



भाकृअनुप-राष्ट्रीय पशुरोग जानपदिक एवं सूचना विज्ञान संस्थान  
ICAR–National Institute of Veterinary Epidemiology and Disease Informatics  
रामगोंडनहल्ली, येलहंका, बेंगलुरु – 560064

Ramagondanahalli, Post Box No: 6450, Yelahanka, Bengaluru - 560064  
Ph: +91 80 23093110/+ 91 80 23093111 Fax: + 91 80 23093222



**NOTICE INVITING TENDER THROUGH  
E-PROCUREMENT  
FOR ANNUAL MAINTENANCE CONTRACT  
FOR HEATING, VENTILATION AND AIR  
CONDITIONING (HVAC) AND BUILDING  
MANAGEMENT SYSTEM (BMS)**

**Document to be submitted online  
for  
(Technical & Financial Bid as per Schedule of  
requirement)**



भाकृअनुप-राष्ट्रीय पशुरोग जानपदिक एवं सूचना विज्ञान संस्थान  
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F.No.5-414/P&S/NIVEDI/2016-17/

Date: 01-03-2019

**NOTICE INVITING TENDER THROUGH EPROCUREMENT FOR ANNUAL OPERATION AND MAINTENANCE OF HEATING, VENTILATION AND AIR CONDITIONING AND BUILDING MANAGEMENT SYSTEM.**

**National Institute of Veterinary Epidemiology and Disease Informatics** (NIVEDI) is a public funded Research Organization under Indian Council of Agricultural Research, Department of Agricultural Research and Education, Ministry of Agriculture and Farmers Welfare, Government of India.

Online bids are invited from interested firms under two bid system for Annual Operation and Maintenance of Heating, Ventilation and Air conditioning (HVAC) and Building Management System at ICAR-NIVEDI, Post Box No. 6450, Ramagondanahalli, Yelahanka, Bengaluru-560 064. Manual bids shall not be entertained.

Tender documents may be downloaded from eProcurement website of CPPP <http://eprocure.gov.in/eprocure/app> as per the schedule as given in CRITICAL DATE SHEET as under.

**CRITICAL DATE SHEET**

|  |   |
|--|---|
| Tender No                                  | No.5-414/P&S/NIVEDI/2016-17/  |
| Name of organization                       | ICAR-National Institute of Veterinary Epidemiology and Disease Informatics, Post Box no. 6450, Ramagondanahalli, Yelahanka, Bengaluru-560 064 |
| Date and Time for Issue/Publishing         | 18.00 hrs on 01-03-2019   |
| Document Download/Sale Start Date and time | 18.00 hrs on 01-03-2019   |
| Pre Bid meeting date/time/venue            | -   |
| Bid Submission start Date and Time         | 01-03-2019  |
| Bid Submission End Date and Time           | 22-03-2019 at 13.00 hrs   |
| Date & time for opening of technical bid   | 23-03-2019 at 14.00 hrs   |
| Date & time for opening of financial bid   | To be intimated later   |
| Address for Communication                  | Director, ICAR-National Institute of Veterinary Epidemiology and Disease Informatics, Ramagondanahalli, Yelahanka, Bengaluru-560 064          |

