

## **INVITATION FOR TENDER FOR SUPPLY OF EQUIPMENT**

Sealed tender offers are invited in two separate sealed covers (Technical and Commercial offers) from eligible manufacturers/suppliers or their direct Indian agents for the supply of the following equipment:

### **Function Generator (TWO Quantity)**

Please send offers, ALONG WITH DESCRIPTIVE CATALOGUE/ BROCHURE. The validity of the bid should be at least four months (120 days) or more from the date of the opening of this tender. Please ensure that your quotation reaches not later than **14.09.2017 at 15:00 Hrs** at the following address:

**Dr. PRABODH BAJPAI**  
**Associate Professor, Department of Electrical Engineering,**  
**Indian Institute of Technology Kharagpur,**  
**Pin-721 302, West Bengal, India**

Earnest money of **Rs. 8,000/-** is to be deposited in the form of Account payee Demand Draft in favour of IIT Kharagpur, payable at Kharagpur, India. Any bid which is not accompanied with an EMD shall be summarily rejected. Earnest money deposited will be forfeited if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. No interest will be paid on the earnest money of the unsuccessful bidders.

Tender Reference	<b>IIT/SRIC/EE/RFD/FG/2017-18/EQ-8, Dated: 24.8.2017</b>
Price of Tender Document	<b>NIL</b>
Last Date and Time for submitting the tender document	<b>14.9.2017 at 15:00 Hrs (Indian time)</b>
Time and Date of Opening of Technical Bids	<b>14.9.2017 at 16:00 Hrs (Indian time)</b>
Place of Opening Tender	<b>Department of Electrical Engineering, Indian Institute of Technology Kharagpur – 721 302, West Bengal, India</b>
Address of Communication	<b>As stated above</b>
Contact Telephone Numbers	<b>+91- 3222 - 281752</b>
E-mail	<b>pbajpai@ee.iitkgp.ernet.in</b>

### **OVERVIEW**

The general scope under this purchase includes to design, manufacture, testing, inspection, packing and forwarding, transportation up to project site, loading & unloading, storage in safe custody, erection, carrying out preliminary tests at site, commissioning, performance testing, handling over to all the equipment as per instructions from time to time.

The tender will be in a two bid system. The Technical Bid and The Price Bid. The Technical Bid will be evaluated by the Technical Committee as per **Annexure-I**. The Financial Bids must accompany all details mentioned in **Annexure-II**.

**Annexure-I**  
**Technical Bid Deliverables**

<b>Specification of Function Generator</b>		
<b>Sl. no.</b>	<b>Parameter</b>	<b>Specification or range</b>
1	Standard Waveforms	Sine, Square, Pulse, ramp, noise, sin(x)x, exponential rise, exponential fall, cardiac, DC Volts
2	Frequency Characteristics	Sine(1 $\mu$ Hz to 80 MHz), Square(1 $\mu$ Hz to 80 MHz), Pulse(500 $\mu$ Hz to 50 MHz), Arb(1 $\mu$ Hz to 25MHz), Ramp(1 $\mu$ Hz to 1 MHz)
3	Total harmonic distortion	DC to 20 kHz
4	Signal Characteristics	Squarewave(Rise/Fall time $\leq$ 10ns, Overshoot $\leq$ 5%), Pulse ( Period 20ns to 2000s, Pulse width 10 ns to 2000s, Overshoot $<$ 5%), Ramp ( Linearity $<$ 0.1% of peak output, Symmetry (0.0% - 100.0%))
5	Output Characteristics	Amplitude(10 mVpp to 10 Vpp), Accuracy(at $\leq$ 10 MHz: $\pm$ 1% Units(Vpp, Vrms, dBm), Regulation 0.1 mV
6	Modulation: AM	Carrier Waveforms( sine, square, ramp. and arb), Mod. Waveforms( sine, square, ramp, noise and arb), Mod. Frequency( 2 mHz to 20 kHz)
7	Modulation: FM	Carrier Waveforms( sine, square, ramp. and arb), Mod. Waveforms( sine, square, ramp, noise and arb), Mod. Frequency( 2 mHz to 20 kHz), Peak deviation (DC to 80 MHz)
8	Modulation: FSK	Carrier Waveforms( sine, square, ramp. and arb), Mod. Waveforms(50% duty cycle square), Internal rate: 2 mHz to 1 MHz, frequency range: 1 $\mu$ Hz to 80 MHz
9	Trigger Characteristic	Input level: TTL compatible, Slope: rising or falling selectable, Pulse width: $\geq$ 100ns
10	Trigger Output	Level: TTL compatible into 50 $\Omega$ , Pulse width: $\geq$ 450ns, Maximum rate: 1 MHz
11	Power Supply	240 V 50 Hz
12	Operating temp	0 $^{\circ}$ C to 55 $^{\circ}$ C
13	Interface	RS232/485/Ethernet

