

बसु बिज्ञान मन्दिर

# BOSE INSTITUTE

P-1/12, C.I.T. Scheme VII-M, Kolkata 700 054

# **BIDDING DOCUMENTS**

For Tender Notice No.

BI-K/E-TEND/40/2017-18

To be addressed to:

<u>The Sr. Prof. & Incharge, Registrar's Office,</u> Bose Institute, Centenary Building, P-1/12, CIT Scheme - VII -M Kolkata - 700054 (INDIA)



Ref : BI-K/E-TEND/40/2017-18

# **INVITATION TO BIDS**

Director, Bose Institute, Kolkata, West Bengal, India invites *online* offers from foreign/Indian manufacturers or their Authorized Dealers for the supply, installation and commissioning of the following equipments:

SI.			Bid security (EMD)
No.			
1.	Spectroscopy Amplifier (NIM Standard)	01	INR 10,000.00
2.	Charge Sensitive Preamplifier with Timing	01	INR 10,000.00
3.	Dual Timing NIM - ADC / TDC / SVA	01	INR 10,000.00

## • Details of specifications are enclosed in Annexure - I

SI.	Particulars	Date & Time
No.		
1.	Date of uploading of NIT & other documents (Online)	18.12.2017
	(Publishing date)	
2.	Documents download start date (Online)	18.12.2017 at 13:30 hrs.
3.	Clarification Start date (Offline)	18.12.2017 at 14.00 hrs.
	Queries to be sent to the mail id <u>bipurchase@jcbose.ac.in</u> )	
4.	Clarification End date (Offline)	21.12.2017 at 13:00 hrs.
5.	Amendment (if any) (On line)	22.12.2017 at 17:00 hrs.
6.	Bid submission start date (On line)	23.12.2017 at 11:00 hrs.
7.	Documents download end date (Online)	08.01.2018 upto 17:00 hrs.
8.	Bid Submission closing (On line)	08.01.2018 upto 17:00 hrs.
9.	Last Date of submission of Earnest Money Deposit	09.01.2018 upto 14:00 hrs.
	Including the technical brochure, if any (Off line)	
10.	Bid opening date for Technical Proposals (Online)	10.01.2018 at 13:00 hrs.
11.	Date of uploading list for Technically Qualified Bidder (online)	To be notified later
12.	Date of uploading the final list of Technically Qualified Bidder	To be notified later
	(online) after disposal of appeals, if any.	
13.	Date for opening of Financial Proposal (Online)	To be notified later



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# SECTION - A

# **INSTRUCTION TO BIDDERS**

- **A.** General guidance for e-Tendering : Instructions / Guidelines for electronic submission of the tenders have been annexed for assisting the vendors to participate in e-Tendering.
- 1. **Registration of Vendors**: Any vendor willing to take part in the process of e-Tendering will have to enrol and get registered in the Central Public Procurement (CPP) Portal, NIC, GOI through logging on to <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> and the vendor is to click on the link for e-Tendering site as given on the above.
- 2. **Digital Signature certificate (DSC)**: Each vendor is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders as applicable from the approved service provider of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the Web Site stated in Clause A.1. above. DSC is given as a USB e-Token.
- 3. The foreign bidders can directly submit their bid through the e-procurement by obtaining their DSC applicable from NIC, India.
- 4. The vendor can search & download N.I.T. & Tender Document(s) electronically from computer once they log on to the website mentioned in Clause A.1. using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.
- 5. **Submission of Tenders**: Tenders are to be submitted through online as stated in Clause A.1. in two folders at a time for each bid, one in Technical Proposal & the other is Financial Proposal before the prescribed date & time using the Digital Signature Certificate (DSC). The documents are to be uploaded should be virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).
- 5. A. **Technical Proposal:** The Technical proposal should contain scanned copies of the following in two covers (folders).
  - (a) Statutory Cover containing the following documents :
    - (i) NIT (Download the NIT & upload the same <u>using digital signature</u>)
    - (ii) Registration Certificate for enrolment with the Central Purchase Organization / other Govt. Dept. for quoting on behalf of the foreign principals, as per latest notification of Procurement Policy Division, Department of Expenditure, Ministry of Finance.
    - (iii) Bidders' Information Form
    - (iv) Bid Form
    - (v) Techno-Commercial Bid Form
    - (vi) Manufacturer's Authorization Form
    - (vii) Bidder's Performance Statement Form
    - (viii) Service Support Details Form
    - (ix) Technical Compliance Statement Form



