### Office of the Dean Research and Development Indian Institute of Engineering Science & Technology (IIEST), Shibpur Howrah-711 103

### Project Code: DRC/SERB-DST/CE/SC/015/16-17

### Department of Civil Engineering Indian Institute of Engineering Science and Technology, Shibpur, Howrah-711 103

#### Notice Inviting Quotations

Sealed quotations are invited for the supply of **Dissolved Hydrogen** concentration measuring Device/ Dissolved Hydrogen Meter as per the following technical specification within the seven working days from the date of publishing advertisement. The relevant bidding document can be downloaded from the website. The document can also be obtained from the Department of Civil Engineering (contact: Dr. Sumit Chakraborty) between 10.00 a.m. and 5.00 p.m. on all working days. The last date of the submission of sealed quotation is <u>seven working days from the date of publishing</u> <u>advertisement.</u>

Dean (R & D)

(A. Code DRC-T096/17-18)

This is downloadable

## Indian Institute of Engineering Science and Technology, Shibpur, Howrah-711 103



# **BIDDING DOCUMENT**

## (Project Code: DRC/SERB-DST/CE/SC/015/16-17)

For Supply of

Dissolved Hydrogen Concentration Measuring Device/ Dissolved Hydrogen Meter

Under

Young Scientist Project Scheme (File No.: YSS/2015/001393) SERB-DST, Govt. of India (New Delhi)

**Department of Civil Engineering** 

December 19, 2017

#### SECTION I: <u>TERMS & CONDITIONS AND IMPORTANT INSTRUCTIONS</u> <u>FOR BIDDERS</u>

- 1. Bidders are invited to submit sealed quotation as per the technical specifications for tendered item to Dr. Sumit Chakraborty, Young Scientist, Department Civil Engineering, within the seven working days from the date of publishing advertisement between 10.00 a.m. to 5.00 p.m. except Saturday, Sunday and other public holidays.
- 2. The last date of the receipt of tenders is <u>seven working days from the date of publishing advertisement</u>. <u>If it becomes holiday under any circumstances</u>, <u>then the last date of the receipt of tenders will be next working day</u>. The Quotations received later will not be entertained under any circumstances.
- 3. Date and time of the opening of bid is <u>next working day of the last date of receiving sealed quotations at 4:30 PM. If it becomes holiday under any circumstances, then the date and time of opening of bid will be next working <u>day at 4.30 p.m.</u> The place of opening of bid is office Room of the Department of Civil Engineering, Indian Institute of Engineering Science and Technology, Shibpur, Howrah-711 103.</u>
- **4.** Bidders are requested to submit the quotations in Sealed Cover to the Department of Civil Engineering mentioning the following address:

#### Head Department of Civil Engineering Indian Institute of Engineering Science and Technology, Shibpur, B Garden, Howrah-711103

**5.** All bids should be submitted in ONE-BID (TECHNO-COMMERCIAL BID) Format in covers (Enquiry Number must be mentioned on cover).

TECHNO-COMMERCIAL BID - giving Detailed Specifications, International Standards (BIS/INTERNATIONAL), Catalogues, List of users & Technical Details / Operating Parameters, Pre-Installation Requirements, payment terms, warranty (at least 12 months), etc. along with PRICE BID - giving full Prices in Indian Rupees (only) for

- (a) Tendered item.
- (b) Essential Accessories & Spares.
- **6.** The price quoted should be inclusive of all Taxes, duties and levies. Inclusion of Tax/Levy at a latter stage will not be accepted. Freight, Insurance charges should be clearly indicated.
- 7. The materials are to be supplied at the Department of Civil Engineering within the IIEST Shibpur premises between 11.00 a.m. and 4.00 p.m. The tenderer will be responsible for any breakage, damage or defect in the equipment detected subsequently. The supply and installation of the equipment should be completed within a period not exceeding 3 months from the placement of the formal work

order or opening of the LC failing which appropriate action will be taken as per university rules.

- 8. If the supply is not completed within the stipulated period as indicated in the Work Order, a Liquidated Damage @ ½ per cent per week will be imposed subject to maximum of 5% of the value of work order.
- **9.** For Indian purchase (*This clause is applicable only for Indian purchase and not applicable for foreign purchase*):

Bills in triplicate should be presented for payment within 15 days of Supply / Completion of work. No Advance Payment can be made. All bills are to be accompanied by Order copies and Challan Receipt. The Order Number is to be noted on both the Challan and the Bill.

#### 10. Documents to be submitted with the tender:

Tender Documents/Terms & Conditions in Original duly signed by the Proprietor / Partner/ Director of the Company as a token of acceptance of Terms & Conditions of Tender.

#### 11. Customs Duty & Excise Duty

- The University will not issue any C or D form availing of concessional Sales Tax/ VAT/GST.
- The University will issue Customs Duty Exemption Certificate or Excise Duty Exemption Certificate for foreign purchase, if required.
- 12. Indian Institute of Engineering Science and Technology, Shibpur, Howrah reserves the right to accept / reject all or any of the tenders without assigning any reason whatsoever.

We accept the above terms and conditions. Dated:

Signature of Bidders/Suppliers With date & Seal

## SECTION II: TECHNICAL SPECIFICATIONS

# (i) Dissolved Hydrogen Concentration Measuring Device/ Dissolved Hydrogen Meter

The device will be used to determine the concentration of the dissolved hydrogen in water and/ solution up to 2000 ppb/L. The equipment is required to consist of a sensor part and a display unit.

**The detail specification for sensor part:** This will contain a sensing/measuring object which will measure the dissolved hydrogen concentration in the water/ solution based on the hydrogen reduction method or the oxidation and reduction potential detection method. The range of the measurement should be 0 - 2000 ppb/L. A high accuracy in detecting the hydrogen concentration is needed.

**The detail specification for display unit:** The display unit needs to display the minimum (0 ppb/L) and maximum (2000 ppb/L) values of the detected concentration. The measurement unit should be 1 ppb. The switchable display option from parts per billion (ppb) to parts per million (ppm) is appreciated. The display unit will run by the battery. In the display unit, an indication of the battery charge must be displayed.

The dimension of the equipment  $\leq 200$  mm height,  $\leq 50$  mm width, and  $\leq 50$  mm depth will prefer. The whole equipment needs to supply in a hard cover box. The items, such as (1) the main equipment, (2) pre-installed battery, (3) user instruction manual, and (4) sensor cleaning paper, etc., are needed to supply within the box.