

### ऱाष्ट्रीयसमुद्रप्रौद्योगिकीसंस्थान

NATIONAL INSTITUTE OF OCEAN TECHNOLOGY

## संविदाआमंत्रणसूचना(नि.आ.सू.)

#### **NOTICE INVITING TENDER (NIT)**

फ़ार्मसंख्या:Form No.NIOT/S&P/NIT



#### e-Tender Schedule

निविदासंख्या/ Tender No.		NIOT/SnP/EnM/29894/2024-25
कोजारी Issued To		Civil, Electrical, Data and Telephone works for placing the 40 feet container for Drone Assembly Integration Testing Facility at NIOT Campus, Chennai
निविदाप्रणाली/Tender Mode	e	Open Tender - Single Bid
निविदाजारीहोनेकीतिथि Tender Issue date		02/05/2025
निविदाबंदहोनेकीतिथिवसमय		22/05/2025 at 3.00 PM
Tender Closing Date and	Time	22/05/2025 -+ 2 22 DM
निविदाखुलनेकीतिथिवसमय	l Time	22/05/2025 at 3.30 PM
Tender Opening Date and EMD	ı iime	Rs.17,500/-
ЕМПО		<ul> <li>a) Scanned copy towards EMD to be uploaded in the portal.</li> <li>b) Original EMD should be sent through courier / speed post or in person dropped at the tender box well before the closing date and time of the tender.</li> <li>c) EMD received after tender due date and time cannot be accepted and liable for rejection of tender.</li> </ul>
<sup>विविदा</sup> प्रलेख उपलब्धता स्थानTender Documents available place		Tender documents can be freely downloaded from www.eprocure.gov.in/eprocure/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 मै Help manual for e-tender	नुअल/	support-eproc@nic.in / cppp-nic@nic.in
अपने प्रश्न ई मेल आईडी पर भेजें	निविदा के अंतिम चरण	hvt@niot.res.in / tendergroup@niot.res.in / eandm@niot.res.in
Send your queries to the email IDs	तक/Upto Tender finalisations	

राष्ट्रीयसमुद्रप्रौद्योगिकीसंस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY वेलचेरीताम्बरममेनरोड VELACHERY TAMBARAM MAIN ROAD नारायणपुरम, चेन्नै 600 100NARAYANPURAM, CHENNAI 600 100

रा.स.प्रौ.सं. वेबसाइट/NIOT Website : http/www.niot.res.in/tender

#### **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. 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.

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#### **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-tenders are invited on behalf of the National institute of ocean Technology for the "Civil, Electrical, Data and Telephone works for placing the 40' container for Drone Assembly Integration Testing Facility at NIOT Campus, Chennai" as per the specification enclosed.

1. **Submission of bids:** The bids are to be submitted as per the bidding type indicated in the front page of the NIT. **In case of Single bid / One Part bid (One cover system),** Bidders are advised to submit their quotation in single part containing Technical, Commercial and price bid together should be submitted electronically through NIC Portal www.eprocure.gov.in/eprocure/app. **The paper based physical Tender submission is not accepted and liable for rejection.** 

The responsibility to ensure the timely submission of bid lies with the bidder. Bids submitted through Fax or e-mail will not be considered. Bidders shall also attach scanned copies of all the requisite documents. The bids are to be submitted (electronically) as per the bidding type indicated in the front page of the NIT.

The Bid forms should be filled and submitted with the supporting documents should be scanned and uploaded in the NIC portal. DSC is mandatory for all the bidders to participate in this tender.

- 2. **This NIT** shall form part of the Work Order.
- 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 wherever difference arises.

#### **INSTRUCTION TO BIDDERS:**

- 4. **Security:** Any information / material / document supplied along with this tender or after placement of 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. **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.
- 9. **Order Acceptance:** The successful bidder should submit order acceptance within 7 days from the date of order.
- 10. **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 and/or 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.