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- (b) Non-statutory Cover containing the following documents : <u>For indigenous quotes</u> the bidder has to upload requisite registration / tax certificate like VAT, TAN, PAN, Trade License, CIN, GST etc.
- Note: Please note that for cases where quotes are in currency other than INR and the Indian agent, who quotes on behalf of foreign principal does not possess the Registration Certificate as mentioned in 5.A. (a) (ii) <u>their bids will not be considered</u>.
- Note : Failure to submit any of the above mentioned documents (listed under 5(a) & (b) may render the bid liable to be summarily rejected for both statutory and non-statutory cover.

## 5.B. Financial Proposal :

- a. The financial bid should contain the Bill of Quantities (BOQ) corresponding to this tender, which is available on the tender webpage as an MS-Excel file.
- b. This file must be downloaded and opened with MS-Excel. The rate being quoted by the bidder must be entered in the space marked for this purpose in the file. Quoted rate will be encrypted under BOQ. In case quoting any rate in Tender Form, the tender is liable to be summarily rejected.
- c. All fields in the BOQ file other than those allocated for the name of the bidder and the rate(s) being quoted are non-editable.
- d. The BOQ file must be saved after this and should be uploaded using digital signature.
- e. OPTIONAL ITEMS/Additional Warranty Charge beyond Standard warranty period and training charges (if any) must be separately quoted and uploaded as PDF file.
- In the BOQ <u>quoted in foreign currency</u> (click to select currency) fill up the applicable column (i.e. 'Ex-works', 'Discount (if any)', 'Freight', 'Insurance', 'other taxes (if applicable), 'Installation & commissioning charges (if applicable)' and ignore the other column.
- In the BOQ <u>quoted in INR</u> (click to select currency) fill up the applicable column (i.e. 'Basic Rate', 'Discount (if any)', 'GST', 'Other taxes (if applicable)', 'Installation & Commissioning charges (if applicable)' and ignore the other.
- <u>Bidders are requested not to put any percentage (%) in any</u> column of the BOQ.
- 6. Earnest Money Deposit :
  - (a). Demand Draft / Bankers Cheque / Bank Guarantee towards Earnest Money (EMD) as prescribed in the N.I.T. should in favour of "Bose Institute, Kolkata" payable at Kolkata.
  - (b). Demand Draft / Bankers Cheque / Bank Guarantee towards Earnest Money (EMD) as prescribed in the N.I.T. against each of the instruments in favour of "Bose Institute, Kolkata" payable at Kolkata (original hard copy) alongwith a covering letter stating the bank details for releasing the said EMD online by the Institute, as per norms to be submitted to the Purchase Section (Import) at the Centenary Building, P-1/12, CIT Scheme VII-M, Kolkata 700054.



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#### THE ABOVE STATED STATUTORY / NON-STATUTORY DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER

Click the check boxes beside the necessary documents in the My Document list and then click the tab " Submit Non Statutory Documents' to send the selected documents to Non-Statutory folder.

Next Click the tab "Click to Encrypt and upload" and then clik the "Technical" Folder to upload the Technical Documents.

N.B.: Failure of submission of any of the above mentioned documents as stated in SI. No. A.5.(a). and SI. No. A.5.(b). And 6 (a) & (b) will render the tenderer liable to be rejected for both statutory & non statutory cover.



