



राष्ट्रीय समुद्र प्रौद्योगिकी संस्थान
वेलच्चेरी - तामबरम रोड, नारायणपुरम, पल्लिकरणी, चेन्नै - 600 100, भारत.
National Institute of Ocean Technology
Velachery - Tambaram Road, Narayanapuram, Pallikaranai, Chennai - 600 100 INDIA.
फोन / Phone : 044 66783300 फैक्स / Fax : 044 22460275 GSTIN# 33AAATN0530G126
वेबसाइट / Website : www.niot.res.in, ISO 9001 Certified Institution
GSTIN# 33AAATN0530G126



☎: 91 44 66783325 / 66783328/ 66783489
@: gopal@niot.res.in; lathat@niot.res.in, kharid@niot.res.in

निविदा आमंत्रण सूचना (नि.आ.सू.)/NOTICE INVITING TENDER(NIT)

हेतु निविदा/Tender For	FAILURE ANALYSIS OF FAILED BUOY COMPONENTS
निविदा संख्या/Tender No	NIOT/S&P/OOS/28481/2023-24
निविदा प्रणाली/Tender Mode	Open Tender - Single Bid
निविदा जारी होने की तारीख/Tender Issue Date	12/06/2023
निविदा बंद होने की तारीख/Tender Closing Date	06/07/2023 03:00 PM
निविदा खुलने की तारीख/Tender Opening Date	06/07/2023 03:30 PM
बोली का प्रकार एवं निविदा प्रस्तुतिकरण Bidding Type & Tender submission	Single Part Tender comprising of Technical Bid and Price Bid should be submitted electronically through e-procure Portal www.eprocure.gov.in/app
निविदा प्रलेख उपलब्धता स्थान Tender Documents available place	Tender documents can be freely downloaded from www.eprocure.gov.in/app and our website www.niot.res.in till closing date and time of the Tender. The tender document fee is waived for downloading the Tender.
ई-निविदा के लिये सहायता मैनुअल /Help manual for e-tender	Bidders may download the help documents and Bidders manual kit from www.eprocure.gov.in/eprocure/app For any technical queries related to operation of the Central Procurement Portal please mail to support-eproc@nic.in Helpdesk numbers are: Mobile Numbers- 91 8826246593 Tel : The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002. For any issues / clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority.
निविदा के निर्णय होने तक अपने प्रश्न ई-मेल आईडी पर भेजें./Send your queries to the email ID upto tender finalization	tendergroup@niot.res.in / gopal@niot.res.in

Yours faithfully,

COORDINATOR GRADE IV (S&P)

Bid Preparation and Tender Submission Procedure

Bidders may download the help documents and Bidders manual kit and FAQ from www.eprocure.gov.in/app. Toll free Helpdesk phone number 180030702232

a) For any technical queries related to operation of the Central Procurement Portal please mail to cppp-nic@nic.in OR please call 24 x 7 Toll Free No. **1800 3070 2232** and Mobile Numbers **91 7878007972, 91 7878007973, 91 7574889871, 91 7574889874.**

b) In addition to the above numbers, the new helpdesk numbers are: Mobile Numbers- 91 8826246593 **Tel :** The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002, 0120-4001005. Please mail to support-eproc@nic.in

c) For any policy related matter / clarifications pl contact cppp-doe@nic.in - managed by Dept of Expenditure, Min of Finance.

d) For any issues / clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority (NIOT).

e) The prospective Bidders should register themselves in the CPPP Portal and submit the Bids electronically through the CPPP portal. The paper based physical Tender submission is not permitted.

INDEX

1. [Submission of bids](#)
2. [NIT shall form part of the Order](#)
3. [Terms and conditions of NIT](#)

INSTRUCTION TO BIDDERS

4. [Security](#)
5. [Contacting NIOT](#)
6. [Vendor Registration](#)
7. [Tender Opening](#)
8. [Pre-Qualification](#)

Technical

Commercial

9. [Default in Performance](#)
10. [Goods Supply](#)
11. [Order Acceptance](#)
12. [Change of Name after award](#)
13. [One Bid per Bidder](#)

BIDDING CONDITION

14. [Due date Extn, Corrigendum to NIT](#)
15. [Unscheduled holiday in Chennai](#)
16. [Unsolicited correspondences](#)
17. [Submission of tender](#)
18. [Bid Validity](#)
19. [Bid validity extension](#)
20. [Conditional offers / quotations](#)
21. [Signing of bids](#)
22. [Site Visit](#)
23. [Arithmetical errors](#)
24. [The broad configuration](#)
25. [Acceptance of bids](#)
26. [The compliance sheet](#)
27. [Bid or modification to bids](#)
28. [Canvassing](#)
29. [Award](#)
30. [Commercial compliance](#)
31. [Unrealistic bids](#)

TERMS AND CONDITIONS of THE CONTRACT

32. [Quote Vale](#)
33. [Guaranteed time of delivery](#)
34. [Extension of delivery period](#)
35. [Delay in Completion / LD](#)
36. [Partial Delivery](#)
37. [Insurance](#)
38. [Service contract Insurance](#)
39. [Transportation](#)
40. [Risk Purchase](#)
41. [Incidental Services](#)
42. [Spare Parts](#)
43. [Warranty](#)
44. [Payment](#)
45. [Force Majeure](#)
46. [Discounts](#)
47. **Price:**
48. [Taxes and duties:](#)
[I Payable only for the Indian bidder:](#)
 - a) [GST](#)[II Deductibles :](#)
 - a) [Deduction of IT for Indian bidders](#)
 - b) [GST-TDS](#)
49. [Arbitration](#)
50. **SUBMISSION OF TECHNICAL DOCUMENT**
Documents Establishing Bidder's Eligibility and qualifications
51. [Eligibility](#)
52. [Authorisation](#)
53. [OEM & Agent](#)

INTRODUCTION

National Institute of Ocean Technology (NIOT) is an autonomous body under the Ministry of Earth Sciences, and is involved in developing technology for utilizing ocean resources in an eco-friendly manner.