11. **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**

- 12. **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.
- 13. **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.
- 14. **Unsolicited correspondences:** NIOT will not entertain any unsolicited correspondence or queries on the status of offer against this tender.
- 15. **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
- 16. **Bid Validity**: Bids shall remain valid and open for acceptance for a minimum period of 120 days or for the period indicated in the SCC of this NIT whichever is more from the date of opening of Unpriced Techno-commercial Bids. A Bid valid for shorter period may be considered as unacceptable and liable for rejection.
- 17. **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. When bid validity is extended performance security also deemed to have been extended automatically.
- 18. **Earnest Money Deposit:** The EMD is mandatory as indicated in the cover page and should be submitted on or before the tender due date. The EMD for Rs.17,500/- to be drawn in favour of "NIOT-OTHER RECEIPTS ACCOUNTS", payable at Chennai in any of the following terms.
  - a) Account payee Demand Draft of a Commercial Bank.
  - b) Bankers cheque of a Commercial Bank.
  - c) Insurance Surety Bond.
  - d) Fixed deposit receipt of a Commercial Bank, issued in the name of Director, NIOT Chennai. Apart from the above, the bidders may also e-remit the EMD before the due date & time of the Tender, as per the details given below and to enclose proof the same along with the Bid/Tender documents:

Name of the Bank	Canara Bank
Title of the Bank Account	NIOT-OTHER RECEIPTS ACCOUNT
Savings Bank Account No.	2874101014431
IFSC Code No.	CNRB0002874

#### 19. Conditions for EMD / Bid Security:

EMD shall be returned / discharged to unsuccessful bidders immediately after placement of order to the successful bidder.

EMD may be forfeited in the following cases: If a bidder withdraws, modifies and provide unsolicited offer voluntarily revising the price in whatsoever aspect, its bid during the period of bid validity specified by the bidder on the bid form; or In case of a successful bidder, fails to furnish order acceptance within 7 days of the order.

In case of a successful bidder, the EMD shall be discharged after submission of Performance Security.

- 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. **The broad configuration** / specification of the proposed purchase / work are given. Bidders are required to keep their proposal strictly as per the specification prescribed.
- 24. **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.
- 25. **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.
- 26. **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.
- 27. **Commercial compliance** as per the NIT shall be furnished along with the offer.
- 28. **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

- 29. **Delay in Completion / Liquidated Damage (LD):** If there is any delay in completing the services of the Air conditioner units beyond 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 for each calendar week of delay. The total liquidated damages shall not exceed **5%** (5 percent) of the contract price.
- 30. Insurance: The contractor before the date of commencement of the work shall insure the works at his cost and keep them insured until one month after the works are taken over by the Employer or three months after the date of completion whichever is earlier, against loss or damage by fire and usual risks other than fire against which insures generally provide cover CONTRACTOR'S ALL RISK POLICY, with an insurer to be approved by employer in the joint names of the Employer and contractor (the name of the former being placed first in the policy), for total contract value, and for any further sum as called upon to do so by the Employer with the prior written consent of the Employer.
- 31. **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.

32. **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.

#### 33. Taxes and duties:

#### **I Deductibles:**

a) 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, Tamil Nadu		
Email	postmaster@niot.res.in		
Telephone no.	044-66783300		
Tax Deductor GSTIN	33AAATN0530G1Z6		

- **II Deductibles:** Deduction of Indian Income Tax at Source for the Indian bidders: TDS will be deducted as applicable. Valid Permanent Account Number (PAN) is mandatory.
- 34. **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.
- 35. **Performance Security** of 5% of the contract value should be submitted in either form mentioned below within 7 days from the date of work order acceptance. The performance Security will be accepted in the form of Demand Draft or FDR or Bank Guarantee from any Nationalized Bank / Scheduled Bank drawn in favour of The Director, NIOT, Chennai.
- 36. **Security deposit :** A sum of 2.5% of gross amount of the bill shall be deducted from each running bill as well as final bill towards security deposit.
- 37. **Refund of performance Security and security deposit**: The performance Security will be refunded after completion of work and after issue of virtual completion certificate. The security deposit will be refunded after completion of DLP period of 12 months.
- 38. **Measurement and Payment**: Measurement of all items having financial value shall be recorded in Measurement books and / or level field books so that a complete record is obtained of all works performed under the contract. Measurements and levels shall be taken jointly by the official designated for the purpose and the contractor. Payment will be made after verification of the bill and acceptance.
  - 100% Payment will be made after completion of work and within 30 days from the date of receipt of bill. For your convenience E-Payment can be made for which you are required to fill up the enclosed format and submit along with the order acknowledgement.