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- 1. Tender Evaluation Committee (TEC) : Evaluation Committee constituted as per Order of the competent authority of Bose Institute, Kolkata.
- 2. Opening & evaluation of tender : If any vendor is exempted from payment of EMD, copy of relevant Government Order needs to be furnished and uploaded in the portal as PDF file.
- 3. Opening of Technical Proposal : Technical proposals will be opened either by the Sr. Prof. & Incharge, Registrar's Office / Assistant Registrar / Accounts Officer / Audit & Finance Officer, Bose Institute, Kolkata or their authorized representatives electronically from the website using their Digital Signature Certificates (DSC).
- 4. Intending tenderers may remain present if they so desire
- 5. Cover (folder) for Statutory Documents (Ref. Sl. No. A.5.(a).) will be opened first and if found in order, cover (folder) for Non-Statutory Documents (Ref. Sl. No. A.5.(b).) will be opened. If there is any deficiency in the Statutory Documents the bid will summarily be rejected.
- 6. Decrypted (transformed into readable formats) documents of the non-statutory cover will be downloaded & handed over to the Tender Evaluation Committee.
- 7. Pursuant to scrutiny & decision of the Tender Evaluation Committee, the summary list of eligible tenderers will be uploaded in the web portals.
- 8. During evaluation the committee may summon of the tenderers & seek clarification / information or additional documents or original hard copy of any of the documents already submitted & if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

# 9. Financial Proposal :

- a). The vendor is to quote the rate online in the space marked for quoting rate in the BOQ. For optional items as mentioned in the specifications may be quoted separately in the additional sheet as enclosed in the Financial Cover.
- b). Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the vendor.
- c). Penalty for suppression / distortion of facts:

If any tenderer fails to produce the original hard copies of the documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies, it may be treated as submission of false documents by the tenderer and action may be referred to the appropriate authority for prosecution as per relevant IT Act.

- (d). Rejection of Bid: Director, Bose Institute reserves the right to accept or reject any Bid and to cancel the Bidding processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for Institute's action.
- (e). Award of Contract :

The Bidder whose Bid has been accepted finally (both technical and financial), will be informed by the Institute authority for award of contract.

The notification of award will constitute the formation of the Contract.



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GENERAL INSTRUCTIONS
• The bids would be opened in the presence of the bidders who wish to attend the Bid- opening. However, the representative should bring with them a letter of authority from the corresponding bidders, without which, they are not permitted to attend the bid opening.
The acceptance of the quotation will rest with the competent authority of Bose Institute, Kolkata who does not bind himself to accept the lowest quotation and reserves the right to himself to reject, or partially accept any or all the quotations.
• The offer shall be valid for ninety days from the date of opening of the quotations. No revision in price will be allowed after opening the quotation.
Unsolicited / conditional / in complete / unsigned digitally tenders shall not be considered.
• Prices are required to be quoted in units. When quotations are given in terms of other units, relationship between two sets of units should be furnished. Quantity discounts, if any should also be indicated. The items should be quoted indicating the serial nos.
<ul> <li>To assess in the examination / evaluation, comparison and post qualification of the bids, purchaser may at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the prices or substance of the bids shall be sought, offered or permitted. Any clarification submitted by the bidder in respect of its bid which is not in response to a request by the purchaser shall not be considered.</li> </ul>
• Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not both. However, the offer of the Indian Agent should also accompany the authorisation letter from their principal. To maintain sanctity of tendering system, one Indian Agent can not represent two different Foreign principals in one tender.
<ul> <li>Please indicate the agents in India, their address, the details of service rendered by them &amp; the percentage of commission payable to them. In normal courses agency commission is not allowed.</li> </ul>
Two or more vendors cannot submit bid quoting the rates on behalf of same OEM.
• The Institute is registered with Department of Scientific & Industrial Research, Govt. of India and thus is exempted from Customs/Central Excise duty vide notification no. 10/97 dated 01.3.1997 and 16/2007 dated 01.03.2007. The present details of registration are no. 11/106/1988-TU-V dt. 31.3.2018.
The mode of dispatch of the items must be mentioned clearly in the quotation.
Samples, if called for, shall be submitted free of charge and or no obligation basis.
• The offered delivery period shall have to be strictly adhered to in case an order is placed.



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# SECTION B

## **TERMS & CONDITIONS**

# 1. <u>Price</u>:

- Bidders are requested to give their final and best offer. <u>Techno-Commercial</u> Discussions will be held with the Lowest Bidder only, if necessary.
- Vendors, who do not accept our standard commercial terms are liable to be ignored. A categorical confirmation of acceptance of all our terms and conditions in toto will have to be observed which enable speedy processing of the offers.
- Pre-conditioned, incomplete offers, not in line with the terms and conditions of the tender documents, are liable to be rejected.