**GENERAL INSTRUCTIONSTO THE BIDDERS**

1. The Tender form/bid documents may be downloaded from the website: <http://eprocure.gov.in/eprocure/app> Online submission of Bids through Central Public Procurement Portal (<http://eprocure.gov.in/eprocure/app>) is mandatory. Manual/Offline bids shall not be accepted under any circumstances.
2. Tenderers/bidders are requested to visit the website <http://eprocure.gov.in/eprocure/app> regularly. Any changes /modifications in tender enquiry will be intimated by corrigendum through this website only.
3. In case, any holiday is declared by the Government on the date of opening, the tenders will be opened on the next working day at the same time. The Council reserves the right to accept or reject any or all the tenders.
4. An earnest money deposit (also known as bid security) of **Rs.22,000/-** must be deposited in the form of Demand draft/Pay order (not cheque) payable to “ICAR Unit, NIVEDI” Payable at Bengaluru on or before the last date/time of filing/submission of the online bids on the portal. The tenders will not be considered if the earnest money deposit is not enclosed with the tender. The original demand draft should be submitted to the Administrative Officer on or before the due date. However, the bidder has to upload scan copies of Pay orders/Demand draft of Earnest money deposit with online e-Tender. The online tenders received without scan copies of prescribed EMD will not be considered. The bidder has to submit earnest money deposit (also known as bid security) except those who are registered with the National Small Industries Corporation (NSIC). The EMD of all the unsuccessful bidders will be refunded after the contract has been awarded to the successful bidder without any interest thereon. The earnest money will be liable to be forfeited in case the successful bidder refuses to accept the contract immediately.
5. The bidders may note that ONLINE bids will only be accepted. All the requisite supporting documents as mentioned in the bid document should and must be uploaded Online <http://eprocure.gov.in/eprocure/app>. The bids sent through E-mail, FAX, by hand and/or by post shall not be accepted/processed, in any case.
6. Bidder need not to come at the time of Technical as well as Financial bid opening at ICAR-NIVEDI Bengaluru. They can view live bid opening tender after log in on CPPP e-Procurement Portal at their remote end. If bidder wants to join bid opening event at ICAR-NIVEDI, Bengaluru they have to come with bid acknowledgement slip that generated after successful submission of online bid.

The Firms are also required to upload copies of the following documents:-

**\*Technical Bid**

- (a) Scanned copy of Earnest Money Deposit (EMD) /its exemption, if any
- (b) Scanned copy of firm's registration, Pan Card No, GST No.
- (c) Tender Acceptance Letter (Annexure-X)
- (d) Scanned copy of Income Tax Statement for the last three years
- (e) Scanned Copy of Terms and conditions and Details of the firm (Annexure -III and IX)
- (f) Scanned copy of Client List/Satisfactory service certificates
- (g) Self-declaration certificate stating that the firm is not currently banned/ blacklisted by any Ministry/Dept. of Central Govt. autonomous body or any State Government.
- (h) Scanned copy of documentary proof regarding firms existence over four years in the trade.

**\*Financial Bid**

- (a) Price Bid as BoQ\_1.xls

**INSTRUCTIONS FOR ONLINE BID SUBMISSION**

The bidders are required to submit soft copies of their bids electronically on the CPP Portal using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP-Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at <http://eprocure.gov.in/eprocure/app> .

**REGISTRATION**

- Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>) by clicking on the link “**Online bidder Enrollment**” on the CPP Portal is free of charge.
- During enrolment /registration, the bidders should provide the correct/true information including valid email-id & mobile no. Bidders are 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 CPP Portal.
- As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- For e-tendering, possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / e-Mudra etc.) on e-Token/Smart Card.
- Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and ensure safety of the same.
- Bidder can then log in to the site through the secured log-in by entering their user ID / password and the password of the DSC /e -Token.

**SEARCHING FOR TENDER DOCUMENTS**

- There are various search options built in the CPP Portal, to facilitate bidders 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 bidders 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 CPP Portal.

- Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS/e-mail in case there is any corrigendum issued to the tender document.
- 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.

### **PREPARATION OF BIDS**

- Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 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.
- Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can 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.
- 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 bidders. Bidders 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.

## **SUBMISSION OF BIDS**

- The bidders 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.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- Bidder has to select the payment option as “offline” to pay the tender fee/EMD as applicable and enter details of the instrument.
- Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be sent through post/courier/deliver in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD any other accepted instrument, physically sent should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- Bidders are requested to note that they should necessarily submit their financial bids in this 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 all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (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 file name. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- All the documents being submitted by the bidders 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 opener’s public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message and a bid summary will be displayed with the bid no. and the date and time of submission of the bid with all other relevant details.
- 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.

### **ASSISTANCE TO BIDDERS.**

- 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.
- Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.