Notice Inviting Tender Document

e-bid is invited for **Failure Analysis of Failed Buoy Components** for NIOT, Chennai as per the specification enclosed.

1.Submission of bids

Bidder is advised to submit their quotation in single part containing Technical, Commercial and price bid together electronically through eProcurement Portal www.eprocure.gov.in/app before the deadline for submission of Bids prescribed in the front page of this NIT.

2. This NIT shall form part of the Order / Contract document.

3. Terms and conditions indicated in the NIT shall be superseded by the terms and conditions mentioned in the Special conditions of contract (SCC) indicated.

INSTRUCTION TO BIDDERS:

4. Security: Any information / material / document supplied along with this tender or after placement order should not be disclosed or copied without written permission from NIOT.

5. Contacting NIOT: No correspondence / discussion / visits whatsoever will be entertained on the subject unless specifically called by this office after opening the tender for clarifications. Any violation of this will render the quotation invalid and the firm is liable to be removed from our approved vendor list. However if vendor requires any clarification on the bid, the query may be mailed to the respective mail ID at the top of NIT.

6. Vendor Registration: The vendor can apply for Password by submitting few of their company particulars (one time) in to NIOT vendor registration menu of our website and get the password through email to download the tender document from NIOT website for free of cost. However to become a registered vendor of NIOT, vendor should furnish the signed hardcopy of all the details submitted on line and get the Vendor Registration Certificate of NIOT after the appropriate evaluation by NIOT.

7. Tender Opening: All the tenderers can participate in the tender opening with proper authorization letter from the respective Company.

8. Pre-Qualification.

Technical

- a) The lab which carries out the failure analysis should have minimum 10 years of experience as on the date of opening of the tender in the field of Failure analysis of metallic, non-metallic and polymeric materials and documentary evidence & performance certificate for the failure analysis from end user should be provided.
- b) Client list and testimonials from the clients shall be attached.
- c) The laboratory should have NABL accreditation.
- d) The firms should be a registered company in India.
- e) The firms who are not meeting the above criteria will be summarily rejected.

Commercial

- a) Submission of GST Registration Certificates as applicable.

b) Make in India Status :

i) The goods / items quoted are manufactured in India and not imported from any country.

(Or)

ii) If the item/goods are partially imported, specify your category:

(Only Class I and II categories of vendors are eligible to quote. The self certification form as per format should be enclosed along with bid).

- CLASS I Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content greater than or equal to 50%.

(Or)

- CLASS II Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%.

9. Default in Performance: If any Vendor is not successfully discharging their contractual obligations against the order / contract placed on them by NIOT within the agreed time limit, (OR) if there is any deficiency in performing such obligations, NIOT reserves the right to suspend such Vendor from their participation in future tenders of NIOT for a minimum period of one year. Even after revoking the suspension period the Vendor's performance still continues to be the same without any improvement, NIOT reserves its right to BAN such Vendor permanently from participation in all the tenders of NIOT.

10. Goods shall not be supplied without an Official supply order

11. Order Acceptance: The successful bidder should submit order acceptance within 7 days from the date of order.

12. Change of Name after award: Request / intimations with regard to change of name of the contract or constitution of the contractor after the tender opening or award of contract shall not be allowed as a matter of right. The bidders / contractors are required to submit all relevant documents with regard to change of name or/and change of constitution and the circumstances leading to such change beforehand. It shall be the discretion of NIOT to proceed with the contract after such changes and in case, NIOT decides to proceed with the contract, it may require the bidder / contractor to execute further agreements with regard to execution / implementation of the contract.

13. One Bid per Bidder: A firm shall submit only one bid either individually or as a partner of a joint venture. A firm that submits either individually or, as a member of a joint venture, more than one bid will result in rejection of all the bids.

BIDDING CONDITION

14. Due date Extension, Corrigendum to NIT: Any corrigendum including due date extension for NIT, Pre-bid minutes of meeting if any will be notified in NIOT website. Hence bidders are requested to watch our website for such due date extension and corrigendum if any.

15. In case of the unscheduled holiday in Chennai being declared on the prescribed closing/opening day of the tender, the next working day will be treated as the scheduled prescribed day of closing/opening of the tender.

16. Unsolicited correspondences :NIOT will not entertain any unsolicited correspondence or queries on the status of offer against this tender.

17. Submission of tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant etc. will be issued to him by NIOT

and local conditions and other factors bearing on the execution of the works. Conditional offers are liable for rejection

18. Bid Validity: Bids shall remain valid and open for acceptance for a minimum period of 90 days or for the period indicated in the SCC of this NIT whichever is more from the date of opening of Bids. A Bid valid for shorter period may be considered as unacceptable and liable for rejection.

19. Bid validity extension: In exceptional circumstances, prior to expiry of the original Bid validity period, NIOT may request the Bidder for a specified extension in the period of validity. The request and the responses thereto shall be made in writing. A Bidder agreeing to the request will not be required nor permitted to modify his bid, and will be required to extend the validity of his Bid Security correspondingly.

20. Conditional offers/ quotations shall not be accepted.

21. Signing of bids: Each page of the tender and tender document shall be signed by the bidder. Unsigned bid is liable for rejection.

22. Site Visit: If any site visit is made, it should be formally documented and enclosed with the offer.

23. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the Contractor does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.

24. The broad configuration / specification of the proposed purchase / work are given. Bidders are required to keep their proposal strictly as per the specification prescribed.

