

NOTICE INVITING TENDER

Supply and Demonstration of Precision Power Analyzer



Electrical Engineering

Indian Institute of Science, Bengaluru

17th August 2021

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This is an invited Global tender

Section 1: Bid Schedule

1	Tender no.	
2	Tender date	17 th August 2021
3	Item description	Precision Power Analyzer
4	Tender type	(i) Technical bid (part A) (ii) Commercial bid (part B)
5	Place of tender submission	Office of the Chairman Attn: Dr. Vishnu Mahadeva Iyer Department of Electrical Engineering Indian Institute of Science Bangalore – 560012 India
6	Last date and time for submission of tender	10 th September 2021, 5.00 pm
7	For further clarification	Dr. Vishnu Mahadeva Iyer Room 319, Department of Electrical Engineering, Bangalore – 560012, India Email: vishnumi@iisc.ac.in Ph: +91 80 2293 2526

Section 2: Eligibility criteria

Prequalification criteria:

1. The original equipment manufacturer (OEM) should have existence for a minimum of 20 years. (Enclose Company Registration Certificate)
2. The OEM should have a calibration facility and full-fledged service center in India.
3. The Bidder should have qualified technical service personnel for the instrument(s) based in India.
4. If the Bidder is a local distributor/dealer/agent, it is mandatory to attach authorization certificate along with the technical bid from the OEM.
5. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
6. The Bidder must not have been blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect must be given as per Annexure 3.

Section 3: Terms and conditions

A) Submission of Tender:

1. All documentations in the tender should be in English.
2. Tender should be submitted in two envelopes (two bid system).
 - a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications. The proposal should contain a compliance table with 4 columns in addition to the ones in the technical requirements table that has been included with this RFQ below. The compliance table should include all the items in the same order and format. The first column should describe your compliance in a “Yes” or “No” response. If “No” the second column should state the extent of deviation. The “third” column should state the reasons for the deviation if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirements table below. (Suppliers who include any indication of prices in the technical bid will be automatically disqualified).
 - b. Commercial Bid (Part-B) – Commercial bid indicating item wise price breakdown for the items mentioned in the technical bid, as per the format provided in tender, and other commercial terms and conditions.
3. The technical bid and price bid should each be placed in separate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.
4. The SEALED COVER superscripting tender number / due date & should reach the Office of the Chairman, Department of Electrical Engineering, Indian Institute of Science, Bangalore – 560012, India on or before due date mentioned in the tender notice. In case due date happens to be holiday the

tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.

5. All queries are to be addressed to the person identified in "Section 1 – Bid Schedule" of the tender notice.

6. The items are required for research purposes, and IISc is a DSIR registered institution, hence eligible for GST exemption (i.e. GST @ 5%). While submitting the price quote, this point must be taken care. For getting GST exemption certificate, successful bidders must submit, a formal request together with Invoice copy and Purchase order copy.

7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.

8. The vendor should have qualified technical service personnel for the equipment based in India and should assure a response time of <48 hours.

9. Technical evaluation may include a demonstration to verify functionalities and capabilities of the system quoted. The institute reserves the right to provide samples after opening the technical bids for verification of promised specifications. Any discrepancy between the promised specifications and measurements will be deemed as technical non-compliance. Quality of the data will also be considered during the technical evaluation.

10. Imported items should be shipped on C.I.P. Bangalore basis (by Air Freight only) and all components and accessories indicating component-wise and itemized breakup. Provide certificates for country origin of manufacturing for each line items. Price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (installed and ready to use) in our facility.

11. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.

12. Incomplete bids will be summarily rejected.

B) Cancellation of Tender: Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer: The offer shall be valid 90 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

1. The technical bid (Part A) will be opened first and evaluated.

2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision regarding acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.
4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a. Non-submission of complete offers.
 - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
 - c. Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.
7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, preprocessing and post processing, optional items, recommended spares, warranty, annual maintenance contract.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system is to be under warranty period of minimum 3 years (year wise breakup value should be shown in the commercial bid) including free supply of consumables, spare parts, and data analysis software from the date of functional installation. If the instrument is found to be defective, it has to be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

G) Annual Maintenance Contract:

An annual maintenance contract for a period of 2 years post warranty should be provided on completion of warranty period. If we opt for the AMC, then the L1 will be calculated as instrument cost (A) including

warranty + cost of AMC per year (B)*no of years. If we opt AMC period as 2 years, L1 will be calculated as $A + 2 * B$.

H) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

I) Delivery and Installation:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed, and made functional within 90 days from the date of receipt of purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed. The bidder should also arrange for technical training to the local facility technologists and users.

J) Payment Terms: The payment will be through FOR-IISc Bangalore only.

K) Statutory Variation: Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

L) Disputes and Jurisdiction: Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

M) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
5. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.