#### **SPECIAL CONDITION**

- 39. **Price:** The Price quoted in the price bid should be shown distinctly as basic price and the applicable GST. The HSN code no. shall be mentioned in price bid format.
- 40. **Duration of work:** The work should be completed within 45 working days (Excluding Sundays and Public Holidays) from the 7th date of commencement of the work.
- 41. The bidder should enclose copies of statutory registration (i.e.) PAN, GST registration etc., along with the tender.
- 42. The bidder should quote as per specifications and approved make mentioned in the specification. The specifications of work are attached with drawings if any so as to enable the contractor to quote for the item of works as per the standards. If the bidders have any clarification related to specification of work should visit the site of proposed work and get clarified with the Engineer In-charge and to quote proper and competitive tender. Tenders not fulfilling any of the conditions prescribed or which are incomplete will be summarily rejected.
- 43. **No Interest on Deposits / Retention Money:** Earnest Money / Retention Money will bear no interest whatsoever until the date of their release.
- 44. **Third Party Insurance**: The Contractor should insure against his liability for any material or physical damage, loss or injury which may occur to any property, including that of the employer, or to his workers or to any person, including any employee of the employer or the contractor by or arising out of the execution of the works or in the carrying out of the contract. The contractor shall, whenever required has to produce to NIOT, the policy or policies of insurance and the receipts for payment of the current premium.
- 45. **Accident or Injury to Workmen**: NIOT shall not be liable for any damage or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or sub-contractor. The contractor shall indemnify and keep indemnify NIOT against all such damages and compensation, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof of in relation thereto. The insurance shall be within the contract price.
- 46. **Termination of contract**: NIOT retain the right to terminate the contract in case of violations of any of the terms of the contract by giving fifteen days' notice to the contractor Upon such termination the contractor shall not be entitled for any payment of consideration apart from NIOT's right to take any lawful action to protect public interest. The work order placed will be cancelled and the security deposit or nay other bank guarantee amount will be forfeited.

**Seal and Signature of the Bidder** 

1.	vendor information:-	
1.	Name of the company	
2.	Office Address	
3.	Contact person  Landline no. / Mobile no.  Fax no.  E-mail id:	
4.	Statutory registration:- (enclose copies	)
	i) PAN no.	
	ii) GST registration no.	

## **Commercial Terms Compliance sheet**

SI. No	Particulars	Yes	No	offer Page
1.	Whether every page of the tender document is signed for acceptance of tender and enclosed along with the offer?			
2.	Whether the applicable GST along with HSN code is indicated distinctly in the price bid format along with the basic price details and such registration (GST) is enclosed?			
3.	Whether <b>EMD</b> for <b>Rs.17,500/-</b> is enclosed along with the tender?			
4.	Whether accepted to submit the order of acceptance within 7 days from the date of order?			
5.	Whether Quote is valid for 120 days from the due date of tender or time specified in the tender document whichever is later?			
6.	Whether submission of performance security is acceptable?			
7.	Whether deduction towards Security deposit is acceptable?			
8.	Whether payment terms of the tender is complied with?			
9.	Whether the delivery period is clearly indicated, and is as per tender?			
10.	Whether list of deliverables attached and comply as per tender?			
11.	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?			
12.	Whether the work completion period of 45 days is acceptable?			