25. Acceptance of bids: NIOT may accept or reject any/all tenders including the lowest tender without assigning any reasons whatsoever. NIOT also reserves its right to accept any tender in part or parts only with such conditions as it may prescribe. NIOT is not bound to accept the lowest tender. NIOT expects full technical compliance and expects full scope of integrated supply as per tender specification and do not accept partial tenders.

26. The compliance sheet with reference to the specifications should be furnished against each parameter while submitting the quotation, which is absolutely necessary. THE TENDERER SHALL SUBMIT TECHNICAL & COMMERCIAL COMPLIANCE SHEETS ALONG WITH THEIR OFFER. TENDERS WITHOUT COMPLIANCE SHEETS WILL NOT BE EVALUATED. The Price bid should be unconditional. Care should be taken while furnishing the information in the compliance sheet based on which the evaluation will be done.

27. Bid or modification to bids received after closing date and time: shall not be considered. Such modified bid together with original bid will be summarily rejected. Modification to the bid after opening the bid will not be considered unless specifically requested for by NIOT.

28. Canvassing: Exerting pressure and/or offering inducement in any form by the bidder or by any other person on behalf of the bidder shall disqualify the bid and lead to its rejection.

29. Award: NIOT shall place the Purchase order/ work order either consolidated or separately for each of the title.

30. Commercial compliance as per the NIT shall be furnished along with the offer.

31. Unrealistic bids with either cost which is impossible to achieve or for bidders who show that they are completely inexperienced or have completely inappropriate equipment will be rejected.

TERMS AND CONDITIONS GOVERNING THE CONTRACT

32. Quote value:

Quotations should be for free delivery to this Institute. Consignment freight and insurance charges by passenger train / Road transport must be indicated. If EX-Godown, packing forwarding freight and insurance charges must be indicated separately. The term 'Extra' shall be avoided.

33. Guaranteed time of delivery – specific performance of contract: The time of delivery including testing and handing over in satisfactory condition is the essence of the contract and the shipment should be effected as per the schedule given in SCC. In the event of part supply, NIOT shall withhold the entire payment until the whole of the supply as per the order is delivered. In case if the delivery schedule indicated in the SCC is not stipulated as essential criteria, Contractor may indicate the period of delivery required for them.

34. Extension of delivery period: If the completion of systems / components is delayed for reasons of force majeure such as acts of God. Acts of Public enemy, acts of Government, fires, floods, epidemics, quarantine restrictions, illegal strikes and freight embargoes, the Contractor shall within 3 days from the date of such occurrence, give notice to NIOT in writing of his claim for extension of delivery period. NIOT on receipt of such notice may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract. Unless the extended delivery period is agreed by NIOT in writing, contractor cannot claim the extension of delivery time as a matter of right. NIOT shall have the right to either cancel/extend the order validity/ levy LD as appropriate.

35. Delay in Completion / Liquidated Damage (LD): If the Contractor shall fail to deliver the systems / components within the time specified in the Contract, NIOT shall recover from the Contractor as liquidated damages a sum of **0.5%** (½ percent) of the contract price of the undelivered systems /components for each week of delay (or) part thereof. The total liquidated damages shall not exceed **5%** (5 percent) of the contract price of the unit or units so delayed. Systems / components will be deemed to have been delivered only when all essential components parts are also delivered. If any essential components are not delivered in time, the entire system / components will be considered as delayed until such time the missing parts are delivered.

36. Partial Delivery: In general all supplies are to be delivered as per the schedule of the contract only. In case if NIOT's request / vendor's convenience part supplies will be accepted only on issue of amendment to the order / contract on the delivery schedule. Part supply without written order will not be accepted. However payment will be effected as stipulated in order / contract.

37. Insurance: The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.

38. Service contract Insurance:

Contractor shall take out and keep in force adequate insurance to cover all risks. (a) In respect of their personnel deputed to work under the Contract. (b) In respect of their own as well as hired equipment (to the extent of their insurance interest) tools, materials, and operational facilities used during the entire period of their engagement in connection with the Contract to the insurable value of equipment, manpower and other things. NIOT shall have no liability whatsoever in this regard. Such insurance policies of the Contractor shall embody the following clauses

"The Insurers hereby waive their rights of subrogation against National Institute of Ocean

Technology, or any of their employees or their subsidiaries, affiliates or assigns.”

39. Transportation: Where the Contractor 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 Contractor, and the related cost shall be included in the Contract Price.

40. Risk Purchase: If the contractor fails to deliver the stores or any installment thereof within the period fixed for such delivery or at any time repudiates the contract before expiry of such period, NIOT is entitled to cancel the contract and source purchases from third parties the stores not delivered at the risk and cost of the defaulting contractor.

41. Incidental Services

The Contractor may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- (a) Performance or supervision of the on-site assembly and / installation and commissioning of the supplied Goods;
- (b) Furnishing of tools required for assembly and/or maintenance of the supplied Goods;
Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Contractor of any warranty obligations under this Contract; and
- (e) Training of NIOT’s personnel, at the Contractor’s plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

42. Spare Parts

As specified in the SCC, the Contractor may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Contractor for at least 5 years from the date of acceptance:

- (a) such spare parts as NIOT may elect to purchase from the Contractor, providing that this election shall not relieve the Contractor of any warranty obligations under the Contract; and
- (b) In the event of termination of production of the main product and spare parts:
 - (i) advance notification to NIOT of the pending termination, in sufficient time to permit NIOT to procure needed spare part requirements; and
 - (ii) following such termination, furnishing at no cost to NIOT, the blueprints, drawings and specifications of the spare parts, if requested.

43. Warranty: The Contractor warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Contractor 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 NIOT’s Specifications) or from any act or omission of the Contractor, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.

This warranty shall remain valid for 12 months after the installation of 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 from the place of loading whichever period concludes earlier, unless specified otherwise in the SCC. The warranty certificate should be furnished in the prescribed format in your letterhead. If the Vendors standard warranty is more than 12 months the same shall be extended to NIOT.