**Terms & Conditions**

1. The tenderer shall quote rates which will include the service charges and other incidental charges if any. Taxes, if any should be indicated separately.
2. The rates should be quoted as per BoQ uploaded on the CPP Portal (reference may be obtained from Annexure-VIII). Taxes if any should be indicated separately. It must be noted that the contract shall be awarded to the firm which fulfils all the required terms and conditions and remains L-1.
3. The firm must also possess valid PAN No., GST No. registration number and a copy of the same must also be enclosed with the tender document.
4. Copy of previous three years Income tax statement shall be furnished.
5. The firm should be in existence for over 04 years in the trade. Documents to this effect shall be furnished.
6. Modification in the tender documents after the closing date is not permissible.
7. The successful firm shall be required to start the operation and maintenance of the HVAC and BMS systems within one week from the date of confirmed work order failing which EMD shall be forfeited. The rates quoted shall be valid for one year from the date of opening of tender.
8. Mere quoting of lowest rates does not mean that order shall be given to that firm. The competent authority will finally decide on the basis of their previous performances.
9. An earnest money deposit (also known as bid security) of **Rs.22,000/-** must be deposited in the form of Demand draft/Pay order (not cheque) payable to "ICAR Unit, NIVEDI" Payable at Bengaluru **on or before the last date/time of filing/submission of the online bids on the portal**. The tenders will not be considered if the earnest money deposit is not enclosed with the tender. The original demand draft should be submitted to the Administrative Officer on or before the due date. However, the bidder has to upload scan copies of Pay orders/Demand draft of Earnest money deposit with online tender. The online tenders received without scan copies of prescribed EMD will not be considered. The bidder has to submit earnest money deposit (also known as bid security) except those who are registered with the National Small Industries Corporation (NSIC)
10. In case, the successful bidder shows inability at any stage, after the contract is finalized and awarded, for whatsoever reason(s), to honour the contract, the earnest money/performance security deposited would be forfeited.

11. **An amount equivalent to 10% of the annual contract value** as a Performance security deposit for the contract is to be deposited by the selected agency/successful tenderer only after receiving a communication from the Institute in any of the following forms within 21 days from the date of issue of work order
  - (a) Demand draft/Fixed deposit receipt on any scheduled commercial bank in India, to be drawn in favour of ICAR Unit: NIVEDI A/C payable at Bengaluru.
  - (b) Bank guarantee issued by any scheduled Commercial Bank in India which shall be valid upto 60 (sixty) days after the date of completion of all contractual obligations (total 14 months). **The original bank guarantee should be sent directly to the purchaser by registered post (A.D) by the issuing bank.**
12. If the services are not found to be satisfactory, the performance security is liable to be forfeited. No interest will be paid on performance security.
13. If any dispute(s) arises between ICAR-NIVEDI and the firm with reference to the contract, the Director, ICAR-NIVEDI will decide it and his decision will be binding on the firms.
14. Bid validity: 90 days
15. No advance payment will be allowed for providing the service, however the payment will be made on monthly basis on submission of bill duly certified by the concerned officer. Payment will be released through internet banking only. The details of bank account etc as per Annexure-IX may be provided.
16. Payment will be made according to the rate accepted and mentioned in the award of contract which should be valid for a period of one year from the date of award of contract and no price revision in rate will be accepted during the period of AMC.
17. The contract can be extended for another year subject to the satisfactory service with mutual consent.
18. The contract shall be terminated with an advance notice of two months from either side.
19. The bidder shall submit self-declaration certificate stating that the firm is not currently banned/ blacklisted by any Ministry/Dept. of Central Govt. autonomous body or any State Government.
20. The bidder shall submit a client list where they are providing the similar services for the last two years along with the experience certificate.
21. The persons so provided by the agency under this contract will not be the employee of the Council and there will be no employer-employee relationship between the ICAR-NIVEDI and the person so engaged by the Agency in the aforesaid services.

22. The Agency will discharge all their legal obligations in respect of the workers/supervisors to be employed /deployed by him for the execution of the work in respect of their wages and service conditions and shall also comply with all the rules and regulations and provisions of law in force that may be applicable to them from time to time. The contractor shall indemnify and keep indemnified the Council from any claims, loss or damages that may be caused to it on account of any failure to comply with the obligations under various laws. In case of any dispute, the decision of Director, ICAR-NIVEDI shall be final and binding on the contractor.
23. All the rights to accept or reject whole or part of the tender without assigning any reason thereof is reserved by the Director, ICAR-NIVEDI.
24. The TDS provision under Income Tax/TDS provision under GST or any other tax at the applicable rates shall be deducted at source from monthly bills of the successful bidder, as per rules/Instructions made applicable from time to time by the Government.

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| <p><b>ANNUAL NON COMPREHENSIVE OPERATION &amp; MAINTENANCE<br/>CONTRACT FOR HEATING VENTILATION AND AIR<br/>CONDITIONING (HVAC) AND BUILDING MANAGEMENT SYSTEM</b></p> |
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**I. SCOPE OF WORK:**

The scope of work as mentioned below are the minimum expected from the firm / agency / contractor apart from break down maintenance and any other work required for operation and maintenance in proper way as per the operation and maintenance manuals of respective equipment and as per good engineering practices need to be done under this scope of work.