**Seal and Signature of the Bidder** 

## **Technical Compliance sheet**

# Civil, Electrical, Data and Telephone works for placing the 40' container for Drone Assembly Integration Testing Facility at NIOT Campus, Chennai

SI. No	DESCRIPTION OF WORK	Yes	No
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.		
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.		
3	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.Note i)M-Sand Maybe used		
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 Cement: 3 coarse sand (zone-III) derived from natural sources: 6 graded stone aggregate 20 mm nominal size derived from natural sources)  Note i)M-Sand Maybe used  ii) RMC concrete should be used		
5	Centering and shuttering including strutting, propping etc. and removal of form work for: Foundations, footings, bases of columns, etc. for mass concrete all complete as per instruction of Engineer In - Charge.		

Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete.Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.All works upto plinth level. Concrete of M25 grade with minimum cement content of 330 kg /cum  Note i)M-Sand Maybe used ii) RMC concrete should be used iii) concrete must cube test 7th day , 28th day for compressive strength of concrete to submit orginal test report.		
Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. Make: TATA / Isteel /Vizag/Sail		
Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. Note: For Hook (30 Nos)  Make: TATA / Isteel /Vizag/Sail		
Wall painting with External wall primer paint of approved brand and manufacture to give an shade: one or more coats on new work.  Note: Apex Dust Proof Exterior Emulsion appropriate priming coat/ Trucare Exterior Wall Primer or equivalent		
Wall painting with exterior emulsion paint of approved brand and manufacture to give an even shade :Two or more coats on new work.		
Note: Apex Dust Proof Exterior Emulsion or equivalent		
Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement mortar 1:6 (1 cement : 6 coarse sand Note		
	mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete.Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.All works upto plinth level. Concrete of M25 grade with minimum cement content of 330 kg /cum  Note i)M-Sand Maybe used ii) RMC concrete should be used iii) concrete must cube test 7th day , 28th day for compressive strength of concrete to submit orginal test report. iv) M-25 Design mix should be submitted  Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. Make: TATA / Isteel /Vizag/Sail  Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. Note: For Hook (30 Nos) Make: TATA / Isteel /Vizag/Sail  Wall painting with External wall primer paint of approved brand and manufacture to give an shade: one or more coats on new work. Note: Apex Dust Proof Exterior Emulsion appropriate priming coat/ Trucare Exterior Wall Primer or equivalent  Wall painting with exterior emulsion paint of approved brand and manufacture to give an even shade	mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete.Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.All works upto plinth level. Concrete of M25 grade with minimum cement content of 330 kg /cum  Note i)M-Sand Maybe used ii) RMC concrete should be used iii) concrete must cube test 7th day , 28th day for compressive strength of concrete to submit orginal test report. iv) M-25 Design mix should be submitted  Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. Make: TATA / Isteel /Vizag/Sail  Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. Note: For Hook (30 Nos) Make: TATA / Isteel /Vizag/Sail  Wall painting with External wall primer paint of approved brand and manufacture to give an shade: one or more coats on new work. Note: Apex Dust Proof Exterior Emulsion appropriate priming coat/ Trucare Exterior Wall Primer or equivalent  Wall painting with exterior emulsion paint of approved brand and manufacture to give an even shade

12	Half brick masonry with common burnt clay F.P.S (non modular) bricks of class designation 7.5 in foundations and plinth in. Cement mortar 1:3 (1 cement: 3 coarse sand(m-sand))  Note  i)M-Sand Maybe used	
13	15mm cement plaster on the rough side of single or half brick wall of mix: 1:6 (1 cement:6 fine sand) Note i)M-Sand Maybe used	
14	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 100 metres lead as per direction of Engineer-incharge. In cement mortar	
15	Supply and laying of <b>4C x 16sqmm</b> XLPE insulated Copper armoured 1.1kV graded UG cable with suitable clamb and all accessories along the Cable trench/Container wall as required as per site condition.  Location: Solar Panel room PDB Panel to Drone Assembly Integration facility Container.  Make: Polycab/RR kabel/KEI/SN cab/Gloster	
16	Supply and Making of end termination with single compression <b>gland (4C x 16sqmm)</b> suitable crimping lugs. The gland should be double earthed by suitable copper wire and earth strip.  Location: * Solar Panel room PDB Panel - 1no.  * Container New VTPN - 1no.  Make: Comet / Comex	
17	Supply and laying of <b>2C x 6sqmm</b> XLPE insulated Copper armoured 1.1kV graded UG cable with suitable clamb and all accessories along the Cable trench/Container wall as required as per site condition. Location: Solar Panel room PDB Panel to Drone Assembly Integration facility Container.(For EARTH) Make: Polycab/RR kabel/KEI/SN cab/Gloster	
18	Supply and Making of end termination with single compression <b>gland (2C x 6sqmm)</b> suitable crimping lugs. The gland should be double earthed by suitable copper wire and earth strip.  Location:  * Solar Panel room PDB Panel - 1no.  * Container New VTPN - 1no.  Make: Comet / Comex	