NIOT shall promptly notify the Contractor in writing of any claims arising under this warranty.

Upon receipt of such notice, the Contractor shall, within the period specified in SCC and with all

reasonable speed, repair or replace the defective Goods or parts thereof, without cost to NIOT other than, where applicable, the cost of inland delivery of the repaired or replaced Goods or parts from ex-works or ex-factory or ex-showroom to the final destination.

If the Contractor, having been notified, fails to remedy the defect(s) within the period specified in SCC within a reasonable period, NIOT may proceed to take such remedial action as may be necessary, at the Contractor's risk and expense and without prejudice to any other rights which NIOT may have against the Contractor under the Contract. Also such failure shall lead to suspension of vendor from participation as deem fit by NIOT.

44. Payment: NO ADVANCE PAYMENT WILL BE MADE. Payment will be made after the supply and acceptance of materials by NIOT.

45. Force Majeure:

For purposes of this Clause, "Force Majeure" means an event beyond the control of the Contractor and not involving the Contractor's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of NIOT either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

If a Force Majeure situation arises, the Contractor shall promptly notify NIOT in writing of such conditions and the cause thereof. Unless otherwise directed by NIOT in writing, the Contractor 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.

46. Discounts: Bidders are advised not to indicate separate discounts. Discounts, if any, should be merged in the rates against the quoted items.

47. Price:

The price shall include but not limited to

- a) Costs of goods covered in this contract.
- b) Taxes.
- c) HSN code of the product.
- d) Transportation and packing cost
- e) Cost of handling, documentation, freight, insurance from contractor's ware house up to NIOT warehouse, installation and commissioning of the equipment when part of contractual obligation.
- f) Charges for all testing
- g) Cost towards third party inspection at various stages as set forth in the contract.
- h) Cost of Installation, testing, commissioning and handing over of goods as set-forth in the contract.
- i) Cost of Training of NIOT officials as set forth in the contract.
- j) Cost of Books, manuals, software as set-forth in the contract.

The Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the goods he proposes to supply under the contract strictly as per price bid format of tender.

48. Taxes and duties:

I Payable only for the Indian bidder:

- a) **GST Registration:** You may submit a copy of GST Registration certificate along with your quotation.

II Deductibles:

- a) **Deduction of Indian Income Tax Deduction at Source for the Indian bidders:** TDS will be deducted as applicable. Valid Permanent Account Number (PAN) is mandatory.

b) GST-TDS: NIOT has enrolled under GST in the category "Tax Deductor". The bidders are requested to update their database regarding NIOT's Registration under GST-Tax Deductor. TDS @ 2% on the order value towards GST will be deducted on payments made to the supplier in respect of goods and/or services, supplied/provided.

Name of the Organization	NATIONAL INSTITUTE OF OCEAN TECHNOLOGY
Address	NIOT Campus, Velachery Tambaram Main Road, Pallikaranai, Chennai-600100, TamilNadu.
Email	postmaster@niot.res.in
Telephone No.	044-66783300
Tax Deductor GSTIN	33AAATN0530G1Z6

49. Arbitration / Disputes – In the event of any dispute, difference, interpretation or application relating to this agreement arises, the same shall be settled amicably by the parties. In case the dispute or differences could not be settled amicably, the same shall be referred for adjudication through Arbitration by an Arbitrator to be appointed by the Director, NIOT.

The Arbitration shall be concluded in accordance with the provisions of Arbitration & Conciliation Act, 1996 or any statutory modifications or reenactment thereof and the rules made their under and for the time being in force shall apply to the arbitration proceedings. Venue of such arbitration shall be at Chennai in India. The language of arbitration proceedings shall be English. The Arbitrator shall make a reasoned award (the "award"), which shall be final and binding on the parties. The cost of the arbitration shall be shared equally by the parties to the contract. However, expenses incurred by each party in connection with the preparation, presentation etc., shall be borne by each party.

50. SUBMISSION OF TECHNICAL DOCUMENT

Specifications are basic essence of the product. It must be ensured that the offers are strictly as per our specifications. At the same time it must also be kept in mind that merely copying our specifications in their quotation shall not make firms eligible for consideration. The documentary evidence of conformity of the goods and services to the Bid document may be in the form of literature, drawings and data and shall consist of:

- a. A list giving full particulars including available sources and current prices, of spare parts, special tools etc., necessary for the proper and continuing functioning of the goods for a period of two years, following commencement of the use of the goods by NIOT; and
- b. An item-by-item commentary on NIOT'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.
- c. For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, and reference to brand names or catalogue numbers designated by NIOT in its Technical specifications are intended to be descriptive only and not restrictive. They may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to NIOT's satisfaction that the substitutions ensure substantial equivalence to those designated in the technical specifications. Technically unsuitable offers, offers not conforming to tender schedule shall be rejected.

The broad configuration / specification of the proposed purchase / work are given. Bidders are required to keep their proposal strictly as per the specification prescribed

Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) duly signed by the authorized official should be sent along with the quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the Contractor's expenses. To explain the product offered, if there is no Technical Literature / catalogue, offer is liable for rejection. Offer must contain all relevant technical details, test procedure etc. Any erasures / over writing shall be counter signed by the person who is signing the bid. Any

interlineations, erasures or overwriting shall be valid only if the person or persons signing the bid sign them.

Documents Establishing Bidder's Eligibility and qualifications

51. Eligibility: The bidder shall furnish, as a part of his bid, documents establishing the bidders' eligibility to bid and his qualification to perform the contract if his bid is accepted. The bidder must possess TIN No., PAN No. and any other registration to claim the statutory levies.