**Successful bidder will make Proforma for recording the following minimum work schedule/parameters and to show the employer to ensure proper accomplishment of these tasks.**

**Note: Brief details of HVAC Plant and equipments are given at ANNEXURE-V**

**A. WORK TO BE DONE ON DAILY BASIS.**

1. Adjustment in the system to achieve required Temperature, room Pressure & Relative Humidity level as per Laboratory Requirements. Release of air locks /blocks in the system.
2. The chiller key parameters like, compressor running status, suction & discharge pressure, evaporator water flow, expansion valve position, chiller running time etc., shall be checked and recorded in the LOG BOOK/Sheets (provided by the firm/agency/contractor/ on hourly basis and necessary action is to be taken if the readings are found abnormal).
3. To check all electrical motor connections for proper contact with the terminals and their Bearings for abnormal noise/heating and to take necessary action if found abnormal.
4. To check water level in the chiller makeup water tank located near terrace and check functioning of float valve, three way valve & See proper function of the circulation pumps.
5. Updating of all relevant documents, log books, Service/Troubleshooting works Register etc.,
6. Reporting daily work & Progress to concerned Engineer-In charge.
7. Stopping the plant with prior intimation to the officer incharge whenever there is some abnormal noise in Air handling unit or if any equipment failure issues occur.
8. Recording complaints received and attending the same and closing the complaint as per format.

9. Replacement of defective belts, pulleys, blowers, shafts, bearings etc., in AHU's whenever found defective.
10. Replacement of defective MCB's, switches, fuses, sockets, contactors, starters, indicating lamps, Controls, wires and lugs in control panel as well as in distribution boards (PDB, LDB, UPSPDB & UPSLDB) located in BSL 2+ laboratory.
11. Any works, other than indicated above but required essentially for proper functioning of the Equipments need to be carried out by the bidder.
12. O & M Service is required for 24 X 7 with minimum manpower shown in Annexure-VI. Further the designated employees shall manage to work on shift basis to cover the 24x 7 period.
13. Minor Repairs to the Equipments such as Chillers, AHU blowers, AHU motors, BMS, MCCs and others shall be carried out by the bidder as and when any breakdown occurs.

**Maintenance schedule for room Parameters:**

| <b>Sl. No.</b> | <b>Reading of machinery</b>  | <b>Number of times a day</b> | <b>Time Intervals for Taking Readings</b> |
|----------------|--|------------------------------|---|
| 1.             | Room parameters temperature, Relative Humidity & Differential Pressure                         | 6                            | 2 AM, 6AM, 10AM, 2PM, 6PM, 10PM           |
| 2.             | Chiller readings   | 3                            | 6AM, 2PM, 10PM                            |
| 3.             | Magnehelic gauge, Temperature. & pressure gauge readings located in Air Handling unit manifold | 3                            | 6AM, 2PM, 10PM                            |

**B. WORK TO BE DONE ON MONTHLY BASIS:**

1. To clean all the strainers and the filters on monthly basis.
2. Cleaning, drying and packing of Pre & fine filters of AHU's as per service maintenance schedule.
3. To check water inside the makeup tank for hardness/dirty and fill with soft water if required.
4. To check the gland /seal, coupling of pumps.
5. To check the solenoid valve, safety controls mechanical, Electrical inter-locks of the various equipments.
6. To check all AHU ducts/insulation/proper positioning/damage and rectifying the same where ever required.
7. To check and lubricate (if required) the bearing of the pumps/motors and keep the proper record.
8. The check the foundation bolts of the pumps / motors and to take the necessary action if required.
9. Check the quantity of Air flow from various out lets in each room/Area as per room data sheet and do adjustment of dampers etc as and when required.
10. Check the performance of each equipment of HVAC plant for proper functioning.