#### a. For Foreign Quotation :

- The price of the goods, quoted FOB/FCA port of shipment should include Export Packing, Loading Charges, Inland Freight, carriage etc. in the shipper country to be paid by the Supplier.
- The price for transportation / carriage and insurance and other costs incidental to delivery of the goods upto the port of despatch (CIF/CIP).
- Prices quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non - responsive and rejected.
- Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid. Conditional offers indicating changes to price quoted due to price increase / decrease by the principal firm, market fluctuations, foreign exchange fluctuations etc. shall make the bid liable to be cancelled.

#### b. For Indigenous Quotation :

- The price of the goods, quoted (ex-works / ex-factory / ex-showroom / exwarehouse, or off-the-shelf, as applicable), including all duties and sales and other taxes already paid or payable.
- The amount payable on account of Excise Duty and other applicable taxes (GST) should be mentioned clearly. If there is no explicit mention of taxes in your offer then quoted price will be deemed inclusive of such taxes. No other charges except those mentioned clearly in the quotation will be paid.



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• Rates should be quoted FOR, Bose Institute, Kolkata inclusive of packing, forwarding, installation and documentation & commissioning charges etc. If ex-works prices are quoted then packing, forwarding, documentation, freight and insurance charges must be clearly mentioned separately. Vague terms like "packing, forwarding, transportation etc. extra" without mentioning the specific amount/percentage of these charges will NOT be accepted. Such offers shall be treated as incomplete and rejected. Where there is no mention of packing, forwarding, installation and commissioning, freight, documentation, insurance charges, such offers shall be summarily rejected as incomplete.

#### 2. Period of validity of Bids :

- Bids shall remain valid at least for <u>90 days</u> after the date of bid opening prescribed by the Purchaser.
- In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity.
- 3. **Bid Currencies :** Prices shall be quoted in Indian Rupees or in freely convertible foreign currency wherever possible for comparison.
- 4. **Purchaser's Right to vary Quantities at the Time of Award**: The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions. However, the Purchaser reserves the right to call the lowest firm for negotiation in case of increase in quantity.
- 5. Order acceptance : The successful bidder should submit acceptance of the Purchase Order immediately but not later than 30 days in any case from the date of issue of the Purchase Order failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited.
- 6. **Patent Rights :** The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.
- 7. Insurance : The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner
- 8. Transportation : Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.



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#### 9. Change Orders :

- The Purchaser may at any time, by written notice given to the Supplier make changes within the general scope of the Contract in any one or more of the following:
  - Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
  - The method of shipping or packing;
  - The place of delivery; and/or
  - The Services to be provided by the Supplier.
  - The delivery schedule
  - If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.

#### 10. Penalty :

- If the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage. Once the maximum is reached, the Purchaser may consider termination of the Contract.
- The applicable rate is 0.5% per week and the maximum deduction is 5% of the contract price.
- **11. Applicable Law :** The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction at Kolkata.
- 12. Right to Use Defective Goods : If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
- 13. Payment :

Payments shall be made promptly by the Purchaser normally after submission of the invoice or claim by the Supplier.

#### a. For Foreign Payment :

In case of imports, payments are usually made through Letter of Credit (LC) / wire transfer / FDD wherever applicable. The LC will be opened for 100% value but the payment shall be released partly after despatch and partly after installation & commissioning. 90% of payment will be released on



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shipping documents and remaining 10% on successful installation and commissioning with submission of Performance Bank Guarantee of 10% of the order value. In case of Purchase Order value equivalent to INR 5 Lakh and above, 10% Performance Bank Guarantee (PBG) should be submitted before establishment of the LC/release of the payment.

#### b. For Indigenous Payment :

• The general conditions of payment for any indigenous items are 100% payment after successful installation & commissioning of the equipment. In case the equipment does not need any installation & commissioning the period shall be reckoned from the date of delivery & inspection. In case of Purchase Order value equivalent to INR 5 Lakh and above, 10% Performance Bank Guarantee (PBG) should be submitted before release of the payment.