Section 4: Technical details

Sl. No.	Parameters	Specification/ Requirement
1	Place where equipment /service to be supplied /provided	Department of Electrical Engineering, Indian Institute of Science, Bangalore - 560012
2	Scope	Supply & Demonstration.
3	Number of Input Channels	3 Input Channels: Three Voltage and Three Current. All inputs elements should be Modular & Isolated. Capability to expand up to 7 Channels in the future.
4	Environmental conditions for operation	Temperature -25 to 40°C; Humidity 20 to 80% RH
5	Power measurement configuration	Single phase two wire, three phase three wire, three phase four wire, three voltage three current
6	Direct Input Voltage Range	AC Input: 0 to 1000V rms DC Input: 0 to 1500V
7	Direct Input Current Range	AC Input: 0 to 30A rms DC Input: 0 to 30A DC External Current Sensor Input (BNC Type): 0 to 10V
8	Effective Input Measurement Range	1% to 130% of the voltage and current ranges; up to $\pm 130\%$ of the power range
9	DC Measurement Accuracy	$\pm (0.02\%$ of reading + 0.05% of range) or better
10	AC Measurement Accuracy (@50Hz)	$\pm (0.01\%$ of reading + 0.02% of range) or better
11	Measurement Bandwidth for Power	DC, 0 to 1MHz or better
12	A/D Convertor	Resolution: 18 bit or better Sampling Period: Maximum 10MS/s
13	Display Type	≥ 10.1 -inch WXGA Capacitive Touchscreen display
14	Data Update rate	10ms, 50ms, 100ms, 200ms, 500ms, 1s, 2s, 5s, 10s, 20s
15	Integration	The instrument should be able to integrate: a) active power (watt hour), b) current (ampere hour), c) apparent power (voltampere hour), and d) reactive power (var hour)
16	Harmonic measurement	Up to 500th order capability. Harmonics can be measured for a fundamental frequency up to 300kHz. Capability to measure Power and Harmonics simultaneously. Allows side by side comparison of harmonics from two different input sources.
17	Interface	GPIB, Ethernet, USB 3.0, USB (Peripheral) and VGA output

18	Data Display Modes	Numerical mode: Simultaneous 50 numerical parameters. Waveform, Vector, Bar graph and Trend
19	Filters	a) Synchronization source filter b) Enhanced frequency filter c) Digital parallel path filters d) Advanced harmonic analysis e) Line Filter
20	Phase correction function	Amplitude and Phase correction functions for external current sensor.
21	Internal Memory	Nonvolatile built-in memory of 2GB or more
22	Rated Input Power Supply	100 to 120VAC, 198 to 240VAC
23	Rated Power Supply Frequency	50/60 Hz
24	Maximum Power Consumption	< 600 VA
25	Warranty	Three Years or more
26	Delivery Period	Within 12 Weeks
27	OEM capability	The OEM should have a calibration facility and full-fledged service center in India to cater to the needs of the Power Analyzer. Manufacturer to provide support in terms of repairs, post warranty period up till 5 years from the date of discontinuation of the product model.
28	Demonstration	Bidder shall give complete demonstration of the instrument at the time installation about the complete functionalities & usage of the instrument.
29	Manuals	Complete operating instructions manual, communication interface and troubleshooting manuals shall be furnished along with the instrument.
30	Software	Suitable software should be provided for PC connectivity to easily control, monitor, record, analyze and save measured data from a Personal Computer.

Section 5: Technical bid

The technical bid should furnish all requirements of the tender along with all annexure in this section and submitted to:

Office of the Chairman,
Attn: Dr. Vishnu Mahadeva Iyer
Department of Electrical Engineering
Indian Institute of Science
Bangalore – 560012
India

Annexure 1

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder:

Sr. no	Items	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
3.	Registration No/ Trade License, (attach attested copy)	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name:

Designation, Seal

Date:

Annexure 2

Declaration regarding experience

To,
The Chairman,
Department of Electrical Engineering
Indian Institute of Science
Bangalore – 560012
India

Ref: Tender No:

Dated:

Supply and installation of _____

Sir,

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has ___ years of experience in supplying and installing _____

(Signature of the Bidder)

Printed Name Designation, Seal Date:

Annexure 3

Declaration regarding track record

To,
The Chairman,
Department of Electrical Engineering
Indian Institute of Science
Bangalore – 560012
India

Ref: Tender No:

Dated:

Supply and installation of _____

Sir,

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I am competent officer in my company / firm to make this declaration.

OR

I declare the following:

Sr. no	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long
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(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully
(Signature of the Bidder)
Name Designation, Seal:

Date:

Annexure 4

Declaration for acceptance of terms and conditions

To,
The Chairman,
Department of Electrical Engineering
Indian Institute of Science
Bangalore – 560012
India

Ref: Tender No:

Dated:

Supply and installation of _____

Sir,

I have carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully
(Signature of the Bidder)

Name Designation, Seal:

Date:

Annexure 5

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications.
- f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Section 6: Commercial Bid

S no.	Description	Cat. number	Quantity	Unit price	Subtotal
1.	Essential items noted in the technical specification				
1a.	... (details of essential items)				
1b.	...				
2.	Optional items noted in the technical specification				
2a.	... (details of optional items)				
2b.	...				
3.	Accessories for operation and installation				
4.	All Consumables, spares, and software to be supplied locally				
5.	Warranty (3 years)				
6.	AMC 2 years beyond warranty				
7.	Cost of Insurance and Airfreight				
8.	CIP/CIF IISc, Bengaluru				

Any additional items

S No.	Description	Cat. number	Quantity	Unit price	Subtotal
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Addressed to:

Office of the Chairman,
 Attn: Dr. Vishnu Mahadeva Iyer
 Department of Electrical Engineering
 Indian Institute of Science
 Bangalore – 560012
 India

Section 7: Checklist

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

1. Sealed Envelope "A": Technical Bid

1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:

- a. Annexure 1: Bidders details
- b. Annexure 2: Declaration regarding experience
- c. Annexure 3: Declaration regarding clean track record
- d. Annexure 4: Declaration for acceptance of terms and conditions
- e. Annexure 5: Details of items quoted.

2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

2. Sealed Envelope "B": Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) superscribing on both the envelopes with Tender No. and due date and both in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.