

Online Invitation of Bids
Proprietary Bidding Mode (Two Bid)



Case No.
Centre for Airborne Systems
Defence Research & Development
Ministry of Defence
Belur, Yemlur (PO), Bangalore-560037
Fax No. 080-25049123/25222326
Tel No.: 080-25049111
Technical Clarification:080-25049408
Email: mmg@cabs.drdo.in

Date: 03 Jan 2022

Online Bids for Supply of “AI/ML Based Real time Data Analysis System for ESM”

Tender / Request for Proposal (RFP) Reference No. CABS/22ATT294/21-22

1. Online Bids are invited for supply of items listed in Part V of this RFP as per **Two Bid System**. The online bid (both techno-commercial and price bid) should be uploaded by the bidder before the due date and time. Only the following supplier is eligible to bid for this tender: -

M/s Meslova Systems Pvt Ltd., Hyderabad

2. The address and contact numbers for sending documents (viz. Technical Brochure etc.) other than techno-commercial and financial bids being submitted in electronic mode or seeking clarifications regarding this RFP are given below:

a) Queries to be addressed to : **The Director,**
b) Postal address : **Center for Air Borne Systems
Government of India, Ministry of Defence Research &
Development Organisation, Belur, Yemlur (Post) Bangalore–
560037 Karnataka, India**

c) Name & designation and Telephone Nos. of the Contact Officer for Queries pertaining to bidding & tendering : **Gp Capt KM Rao, Dy Head MMG, 080-25049111**

d) Name & designation and Telephone Nos. of the Contact Officer for Queries pertaining to bidding & tendering : **Jawed Qumar Sc ‘F’,080-25049408**

e) Fax number(s) :91-80-25049123/25222326

f) e-mail ID of contact Officer : mmg@cabs.drdo.in

3. This RFP is divided into 06 (Six) parts as follows:
- i) **Part I (A)** contains **General Information and Instructions for the Bidder** about the RFP such as the time, online submission and opening of Bid, Validity period of Bid, etc. **Part I (B)** contains Tender Acceptance Letter to be filled by Bidder and uploaded in cover 1.
 - ii) **Part II (A)** contains **Standard Terms and Conditions of RFP**, which will form part of the Contract/Supply Order (herein after referred as the Contract) with the Bidder.
 - iii) **Part II (B)** contains instructions for online submission of Bid. The terms and conditions of **Part II (A)** and **Part II (B)** which are to be followed for each RFP issued by DRDO are available under Standard Document on Defence eProcurement-Portal and DRDO website (www.drdo.org).
 - iv) **Part III** contains **Special Terms and Conditions** applicable to this RFP and which will also form part of the Contract with the Bidder.
 - v) **Part IV** contains **Vendor Qualification Criteria**.
 - vi) **Part V** contains **Details of the Store(s)/Service(s) Required** e.g. Technical Specifications, Delivery Period, Mode of Delivery, Consignee details etc.
 - vii) **Part VI** contains **Format of Price Bid**. Price bid needs to be filled and uploaded as per Supplied Format only.
4. ~~This RFP is being issued with no financial commitment and the Buyer reserves the right to change or vary any part thereof or foreclose the instant procurement at any stage. The Buyer also reserves the right to disqualify bidder, should it be necessary, at any stage on grounds of National Security.~~
5. ~~You may contact Gp Capt KM Rao, Dy Head MMG, (Ph:080-25049111) Centre for Airborne Systems (CABS) Ministry of Defence Belur, Yemlur (PO), Bangalore-560037 for any grievance related to bidding condition, bidding process and/or rejection of bid. With regard to bidding condition, this shall be done in writing at least seven days in advance of the stipulated date of submission of bid.~~

Yours sincerely,



(KM RAO)
GP CAPT
DY HEAD MMG
FOR DIRECTOR
FOR & ON BEHALF OF
THE PRESIDENT OF INDIA

Part I (A) – General Information and Instructions

1. **Last Date and Time for Uploading the Bids:** On or Before **18 Jan 2022** at **10.00Hrs**.
The online Bids (both Techno-Commercial and Price bid, in case of two bids system) should be uploaded by the due date and time. The responsibility to ensure this lies with the Bidder.
2. **Manner of Uploading the Online Bids:** Bids (both Techno-Commercial and Price bid, in case in case of two bids system) is required to be submitted online on Defproc-portal (<https://defproc.gov.in>). Bids sent by Post/ FAX or e-mail will not be considered.
3. **Time and Date for Opening of Bids: Bids will be opened online on 19 Jan 2022 at 10.30 Hrs** If due to any exigency, the due date for opening of the bids is declared a closed holiday, the bids will be opened on the next working day at the same time or on any other day/time, as intimated by the Buyer.
4. **Place of Opening of the Bids: Bids will be opened online only at E-procurement Room, MMG Conference Hall, CABS, Belur, Yemlur (Post) Bangalore–560037**
5. **Procedure for Submission of Bid:** Bids would be submitted as per standard online eProcurement procedure for Two bid System. Technical Brochure if any, and other related documents should be sent in an envelope duly marked with tender reference no. and addressed to Director, on or before “**Bid submission end date and time**”.
6. **Forwarding of Bids:** Bids should be submitted by Bidder online only, under the firm’s memo / letter pad inter alia furnishing details like GSTIN number, Bank address with NEFT Account if applicable, etc. and complete postal and email address of firm’s office failing which the bid would not be considered.
7. **Clarification Regarding Contents of the RFP:** A prospective bidder who requires clarification regarding the contents of the bidding documents shall notify to the Buyer in writing about the clarifications at least 07 (Seven) days prior to the date of opening of the Bids. Copies of the query and clarifications by the purchaser will be sent to bidder who received the bidding document from the lab and would be posted on the website.
8. **The bidder need to quote only in Indian Rupees.** Bidder must submit Quotation pertaining to himself only.
9. **Validity of Bids:**
The Bids should remain valid for **180 days** from the last date of submission of Bids i.e., upto **18 Jul 2022**.
10. **Modification and Withdrawal of Bids:** If a bidder intent to modify or withdraw his Bid after online submission, it can be done through selection of appropriate option available on the Defence eProcurement Portal.
11. **Bid Security Declaration:** Vendor is required to submit Bid Security Declaration accepting that if they withdraw or modify their Bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, he will be suspended for the period of *upto 2 years* from being eligible to submit Bids for contracts with any procuring entity of DRDO (format enclosed).
12. **Clarification Regarding Contents of the Bids:** During evaluation of the bids, the Buyer may, at his discretion, ask the bidder for clarification(s) on the Bid(s). The request for clarification will be given in writing. No clarification on the initiative of the bidder will be entertained after opening of bid.
13. **Rejection of Bids:** Canvassing by the Bidder in any form, unsolicited letter and post tender correction may invoke summary rejection of bid. Conditional bids will be rejected. Non-compliance of applicable General Information will disqualify the Bid.
14. Bids of debarred/blacklisted firm will not be considered for evaluation.

15. Document to be submitted with Techno-commercial Bid:

The following documents are to be furnished by the Bidder in **Cover-1** along with Techno Commercial Bid as per the tender document:

- i. Signed and Scanned copy of appropriate valid company registration certificate or partnership deed (if applicable), experience certificate as required, PAN No and Tender Acceptance Letter as per Part I (B).
- ii. Signed and scanned copy of previous three years Income-tax/GSTIN /Affidavit of partnership firm. If not applicable kindly upload a pdf document indicating Not Applicable.
- iii. Scanned copy of Bid Security Declaration or Proof of Registration which exempted for submission of Bid Security Declaration as per Para 11 above.
- iv. Signed and Scanned Copy of the Make and model of all the systems, sub systems and additional items as mentioned in the Techno Commercial Bid.
- v. Signed and Scanned Copy of legal Agency Agreement/100% Subsidiary Certificate/Registration as an Agent (if applicable). If not applicable kindly upload a pdf document indicating Not Applicable.
- vi. Scanned Copy of Proforma of End User Certificate for Export License (if applicable). If not applicable kindly upload a pdf document indicating Not Applicable.
- vii. ECS mandate from (duly authenticated by bank)
- viii. All documents as per para 25 to 28 of Part II (A) of this RFP.

16. Price Bid to be uploaded in Cover-2.

Schedule of price bid in the form of BOQ_XXX.xls.