**Annexure-II**  
**Financial Bid format**

<b>Sl.No.</b>	<b>Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
a)	Function Generator			
b)	Optional interface or any other accessories			
c)	Taxes			
d)	Frieght etc.			
	Total			

## GENERAL TERMS & CONDITIONS

PLEASE SPECIFICALLY INDICATE THE FOLLOWING POINTS IN YOUR QUOTATIONS AND COMPLY THE TERMS AS MENTIONED HEREUNDER:-

1. THE VENDOR/BIDDER(S) ARE REQUIRED TO SUBMIT THE TENDER DOCUMENT ON THEIR LETTERHEAD NEATLY PRINTED / TYPED DULY SIGNED BY AUTHORIZED PERSON WITH THE SEAL OF THE BIDDERS ALONG WITH THE ENDORSED (BY SEAL & SIGNATURE) COPY OF THE TECHNICAL AND FINANCIAL OFFER(S). ALL ENVELOPES CONTAINING THE TENDER SHOULD BE PROPERLY SEALED. INCOMPLETE TENDERS, AMENDMENTS AND ADDITIONS TO TENDER AFTER OPENING OR LATE TENDERS ARE LIABLE TO BE IGNORED AND REJECTED.
2. THE TWO PARTS OF THE OFFER SHOULD BE PLACED IN SEPARATE SEALED ENVELOPES CLEARLY MARKED "TECHNICAL OFFER" & "FINANCIAL OFFER". THESE TWO ENVELOPES ALONG WITH ENVELOPE FOR EMD MARKED "EMD" (TOTAL THREE ENVELOPES) MUST BE ENCLOSED IN ONE BIGGER ENVELOPE DULY SEALED AND SUPER SCRIBED WITH TENDER NUMBER, NAME OF THE ITEM/EQUIPMENT AND TENDER DUE DATE MUST BE FORWARDED TO THE UNDERSIGNED SO AS TO REACH HIM ON OR BEFORE THE DUE DATE.
3. THE "TECHNICAL OFFER" SHOULD INCLUDE THE DETAILED SPECIFICATIONS (CATALOGUE/LEAFLET) OF EQUIPMENT AND ITS ACCESSORIES AS INDICATED IN THE **ANNEXURE-I**. COMPLIANCE STATEMENT OF TECHNICAL SPECIFICATIONS WITH SUPPORTING DOCUMENTS MUST BE ATTACHED.
4. BIDDERS MAY BE REQUESTED TO GIVE A BRIEF POWER POINT PRESENTATION AFTER TECHNICAL BID OPENING ON THE FOLLOWING:
  - BRIEF ORGANIZATION AND CO. PROFILE
  - FINANCIAL CAPABILITY CLEARLY ENUMERATING THE VARIOUS SIMILAR JOBS DONE.
  - TECHNICAL DETAILS OF COMPLETE SYSTEM COMPONENTS.
5. THE FINANCIAL OFFER SHOULD INCLUDE THE COST OF EQUIPMENT AND ITS ACCESSORIES INCLUDING CIVIL WORKS AND MECH. FABRICATIONS & INSTALLATION COST. THE TOTAL COST SHOULD BE QUOTED IN WORDS AS WELL AS FIGURES (TYPED OR PRINTED).
6. THE FINANCIAL OFFER MUST BE MENTIONED IN THE PRESCRIBED FORMAT AS PER THE **ANNEXURE-II**. IF THE FINANCIAL OFFER IS NOT IN THE PRESCRIBED FORMAT, IT WILL BE REJECTED.
7. **THE FOLLOWING DOCUMENTS ARE REQUIRED FROM THE INDIAN AGENTS OF FOREIGN FIRMS:**
  - 7.1 FOREIGN PRINCIPAL'S PROFORMA INVOICE INDICATING THE COMMISSION PAYABLE TO THE INDIAN AGENT AND NATURE OF AFTER SALES SERVICE TO BE RENDERED BY THE INDIAN AGENT.
  - 7.2 COPY OF THE AGENCY AGREEMENT WITH THE FOREIGN PRINCIPAL INDICATING THE NATURE OF AFTER SALES SERVICES, PRECISE RELATIONSHIP BETWEEN THEM AND THEIR MUTUAL INTEREST IN THE BUSINESS.