11. All the equipments/installations shall always be kept in good and trouble free operating Conditions.
12. All the required records for break-downs/repairs and maintenance etc. shall be maintained in the form of history books and logbooks etc. as per directions.
13. Open up the electrical control panel, inspect for any blackening of contacts, loosening of connections, component condition etc., rectify if any abnormality is noticed.
14. Check the fan belts for proper tension, and replace if necessary, and examine the fans for correct alignment.
15. Checking of Fire alarm panels/Hooters/smoke detectors/Building Management system software issues for any pending alarms and rectifying the same if any abnormality noticed.
16. All the maintenance works shall be carried out in accordance with the manufacturer's specifications and instructions of the engineer in charge.

**C. WORK TO BE DONE ON QUARTERLY BASIS:**

1. To drain out water and clean the AC plant room/cooling tower/AHU's/chiller condensers etc. as and when required/scheduled.
2. Inspect the conditions of the Temperature & Pressure gauges for proper function.
3. Check for proper operation of control & safety devices like Thermostat, Humidistat, 3 way actuating valves etc., reset if required.
4. Entire AHU Room to be thoroughly cleaned with vacuum cleaner & to be made dust free.
5. Cleaning of ducting system having diffusers, Grills, Dampers etc.,
6. Clean the water strainers in AHU manifold and chilled water system.
7. Conducting Mock test for Firefighting system to ensure proper operation.

**BREAKDOWN MAINTENANCE:**

1. It is the responsibility of contractor to provide list of important spares to incharge for immediate replacement.
2. In case of any Breakdown complaint should be brought to the notice of concerned incharge and attended immediately to avoid inconvenience to research activities.
3. The contractor should provide necessary tools to attend any breakdown.
4. After attending to breakdowns, the unit shall be closely observed & monitored next day & parameters shall be checked & recorded.

**NOTE:**

1. Contractor should supply basic consumables like suitable grade of grease/lubricant, cotton waste, cleaning brush etc., to carry out servicing without any extra cost.
2. Cooling Coils, fins, filters etc., are to be thoroughly cleaned to achieve desired air and water flow rates.
3. Necessary care should be taken while carrying out all types of maintenance/ servicing of equipment to avoid damages. Any damages of equipment /equipment parts has to be replaced free of cost.

4. Any accidents occurred due to negligence/inexperience during work is purely the responsibility of the contractor.
5. The deployed persons should have computer knowledge of Building Management system software version “**TREND 963**” & “**INDUSOFT**” software.
6. It is fully responsibility of the contractor to deploy qualified staff with hands on experience, relevant License/Permits to handle electrical, Air conditioning works.
7. For the purpose of Continuous monitoring and maintenance of the system throughout the year, contractor has to deploy adequate number of qualified and experienced staff members as mentioned in (Annexure-VI) at site on everyday basis to carry out the dedicated work.
8. Any other issues regarding site condition may be communicated to concerned incharge through Emails.