Part I (B) – Tender Acceptance Letter (e-Procurement)
(To be filled by Bidder and uploaded in cover 1)

(To be given on Company Letter Head)

Date:

To,
Director, CABS

Sub: Acceptance of Terms & Conditions of Tender.
Tender Reference No & ID: **CABS/22ATT294/21-22**

Name of Tender/Work: **AI/ML Based Realtime Data Analysis System for ESM**

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned ‘Tender/Work’ from the web site(s) namely: _____ as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc.), (duly filled Compliance table attached) which will form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organizations related to this tender too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We declare our firm have never been banned / blacklisted/debarred from doing business dealings with Ministry of Defence/Govt. of India/any other Govt. orgainsation and that there is no enquiry going on by CBI/ED/any other Govt. agency against our firm.
6. I / We certify that all information furnished by the our firm/company is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

Compliance Table

S. No.	Part of RFP	Compliance Para/Sub Para of RFP of (Yes/No)	Reasons for Compliance/Non Compliance (if any)	Remarks

Part II (A) – Standard Terms and Conditions

The Bidder is required to give confirmation of their acceptance of the Standard Terms and Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the Bidder as selected by the Buyer. Failure to do so may result in rejection of the Bid.

1. **Effective Date of the Contract:** In case of placement of a supply order, the date of acceptance of the Supply Order would be the effective date. The firm should check the supply order and convey acceptance of the same within seven days of its receipt. If such an acceptance or communication conveying firm's objection to certain parts of the supply order is not received within the stipulated period, the supply order will be deemed to have been fully accepted by the firm. In case a contract is to be signed by both the parties, the Contract shall come into effect on the date of signatures of both the parties on the Contract (Effective Date) or as agreed during negotiations. The performance of the Contract shall commence from the Effective Date of the Contract/Supply Order.
2. **Law:** The Contract shall be considered and made in accordance with the laws of the Republic of India and shall be governed by and interpreted in accordance with the laws of the Republic of India.
3. **Arbitration:** All disputes or differences arising out of or in connection with the Contract shall be settled by bilateral discussions. Any dispute, disagreement or question arising out of or relating to the Contract or relating to product or performance, which cannot be settled amicably, shall be resolved by arbitration in accordance with any one of the following provisions:

Option 3(a) : For Defence PSUs: The case of arbitration shall be referred to the Secretary Defence (R&D) for the appointment of arbitrator(s) and proceedings.

Option 3(b) : For Central Public Sector Enterprises (CPSEs): In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs) and DRDO, such disputes of difference shall be taken up by either party for resolution through Administrative Mechanism for Resolution of CPSEs Disputes (AMRC) as per provisions of Department of Public Enterprises OM No. 4(1)/2013-DPE (GM)/FTS-1835 dated 22-05-2018.

Option 3(c) : Other Bidder may opt any one of the following option :

The case of arbitration may be referred to respective CFA or a person appointed by him who will be sole arbitrator and the proceedings shall be conducted in accordance with procedure of Indian Arbitration and Conciliation Act, 1996 as amended.

OR

The case of arbitration may be referred to International Centre for Alternative Dispute Resolution (ICADR) for the appointment of arbitrator and proceedings shall be conducted in accordance with procedure of Indian Arbitration and Conciliation Act, 1996, as amended.

OR

The case of arbitration may be conducted in accordance with the rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said rules in India. However, the arbitration proceedings shall be conducted in India under Indian Arbitration and Conciliation Act, 1996 as amended.

4. **Penalty for Use of Undue influence:** The bidder undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contract or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the Contract or any other contract with the Government of India for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other contract with the Government of India. Any breach of the aforesaid undertaking by the Bidder or anyone employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offers by the Bidder or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the Bidder and recover from the Bidder the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking

had been committed shall be final and binding on the Bidder. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Bidder towards any officer/ employee of the Buyer or to any other person in a position to influence any officer/ employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Bidder to such liability/ penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

5. **Agents / Agency Commission:** The Bidder confirms and declares to the Buyer that the Bidder has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries, whether officially or unofficially, to the award of the contract to the bidder; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The bidder agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the bidder has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the bidder will be liable to refund that amount to the Buyer. The bidder will also be debarred from entering into any contract with the Government of India for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the bidder who shall in such an event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above (i) Prime Lending Rate of State Bank of India for Indian bidder, and (ii) London Inter Bank Offered Rate (LIBOR) for the foreign bidder. The applicable rates on the date of opening of tender shall be considered for this. The Buyer will also have the right to recover any such amount from any contracts in vogue with the Government of India.

OR

The bidder confirms and declares in the Techno-Commercial bid that they have engaged an Agent, individual or firm, for promotion of their product. In such case, following details are to be submitted in the Techno-Commercial bid:

- a) Name of the Agent
 - b) Agency Agreement between the bidder and the Agent giving details of their contractual obligation
 - c) PAN Number, name and address of bankers in India and abroad in respect of Indian Agent
 - d) The nature of services to be rendered by the Agent and
 - e) Percentage of Commission payable to the Agent
6. **Access to Books of Accounts:** In case it is found to the satisfaction of the Buyer that the Bidder has violated the provisions of Para 4 and/or Para 5 above to obtain the Contract, the Bidder, on a specific request of the Buyer, shall provide necessary information/ inspection of the relevant financial documents/information/Books of Accounts.
7. **Non-disclosure of Contract Documents:** Except with the written consent of the Buyer/ bidder, other party shall not disclose the Contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party. All the information exchanged between the vendor and the CABS team, its work centers, its representatives in any form such as oral, written, presentations, documents or any information vendor gathers through his visit to the CABS, its work centers etc. shall be treated as confidential and vendor shall not disclose such information orally, written or otherwise to any third party or to its employees not concerned with the project. Towards this vendor and all his employees involved in any manner with this project shall execute appropriate non disclosure agreement/ oath of secrecy as may be required. Vendor as well as his employees shall be bound by this non-disclosure agreement/oath even after completion of the contract and during the lifetime, unless otherwise the condition is specifically lifted by CABS/DRDO formally.
8. **Withholding of Payment:** In the event of the bidder's failure to submit the Bonds, Guarantees and Documents, supply the stores/goods and conduct trials, installation of equipment, training, etc. as specified in the Contract, the Buyer may, at his discretion, withhold any payment until the completion of the Contract.
9. **Liquidated Damages:** The Buyer may deduct from the bidder, as agreed, liquidated damages at the rate of 0.5% per week/part thereof, of basic cost (excluding taxes and duties on final product) of the delayed stores/services which the bidder has failed to deliver within the period agreed for delivery in the contract subject to maximum of 10% of the total order value (excluding taxes and duties on final product). In cases where partial delivery/services does not help in achieving the objective of the contract, LD shall also be levied on the total cost (excluding taxes and duties on final

product) of the ordered quantity delivered by the bidder. This will also include the store(s) supplied within the delivery period.

10. Termination of Contract: The Buyer shall have the right to terminate the Contract in part or in full in any of the following cases: -

- (a) In case PCWB is not furnished by the bidder within the time specified in the SO.
- (b) The store/service is not received/rendered as per the contracted schedule(s) and the same has not been extended by the Buyer.

Or

The delivery of the store(s)/service is delayed for causes not attributable to Force Majeure for more than 08 weeks after the scheduled date of delivery and the delivery period has not been extended by the Buyer.

- (c) The delivery of store/service is delayed due to causes of Force Majeure by more than 06 months provided Force Majeure clause is included in the contract and the delivery period has not been extended by the Buyer.
 - (d) The bidder is declared bankrupt or becomes insolvent.
 - (e) The Buyer has noticed that the bidder has violated any of the provisions of this Maintenance Contract.
 - (f) The Buyer has noticed, the bidder unsatisfactory services or parts/spares provided by the party are found sub-standard.
 - (g) As per decision of the Arbitration Tribunal.
 - (h) When the Bidder is found to have made any false or fraudulent declaration or statement to get the supply order/ contract or he is found to be indulging in unethical or unfair trade practices.
 - (i) When both parties mutually agree to terminate the supply order/ contract.
 - (j) Any special circumstances justified by the buyer.
- 10.1 If the supply order/ contract is terminated in whole or in part; the Buyer may take any one or more of the following actions:
- (a) Performance cum Warranty Bond will be forfeited and the amount will be remitted to Govt. by way of MRO through Public Fund Account in favour of concerned CDA (R&D).
 - (b) Invoke the risk and expense clause if mentioned in the supply order/ contract.
 - (c) The Bidder shall continue to perform the supply order/ contract to the extent not terminated.
 - (d) Any other action as deemed appropriate.