19	Supply, fixing and termination of <b>4way</b> Three phase double door protection <b>MCB VTPN DB</b> along the Container wall and fixing of following rating MCB's along the VTPN DB. The job including of minor welding work and MS materials.  A) C63A FP MCB - 1nos.(VTPN Incomer)  B) C20A SP MCB - 5nos.(For A/C)  C) MCB Dummy - 7nos.  Make: Legrand/Hager	
20	Supply and laying of <b>4C x 6sqmm</b> XLPE insulated Copper armoured 1.1kV graded UG cable with suitable clamb and all accessories along the Cable trench/Container wall as required as per site condition. Location: Solar Panel room LDB VTPN to Drone Assembly Integration facility Container.(For Lighting) Make: Polycab/RR kabel/KEI/SN cab/Gloster	
21	Supply and Making of end termination with single compression <b>gland (4C x 6sqmm)</b> suitable crimping lugs. The gland should be double earthed by suitable copper wire and earth strip.  Location: Container Lighting DB - 1no.  Make: Comet / Comex	
22	Supply, fixing and termination of <b>12way Single phase</b> double door protection <b>MCB DB</b> along the Container wall and fixing of following rating MCB's along the SP DB. The job including of minor welding work and MS materials.  A) C40A DP MCB - 1nos. B) C16A SP MCB - 5nos. C) C10A SP MCB - 5nos. Make: Legrand/Hager	
23	Laying and termination of existing <b>20pair copper jelly filled Telephone</b> armoured UG cable along the wall/Cable trench. The job including of suitable clamps with all accessories as required as per site condition.  Location: Solar Panel Room.	
24	Supply, fixing, wiring and termination of 4 module telephone Krone block (4nos 10pair IDC Module) with suitable Aluminium telephone krone frame, suitable surface powder coated box along the wall and complete fixing accessories.  Location: Solar Panel room & Container.  Make: Amp/Krone/Molex	

	Grand Total	
	GST at 18%	
	Sub Total	
29	Supply, Installation, testing, commissioning and programming of 24Port Analog Subscriber Card (SLMAV24) with 24 Pair MDF Cable Suitable for existing Hi Path 4000 EPABX system.  Make: Unify (Specific brand)	
28	Supply and fixing of <b>IP65</b> weather proof <b>6way Thermo plastic box</b> with <b>4nos of C6A SP MCB &amp; 2nos of MCB Dummy,</b> Box alone the Container wall.the job including of Minor welding works with MS materials.(Control for flood light's) Location: Drone Container Make:Legrand/Hager/Hensel/Sintex	
27	Supply, installation, testing and commissioning of IP65 weather proof <b>30watts flood light</b> along the container outside wall with Suitable clamp.the job including of Minor welding works with MS materials.one year Product replacement warranty.  Make: wipro / Crompton / Luker	
26	land line <b>Telephone instrument</b> .  Colour: Black.  Model: C51, Make: Beetel  Supply and laying of <b>Cat6 4pair</b> UTP data shielded <b>Armoured cable</b> along the wall/Cable trench/excavation area required as per site condition with termination of the cable to the RJ45 data end jack's. The job includes of minor excavation work.  Location: * Solar Panel Room Krone box to Container Krone Box-120Mtrs.  * Second gate security cabin data switch to cantainer data rack - 120Mtrs.  Make: Molex/Krone/Amp	
25	Supply of Caller Id 16 digit single LCD display,30 incomer and 5 outgoing memory,real time clock with year,date and month display	