**ANNEXURE -V**

| <b>Sl. No.</b> | <b>Name of item / machinery</b> | <b>Serial No.</b>   | <b>Model No.</b>   | <b>Qty.</b> | <b>Capacity</b> | <b>Make</b> |
|----------------|---------------------------------|---|--------------------|-------------|-----------------|-------------|
| 01             | Air Cooled Chiller-1            | 392081/1  | ECGAM-080          | 01          | 60TR            | Trane       |
| 02             | Air Cooled Chiller-2            | 392081/2  | ECGAM-080          | 01          | 60TR            | Trane       |
| 03             | Chilled Water Pumps             | Art4428361/14W03/200058<br>Art4428361/14W03/200056<br>Art4428361/14W03/200057 | MVI-5202           | 3           | 150GPM          | WILO        |
| 04             | Chilled water tank              | NA  | CCWS100            | 01          | 1000LTR         | SINTEX      |
| 05             | AHU-1                           | NA  | NA                 | 01          | 2432CFM         | CITIZEN     |
| 06             | AHU-2                           | NA  | NA                 | 01          | 3181CFM         | CITIZEN     |
| 07             | AHU-3                           | NA  | NA                 | 01          | 2945CFM         | CITIZEN     |
| 08             | AHU-4                           | NA  | NA                 | 01          | 2632CFM         | CITIZEN     |
| 09             | AHU-5                           | NA  | NA                 | 01          | 4473CFM         | CITIZEN     |
| 10             | AHU-6                           | NA  | NA                 | 01          | 3940CFM         | CITIZEN     |
| 11             | AHU-7                           | NA  | NA                 | 01          | 2290CFM         | CITIZEN     |
| 12             | AHU-8                           | NA  | NA                 | 01          | 2421CFM         | CITIZEN     |
| 13             | AHU-9                           | NA  | NA                 | 01          | 8361CFM         | CITIZEN     |
| 14             | BIBO HOUSING 1TO 6              | NA  | IHX1W              | 06          | 2000CFM         | AAF         |
| 15             | EXHAUST 1TO 4                   | NA  | IAH-020            | 04          | 600CFM          | ICLEAN      |
| 16             | EXHAUST 5TO 6                   | NA  | IAH-020            | 02          | 1000CFM         | ICLEAN      |
| 17             | EXHAUST-7                       | NA  | IAH-020            | 01          | 2200CFM         | ICLEAN      |
| 18             | EXHAUST-8                       | NA  | IAH-020            | 01          | 2241CFM         | ICLEAN      |
| 19             | VENTILATION UNIT-1              | NA  | NA                 | 01          | 1669CFM         | CITIZEN     |
| 20             | VENTILATION UNIT-2              | NA  | IAH-020            | 01          | 800CFM          | ICLEAN      |
| 21             | VENTILATION UNIT-3              | NA  | IAH-020            | 01          | 356CFM          | ICLEAN      |
| 22             | EHAUST FOR VENT-1               | NA  | NA                 | 01          | 1701CFM         | CITIZEN     |
| 23             | EHAUST FOR VENT-2               | NA  | NA                 | 01          | 1000CFM         | ICLEAN      |
| 24             | EHAUST FOR VENT-3               | NA  | NA                 | 01          | 576CFM          | ICLEAN      |
| 25             | TFA                             | NA  | NA                 | 01          | 8361CFM         | CITIZEN     |
| 26             | DYNAMIC PASS BOX 1 TO 4         | ICTL/NDDB/DPB/254/13-14<br>ICTL/NDDB/DPB/257/13-14                            | ICTL/NDDB/DPB/0202 | 04          | 600X600         | ICLEAN      |



|    |                                       |   |                                |    |                               |                |
|----|---------------------------------------|---|--------------------------------|----|-------------------------------|----------------|
|    |                                       | ICTL/NDDB/DPB/25<br>6/13-14<br>ICTL/NDDB/DPB/25<br>5/13-14                                |                                |    |                               |                |
| 27 | DYNAMIC PASS<br>BOX 5                 | ICTL/NDDB/DPB/25<br>3/13-14   | ICTL/NDDB<br>/DPB/3333         | 01 | 1000X100<br>0                 | ICLEAN         |
| 28 | STATIC PASS<br>BOX 1 TO 3             | ICTL/NDDB/DPB/27<br>4/13-14<br>ICTL/NDDB/DPB/25<br>8/13-14<br>ICTL/NDDB/DPB/25<br>9/13-14 | ICTL/NDDB<br>/DPB/0202         | 03 | 600X600                       | ICLEAN         |
| 29 | TEMPERATURE<br>GAUGES                 | NA  | NA                             | 30 | 0-100°C                       | WIKA           |
| 30 | PRESSURE<br>GAUGES                    | NA  | NA                             | 30 | 0-<br>7KG/CM <sup>2</sup>     | WIKA           |
| 31 | MAGNEHELIC<br>GAUGES                  | NA  | NA                             | 33 | 0-25<br>0-50<br>0-100<br>MMWC | DWYER          |
| 32 | ROOM DP<br>DIGITAL DISPLAY            | NA  | NA                             | 25 | 0-<br>100MMW<br>C             | POLMON         |
| 33 | ROOM TEMP. &<br>RH DIGITAL<br>DISPLAY | NA  | NA                             | 25 | 0-60°C                        | POLMON         |
| 34 | 3 WAY VALV<br>ACTUATOR                | NA  | NA                             | 10 | NA                            | HONEY<br>WELL  |
| 35 | MODULATING<br>ACTUATOR                | NA  | NA                             | 13 | NA                            | HONEY<br>WELL  |
| 36 | ON-OFF<br>ACTUATOR                    | NA  | NA                             | 16 | NA                            | HONEY<br>WELL  |
| 37 | DP SWITCH                             | NA  | NA                             | 33 | NA                            | HONEYWEL<br>L  |
| 38 | DP TRANSMITTER                        | NA  | NA                             | 07 | NA                            | HONEYWEL<br>L  |
| 39 | DUCT SMOKE<br>SENSOR                  | NA  | NA                             | 06 | NA                            | HONEYWEL<br>L  |
| 40 | DUCT T & RH<br>SENSOR                 | NA  | NA                             | 05 | NA                            | HONEEYWE<br>LL |
| 41 | THERMOSTAT<br>CONTROLLER              | NA  | NA                             | 03 | NA                            | HONEYWEL<br>L  |
| 42 | CCTV CAMERA                           | NA  | SCD-<br>1020/1040              | 16 | NA                            | SAMSUNG        |
| 43 | SMOKE<br>DETECTOR                     | NA  | MI-PTSE-<br>S2/MI-<br>PTSE-S21 | 73 | NA                            | HONEYWEL<br>L  |
| 44 | MANUAL CALL<br>POINTS                 | NA  | MI-MCP-<br>GB                  | 11 | NA                            | HONEYWEL<br>L  |
| 45 | HOOTER                                | NA  | MI-WSO                         | 11 | NA                            | HONEYWEL<br>L  |