11. Notices: Any notice required or permitted by the Contract shall be written in English language and may be delivered personally or may be sent by FAX/email or registered pre-paid mail/ airmail, addressed to the last known address of the party to whom it is sent.

12. Transfer and Sub-letting: The Bidder has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the Contract or any part thereof without written consent of the Buyer.

13. Use of Patents and other Industrial Property Rights: The prices stated in the Contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other Industrial Property Rights. The Bidder shall indemnify the Buyer against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Bidder shall be responsible for the completion of the supplies including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies or any or all the rights mentioned above.

14. Amendments: No provision of the Contract shall be changed or modified in any way (including this provision) either in whole or in part except when both the parties are in written agreement for amending the Contract.

15. Taxes and Duties

A. General

- a) If the quoted prices exclude GST / Local Tax or any other Statutory Duties/Taxes, the same must be specifically stated with applicable rates. In the absence of same, it will be presumed that the prices include all such charges and no claim for the same will be entertained.
- b) If reimbursement of any Duty/Tax is intended as extra over the quoted prices, the Bidder must specifically say so. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of such duty/tax will be entertained after the opening of tenders.

- c) If a Bidder chooses to quote a price inclusive of any duty/tax and does not confirm that duty/tax so included is firm and final, he should clearly indicate the rate of such duty/tax and quantum of such duty/tax included in the price. Failure to do so may result in ignoring any request for change of duty/tax at a later date due to any reason whatsoever.
- d) Any addition to duty/tax and change in any duty/tax upward/downward as a result of any statutory variation in duty/tax taking place within contract terms shall be allowed to the extent of actual quantum of such variation of duty/tax paid by the supplier. Similarly, in case of downward revision in any duty/tax, the actual quantum of reduction of such duty/tax shall be reimbursed to the Buyer by the Bidder. All such adjustments shall include all reliefs, exemptions, rebates, concession etc., if any, obtained by the Bidder.
- e) TDS as per Income Tax Rules will be deducted and a certificate to that effect will be issued by the Buyer/ Buyer's paying authority.

B. Customs Duty

Custom duty exemption Certificate will not be issued by the Buyer for components/ raw material imported by the Bidder. Bidder shall quote amount inclusive of Custom Duty as applicable. Custom Duty is to be indicated separately whenever separate column for the same is provided in BOQ.

C. GST

- a. The successful bidder would be issued Concessional GST Certificate (only in applicable cases as per Govt. notification) by the Buyer as decided during tender negotiation and the same will be issued along with Supply Order. However, the rate quoted in BOQ (in Part VI of RFP) should take into account applicable GST rate only and not concessional GST rate.
- b. Unless otherwise specifically agreed to in terms of the Contract, the Buyer shall not be liable for any claim on account of fresh imposition and/or increase of GST on raw materials and/or components used directly in the manufacture of the contracted stores taking place during the pendency of the contract.
- c. GST for services will be 18% or as applicable at the time of delivery.

D. Local Taxes Normally, materials to be supplied to Government Departments against Government Contracts are exempted from levy of Town Duty, Terminal Tax and other levies of local bodies. The local Town/Municipal Body regulations at times, however, provide for such exemption only on production of such exemption certificate from any authorised officer. Bidder should ensure that stores ordered against contracts placed by this office are exempted from levy of Town Duty, Terminal Tax or other of such local taxes and duties. Wherever required, firm should obtain the exemption certificate from the Buyer, to avoid payment local taxes or duties.

- In case where the Municipality or other local body insists upon payment of these duties or taxes, the same should be paid by the Bidder to avoid delay in supplies and possible demurrage charges. After the issue of exemption certificate by the Buyer, the Bidder may get the reimbursement from the local authority. In case of any difficulty, the receipt obtained for such payment should be forwarded to the Buyer without delay together with a copy of the relevant act or by-laws/notifications of the Municipality of the local body concerned to enable this office to take up the case for refund with the concerned bodies if admissible under the said acts or rules.

16. Denial Clause: Denial clause informs Bidder that the Buyer reserves the right to admit additional payment due to upward revision of statutory levies beyond the original delivery schedule in case Bidder fails to deliver the goods as per schedule.

Variations in the rates of statutory levies within the original delivery schedule will be allowed if taxes are explicitly mentioned in the contract/supply order and delivery has not been made till the revision of the statutory levies. Buyer reserves the right not to reimburse the enhancement of cost due to increase in statutory levies beyond the original delivery period of the supply order/contract even if such extension is granted without imposition of LD.

17. Undertaking from the Bidder: Bidder/firm/company/vendor will submit an undertaking that in the past they have never been banned / debarred for doing business dealings with Ministry of Defence/Govt. of India/any other Govt. organization and that there is no enquiry going on by CBI/ED/any other Govt. agency against them.

18. Documents to be Furnished for Claiming Payment

- i) **Bidder:** The payment of bills will be made on submission of the following documents by the Bidder to the Buyer:
 - a) Ink-signed copy of Contractor's Bill.
 - b) Ink-signed copy of Commercial Invoice / Bidder Bill (03 Copies).
 - c) Bank Guarantee for Advance, if applicable.
 - d) Guarantee/ Warranty Certificate, if applicable.
 - e) Performance Warranty Bond/ Indemnity Bond, if applicable.
 - f) Details for electronic payment viz. Bank name, Branch name and address, Account Number, IFS Code, MICR Number (if these details are not already incorporated in the Contract).
 - g) Copy of the Contract and amendments thereon, if any.
 - h) Self-certification from the bidder that the GST received under the contract would be deposited to the concerned taxation authority.
 - i) Any other document/ certificate that may be provided for in the Contract.

19. Franking Clause:

- i) **In Case of Acceptance of Store(s):** "The fact that the goods have been inspected after the delivery period and passed by the Inspecting Officer will not have the effect of keeping the contract alive. The goods are being passed without prejudice to the rights of the Buyer under the terms and conditions of the Contract".
- ii) **In Case of Rejection of Store(s):** "The fact that the goods have been inspected after the delivery period and rejected by the Inspecting Officer will not bind the Buyer in any manner. The goods are being rejected without prejudice to the rights of the Buyer under the terms and conditions of the contract."

20. Claims:

- i) The quantity claims for deficiency of quantity and/ or the quality claims for defects or deficiencies in quality noticed during the inspection shall be presented within 45 days of completion of inspection.
- ii) The Bidder shall collect the defective or rejected goods from the location nominated by the Buyer and deliver the repaired or replaced goods at the same location, within mutually agreed period, under Bidder arrangement without any financial implication on the Buyer.

21. Liability Clause:

- a. Any damage caused to the property or suffered by the personnel of Buyer during the execution of Contract shall remain the liability of the Buyer. Such liability shall be fixed on Bidder in case of grossly negligent act or omission on the part of Bidder.
- b. This provision is limited to the relations between the Parties. It is without prejudice to the rights and actions to which the victims of damage, or any Social Security Organizations could prevail themselves legally.
- c. Either party would provide reasonable assistance to resolve the claim of other Party to mitigate loss or damage.
- d. Neither, the Bidder shall be liable to the Buyer, nor shall the Buyer be liable to the Bidder for any immaterial, punitive, indirect, special, incidental, or consequential loss or damage. This will hold good irrespective of whether such liability is based or claimed to be based on any breach of a Party's obligation under the Contract, or any negligent act or omission of a Party, its employees, servants, appointed representatives, sub-contractor or professional consultants, or such liability arises otherwise out of or in connection with the Contract.
- e. The Buyer shall not be liable for any compensation in any manner to the Bidder for whatsoever reason.
- f. The Bidder shall be liable to the Buyer for any compensation in any manner for whatsoever reasons for a sum not exceeding value of the Contract.

22. Risk and Expense Purchase: In case Bidder fails to honor the contractual obligations within the stipulated delivery period and as amended, Buyer may procure the said contracted goods/services through a fresh supply order/contract and the defaulting Bidder has to bear the excess cost incurred, if any.

23. Procedure for Cost Comparison: The basis for comparison of cost in different situations would be as follows:

- a) The financial bids of the bidder will be compared on the basis of all prices including Statuary Levies /taxes etc quoted in the price bid format of the RFP/Bid document.

b) The Buyer reserves the right to evaluate the offers received by adopting Discounted Cash Flow (DCF) method with a discounting rate in consonance with the existing Government borrowing rate. DCF method would be used for evaluation of bids in the following cases:

(i) To compare different payment terms, including advance payments and progressive stage payments so as to bring them to a common denomination for determining lowest bidder.