52. Authorisation: The bidder is qualified only when he is the original manufacturer or established dealer with original manufacturer's authorization letter to quote, sell and service the products offered as per the prescribed format in our web site along with agency agreement.

53. OEM & Agent: In a tender, either the Indian agent on behalf of the Principal / OEM or Principal / OEM itself can bid but both cannot bid simultaneously for the same item / product in the same tender. **One manufacturer can also authorise only one agent/dealer.**

If an agent submits bid on behalf of Principal / OEM, the same agent shall not submit a bid on behalf of another Principal / OEM in the same item / product.

In case a bidder not doing business within India, he shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post warranty period. [OEM also shall provide agency agreement and indicate agency commission payable to Indian Agent so as to make payment of the commission in INR in terms of Foreign Exchange Regulation Act.](#)

Commercial Terms Compliance sheet (The format should not be altered)

Sl. No	Particulars	Yes	No	offer Page Ref
1	Whether every page of the tender document is signed for acceptance of tender and uploaded along with the offer?			
2	Whether Taxes and duties are shown separately in the quote. (Registration numbers for claiming the same to be strictly indicated)			
3	Whether accepted to submit the order acceptance within 7 days from the date of order?			
4	Whether Quote is valid for 90 days from the due date of tender or time specified in the tender document whichever is later?			
5	Whether payment terms of the tender is complied with?			
6	Whether the bidder satisfies the Pre- qualification criteria :			
a)	Copy of your GST Registration certificates and PAN details are attached (Mandatory qualifying condition)			
b)	The lab which carries out the failure analysis should have minimum 10 years of experience as on the date of opening of the tender in the field of Failure analysis of metallic, non-metallic and polymeric materials and documentary evidence & performance certificate for the failure analysis from end user are attached.			
	Whether the Client list and testimonials from the clients are attached.			
	Whether the laboratory is NABL accredited			
	Whether The firms is a registered company in India.			
	The firms who are not meeting the above criteria will be summarily rejected.			
c)	Make in India Status :			
	i) The Goods / items quoted are manufactured in India and not imported from any country. (or)			
	ii) If the item/goods are partially imported, specify your category:			
	- CLASS I Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content greater than or equal to 50%.			

	(or)			
	- CLASS II Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%.			
	Only Class I and II categories of vendors are eligible to quote.			
7	Whether self certification form is enclosed (For Class I & Class II supplier only)?			
8	Whether price is FOR NIOT, Chennai?			
9	Whether the freight cost is included, if not included whether the freight cost is indicated separately?			
10	Whether the authorization letter exclusively for this tender, from the original manufacturer is enclosed?			
11	Whether the delivery period is clearly indicated, and is as per tender?			
12	Whether the cost of installation / inspection / testing explicitly mentioned in the quote?			
13	Whether Past track record of quality and service is enclosed?			
14	Whether list of deliverables attached and comply as per tender?			
15	Whether liquidated damage clause is acceptable in case of delayed supply?			
16	Whether the tender is fully complying with tender specification/Adjustment if no, list out deviations very clearly along with the appropriate reason for the deviation?			
17	Whether relevant data sheets/ catalogs/ brochure is enclosed along with the quotation?			
18	Whether item-wise price is quoted as per price bid and quoted price is realistic?			
19	Whether technical specification has been duly filled in and submitted with the tender document is uploaded along with the quotation.			
20	Whether HSN code of the product has been indicated?			
21	Whether your firm is registered under MSME/ NSIC/DIC/UAM/Women Entrepreneur ? If yes enclose copy of registration.			

**Format for Self Certification under Preference to
“MAKE IN INDIA” Policy**

(Refer Clause No. 2.8 & 3.4.4 of ITT)

CERTIFICATE

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017, as amended from time to time and as applicable on the date of submission of tender, we hereby certify that we M/s_____ (supplier name) are local supplier meeting the requirement of minimum **Local Content** ____% as defined in above orders for the material against Tender No_____

Details of location at which local value addition will be made is as follows:

We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rule for which for which a bidder or its successors can be debarred for up two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Seal and Signature of Authorized Signatory

PRICE BID FORMAT

Sl. No.	Description	Qty.	Unit	Unit rate	Amount
1.	Failure Analysis of Failed Buoy Components				
a.	Failure analysis of failed Inductive cable with end termination	2	Nos.		
b.	Failure analysis of failed M16 bolt	2	Nos.		
c.	Failure analysis of failed Connecting ring	1	No.		
d.	Failure analysis of failed Current meter frame clamp	1	No.		
2.	GST as applicable	%			
3.	Packing charges, if any		Lumpsum		
4.	Freight & Insurance charges, if any		Lumpsum		
5.	Any other charges, (Details to be indicated)		Lumpsum		
Total Amount					
(Amount in words. _____)					

Note:

*The goods / items quoted are manufactured in India and not imported from any country.*

@ NIOT has enrolled under GST in the category "Tax Deductor". The bidders are requested to update their database regarding NIOT's Registration under GST-Tax Deductor. (See clause No.48 II (b)) TDS @ 2% on the order value towards GST will be deducted on payments made to the supplier in respect of goods and/or services, supplied/provided if the value exceeds Rs. 2.5 lakhs

We agree to all applicable terms and conditions listed in the tender document.

Signature with Seal

Specification of Failure Analysis of Retrieved Buoy Mechanical components

1. Introduction

National Institute of Ocean Technology (NIOT) has a program on operation and maintenance of data buoys in Indian seas to collect Met-Ocean parameters and Tsunami monitoring. This data buoy system comprises of surface buoy with suite of sensor in mooring line is anchored in deep sea using special single point mooring. The system also has more number of mechanical components and the buoy system is being retrieved after one year from the deployment. It is observed that some of the buoy mechanical components have failed and extensive failure analysis has to be carried out to know the root cause of the failed components to avoid the re-occurrence of the failure. The details of the failed buoy component are given below.