|    |                            |                        |           |    |            |                 |
|----|----------------------------|------------------------|-----------|----|------------|-----------------|
| 46 | REMOTE RESPONSE INDICATOR  | NA                     | NA        | 36 | NA         | HONEYWELL       |
| 47 | MOTION SENSORS             | NA                     | NA        | 06 | NA         | SECURICO        |
| 48 | ACCESS CONTROL SYSTEM      | NA                     | SBL-30    | 04 | NA         | HONEYWELL       |
| 49 | MCC PANEL-1                | ICTL/NDDB/ELE/TC P-001 | NA        | 01 | NA         | EMATION         |
| 50 | DDC PANEL                  | NA                     | NA        | 07 | NA         | HONEYWELL TREND |
| 51 | BMS SOFTWARE COMPUTER      | 4CE4100K57             | 500-222ix | 01 | NA         | HP              |
| 52 | INDUSOFT SOFTWARE COMPUTER | 4CE4100K53             | 500-222ix | 01 | NA         | HP              |
| 53 | DIGITAL VIDEO RECORDER     | NA                     | SRD-1654D | 01 | 16 CHANNEL | SAMSUNG         |

**QUALIFICATIONS AND EXPERIENCE OF PERSONS DEPLOYED AT SITE**

| <b>Sl. No</b> | <b>Designation</b>  | <b>Qualification &amp; Experience</b>   |
|---------------|---|---|
| <b>1</b>      | <b>Supervisor (High Skilled- one)</b>                     | B.E/B.Tech in the field of Electrical/Mechanical Engineering with at least 5 year experience in the field of Maintenance of central Air-Conditioning/HVAC Plants.   |
| <b>2</b>      | <b>Senior Air-conditioning Technician ( Skilled- one)</b> | Should have passed Diploma in the Trade of Electrical/Mechanical Engineering with at least 4 years of Experience in the field of maintenance of Central Air – Conditioning/HVAC Plants.   |
| <b>3</b>      | <b>Electrical Technician (Skilled - one)</b>              | Should have passed ITI in the trade of Electrician and have minimum three years experience in the field of maintenance electrical panels and system of central Air-conditioning plants or have 4 years of experience in maintenance of Electrical panels and systems of Central Air conditioning /HVAC Plants |
| <b>4</b>      | <b>Helper (Unskilled- one)</b>                            | Should have basic working knowledge on Industrial Air-conditioning Equipments preferably with HVAC Maintenance Experience.  |

**TERMS & CONDITIONS:**

1. Any of the staff member appointed by contractor is found to be 'Not competent', he has to be replaced by a right person within a stipulated time as given by concerned Officer, ICAR-NIVEDI.
2. In case any staff member deployed by the contractor is found to be leaving the job, (At least minimum one month prior notice to be given to concerned Incharge). Further it is the responsibility of the contractor to fill the vacant position within stipulated time.
3. It is purely contractor's responsibility to get his staff acquainted with the site condition, operation & maintenance procedure, Equipment details, Safety devices, Scope of work etc.,
4. Contractor must visit the site at least once in a month or as and when concerned officer demands his presence.
5. All the relevant documents pertaining to staff deployed, like copies of job appointment order with the contract or, address proof, photocopy of ID card etc., and any other details as sought shall be provided to ICAR-NIVEDI, by the contractor under his responsibility for the correctness.