(ii) To deal with cases where entering into AMC for period in excess of one year is part of the contract for evaluation of the bid.

c) **Net Present Value (NPV):** NPV method is a variant of DCF method which may be used for evaluation of tenders. The NPV of a contract is equal to the sum of the present values of all the cash flows associated with it. When choosing among the various bids, the bid with the lowest NPV will be selected. The following formula may be used for calculating NPV of a bid:

$$NPV = \sum_{t=0}^N \frac{A_t}{(1+i)^t}$$

Where

A_t : Expected cash flow at time

t : Time of expected cash flow

N : Total period

i : Discount rate

d) Discount rate to be used under the method is to be the Government borrowing rate on the Date of Opening of Price Bids.

e) If there is any discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected accordingly.

f) If there is any discrepancy between words and figures, the amount in words will prevail for calculation of price.

g) The best acceptable bid will be considered further for placement of the Contract after price negotiation as decided by the Buyer.

24. Government reserves the right to cancel the procurement process at any stage and accept or reject any bid, fully or partially, without assigning any reasons.

25. Clauses regarding “Public Procurement, Preference to Make in India”. Provisions of Government of India (Min of Commerce and Industry), DPIIT Order No. P-45021/2/2017-PP(BE-II) dated 16th Sep 2020 (as amended from time to time) regarding “Public Procurement, Preference to Make in India” will be applicable to this tender. Certain important aspects from this letter have been included in this RFP for information and ready reference of the bidder.

26. Definitions: For the purposes of this Procurement:

'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for ‘Class-I local supplier’ under this order.

'Class-II If local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for ‘Class-II local supplier’ but less than that prescribed for ‘Class-I local supplier’ under this order.

'Non-Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this order.

'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Nodal Ministry' means the ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

'Procuring entity' means a Ministry or development or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the companies Act.

'Works' means all works as per Rule 130 of GFR-2017, and will also include "turnkey works".

26.1 Minimum local content: The 'local content' requirements to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local suppliers', the 'local content' requirement is minimum 20%.

26.2 Margin of purchase preference: The margin of purchase preference shall be 20%.

26.3 Verification of Local Content:

- (a) The 'Class-I local supplier'/Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
- (b) In cases of procurement for a value in excess of Rs.10 crores, the 'Class-I local supplier'/Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
- (a) Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.
- (b) Nodal Ministries may constitute committees with internal and external expert for independent verification of self-declarations and auditor's/accountant's certificates and random basis and in the case of complaints.
- (c) Nodal Ministries and procuring entities may prescribe fees for such complaints.
- (d) False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for upto two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.
- (e) A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which comes to notice of other procurement entities, in a manner prescribe by the Govt.
- (f) In addition to (c) above, the buyer may initiate one/all of the following actions in case of false declaration by the bidder:
 - (i) Cancellation of SO
 - (ii) Forfeiture of PCWB
 - (iii) Any other action deemed necessary by DRDO

- (g) All supporting documents in respect of Class of Local supplier will be scrutinized/evaluated by TCEC for compliance. The supplier must ensure that the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc are not claimed as part of 'Local Content'/'Local Value Addition'. In this regard, the bidder is provide a **Local Content Certificate** as per given format for scrutiny and evaluation by TCEC.

27. Clauses regarding 'Restriction on Public Procurement from Certain countries' : Provisions of Government of India (Min of Finance), Dept of Exp. OM F.No. 6/18/2019-PPD dated 23rd Jul 2020 (as amended time to time) regarding "Restriction on Public Procurement from Certain countries" will be applicable to this tender. Certain important aspects of the letter have been included in this RFP for information and ready reference of the bidder.

28. Clauses on Restriction on Public Procurement from Certain countries

28.1 Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

28.2 "Bidder" (including the terms 'tenderer' 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firm or companies), every artificial juridical person not falling in any of the descriptions of bidder stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

28.3 "Bidder from a country which shares a land border with India" for the purpose of this Order means: -

- d. An entity incorporated, established or registered in such a country; or
- e. A subsidiary of an entity incorporated, established or registered in such a country; or
- f. An entity substantially controlled through entities incorporated, established or registered in such a country; or
- g. An entity whose beneficial owner is situated in such a country; or
- h. An Indian (or other) agent of such an entity; or
- i. A natural person who is a citizen of such a country; or
- j. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

28.4 The beneficial owner for the purpose of (iii) above will be as under:

28.4.1 In case of a company or Limited Liability Partnership, the beneficial owner is natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation-

- a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. Of shares or capital or profits of the company;
- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

28.4.2 In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

28.4.3 In case of an unincorporated association or body of individuals, the beneficial owner is the natural persons(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals,

28.4.4 Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

28.4.5 In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control r ownership.

28.5 An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

28.6 **[Applicable for Works contracts and Turnkey contracts only]** The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

28.7 **Certificate to be furnished by the bidder**

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”

28.8 Certificate to be furnished by bidder in Tenders for Works involving possibility of sub-contracting

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”

29. Provision of Ministries of Finance (Department of Expenditure) Letter No.6/9/2020-PPD dated 24 Aug 2020 will be applicable. It shall be mandatory for sellers providing goods and services to Central Government Organizations to be registered on GeM and obtain a Unique GeM Seller ID at the time of placement of order / acceptance of contract. This ID shall be incorporated in supply Order/Contract/Agreement/Purchase Order while awarding the contract/order for Procurement.

30. “If any item is found or detected / suspected to be counterfeit part as a result of verification at the receiving inspection stage or any stage of performance, legal action will be initiated with jurisdiction ‘(Bangalore)’ and the concerned government enforcement authorities will be informed. Suspected counterfeit parts will be informed. Suspected counterfeit parts will not be returned to suppliers or recycled.” The security PBG will be encashed without any notice and appropriate legal action will be initiated.

Part II (B) – Instructions for Online Bid Submission

1. The bidder is required to submit soft copies of their bids electronically on the Defence eProcurement Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidder in registering on the Defence eProcurement Portal, prepare their bids in accordance with the requirements and submitting his bids online on the Defence eProcurement Portal.
2. More information useful for submitting online bids on the Defence eProcurement Portal may be obtained at: <http://defproc.gov.in/nicgep/app/>.
3. **REGISTRATION**
 - a) Bidder is required to enroll on the e-Procurement module of the Defence eProcurement Portal (URL: <http://defproc.gov.in/nicgep/app/>) by clicking on the link “Online bidder Enrollment” on the Defence eProcurement Portal which is free of charge.
 - b) As part of the enrolment process, the bidder will be required to choose a unique username and assign a password for their accounts.

- c) Bidder is advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the Defence eProcurement Portal.
- d) Upon enrolment, the bidder will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India with their profile.
- e) Only one valid DSC should be registered by a bidder. Please note that the bidder is responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- f) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

4. **SEARCHING FOR TENDER DOCUMENTS**

- a) There are various search options built in the Defence eProcurement Portal, to facilitate bidder to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidder may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the Defence eProcurement Portal.
- b) Once the bidder has selected the tender he is interested in, he may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the Defence eProcurement Portal to intimate the bidder through SMS / e-mail in case there is any corrigendum issued to the tender document.
- c) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

5. **PREPARATION OF BIDS**

- a) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- b) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- c) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- d) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidder. Bidder can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

6. **SUBMISSION OF BIDS**

- a) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- b) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- c) Bidder is requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by the bidder. Bidder is required to download the BOQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

- d) The server time (which is displayed on the bidder' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidder, opening of bids etc. The bidder should follow this time during bid submission.
- e) All the documents being submitted by the bidder would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys.
- f) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- g) Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- h) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

7. **ASSISTANCE TO BIDDER**

- a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- b) Any queries relating to the process of online bid submission or queries relating to Defence eProcurement Portal in general may be directed to the 24x7 Defence eProcurement Portal Helpdesk.

Part III – Special Terms and Conditions

The Bidder is required to give confirmation of their acceptance of Special Terms and Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder as selected by the Buyer. Failure to do so may result in rejection of Bid submitted by the Bidder.