Seal and Signature of the Bidder

### **PRICE BID FORMAT**

# Civil, Electrical, Data and Telephone works for placing the 40' container for Drone Assembly Integration Testing Facility at NIOT Campus, Chennai

SI. No	DESCRIPTION OF WORK	Qty/ Unit	Rate	Amount
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	33.6 (Cum)		
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	15.7 (Cum)		
3	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete. Note i)M-Sand Maybe used	8.1 (Cum)		
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 Cement: 3 coarse sand (zone-III) derived from natural sources: 6 graded stone aggregate 20 mm nominal size derived from natural sources)  Note i)M-Sand Maybe used  ii) RMC concrete should be used	8.1 (Cum)		
5	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases of columns, etc. for mass concrete all complete as per instruction of Engineer In - Charge.	78.3 (Sqm)		
6	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of	20.8 (Cum)		

	concrete.Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.All works upto plinth level. Concrete of M25 grade with minimum cement content of 330 kg /cum  Note i)M-Sand Maybe used  ii) RMC concrete should be used  iii) concrete must cube test 7th day , 28th day for compressive strength of concrete to submit orginal test report.  iv) M-25 Design mix should be submitted		
7	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more.  Make: TATA / Isteel /Vizag/Sail	1775.2 (kg)	
8	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. Note: For Hook (30 Nos) Make: TATA / Isteel /Vizag/Sail	132.5 (kg)	
9	Wall painting with External wall primer paint of approved brand and manufacture to give an shade: one or more coats on new work.  Note: Apex Dust Proof Exterior Emulsion appropriate priming coat/ Trucare Exterior Wall Primer or equivalent	88 (Sq.m.)	
10	Wall painting with exterior emulsion paint of approved brand and manufacture to give an even shade :Two or more coats on new work  Note : Apex Dust Proof Exterior Emulsion or equivalent	88 (Sq.m.)	
11	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement mortar 1:6 (1 cement : 6 coarse sand Note i)M-Sand Maybe used	3.8 (Cum)	
12	Half brick masonry with common burnt clay F.P.S (non modular) bricks of class designation 7.5 in foundations and plinth in. Cement mortar 1:3 (1 cement: 3 coarse sand(m-sand))  Note i)M-Sand Maybe used	25.4 (Sqm)	
13	15mm cement plaster on the rough side of single or half brick	88.6	

	wall of mix: 1:6 (1 cement:6 fine sand)	(Sqm)	
	Note i)M-Sand Maybe used	(-4)	
14	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 100 metres lead as per direction of Engineer-in-charge. In cement mortar	1.5 (Cum)	
15	Supply and laying of <b>4C x 16sqmm</b> XLPE insulated Copper armoured 1.1kV graded UG cable with suitable clamb and all accessories along the Cable trench/Container wall as required as per site condition.  Location: Solar Panel room PDB Panel to Drone Assembly Integration facility Container.  Make: Polycab/RR kabel/KEI/SN cab/Gloster	60 (m)	
16	Supply and Making of end termination with single compression <b>gland (4C x 16sqmm)</b> suitable crimping lugs. The gland should be double earthed by suitable copper wire and earth strip.  Location: * Solar Panel room PDB Panel - 1no.  * Container New VTPN - 1no.  Make: Comet / Comex	2 (no)	
17	Supply and laying of <b>2C x 6sqmm</b> XLPE insulated Copper armoured 1.1kV graded UG cable with suitable clamb and all accessories along the Cable trench/Container wall as required as per site condition.  Location: Solar Panel room PDB Panel to Drone Assembly Integration facility Container.(For EARTH)  Make: Polycab/RR kabel/KEI/SN cab/Gloster	60 (m)	
18	Supply and Making of end termination with single compression <b>gland (2C x 6sqmm)</b> suitable crimping lugs. The gland should be double earthed by suitable copper wire and earth strip. Location:  * Solar Panel room PDB Panel - 1no.  * Container New VTPN - 1no.  Make: Comet / Comex	2 (no)	
19	Supply,fixing and termination of <b>4way</b> Three phase double door protection <b>MCB VTPN DB</b> along the Container wall and fixing of following rating MCB's along the VTPN DB. The job including of minor welding work and MS materials.  A) C63A FP MCB - 1nos.(VTPN Incomer)  B) C20A SP MCB - 5nos.(For A/C)  C) MCB Dummy - 7nos.  Make: Legrand/Hager	1 (job)	