**ANNEXURE-VII**

**EQUIPMENT WISE MAINTENANCE SCHEDULE**

| <b>Sl. No</b> | <b>Equipment Details</b>           | <b>Daily Maintenance</b>   | <b>Weekly Maintenance</b>  | <b>Monthly Maintenance</b>   | <b>Yearly Maintenance</b>  |
|---------------|------------------------------------|--|--|--|--|
| 1             | Air Handling Units & Exhaust Units | 1. Recording the Temperature & Pressure gauges readings in AHU manifold.<br>2. Checking the condition of pre & fine filter | Checking the foundation bolts of the blowers & also proper contact of the electrical connections | Cleaning of Pre Filters ( 10 microns) & fine filters ( 3 microns)      | 1. Air balancing<br>2. Water balancing<br>3. Check all AHU ducts/insulation/prop er positioning. |
| 2             | Chillers                           | Recording the key parameters of chillers   | Cleaning of condensers   | Checking the fan condition & cleaning of fins & dust in chiller units. | Overall service of the chiller   |
| 3             | Smoke detectors                    | NA   | NA   | Cleaning of smoke detector case of dust accumulation                   | Mock Test of detectors for ensure of proper operation  |
| 4             | Dynamic & Static pass boxes        | NA   | NA   | Checking the operation of inbuilt lights for proper operation          | DOP/PAO Test for dynamic pass boxes once in 6 months   |
| 5             | Temperature & Pressure gauges      | NA   | NA   | NA   | Calibration required for both Temperature & pressure gauges once in 6 months*                    |
| 6             | Room Digital Displays              | NA   | NA   | NA   | Calibration of Transmitter Displays once in 6 months *   |

**\* Calibration of Temperature, pressure gauges and Transmitter displays to be strictly carried out once in 6 months, through authorized NABL Accredited labs.**

**ANNEXURE-VIII**

(Reference for BoQ) (To be quoted in format provided on CPP Portal)

Price bid for Annual Operation and maintenance of HVAC and BMS system at ICAR-NIVEDI, BENGALURU

| Sl. No. | Description of service required   | Price quoted (in figure/words as per BoQ) |
|---------|---|---|
| 1.      | Annual Operation and maintenance of Heating, Ventilation and Air conditioning system (HVAC ) and Building Management System |   |

- Taxes & duties as applicable should be indicated separately in the column provided.

Note: The above mentioned financial Proposal/Commercial bid format is provided as BoQ\_1.xls along with this tender document at <http://eprocure.gov.in/eprocure/app>. Bidders are advised to download this BoQ\_1.xls as it is and quote their offer/rates in the permitted column and upload the same in the Financial bid. Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tampered/modified in any manner, tender will be completely rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with ICAR-NIVEDI.

**DETAILS OF FIRM**

|                                     |  |
|-------------------------------------|--|
| 1. Name of the firm                 |  |
| 2. Registered/Postal Address        |  |
| 3. Permanent account No.(PAN)       |  |
| 4. Service Tax Registration No.     |  |
| 5. VAT registration No              |  |
| 6. Bank details                     |  |
| a) Bank name                        |  |
| b) Address of bank                  |  |
| c) Account No.                      |  |
| d) Type of Account(Current/Savings) |  |
| e) MICR No.                         |  |
| f) RTGS/NEFT Code                   |  |

Date: .....

Name of the Authorized Signatory

Place: .....

Stamp &amp; Signature

**TENDER ACCEPTANCE LETTER**

(To be given on Company letter head)

To,

The Director,  
ICAR-NIVEDI,  
Post Box No. 6450,  
Ramagondanahalli,  
Yelahanka,  
Bengaluru-560 064

Sub: Acceptance of Terms and Conditions of tender

Tender reference No: \_\_\_\_\_

Dear Sir,

1. I/We have downloaded/obtained the tender document(s) for the abovementioned tender/work from the website(s) namely:

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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 which 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/organization too have also been taken into consideration, while submitting this acceptance of tender.

4. I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/corrigendum(s) in its totality/entirety.

5. I/We do hereby declare that our Firm has not been blacklisted/debarred by any Govt/Department /Public sector undertaking.

6. I/we certify that all information furnished by our firm is true and 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)

# Advance tender search in Central Public Procurement Portal Website

URL: <http://eprocure.gov.in/eprocure/app>