1. Performance Security Bond and Warranty Bond

a) Performance Security Bond (PSB): Successful Bidder shall submit Performance Security Bonds for an amount of 3% of the order value (inclusive of all taxes and duties) within fifteen days from the date of release of Supply Order (SO)/Contract. PSB should be valid up to 60 (sixty) days beyond the Delivery Period/contract. In case the execution of the supply/contract is delayed beyond the delivery period/contracted period and the Buyer grants the extension of delivery period, with or without liquidated damages, the successful Bidder must get the Performance Security Bond revalidated, if not already valid. Performance Security Bond may be submit in the form of Bank Draft, Fixed Deposit Receipt or a Bank Guarantee in favor of Director CABS.

b) Warranty Bond: Successful Bidder shall submit Warranty Bond (wherever applicable) for an amount of 3% of the order value (inclusive of all taxes and duties) immediately after the delivery/acceptance of stores/services. Warranty Bond should be valid up to 60 (sixty) days beyond the warranty obligations. Buyer will not release the payment/PCB

unless receipt of Warranty Bond. Warranty Bond may be submit in the form of Bank Draft, Fixed Deposit Receipt or a Bank Guarantee in favor of Director CABS. Warranty Bond would be returned to the Seller on successful completion of warranty obligations, under the contract.

The Performance Security Bond/ Warranty Bond will be forfeited by the Buyer, in case the conditions regarding adherence to delivery schedule and/or other provisions of the contract are not fulfilled by the Bidder.

2. **Permissible Time Frame for Submission of Bills:** To claim payment (part or full), the Bidder shall submit the bill(s) along with the relevant documents within 30 days from the completion of the activity/supply.
3. **Payment Terms:** Payment schedule is on pro-rata basis after achieving each milestone.
Milestone1: 40% Payment will be made.
Final Milestone: 60% Payment after final delivery and acceptance at CABS.
4. **Advance Payments:** Nil
5. **Installation & Commissioning:** Required
6. **Training Details:** Required
7. **Part Supply:** Not acceptable
8. **Mode of Payment:** It will be mandatory for the Bidder to indicate their bank account numbers and other relevant e-payment details to facilitate payments through ECS/NEFT mechanism instead of payment through cheque, wherever feasible.
9. **Export License:** The Bidder is required to furnish full details and formats of End Use Certificate required for obtaining export clearance from the country of origin. This information will be submitted along with Techno-Commercial bid. In the absence of such information, it would be deemed that no document is required from the Buyer for export clearance from the country of origin.
10. **Force Majeure Clause:**
 - a) Neither party shall bear responsibility for the complete or partial non-performance of any of its obligations, if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake and other acts of God as well as War, Military operations, blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after the conclusion of the present contract.
 - b) In such circumstances the time stipulated for the performance of an obligation under the Contract is extended correspondingly for the period of time commensurate with actions or circumstances and their consequences.
 - c) The party for which it becomes impossible to meet obligations under the Contract due to Force Majeure conditions, is to notify in written form to the other party of the beginning and cessation of the above circumstances immediately, but in any case not later than 10 (Ten) days from their commencement.
 - d) Certificate of a Chamber of Commerce (Commerce and Industry) or other competent authority or organization of the respective country shall be considered as sufficient proof of commencement and cessation of the above circumstances.
 - e) If the impossibility of complete or partial performance of an obligation lasts for more than 6 (six) months, either party hereto reserves the right to terminate the Contract totally or partially upon giving prior written notice of 30 (thirty) days to the other party of the intention to terminate without any liability other than reimbursement on the terms provided in the agreement for the goods received.
11. **Packing and Marking Instructions:**
 - i) The Bidder shall provide packing and preservation of the equipment and spares/goods contracted so as to ensure their safety against damage in the conditions of land, sea and air transportation, transshipment, storage and weather hazards during transportation, subject to proper cargo handling. The Bidder shall ensure that the stores are packed in containers, which are made sufficiently strong. The packing cases should have provisions

for lifting by crane/fork lift truck. Tags with proper marking shall be fastened to the special equipment, which cannot be packed.

- ii) The packing of the equipment and spares/goods shall conform to the requirements of specifications and standards in force in the territory of the Bidder country.
- iii) A label in English shall be pasted on the carton indicating the under mentioned details of the item contained in the carton. The cartons shall then be packed in packing cases as required.
 - i Part Number :
 - ii Nomenclature :
 - iii Contract annex number :
 - iv Annex serial number :
 - v Quantity contracted :
- iv) One copy of the packing list in English shall be inserted in each cargo package, and the full set of the packing lists shall be placed in Case No.1 painted in a yellow colour.
- v) The Bidder shall mark each package with indelible paint in English language as follows:-
 - i Contract No. _____
 - ii Consignee _____
 - iii Part / airport of destination _____
 - iv Ultimate consignee _____
 - v Package No. _____
 - vi Gross/net weight _____
 - vii Overall dimensions/volume _____
 - viii The Bidder marking _____
- vi) If necessary, each package shall be marked with warning inscriptions: <Top>, <Do not turn over>, category of cargo etc.
- vii) Should any special equipment be returned to the Bidder by the Buyer, the latter shall provide normal packing, which protects the equipment and spares/goods from damage or deterioration during transportation by land, air or sea. In such case the Buyer shall finalize the marking with the Bidder.
- viii) Any other special specific packing requirement to be specified clearly depending upon nature of the stores.

12. Inspection Instructions:

- i) Part inspection
- ii) Stage/Subsystem inspection
- iii) Pre Delivery Inspection
- iv) Factory Acceptance Test
- v) Post Delivery inspection on receipt of store
- vi) **Inspection Authority:** The Inspection will be carried out by a representative of the **CABS** duly nominated by the **Director**.

13. Warranty:

- a. The Bidder will declare that the goods, stores, articles, services sold/supplied shall be of the best quality and workmanship and new in all respects and shall be strictly in accordance with the specifications and particulars contained/mentioned in the contract. The Bidder will guarantee that the said goods/stores/articles/services would continue to conform to the description and quality for a period of, **24 months** from the date of acceptance/installation of the said goods stores/articles/services. If during the aforesaid period of **24 months**, the said goods/stores/services are discovered not to conform to the description and quality aforesaid, not giving satisfactory performance or have deteriorated, the Buyer shall

be entitled to call upon the Bidder to rectify the goods/stores/articles/services or such portion thereof as is found to be defective by the Buyer within a reasonable period without any financial implication on the Buyer.

- b. If the defective part/subsystem/system needs to be taken by the Bidder outside Buyer's premises to rectify the defect, Bidder shall provide a comprehensive (*during transit & storage insurance for repair period*) insurance cover of the equivalent amount to the Buyer to cover for the time taken to rectify the defective goods and deliver the repaired or replaced goods at the same location without any financial implications on Buyer.
- c. In cases of procurement of software, bidder shall issue/provide upgrades of the software free of cost during the warranty period.

14. Product Support:

The Bidder agrees to provide Product Support for the stores, assemblies/subassemblies, fitment items, Spares and consumables, Special Maintenance Tools (SMT)/Special Test Equipments (STE) for a minimum period of **02 years** after the delivery.

15. Intellectual Property Rights (IPR):

- (i) The configuration of ESM/RWR Software, custom hardware developed under this contract, the software, algorithms and methodology shall be intellectual property of CABS/DRDO. The vendor shall not use, disclose, distribute, sell, exploit these products either for its financial gain or for promotion purposes, without the explicit permission of CABS / DRDO. In the event of any opportunity to exploit these technologies (Hardware, software, algorithms etc...) either for financial purposes or for promotions, DRDO reserves the right to levy appropriate payments which shall be negotiated by the vendor.
- (ii) The rights of Intellectual Property, developed under the Contract, will be either the property of Govt. of India or jointly owned by the Govt. of India and the Development Partner. The holding of rights of intellectual property will be decided by the Buyer based on the merits of the case. Even where IPR is jointly held, Govt. of India will have the marching rights on IPR, i.e., the Development Partner will have to give technical know-how/design data for production of the item to the designated Production Agency nominated by Govt. of India. The Development Partner will, however, be entitled to license fee / royalty from designated agency as per agreed terms and conditions. The Development Partner will also be entitled to use these intellectual properties for their own purposes, which specifically excludes sale or licensing to any third party.