## 14. Delivery :

## a. For Foreign Consignment :

- Delivery of the consignment(s) should be made within a maximum of <u>8 weeks from the</u> <u>date of placement of purchase order unless otherwise specified so</u>. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AWB etc and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company :
  - 4 Copies of the Supplier invoice showing contract number, goods' description, quantity, unit price, total amount;
  - Acknowledgment of receipt of goods from the consignee(s) by the transporter;
  - Insurance Certificate if applicable;
  - Manufacturer's/Supplier's warranty certificate;
  - Inspection Certificate issued by the nominated inspection agency, if any, and the Supplier's factory inspection report;
  - Certificate of Origin; and
  - Two copies of the packing list identifying the contents of each package.
- The above documents should be received by the Purchaser before arrival of the consignment(s) (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.



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#### b. For Indigenous Consignment :

The delivery of the consignment(s) should be made within 4-6 weeks from the issue of the Purchase Order, unless otherwise specified.

- **15. Bank Charges : For Foreign Procurement :** The bank charges inside India to the applicant account and outside India to the beneficiary account.
- **16. Installation :** Installation should be Free of Cost and should be completed within maximum 07-10 days after delivery of the consignment.
- 17. Warranty :
  - The Supplier shall warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier shall further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. The warranty should be comprehensive and on site.
  - This warranty shall remain valid at least for 12 months after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, or for 18 months after the date of shipment whichever period concludes earlier
  - The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately, within a reasonable period, arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. In case any component has to be imported the same shall be done on DDU Kolkata basis and the purchaser shall provide the customs duty exemption certificate. If the supplier having been notified fails to remedy the defects within a reasonable period, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.
  - Warranty period shall be 12 months from date of acceptance of Goods. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. The warranty should be comprehensive on site.
  - If a different period of warranty has been specified in the 'Technical Specifications' shall stand modified to that extent.
  - The necessary warranty certificate in this effect should be furnished along with the consignment.



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- 18. **Training :** The Supplier is required to train the designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.
- 19. **Supporting Equipment :** If equipment will require indigenous supporting instruments/accessories (computer, printer, online UPS etc.) at the time of the installation, the same should be quoted in separate quotation.
- 20. **Service Facility :** Supplier should mention about the possible service set up in India and how capable they are to provide after sales service.

#### 21. Force Majeure :

- The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 22. Director, Bose Institute reserves the right to accept or reject any or all tenders either in part or in full. The reasons for rejecting the tender of a prospective bidder will be disclosed only when enquiries are made.



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# Annexure- I

# Technical Specifications for Spectroscopy Amplifier (NIM Standard)

Single width NIM Spectroscopy Amplifier should have following specification

- GAIN: Continuously variable up to 3000
- Coarse, Fine and Superfine Gain.
- Provision of X 0.1 attenuation and X 2 amplification selectable by internal jumpers.
- Integral non linearity  $\leq 0.025\%$
- Temperature instability ( $0^0$  to  $50^0$  C): Gain:  $<\pm 50$  ppm /  $^0$ C

DC level: UNIpolar output:  $< \pm 10 \mu$ V/°C Blpolar output:  $< \pm 30 \mu$ V/°C

• Pulse shape

UNIpolar shape: quasi Gaussian, peaking time 2.4 Ts pulse width at 0.1% level equal to 2.9 times the peaking timeBipolar shape: approximate derivative, time to crossover 3 Ts

# • Spectrum broadening

Typical: <16% FWHM for a 60Co 1.33 MeV gamma line at 85% of full scale for an incoming count rate of 10^3 to 10^5 counts/s (Unipolar Output, 2-µs shaping)

• Spectrum shift

Peak position typical shift: <0.024% for a 60Co 1.33 MeV gamma line at 85% of full scale measured from 10^3 to 10^5 counts/s (Unipolar Output, 2-µs shaping)

• Noise

4  $\mu$ V/ 6  $\mu$ V (RMS) for UNIpolar/Bipolar output for 3  $\mu$ s shaping time and coarse gain = 100 3.5  $\mu$ V/ 5  $\mu$ V (RMS) for UNIpolar/Bipolar output for 3  $\mu$ s shaping time and coarse gain = 1000