7.3 PLEASE ENCLOSE THE DOCUMENT(S) RELATED TO THE ENLISTMENT OF THE INDIAN AGENT WITH DIRECTOR GENERAL OF SUPPLIES & DISPOSALS (DGS & D) UNDER THE COMPULSORY REGISTRATION SCHEME OF MINISTRY OF FINANCE.

8. TECHNICAL CATALOGUE/LEAFLET SHOULD BE ENCLOSED WITHOUT FAIL. PROVIDE COMPLIANCE STATEMENT WITH RESPECT TO THE TECHNICAL SPECIFICATIONS MENTIONED ABOVE.
9. PLEASE CONFIRM WHETHER YOU ARE AUTHORISED TO QUOTE ON BEHALF OF YOUR PRINCIPALS AND IF SO, PLEASE ENCLOSE A COPY OF SUCH AUTHORISATION WITH YOUR QUOTATION.
10. **PRICE BIDS FOR FOREIGN FIRMS:** PRICES ARE TO BE QUOTED ON 'EX-WORKS' DULY PACKED OR ON "FCA/FOB" INTERNATIONAL PORT" BASIS AND ALSO INCLUDING AGENCY COMMISSION PAYABLE TO YOUR INDIAN AGENTS, IF ANY SHOWING CLEARLY THE FOLLOWING BREAK UP:-
  - I) EX-WORKS PRICE
  - II) PACKING & FORWARDING
  - III) FREIGHT
  - IV) ANY OTHER RELEVANT EXPENSES.
  - V) TAXES PAYABLE BY THE INSTITUTE

INSURANCE WILL BE PAID BY OUR INSTITUTE SEPARATELY AND SHOULD NOT FORM PART OF THE QUOTED PRICE.

**PRICE BIDS FOR INDIAN FIRMS:** PRICES ARE TO BE QUOTED ON F.O.R., IIT KHARAGPUR, ON DOOR DELIVERY BASIS CLEARLY SHOWING THE BREAK UP.