16. Evaluation and acceptance Criteria of Bids: The bid will be considered and selected based on instructions contained in the RFP for further evaluation as per sequence given below:

- i) **Techno-Commercial Bid Evaluation:** Bids will be evaluated based on vendor qualification requirement and other clauses in RFP, as applicable, and bids of the qualified bidders will be considered for further evaluation.
- ii) **Price Bid Evaluation:** The Price bid of those bidders whose Techno Commercial bid (if applicable) has been accepted will be opened and comparative statement will be prepared. The best acceptable bid will be decided upon the lowest price inclusive of Statuary Levies / Taxes etc quoted by the particular Bidder as per the Price Format given at Part VI of the RFP.

PART IV- Vendor Qualification Criteria :

Not applicable.

Part V – Essential Details of Items Required

1. **Schedule of Requirements:** List of items required are as follows –

Name/Description of Item(s)/Service(s)	Unit of Measure	Qty required
AI/ML Based Real time Data Analysis System for ESM	Lot	01

2. **Technical Details: Scope of the Work**

2.1 **Introduction.**

(i) **Artificial Intelligence / Machine Learning based Real Time Data Analysis System for ESM (REDAS-ESM)** is required to achieve & adapt the expected performance of ESM system as per operational requirement. As we move to digital technologies in ESM / RWR system designs, challenges due to adaptive, agile, ambiguous, and out of known library emitters are becoming more complex for the ESM systems. Even more complex processing is required to localize these emitters based on received ELINT/ESM inputs. The scope of the REDAS-ESM modules (software & Hardware) to assure as solution for such complex scenario this includes AI based “Real-time Data Analysis System for ESM” (REDAS-ESM) with support for both Online Real-time and Offline processing support.

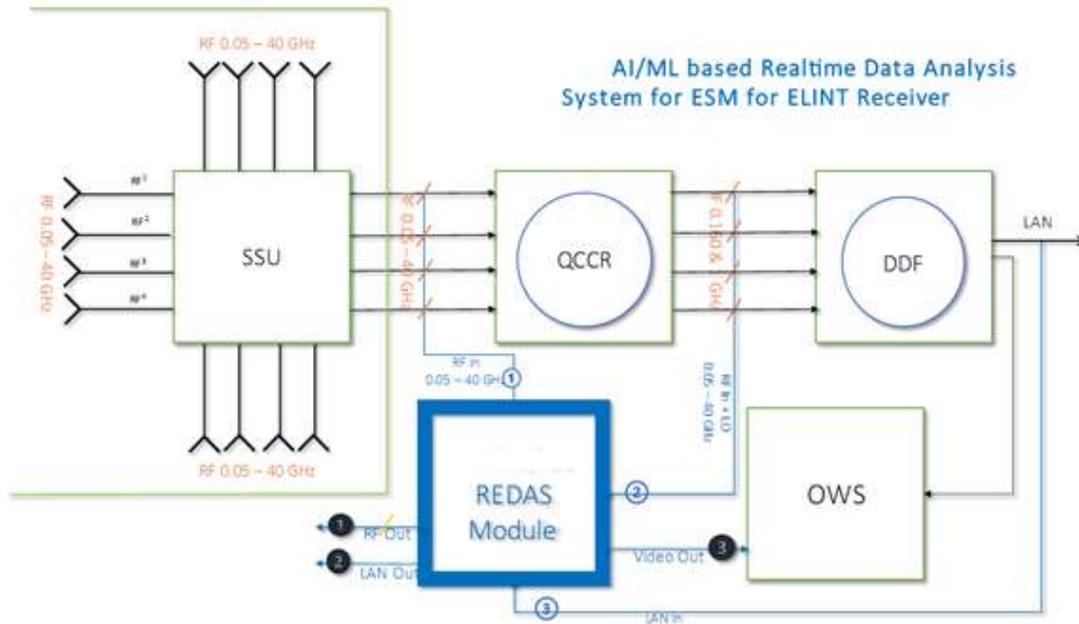
The design and implementation of REDAS-ESM shall be complex Neural Networks based Deep Learning algorithms to not only classify and accurately localize varied emitters but also provides deep insights about the functioning peculiarities of various ground and airborne radars. As a result, even radar emitter’s transient behavior between two distinct modes of operations, is very accurately mapped, which hitherto was unrecognizable. The firm shall create a self-evolving AI model, with inherent spatial and temporal awareness. Internal knowledge state and decision support outcomes presented using highly intuitive Human-Machine Interface (HMI) based on advanced Explainable AI (XAI) principles. REDAS-ESM shall contain plethora of technical and operational reports provided using 2D/3D display on Geographical Information System (GIS).

(ii) The firm shall do the system inbuilt interfaces to receive both RF and digital data from other systems as well as to provide output of RF and digital data via defined interfaces. RF interface is enabled by four differential ended ADC channels with support for both carrier and baseband frequencies. For baseband input, corresponding LO frequencies are required to be provided to the system. Digital input is supported at IQ, PDW, pulsedata as well as summarized track levels through both serial and Gigabit Ethernet interfaces. The input data is processed using proven deep neural networks to independently generate Emitter Parameter List (EPL) with emitter details in standardized format. Where Nav parameters and per-channel amplitude and / or phase information is available, REDAS-ESM independently computes DOA for each pulse and uses it to compute Location Fix (LF) for each declared emitter. The system is capable of generating both RF and digital outputs at each stage of processing which include both RF waveforms generated by the inbuilt DAC as well as digital IQ, computed PDW, EPL and LF information in standardized format for consumption by external systems. Cumulative information is used by REDAS-ESM to evaluate external system accuracies as well as for AI incremental learning.

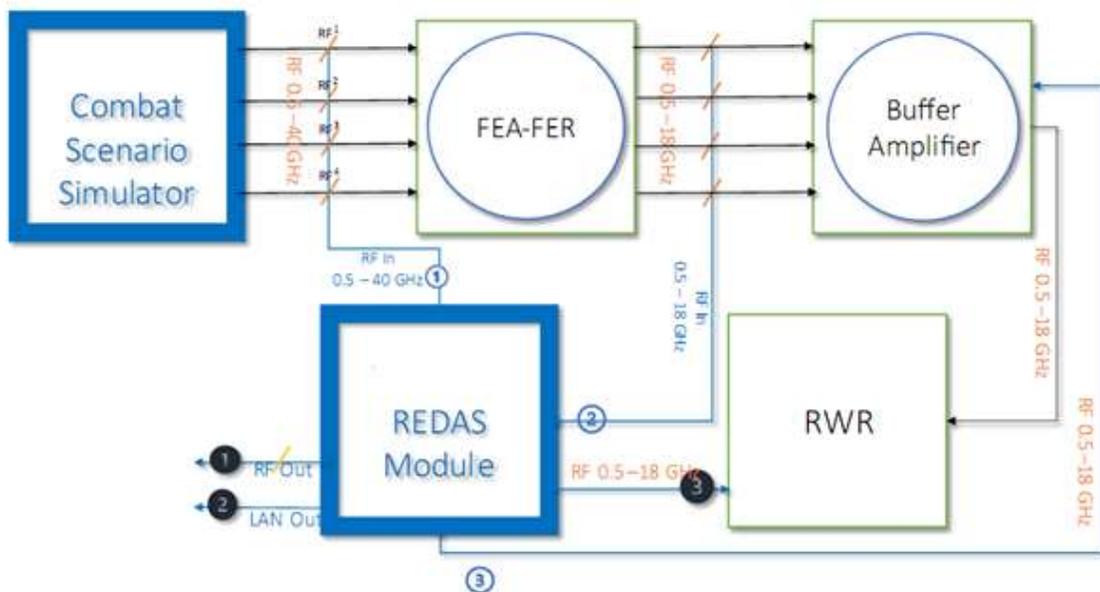
(iii) The firm shall do the extensive functionality, makes the system most suitable for ESM / Elint analysis, debrief, training and evaluation purposes. The system can be effectively used to evaluate technical and operational accuracies of different subsystems to aid in the development and evaluation of ESM / Elint sensors and other processing units.