20	Supply and laying of <b>4C x 6sqmm</b> XLPE insulated Copper armoured 1.1kV graded UG cable with suitable clamb and all accessories along the Cable trench/Container wall as required as per site condition.  Location: Solar Panel room LDB VTPN to Drone Assembly Integration facility Container.(For Lighting)  Make: Polycab/RR kabel/KEI/SN cab/Gloster	60 (m)	
21	Supply and Making of end termination with single compression <b>gland (4C x 6sqmm)</b> suitable crimping lugs. The gland should be double earthed by suitable copper wire and earth strip. Location: Container Lighting DB - 1no.  Make: Comet / Comex	1 (no)	
22	Supply, fixing and termination of <b>12way Single phase</b> double door protection <b>MCB DB</b> along the Container wall and fixing of following rating MCB's along the SP DB. The job including of minor welding work and MS materials.  A) C40A DP MCB - 1nos. B) C16A SP MCB - 5nos. C) C10A SP MCB - 5nos. Make: Legrand/Hager	1 (job)	
23	Laying and termination of existing <b>20pair copper jelly filled Telephone</b> armoured UG cable along the wall/Cable trench. The job including of suitable clamps with all accessories as required as per site condition. Location: Solar Panel Room.	1 (job)	
24	Supply, fixing, wiring and termination of 4 module telephone Krone block (4nos 10pair IDC Module) with suitable Aluminium telephone krone frame, suitable surface powder coated box along the wall and complete fixing accessories. Location: Solar Panel room & Container. Make: Amp/Krone/Molex	2 (no)	
25	Supply of Caller Id 16 digit single LCD display,30 incomer and 5 outgoing memory,real time clock with year,date and month display land line <b>Telephone instrument</b> .  Colour: Black. Model: C51, Make: Beetel	3 (no.)	
26	Supply and laying of <b>Cat6 4pair</b> UTP data shielded <b>Armoured cable</b> along the wall/Cable trench/excavation area required as per site condition with termination of the cable to the RJ45 data end jack's. The job includes of minor excavation work. Location: * Solar Panel Room Krone box to Container Krone Box- 120Mtrs.  * Second gate security cabin data switch to cantainer data rack - 120Mtrs.  Make: Molex/Krone/Amp	240 (m)	

27	Supply, installation, testing and commissioning of IP65 weather proof <b>30watts flood light</b> along the container outside wall with Suitable clamp.the job including of Minor welding works with MS materials.one year Product replacement warranty.  Make: wipro / Crompton / Luker	10 (no)	
28	Supply and fixing of IP65 weather proof 6way Thermo plastic box with 4nos of C6A SP MCB & 2nos of MCB Dummy, Box alone the Container wall.the job including of Minor welding works with MS materials.(Control for flood light's)  Location: Drone Container  Make:Legrand/Hager/Hensel/Sintex	1 (no.)	
29	Supply, Installation, testing, commissioning and programming of 24Port Analog Subscriber Card (SLMAV24) with 24 Pair MDF Cable Suitable for existing Hi Path 4000 EPABX system.  Make: Unify (Specific brand)	2 (no)	
	Sub Total		
	GST at 18%		
	Total		

#### **NOTE:**

- 1) Grand Total will be taken into consideration for arriving at L-1.
- 2) GST shall be paid extra as per Government norms.
- 3) Before quoting the rate, contractor should visit the site.
- 4) The contractor must arrange for all necessary proper safety arrangement all complete as per direction of Engineer In-charge.

#### **Approved make:**

- 1) Cement UltraTech, Coromandel, Ramco, Dalmia, Chettinadu
- 2) Steel- VIZAG, TATA, SAIL, JSW