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Annexure- I

# **Technical Specifications for Charge Sensitive Preamplifier with Timing**

The Preamplifier should have following features

- Should be housed in a small compact metal box
- Should accept Positive or negative input signals
- Jumper selectable Energy sensitivity range of 5, 30 or 60 mV/MeV (Si)
- Should have Low noise
- Should provide Timing output
- Should have provision for Up to 5 kV (positive or negative) detector bias voltage

# **SPECIFICATION**

1.	Input	Positive or negative charge pulses
2.	HV Input	Up to 5 kV (positive or negative) for the detector bias
3.	Test Input	positive or negative inputs
4.	Output	Inverting unipolar output DC offset adjustable to zero via the internal trimmer: Minimum rise time: 50 ns Decay time: 300 µs Max peak amplitude: ± 8 V
5.	Timing Output	Unipolar inverting fast voltage pulse (drives 50 Ohm loads): Minimum rise time: 14ns
6.	Integral non linearity	$\pm 0.045\%$ (from 0 to $\pm 8$ V peak output)



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Annexure- I

# Technical Specifications for Dual Timing NIM - ADC / TDC / SVA

The ADC/TDC should be a unique dual channel device that can operate either as an ultra fast analog-to-digital converter with a fixed conversion time of 500 ns, a time-todigital converter (TDC) or an analog SVA. It should be suitable for high counting rate applications in energy and time Spectroscopy.

The SCA should be built-in and should have a separate output on the front panel. This output can be used in the ADC and SVA mode. An analog output should be available for monitoring the TDC.

In the SVA mode a voltage level or waveform can be sampled when a gate signal is applied.

# THE ADC / TDC should have the following features.

- Should be a Single width standard NIM module
- Three individually selectable modes of operation for each input channel:
  - ADC mode with 500 ns Fixed Conversion Time
  - $\circ$  TDC mode with < 25 ps Time Resolution
  - o ADC/SVA (Analog Sampled Voltage Analysis) mode
- Should offer Full 8k Conversion Gain and Range
- Dual 10-LED Indicator bar for Instantaneous Dead Time display, level setting should be there.
- Lower Level and Upper Level Discriminator on each ADC input should be there on the front panel
- Three modes of operation independently selectable for each input channel: Pulse Height Analysis with automatic peak detection / Time-to-Digital conversion and Analog Input Sampling selectable by front panel switch
- Simultaneous Single-Channel Output / TDC Monitor
- Should be capable of easy interfacing to MCA's from other manufacturers and computers
- Switch selectable COINCIDENCE/ANTICOINCIDENCE mode should be there



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## **Bidder Information Form**

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

Date: [insert date of Bid Submission] Tender No.: [insert number for Invitation for bids]

- 1. Bidder's Legal Name [insert Bidder's legal name]
- 2. In case of JV, legal name of each party: [insert legal name of each party in JV]
- 3. Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration]
- 4. Bidder's Year of Registration: [insert Bidder's year of registration]
- 5. Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration]
- 6. Bidder's Authorized Representative Information

Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address]

7. Attached are copies of original documents of: [check the box(es) of the attached original documents]

Signature of the Bidder Name Business Address



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# **BID FORM**

(to be submitted on the official letterhead of the bidder)

The Director, Bose Institute, P-1/12, CIT Scheme-VII/M, Kolkata - 700054 (W.B.) India

Sir,

Having examined the bidding documents the receipt of which is hereby duly acknowledged, I/We agree to furnish required supplies/services in conformity with the Techno-Commercial Bid or such portions thereof at the prices given in the Price Bid on receipt of order for the same.

I/We agree to hold this offer open until \_\_\_\_\_\_and to supply, install and commission the equipment and complete the whole of the work and hand over to the purchaser within the period of \_\_\_\_\_\_ weeks, from the date of receipt of intimation from you regarding acceptance of this tender/receipt of supply order.

I/We agree to submit the bank guarantee as specified in the form prescribed by your goodself for the due performance of the contract, if our bid is accepted.