The scope also includes to interface the REDAS-ESM with CABS system (ESM & RWR) to perform all the analysis of CABS system response. The tentative interface requirement is as follows:

REDAS-ESM BLOCK DIAGRAM



AI/ML based Realtime Data Analysis System for ESM for RWR



2.2 Functionalities Requirement: The REDAS shall do AI based training the data with the previously archived data to achieve the optimal performance. The firm shall deploy and evaluate REDAS extensively on ESM system. It shall also processes data downloaded from ESM/Elint receivers. Automatic analysis of all recorded parameters, including frequency,

frequency type, PW, PRI, PRI type, PW modulation, Intra-pulse data, emitter location, Time of Arrival (TOFA/TOLA), Power Levels, DOA, scan patterns, polarisation and receiver position are used for pattern recognition for assured emitters identification. This analysis, backed by temporal and spatial intelligence, helps to resolve all major challenges in EW work for the user and meets following operational functionalities: -

2.2.1 Scenario Simulation. The firm shall simulate the complete scenario based on expected aerial footage. The AI / ML based systems depend on availability of comprehensive set of quality data for training and testing purposes but data is seldom available during platform development and testing phases, which is more prevalent in dealing with confidential operational data. To address this critical requirement, Meslova OR-RFMLS platform includes a robust physics-based simulation engine with intuitive user interface to define complex operational Radar and ESM scenarios. Using the user defined scenario input, OR-RFMLS generates complete pipeline of Radar emissions and ESM receiver data sets that can be used to both train the platform for specific scenarios as well as to conduct testing for the system as a whole and to validate LRU level functionality.

2.2.2 Emitter Library Updation. Pre-learning on the archived data, REDAS-ESM can classify and discriminate critical threats on the go from live/recorded ELINT/ESM inputs and identify their distinct modes, which hitherto had remained un-noticed. The system provides analysis of ESM data from single or multiple sources simultaneously to flag minutest of changes in emitter parameters and maintains an updated accurate Emitter Parameter Library (EPL). The system maintains lifetime emitter identification approach instead of instantaneous temporal based identification, which enables consistent threat detection and declaration.

2.2.3 Efficient PFM Generation. Pre mission EW programming, aided by REDAS-ESM has provided much better cognitive capabilities to existing sensors, and the platforms now display exponential improvement in threat identification and localisation besides enormous time saving for analysis and mission planning.

2.2.4 E-Orbat Updation. Based on the pattern and temporal analysis of the recorded localisation data, the tool maintains a continuously updated eOrbat. And also helps to predict surface movements of mobile emitters with every analysis of EW data from various sensors with different confidence levels.

2.2.5 ESM Analysis / Testing. Elaborate analysis and visualisation screens provided in the application act as very efficient debrief tool and also provide comprehensive performance audit and behaviour pattern analysis, not only of our ESM/Elint sensors but also, own radars that are intercepted by these platforms. This facility can be of tremendous assistance during testing, fine-tuning and verification of new systems hardware under development and test as well as troubleshooting and maintenance of existing systems. REDAS-ESM can consume output generated by individual components to compare and validate the output with its own computed parameters for the corresponding stage and can generate a validation report. The system also generates different RF and Digital waveforms representing variety of technical and operational scenarios by the embedded AI based Deep Generative Adversarial Networks (GAN), sends it as input to respective components and automatically validates their output performance. This functionality can enable validation and confirmation of compliance and performance at LRU level and can offer exceptional ease of use in the development, testing as well as maintenance processes.

2.2.6 GUI based ESM / EW Planning. Maps of various scales are integrated to facilitate generation of sensor and emitter paths, intercepted DF cuts & E- Orbat based on Nav and EW data simultaneously for single or multiple missions. REDAS-ESM also displays 2D/3D radar coverage plot of selected radars.

2.3 This AI based application has been developed and successfully deployed to meet very specific and stringent requirements. This proprietary application is proposed to be customized for requirements of specific sensors, which can be achieved promptly in a very reasonable time frame, working at any of the user designated premises.

2.4 Platform Configuration. REDAS-ESM is a packaged appliance of both the hardware and software. The hardware is an industry standard x64 platform built by Cisco along with specific interface cards / devices made by Meslova Systems Pvt. Ltd. which meet country of origin requirements. The software stack comprising AI/Deep Learning algorithms, HMI and other modules are IP owned by Meslova Systems Pvt. Ltd. The entire appliance would be backed by standard Cisco hardware warranty and Meslova software support and warranty.

2.5 CABS Shall Provide

- ICDs for sensor integration.
- LRU level input and output format and ICDs.

- Customized / specific Maps for GIS rendering, as needed.
- Labels and Tags for Threat Library Customization.

2.6 List of Deliverables:

OR-RFMLS Deliverables

Milestone 1:

A. Ruggedized Hardware Processing Unit. Qty: 01 Set

a. RF Module Hardware Configuration

S.No	Description	
1	FPGA	Xilinx RFSoc Module
2	No. of RF input channels	8 Channel ADC
3	No. Of RF out channels	8 Channels DAC
4	RF Input Freq. Max (GHz)	0.05 - 40GHz
5	Host Processor	64-bit Quad-core Arm Cortex Processor

b. Hardware Appliance Configuration

S.No	Description	
1	Casing	Ruggedized Tower Formfactor
2	No. of CUPs	Two (2) Quadcore Intel x64 processors
3	No. of GPUS	Two (2) NVIDIA CUDA Compatible GPUs
4	Memory	128 GB
5	Internal Storage	One Terabyte (1 TB)

Final Milestone:

- B. RF module with built-in eight channel ADC and DAC with support for 0.05 – 40 GHz with embedded binaries.
- RF data capturing IP block for Analog to Digital baseband conversion to both Real and IQ signal.
 - Time and Frequency Domain Analysis IP blocks for parameter extraction and processing.
 - Artificial Intelligence (AI)** based Quad Channel (QC) Direction Finding (DF) IP block.
 - PL to PS shared memory setup and configuration for data transfer.
 - RF signal generation FPGA IP block for Digital to Analog conversion for Carrier and IF ($1 \pm 0.25\text{GHz}$ and $160 \pm 20\text{MHz}$) frequencies.
- C. Radar and ESM Simulation Platform with inbuilt physics-based engine and GIS based user interface to define Radar and ESM deployment scenarios
- D. Customized RFMLS Appliance with application binaries of the following tools
- Standard Linux based Software Appliance with hardware integration.
 - Artificial Intelligence (AI)** based e-orbat management tool
 - Emitter ID and Classification.
 - Localization.
 - Threat Library generation tool with user input supported for:
 - Entering custom label for emitter name.
 - Tagging for emitter modes and function.
 - Splitting, merging and joining of emitter, mode and function definitions.
 - Artificial Intelligence (AI)** based PFM generation tool with support for up to two sensor types with ICD availability.
 - Artificial Intelligence (AI)** based RF Technical analysis tool with 2D/3D visualization.
 - Customized GIS platform with:
 - Default maps.

- ii. User interface to upload and select custom maps.
 - iii. GIS based Radar and ESM deployment scenario definition.
 - iv. GIS based e-orbat depiction.
 - v. GIS based PFM generation.
- g. **Artificial Intelligence (AI)** based automatic testing tool for functional evaluation of supported RF, Digital and DF LRUs for computational accuracies.
- E. All documents along with Source code pertaining to performance evaluation & testing of CABS ESM / RWR systems.
- F. Final Acceptance as per approved ATP & ATR of the units.
- G. The firm is responsible for delivery of REDAS-ESM including hardware, software, customization, deployment, integration and bug fixing with complete support.
- H. The firm is responsible
 - a. To develop the customized HMI including 2D/3D scenario generation to meet the ESM system requirement.
 - b. For Analysis of Data jointly with the user this includes the requirement of data representation in various orientation and format.
 - c. To do Customized changes requirement in Hardware configuration or Software configuration based on the user feedback.
- I. Manual
 - a. Operational manual
 - b. Maintenance Manual
 - c. ATP and ATR document (approved by CABS)
- J. Miscellaneous technical documents:
 - a. Hardware and driver user manual for all COTS boards and BSP
 - b. Standard documentation as supplied by OEM for all bought-outs in original
 - c. Calibration certificates & test equipment manuals of all equipments
- K. Training

The firm shall bear all expenses for conducting the technical training. The training syllabus shall be jointly made by the firm and CABS.