11. **PERIOD OF VALIDITY:** BIDS SHALL REMAIN VALID FOR ACCEPTANCE FOR A PERIOD OF 120 DAYS FROM THE DATE OF OPENING.
12. INDIAN AGENTS ADDRESS AND PERCENTAGE OF AGENCY COMMISSION INCLUDED IN ABOVE F.O.B./EX-WORKS PRICE. (THIS WILL BE PAID TO THE INDIAN AGENTS IN INDIAN RUPEES ONLY AND NOT IN FE). PLEASE ENCLOSE COPY OF AGENCY AGREEMENT ENTERED INTO WITH YOUR PRINCIPALS INDICATING THE NATURE OF AFTER SALES SERVICES OF INDIAN AGENTS, PRECISE RELATIONSHIP & MUTUAL INTEREST IN THE BUSINESS.
13. **MEASUREMENTS/WEIGHT:** NETT/GROSS OF THE CONSIGNMENT. IN CASE OF AN ORDER, YOU SHALL USE AIR WORTHY PACKAGE (AS APPLICABLE) DULY CERTIFIED WITH DOCUMENTS – PLYTO – SANITARY CERTIFICATE (AS PER QUARANTINE ORDER 2003).
14. **SCOPE OF SUPPLY:** SHOULD INCLUDE INSTALLATION AND COMMISSIONING ON TURNKEY BASIS INCLUDING **CIVIL WORKS, FOUNDATIONS, AND FABRICATED SHED WITH METALLIC ENCLOSURE (IF REQUIRED)** OF THE EQUIPMENTS.
15. **PAYMENT TERMS FOR FOREIGN FIRMS**
  - A) 100% PAYMENT THROUGH SIGHTDRAFT/FORIGN DEMAND DRAFT/LC (EXCEPTIONAL CASES)/SWIFT TELE TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER AND CONDITION.

B) BANK CHARGES ON LC/SD (WITHIN INDIA APPLICANT ACCOUNT AND OUTSIDE INDIA TO BENEFICIARY ACCOUNT).

**PAYMENT TERMS FOR INDIAN FIRMS**

A) 90% OF THE PAYMENT WILL BE MADE THROUGH CROSSED ACCOUNT PAYEE CHEQUE / ELECTRONIC TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER AND CONDITION AT SITE AND BALANCE 10% WILL BE PAID AFTER COMMISSIONING OF EQUIPPMENT AND SUBMISSION OF THE BANK GUARANTEE (5% OF THE PURCHASE ORDER VALUE) TOWARDS PERFORMANCE GUARANTEE FOR A PERIOD OF 3 YEAR FROM THE DATE OF COMPLETION OF WORK.

B) ENSURE MENTIONING

i) BANK DETAILS OF THE BENEFICIARY, GST NO., PAN NUMBER

ii) FULL NAME AND ADDRESS OF THE BENEFICIARY ON WHOM ORDER HAS TO BE PLACED

16. WHETHER ANY EXPORT LICENCE IS REQUIRED FROM YOUR GOVERNMENT, IF SO, PLEASE CONFIRM WITH DETAILS.

17. COUNTRY OF ORIGIN OF THE GOODS IS TO BE MENTIONED.

18. THE INSTITUTE SHALL PROVIDE THE CONCESSIONAL CUSTOMS DUTY AND EXCISE DUTY EXEMPTION CERTIFICATE AS PER GOVT. NOTIFICATION NO. 51/96 CUSTOMS DATED: 23.07.1996 AND CENTRAL EXCISE DUTY EXCEMPTION IN TERMS OF GOVT. NOTOFICATION NO. 10/97 – CENTRAL EXCISE DATED: 01.03.1997 AS AMENDED FROM TIME TO TIME.

19. **LIQUIDATED DAMAGES:** THE STORES SHOULD BE DELIVERED / DISPATCHED TO DESTINATION AND READY FOR OPERATION NOT LATER THAN THE DELIVERY DATE SPECIFIED. IT THE SUPPLIER FAILS TO DELIVER ANY OR ALL THE STORES OR PERFORM THE SERVICE BY THE SPECIFIED DATE, LIQUIDATED DAMAGES AT 1% PER MONTH OR PART THEREOF IN RESPECT OF THE VALUE OF STORES WILL BE DEDUCTED FROM THE CONTRACT PRICE SUBJECT TO A MAXIMUM OF 5%. ALTERNATIVELY, THE ORDER WILL BE CANCELLED AND THE UNDELIVERED STORES PURCHASED FROM ELSEWHERE AT THE RISK AND EXPENSE OF SUPPLIER.