2. Pre – Qualification Criteria

- a) The lab which carries out the failure analysis should have minimum 10 years of experience as on the date of opening of the tender in the field of Failure analysis of metallic, non-metallic and polymeric materials and documentary evidence & performance certificate for the failure analysis from end user should be provided.
- b) Client list and testimonials from the clients shall be attached.
- c) The laboratory should have NABL accreditation.
- d) The firms should be a registered company in India.
- e) The firms who are not meeting the above criteria will be summarily rejected.

3. Scope of work

The Failure analyst has to carry out extensive failure analysis of the failed components and provide the deliverables with recommendations to avoid the failure in future. The failed samples given for the analysis shall be returned back to NIOT after carrying the necessary tests for the failure analysis.

4. Quantity

The following buoy mechanical components will be given for the failure analysis.

Sl.No	Item Description	Component id	Quantity
1.	Inductive cable with end termination	BD10&BD12	2 nos.
2.	M16 bolt	BD08 & BD09	2 nos.
3.	Connecting ring	BD14	1 no.
4.	Current meter frame clamp	BD11-Old	1 no.

5. Technical Specification with Compliance

Scope of Work:

The bidder has to carry out comprehensive failure analysis with detailed recommendations to avoid further failures.

S.No	Description	Remarks(Yes/No)
1.	Visual examination of the fractured part	
2.	Fractography study under stereo zoom microscope of the fractured component, prior to SEM EDS analysis	
3.	Determination of chemical composition for material conformity by Optical Emission Spectroscopy	
4.	Microstructure analysis at near and away from the fracture for the following tests, 1.Non-metallic inclusion assessment by ASTM E45 2.Phase analysis 3. Grain size evaluation by ASTM E112	
5.	Fractography analysis by SEM EDS on fractured and corroded surfaces	
6.	Identification of corrosion products and the mechanism for the development of the corrosion products	
7.	Mechanical testing (Hardness measurement etc)	
8.	Formulation of conclusion and detailed Report with recommendations.	

Sl.No	Description	Details	Remarks (Yes/No)
1.	Applications	All the components are used in the surface buoy systems which were deployed in the Bay of Bengal. The same was deployed in the deep sea and the components were used at various depth from sea surface to 3000 m.	
2.	Material	Inductive cable with end termination(BD10&BD12): Galvanized wire rope(7x19 construction) with Polyethylene sheathing with Galvanized iron resin filled end termination M16 bolt(BD08 & BD09): Stainless steel(SS316) Connecting ring(BD14) : Alloy steel Grade 10 Current meter frame clamp(BD11-Old): SS316	
3.	Depth of installation at sea	Inductive cable with end termination: ~6 m M16 bolt : Sea surface (Splash zone) Connecting ring : ~2.3 m Current meter frame clamp(BD11-Old): 3000m	
4.	Service life at the time of failure	Inductive cable with end termination: BD10-673 days & BD12-334 days M16 bolt : BD08-716 days & BD09-745 days Connecting ring(BD14) :287 days Current meter frame clamp(BD11-Old): 716 days	

Sl.No	Description	Details	Remarks (Yes/No)
5.	Total number of days at sea	Inductive cable with end termination: BD10 -696 days (Buoy Retrieval)& BD12 -334 days M16 bolt : BD08 -716 days & BD09 -717 days(at NIOT) Connecting ring(BD14) : 606 days Current meter frame clamp(BD11-Old): 716 days	
6.	Images and technical specifications	The images of failed and new components and technical specification of the components are given as Annexure.	
7.	Tests shall be conducted for the failure analysis	All the tests to be carried out as per ASM guidelines given in the ASM handbook for failure analysis and prevention.	
8.	Deliverables	<ul style="list-style-type: none"> • Extensive failure analysis report. • Inference should be given in detail manner for each test results and images including SEM images. • Detailed recommendations to avoid further failures for each case • All the images taken for the study have to be submitted as high resolution images. • The failed sample to be returned back to NIOT after the study. 	
9.	Queries and visit to NIOT to see the actual samples	Interested Labs shall ask all their queries pertaining to the failed samples and visit to NIOT to see the actual samples and the buoy systems with prior intimation to the Indentor.The lab shall submit their failure analysis report in other projects for reference.	

6. Commercial Terms with Compliance

Sl.No	Description	Details	Remarks (Yes/No)
1.	Delivery	The items shall be delivered with extensive failure analysis report with recommendations to NIOT, Chennai within 10 weeks from date of receipt of the purchase order.	
2.	Quote Validity	The quote should be valid for 90 days.	
3.	Payment	100% of payment will be released on the submission and acceptance of the failure analysis report with recommendations and return of the failed samples given for the analysis.	

Annexure-I

Technical specification and image of the failed components:

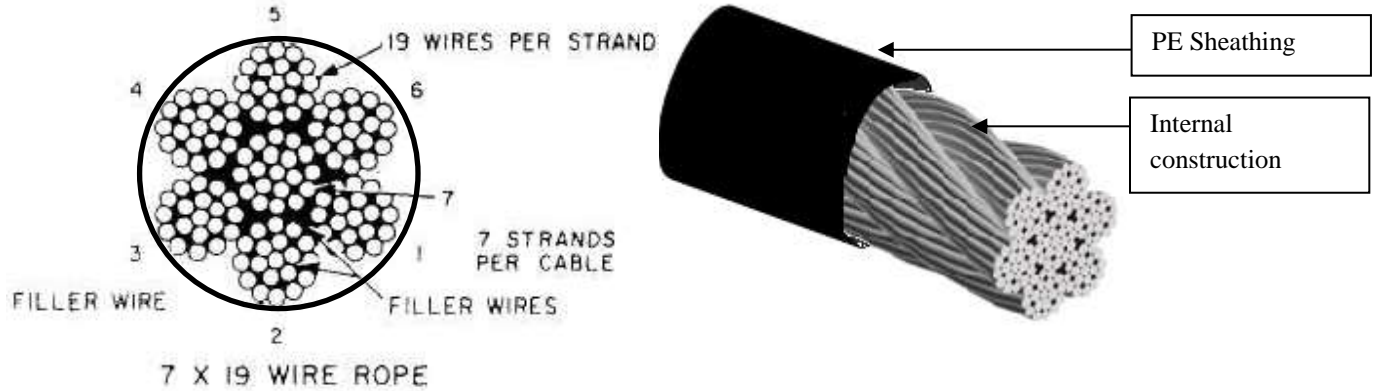
1. Inductive cable with end termination:

Sl.No	Description	Details
1.	Function of the item	It is used to transfer the CT/CTD sensors which are installed at various depth of the inductive cable. From the cable one more Inductive Cable Coupler (ICC) will be fitted and that will transfer the data from the sensors to buoy CPU.
2.	Mooring cable Diameter	16 mm (Including outer sheathing)
3.	Core wire Diameter	12 mm(excluding outer sheathing)
4.	Mooring cable Length	500 m
5.	Construction	7x19
6.	Lay Direction	RHOL (Right hand Ordinary Lay)
7.	Wire material	Galvanized steel
8.	Type of Coating	Galvanized as per class B of EN10264
9.	Tensile Strength	1960 N/mm ² (Approximate)
10.	Lubrication type	Dry lubrication comply with ISO 4346
11.	Minimum wire Breaking strength	9 metric Tonnes
12.	End terminations	<p>i) Forged steel closed spelter socket end terminal (Galvanized) should be prepared as per ISO 17558:2006 or equivalent standards, and should be 100% proof tested</p> <p>ii) The hole in the end terminal should readily mate with 3/4” or 7/8” shackle.</p> <p>iii) Proper resin compound or molten Zinc should be used to create 100% efficient termination.</p>
13.	Sheathing Material	<p>Polyethylene (PE)</p> <p>i) PE compound should be incorporated with the required UV and light stabilization additives to protect against UV degradation.</p> <p>ii) Uniform sheathing should be maintained throughout the wire rope.</p> <p>iii) Sheathing should have good abrasion resistance, high hardness, resistance to stress cracking and oxidation by confirming ASTM D1248-16.</p> <p>Induction mooring cable should have suitable waterproof sheathing at both junctions of the cable and the end termination to prevent sea water intrusion.</p>
14.	Test Certificate	Wire material and load test certificated should be provided by confirming BS EN 12385-4: 2002 or other

		<p>equivalent international standards.</p> <p>End to end terminal Continuity test certificate should be provided along with supply.</p> <p>Closed spelter socket should be forged steel without welding confirming federal specification RR-S-550E Type B or equivalent.</p> <p>Test certificates to be provided by any one of the IACS approved classification societies.</p>
15.	Overall requirement	<p>i) Wire material should have high corrosion resistance property.</p> <p>ii) Induction cable should have torque balanced and will be used for deep sea mooring application.</p> <p>iii) Polyethylene(PE) sheathing should protect the wire against corrosion</p> <p>iv) Induction cable should have high fish bite resistant and low drag co-efficient</p> <p>v) End terminations should have forged steel closed spelter Sockets.</p>
16.	Winding &Packaging	<p>i) The Induction cable should be provided on heavy duty wooden reels with a center hole for lifting purpose.</p> <p>ii) Suitable packing method should be adopted to protect the inductive wire against damages during transportation and handling.</p>
17.	Marking	<p>i) Exact length with +/- deviation, diameter of the rope and date of manufacturing should be engraved in metal plate and fixed at the two flanges of the spools.</p> <p>ii) Each 50 meter should be marked along the length of the rope as identification mark.</p> <p>iii) Sensor fitment ID should be marked on the cable as per the attached image.</p>

1.1 ADDITIONAL DETAILS-Inductive cable

CONSTRUCTION DETAILS



1.2 END TERMINATION DETAILS

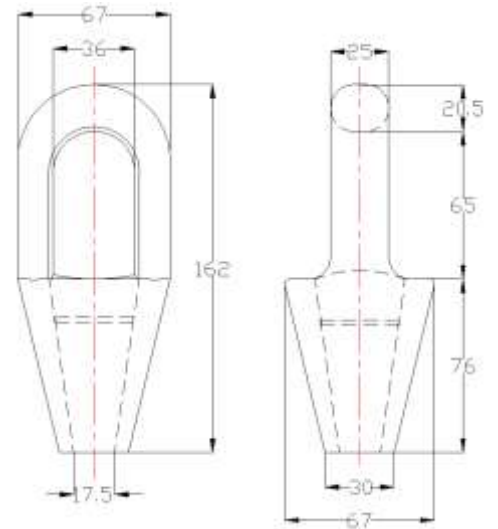


End terminations should have forged steel closed spelter Sockets.

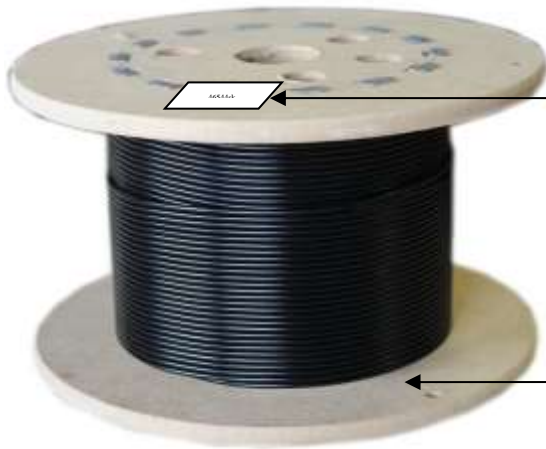
Proper resin compound or molten Zinc should be used to create 100% efficient termination.