2.7 Post Deployment warranty and support

- A Two year post development support by vendor shall include all, Hardware, software. The post development support shall commence from the day of completing the delivery and installation of REDAS-ESM modules for ESM/RWR systems. The post development support shall include the maintenance at CABS Bangalore. The first year support may require positioning of at least one / two onsite engineers for a minimum period of one year at CABS. The vendor may quote for this accordingly. During the support the vendor will be responsible
- (A) For maintenance of the system including all the equipments for third party OEMs.
 - (B) Calibration of equipments every 6 months if required.
 - (C) Bug fixes on the software
 - (D) Getting the software updated on the equipments from the OEM's
 - (E) Development of Additional packages for test and evaluation (Assume 5-10% additional development)
 - (F) Optimization of existing processes and procedures
 - (G) Improvement in HMI and Reporting's etc.
 - (H) Additional training as needed (At least two training to be catered for during the 2 years of support).
3. Bidder is required to furnish clause by clause compliance of specifications bringing out clearly the deviations from specification, if any. Bidder is advised to submit compliance statement for the technical parameters separately in the following format along with the Techno-Commercial Bid:

Para of RFP specifications (item-wise)	Specifications of item offered	Compliance to RFP specifications – whether Yes / No	Remarks (In case of non-compliance, deviation from RFP to be specified in unambiguous terms. In case of compliance, catalogue/brochure reference, if available, to be indicated)

For Commercially-Off-The-Shelf (COTS) items, it is mandatory to enclose/ provide catalogue/technical brochure to support the claims of compliance.

4. **Terms of Delivery:** Free Door delivery of the goods and services at CABS, Bengaluru.
5. **Delivery Period:** REDAS-ESM system will have two delivery phases: -

Miles-stone 1: Hardware with simulator functionality will be delivered in 90 days from the date of Supply order.

Final Milestone: Customization and integration with the user environment will be completed by 270 days from the date of Supply order.

Please note that the Contract can be cancelled unilaterally by the Buyer in case items/services are not delivered/received within the contracted delivery period. Extension of contracted delivery period with/ without LD clause will be at the sole discretion of the Buyer.

6. **Consignee details:**

Name	Director
Address	Centre For Air Borne Systems Government of India, Ministry of Defence Research & Development Organisation, Belur, Yemlur (Post)Bangalore-560037
Any Commercial Clarification Contact	080-25049111/9144
Any Technical Clarification Contact	080-25049408

Part VI – Price Bid Format

Price Bid (BOQ): To be filled as per the format attached and to be uploaded in Cover 2 (for online bidding mode).

1. **Price Bid Format:** The bidder is to fill following details in the attached BOQ:-
- Basic cost of the item(s)/services : as per BOQ attached.
 - Applicable GST rate with HSN code.

Note: Bidder is to quote with applicable GST rates only. Concessional GST rates are not to be quoted in the BOQ.

Kindly fill up and forward the below given Commercial Terms & Conditions compliance form along with your Techno- Commercial Bid. (If CABS terms are strictly adhered to, bids can be evaluated quickly).

COMMERCIAL TERMS AT A GLANCE

CABS Tender Reference No : _____

Your Quotation No : _____

Bid Security Declaration details : _____

Registration details : _____

S/N	Commercial terms of CABS	Conformance of Bidder
1)	<p>Payment Terms: Payment schedule is on pro-rata basis after achieving each milestone.</p> <p>Milestone1: 40% Payment will be made.</p> <p>Final Milestone: 60% Payment after final delivery and acceptance at CABS.</p>	
2)	<p>Terms of Delivery: Free Door delivery of the goods/services at CABS, Bengaluru.</p>	
3)	<p>Place of delivery: CABS, Bangalore</p>	
4)	<p>Delivery Period: REDAS-ESM system will have two delivery phases: -</p> <p>Miles-stone 1: Hardware with simulator functionality will be delivered in 90 days from the date of Supply order.</p> <p>Final Milestone: Customization and integration with the user environment will be completed by 270 days from the date of Supply order.</p> <p>Please note that the Contract can be cancelled unilaterally by the Buyer in case items/services are not delivered/received within the contracted delivery period. Extension of contracted delivery period with/ without LD clause will be at the sole discretion of the Buyer.</p>	
5)	<p>Warranty:24 months</p>	
6)	<p>Validity of Quote: 180 days from the opening of Technical Bids.</p>	
7)	<p>a) Price Bid is given as BOQ to be submitted online only, manual price bid will not be accepted.</p> <p>b) All items will be evaluated on Lot basis only.</p>	
8)	<p>Submission of Blank Price Bid along with technical bid is mandatory. All the values of Price Bids should be indicated by putting “XXXX” in place of numerical values. Non submission of completed price bid shall lead to rejection of quote.</p>	
9)	<p>Bid Security Declaration: Vendor is required to submit Bid Security Declaration accepting that if they withdraw or modify their Bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, they will be suspended for the period of <i>upto 2 years</i> from being eligible to submit Bids for contracts with any procuring entity of DRDO (format enclosed).</p>	
10)	<p>Performance Security Bond and Warranty Bond</p> <p>a) Performance Security Bond (PSB): Successful Bidder shall submit Performance Security Bonds for an amount of 3% of the order value (inclusive of all taxes and duties) within fifteen days from the date of release of Supply Order (SO)/Contract. PSB should be valid up to 60 (sixty) days beyond the Delivery Period/contract. In case the execution</p>	

	<p>of the supply/contract is delayed beyond the delivery period/contracted period and the Buyer grants the extension of delivery period, with or without liquidated damages, the successful Bidder must get the Performance Security Bond revalidated, if not already valid. Performance Security Bond may be submit in the form of Bank Draft, Fixed Deposit Receipt or a Bank Guarantee in favor of Director CABS.</p> <p>b) Warranty Bond: Successful Bidder shall submit Warranty Bond (wherever applicable) for an amount of 3% of the order value (inclusive of all taxes and duties) immediately after the delivery/acceptance of stores/services. Warranty Bond should be valid up to 60 (sixty) days beyond the warranty obligations. Buyer will not release the payment/PCB unless receipt of Warranty Bond. Warranty Bond may be submit in the form of Bank Draft, Fixed Deposit Receipt or a Bank Guarantee in favor of Director CABS. Warranty Bond would be returned to the Seller on successful completion of warranty obligations, under the contract</p> <p>The Performance Security Bond/ Warranty Bond will be forfeited by the Buyer, in case the conditions regarding adherence to delivery schedule and/or other provisions of the contract are not fulfilled by the Bidder.</p>	
11)	<p>Liquidated Damage (LD): The Buyer may deduct from the bidder, as agreed, liquidated damages at the rate of 0.5% per week/part thereof, of basic cost (excluding taxes and duties on final product) of the delayed stores/services which the bidder has failed to deliver within the period agreed for delivery in the contract subject to maximum of 10% of the total order value (excluding taxes and duties on final product). In cases where partial delivery/services does not help in achieving the objective of the contract, LD shall also be levied on the total cost (excluding taxes and duties on final product) of the ordered quantity delivered by the bidder. This will also include the store(s) supplied within the delivery period.</p>	
12)	GST No. (Mandatory requirement): Furnish your GST No. without which bill/invoice cannot be processed for payment	
13)	Name & Mobile No. Contact person. Email	
14)	Whether registered in DRDO / Central Govt / State Govt/ Any other Govt agencies or PSUs. If yes, please quote Reg.No and Validity of Registration.	
15)	Installation & Commissioning	Required
16)	Training Details	Required
17)	Transit Insurance	Yes/No
18)	Customs Duty Applicable (Bidder Third Party Import).	
	18.1 If Applicable, has it been indicated separately ?	
19)	GST, has it been indicated separately ?	Yes/No
20)	Whether Basic Cost, Taxes & Duties indicated separately in Price Bid ?	Yes/No
21)	Partial Bid Acceptable	Not Acceptable
22)	Ordering Information (Order to be place on)	Complete details of Bidder with address
23)	Class-I Local Supplier	Yes
24)	Class-II Local Supplier	Yes/No
25)	Undertaking regarding ban / blacklisting/debarment/ongoing enquiry by CBI/ED/any other Govt. agency	Yes/No

Name of the Bidder:

Date:

Place:

Signature:

Name and Designation of the Authorized Signatory with Seal:

Procedure for submitting e-MRO

Go to <http://cmp.onlinesbi.com>

↓
Click on MOD

↓
Accept terms & conditions and proceed

↓
e-MRO website

↓
Select CDA R&D, Bengaluru- individual

↓
Select CDA R&D , Bengaluru

↓
Select the organization (DRDO)

↓
Name of the Depositor (Bidder Name)

↓
Select nature of payment (Miscellaneous)

↓
Remarks (towards EMD/ Tender Fee)

↓
Fill all the blanks

↓
Make payment through net banking/ Debit/ Credit card

↓
Print e-MRO (Receipt)

↓
Scanned / softcopy of the e-MRO receipt to be attached along with Techno- commercial Bid online.