20. **PATENT RIGHTS:** THE SUPPLIER SHALL INDEMNIFY THE PURCHASE 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.

21. ONLY THOSE BIDDERS WHO'S BIDS HAVE BEEN TECHNICALLY FOUND ACCEPTABLE WILL ONLY BE INVITED FOR PARTICIPATION IN THE PRICE BID.

22. THOSE BIDDERS WHO DO NOT RECEIVE ANY COMMUNICATION FOR PARTICIPATION IN PRICE BID OPENING MEETING MAY PRESUME THAT THEIR BID HAS NOT BEEN ACCEPTED BY THE INSTITUTE.

23. CONDITIONAL OFFER WILL NOT BE ACCEPTED.

24. LATE TENDERS I.E. TENDER RECEIVED AFTER THE DUE DATE AND TIME OF SUBMISSION AS MENTIONED ABOVE SHALL NOT BE ACCEPTED.

25. BIDDERS TO ENCLOSE THE FOLLOWING DOCUMENTS:-

- A) CURRENT INCOME TAX AND SALES TAX CLEARANCE CERTIFICATES (GST No.), & PAN NO.
- B) SUMMARY OF AUDITED STATEMENT OF ACCOUNTS FOR THE LAST THREE YEARS TO BE ENCLOSED
- C) BANKER'S SOLVENCY CERTIFICATE OF QUALIFIED BIDDER IS MUST BEFORE RELEASE OF PURCHASE ORDER.
- D) NAME AND ADDRESS OF MINIMUM THREE CLIENTS TO WHOM SUCH EQUIPMENT HAVE BEEN SUPPLIED SHOULD BE MENTIONED.

26. **WARRANTY / GUARANTEE:** A MINIMUM OF **24 MONTHS** COMPREHENSIVE WARRANTY / GUARANTEE IS REQUIRED FROM THE DATE OF INSTALLATION AND COMMISSIONING OF ITEM/EQUIPMENT TO THE FINAL DESTINATION. **THE MANUFACTURER / SUPPLIER SHALL CONFIRM THAT FREE OF COST SERVICE SUPPORT SHALL BE PROVIDED FOR 3 YEARS AFTER WARRANTEE PERIOD. ADDITIONAL CHARGES IF ANY SHALL BE INCLUDED IN THE BID.** DETAILS REGARDING THE SERVICE SUPPORT SHALL BE CLEARLY MENTIONED IN THE BID.

27. THE INSTITUTE DOES NOT BIND ITSELF TO OFFER ANY EXPLANATION TO THOSE BIDDERS WHO'S TECHNICAL BID HAS NOT BEEN FOUND ACCEPTABLE BY THE EVALUATION COMMITTEE OF THE INSTITUTE.

28. ALL TENDERS (UNLESS OTHERWISE SPECIFIED) ARE TO BE SUBMITTED / HANDED OVER TO **Dr. Prabodh Bajpai, Department of Electrical Engineering, Indian Institute of Technology, Kharagpur - 721 302.**

#### IMPORTANT

- 1. IIT Kharagpur authority may accept or reject any or all the bids in part or in full without assigning any reason and does not bind itself to accept the lowest bid. The Institute at its discretion may change the quantity / upgrade the criteria / drop any item or part thereof at any time before placing the Purchase Order.
- 2. Promptly make arrangements for repair and / or replacement of any damaged item (s) irrespective of settlement of claim.
- 3. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.
- 4. For any query pertaining to this bid document correspondence may be addressed to **Dr. PRABODH BAJPAI**, at the address mentioned above.

#### LAST DATE FOR SUBMISSION OF SEALED BIDS: 14.9.2017

- 1) Please Note that the Institute remains closed during Saturdays & Sundays and all specified government holidays.
  - 2) Fax, e-mail Tender will not be accepted.
  - 3) The General Terms and Conditions as stated above relate to supply of stores / equipment /assets etc. and for specific service other terms and conditions of the Institute will apply.
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