss option, Should have at least 3 year complete warranty.</p>	<p>6</p>
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III. BID ACCEPTANCE LETTER

(To be given on Company Letter Head)

(Annexure-B)

Date:

To,

Sub: Acceptance of Terms & Conditions of Bid.

Bid Reference No: _____

Name of Bid / Work: -

Dear Sir,

1. I/ We have downloaded / obtained the bid document(s) for the above mentioned 'Bid/Work' from the web site(s) namely:

as per your advertisement, given in the above-mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the bid documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the bid conditions of above-mentioned bid document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.
6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

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

IV. Guarantee Performa for the items purchased

(Annexure 'C')

We hereby guarantee the year-round performance for "**Purchase of Oscilloscope with Data Logger Facility and Related Accessories**", which we have installed at the location described below:

LOCATION - Department of Electrical Engineering

For a period of **3 year (Three year)** from the date of acceptance of the components asked in bid document of "**Purchase of Oscilloscope with Data Logger Facility and Related Accessories**" We agree to repair or replace free of cost to the satisfaction of the owner / PI, any or all such work that may prove defective in workmanship, equipment or materials within that period, ordinary wear and tear and unusual abuse or neglect excluded, together with any other work, which may be damaged or displaced in so doing.

Signature of Contractor:

Date:

Seal:

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

Corrigendum No. 1

Clarification to the queries made by the bidders is mentioned below.

Query: In BOQ "High Bandwidth Current Probe" item is missing.

Clarification: Kindly quote the total price of "Voltage probe, quantity 12" and "High bandwidth current probe, quantity 6" in item number 1.3 of the BOQ file.

Also, create a new sheet in the **BOQ.xls** file and mentioned the price details of the below mentioned items as follows.

S. No.	Item Name	Desired Technical Specifications	Qty	Unit Rate in INR	Total Price in INR
1.3 (a)	Voltage probe	<ul style="list-style-type: none"> • Same manufacture as that of above-mentioned Oscilloscope, • Should be compatible to the above-mentioned module. • Bandwidth: DC to 100MHz • Attenuation ratio: 10:1 • Connector Type: BNC • Maximum input voltage $\geq 1,000V$ (DC + AC peak) and CAT II • Should have at least 3 year complete warranty. 	12		
1.3 (b)	High Bandwidth Current Probe	<p>Same manufacture as that of above-mentioned Oscilloscope, Should be compatible to the above-mentioned Oscilloscope, Should have standard BNC connector for connecting it to oscilloscopes, Should draw its power for operation from an internal power supply in aforementioned oscilloscope.</p> <p>Rating at least 30 ARMS continuous, at least 50A Peak Pulse (non-continuous), Amplitude accuracy $\leq \pm 1.0\%$ rdg ± 1 mV; 0 to 30 Arms Bandwidth $\geq 50MHz$, Operating temperature: 0 to 40oC Should have degauss option, Should have at least 3 year complete warranty.</p>	6		



Dr. S. R. Sahoo
Assistant Professor
Department of Electrical Engineering
IIT Kanpur