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

( ) Signature of Bidder With Office Stamp Name & Address

Telephone No.:

FAX No.:

E-mail address:

Name & Designation of the Contact Person:



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# **TECHNO-COMMERCIAL BID FORM**

1.	Tender reference No	:	
2.	Due date of bid submission	:	
3.	Main Item Model No.	:	
4.	Life Expectancy of the Equipment (in years)	:	
5.	Warranty Period (in years)	:	
6.	Delivery Period of the Equipment	:	
7.	Details of Bank Guarantee enclosed as Bid Security :	:	
	Name of the Bank	:	
	Branch	:	
	Address with Phone, FAX & E-mail Nos.	:	
	Amount Rs.	:	
	Valid Upto	:	
8.	Country of the Origin of the Equipment	:	
9.	Bid currency	:	

Contd.....



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10.	Schedule of Requirements :	:	
Ι.	Whether agreeing to all the terms and		
	conditions including payment terms as		
	mentioned in the bidding documents		
II.	Port of Shipment		
111.	Approximate Shipment Weight (chargeable		
	weight) in Kg. of the packed consignment		
IV.	Approximate Dimensions/ Volume of the		
10.	packed consignment		
Note :			
1.	Adhering to the format given above is a		
	pre-requisite for considering your bid.		
2.	All columns must be filled up.		
	<b>A</b>		
3.	Separate list should be attached where		
	required in the same format giving details		
4	of each item.		
4.	Please indicate applicability.		
	certify that I/We have completely read ar	l du	ndorstand and agree to all the terms ?
	ions given in ITB.	iu u	nuerstood and agree to an the terms &
conult			

( ) Signature of Bidder With Office Stamp Name & Address



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#### **MANUFACTURERS' AUTHORIZATION FORM**

No. \_\_\_\_\_

Dated \_\_\_\_\_

The Director, Bose Institute, P-1/12, CIT Scheme-VII/M, Kolkata - 700054 (W.B.) India

Dear Sir:

I/We	_ who are established and reputable manufacturers
of	having factories at
(address of factory) do hereby authorize M/s.	(Name and address of Agent) to
submit a bid, negotiate and receive the order from y	you against your tender enquiry.

No company or firm or individual other than M/s. \_\_\_\_\_\_ is authorized to bid, and conclude the contract in regard to this business.

I/We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract and Clause of the Special Conditions of Contract for the goods and services offered by the above firm.

Yours faithfully,

(Name) (Name of manufacturers)

**Note:** This letter of authority should be on the <u>letterhead of the manufacturer</u> and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial unpriced bid.



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## BIDDER'S PERFORMANCE STATEMENT FORM (For a Period of Last 3 Years)

Name of the Firm.....

Order placed by (full address with Tel. No., Fax No. & e-mail address of purchaser)	Date	Description and quantity of ordered equipment	Date of completion of delivery as per Contract/ Actual	Remarks indicating reasons for late delivery, if any	Has the equipment been installed satisfactory? (Attach a certificate from the purchaser/ Consignee)

Place :

Signature :

Date :

Office stamp



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# SERVICE SUPPORT DETAILS FORM

SI. No.	Nature of training imparted	List of similar type equipments serviced in the past 3 years	Address, Telephone Nos., Fax and e mail address of the firm located in Kolkata, if any	Value of minimum stock of consumable spares held at all times.

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

Place :

Date :



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# TECHNCAL COMPLIANCE STATEMENT FORM

An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

ITEM NA	ITEM NAME				
SI.No.	Tender Specifications		Bidder's Specifications	Deviation/ Remarks, if any Including justification	

(Technical literature/brochures/manuals should be attached along with this format)

#### Please note:

- 1. Compliance/Deviation statement comparing the specifications of the quoted model to the required specifications. This statement should also give the page number(s) of the technical literature where the relevant specification is mentioned.
- 2. Bids must have supporting documents (technical literature or copies of relevant pages from the service manual or factory test data) for all the points noted above, failure regarding which may result in rejection of bid.
- 3. In case the bidder furnishes wrong or false information wilfully in the technical compliance chart, such action shall be viewed strictly and the bidders may be blacklisted.
- 4. Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