Proper insulation sleeve should be provided between end termination and inductive wire.

Proper PE sheathing with equal thickness throughout the inductive wire.



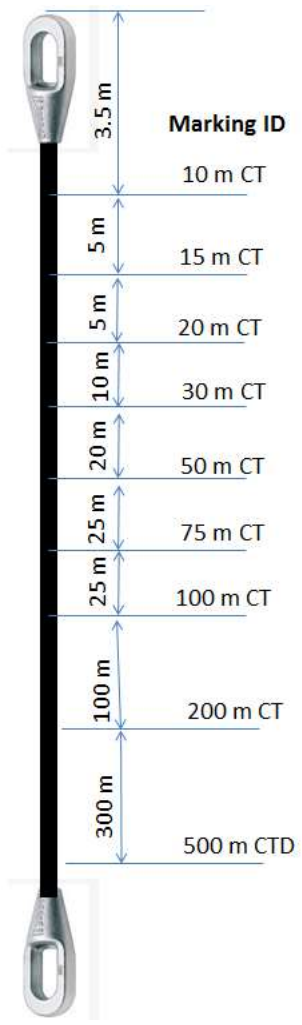
1.3 SPOOL DETAILS



Exact length with +/- deviation, diameter of the rope and date of manufacturing should be engraved in metal plate and fixed at the two flanges of the spools

The Inductive wire should be provided on heavy duty wooden reels with a center hole for lifting purpose.

1.4 Sensor Fitment marking



1.5 Images of the failed Inductive cables:



BD10 Failed inductive cable BD12 Failed inductive cable

2. M16 bolt-Technical Specification

Sl.No	Description	Details
1.	Function of the item	To connect the two halves of long tension steel bands
2.	Material designation	Steel Grade A4 (Stainless Steel 316) for Fasteners and Nylon for Bushes
3.	Property class	Class 80
4.	Testing	The mechanical and chemical properties test shall conform to ISO 3506 or equivalent IS / BS / DIN standards for fasteners
5.	Test Certificate	Material certifications to be obtained for fasteners from NABL or equivalent accredited laboratories for Chemical & Mechanical properties and necessary test certificates should be provided along with the supply of material.
6.	Marking	All sizes of fasteners should be marked with steel grade, property class and manufacturer's identification mark.
7.	Finish	Fasteners shall be supplied clean and bright. For maximum corrosion resistance passivation is recommended.
8.	Packages	Marking with the designation with quantity and manufacturer's identification mark is mandatory on all packages of all sizes.

2.1 Images of the failed bolts(typical failures –BD08 & BD09):



BD08 Failed Bolt



BD09 Failed Bolt

3. Connecting ring

SI.No	Description	Details
1.	Function of the item	It is used to connect the shackles with some distances apart to avoid wear while is in contact. It will also helpful to retrieve the mooring and lift easily as it has wide areas to connect.
2.	Applications	Master link or Connecting ring are used for <u>deep sea mooring applications</u> . The items are very much essential to withstand the harsh sea environment like cyclone/tsunami. The material quality and standards should be followed as mentioned in the respective item description & details.
3.	Medium	Sea water (All the items will be used in open sea water from surface to the maximum water depth of 5000 m, hence all the items should be good resistance to corrosion and bio-fouling)
4.	Preferred Make	Gunnebo
5.	Welded Master link	Material : Alloy steel Grade 10 Heat Treatment : Hardened and tempered Size : Dia : 19 mm, inner width 90 mm and inner length 150 to 160 mm Standard: EN 1677:2008 or ASTM A952/A952M-02/ ASME B 30.9. Min. WLL : 6.8 ton
6.	Test Certificate	The material composition, proof load, WLL and breaking load test should be carryout as per type approval standards of each item and provide certificate for the same.
7.	Packages	Marking with the designation with quantity and manufacturer's identification mark is mandatory on all packages of all items.

3.1 Images of the failed Connecting ring:

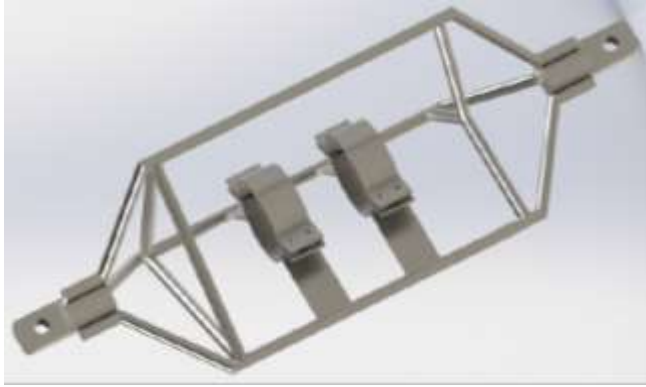


BD14 Failed Connecting Ring

4. Current meter frame clamp:

SI.No	Description	Details	Remarks (Yes/No)
1	Material	Sontek Current meter frame:SS316 Bush for Keel frame: Nylon Fasteners : SS316	
2	Machining and Fabrication	The overall dimensions of the Current meter frame should be followed as per drawing	
3	Welding	The welding should be made in accordance with a qualified welding procedure and should be carried out by approved welders only. All weld joints are to be certified by dye penetration (DP) test.	
4	Passivation	The finished components should be Sand blasted and Passivated.	
5	Certification		
	a) Material test Certification	The material test certificate should be obtained from NABL accredited laboratory.	
	b) Weld test certificate	NDT certificate should be obtained from NABL accredited laboratory.	

4.1. Images of the failed Current meter frame and clamp:



BD11_OLD Current meter frame with clamps

Annexure –II Placement of failed components in the surface mooring :