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

Place :

Date :



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#### **BID SECURITY FORM**

(To be executed by a scheduled Bank in India on non-judicial stamp paper)

#### To The Director, Bose Institute, P-1/12, CIT Scheme-VII/M, Kolkata - 700054 (W.B.) India

Dear Sir,

Whereas (Name and address of Bidder) (hereinafter called "the Bidder") in
response to your Tender Notification No dated is submitting its bid for the
supply of (Name and/or description of the goods) (Hereinafter called "the
Bid").
KNOW ALL PEOPLE by these presents that WE (Name of bank) of
(Name of country), having our registered office at (Address of bank) (Hereinafter called
"the Bank"), are bound unto <i>Director</i> , Bose Institute, Kolkata, INDIA (Hereinafter called "the
Purchaser") for the sum of (Amount of the Guarantee in Words and Figures)
for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its
successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this day
of 20

THE CONDITIONS of this obligation are:

- 1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
- 2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:

contd.....



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- 3. Fails or refuses to execute the Contract Form if required; or
- 4. Fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders.
- 5. This guarantee is valid up to .....(six months from date).

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

This guarantee will remain in force up to and including forty-five (45) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

Date:

Signature.....

Place:

Seal of Bankers

(Complete Address/Contact Details with Tel./Fax/email etc)

Witness: 1. ....

2. ....



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#### PERFORMANCE SECURITY FORM

(To be executed by a scheduled Bank in India on non-judicial stamp paper)

To The Director, Bose Institute, P-1/12, CIT Scheme-VII/M, Kolkata - 700054 (W.B.) India

Dear Sir,

Sub: Your Contract No. ------for

\_\_\_\_\_

- 1. You have entered into a contract with reference no as given above with \_\_\_\_\_\_\_\_\_ (herein after referred to as the contractor) for the supply, installation, and commissioning of \_\_\_\_\_\_\_\_ (herein after referred to as stores) for the price and on the terms and conditions contained in the said contract.
- 2. In accordance with the terms of said contract, the contractor has undertaken to produce a bank guarantee for Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_\_ only) being 10 % of the total value of the said stores supplied to you, for the due fulfilment of its obligations to you for due performance as per the contract during warranty period.
- 3. In consideration thereof, we hereby expressly, irrevocably and unconditionally undertake and guarantee as principal obligator on behalf of the contractor that in the event you submit a written demand to us that the contractor has not performed according to the contractual obligations included in the said contract, we will pay you on written demand, without demur and without reference to the contractor any sum up to a maximum amount of Rs \_\_\_\_\_\_ (Rupees \_\_\_\_\_\_ only). Your demand shall be conclusive evidence to us that such payment is due under the terms of the said contract. Payment by us to you will be made within thirty (30) days from receipt of your request making reference to this guarantee and on demand.
- 4. This guarantee shall not be revoked without your express consent and shall not be affected by your granting any indulgence to the contractor, which shall include but not be limited to postponement from time to time of the exercise of any powers vested in you or any right which you may have against the contractor and to exercise the same in any manner at any time and either to forbear or to enforce any covenant contained or implied in the said contract or any other course or remedy or security available to you, and our Bank shall not be released from its obligations under this guarantee by your exercising any of your rights with reference to matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on your part or any other indulgence shown by you or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving our Bank from its obligation under this guarantee.



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- 5. Notwithstanding anything herein contained, our liability under this guarantee is restricted to Rs \_\_\_\_\_\_(Rupees \_\_\_\_\_\_ only) and the guarantee shall remain in force up to and including the \_\_\_\_\_\_ day of being reported to us by you and returned to us duly discharged.
- 6. Unless a demand or claim under this guarantee is made on us in writing on or before the aforesaid expiry date as provided above or unless this guarantee is extended by us all your rights under this guarantee shall be proscribed and we shall be discharged from the liabilities hereunder.
- 7. This guarantee shall not be affected by any change in the constitution of our Bank or of the contractor or for any other reason whatsoever.

Date:

Signature

Place:

Seal of Bankers

(Complete Address/Contact Details with Tel./Fax/email etc)

Witness: