

## MOES DOM PROJECT

Vels Institute of Science, Technology and Advanced Studies (VISTAS)

### TENDER NOTICE FOR PURCHASE OF EQUIPMENT

F. No. MoES/PAMC/DOM/165/2023 (E-14641)

Tender Notice No: VISTAS/ MOES DOM /2025/01

Date: 12-02-2025

Tender in sealed cover for supply of machineries is invited from reputed firms and authorized dealers so as to reach the office of the under signed not later than 3 p.m. on 28.02.2025. Technical bid of the tenders will be opened on 28.02.2025 at 5 p.m. in the presence of authorized representatives of tendered firms.

The financial bid of the Tender will be opened on 28.02.2025 at 5 p.m.

Sl. No	Description	Qty	Specifications
1	Underwater Denoising System	1	Annexure IV for detailed Specification

Purchase Committee  
MOES DOM PROJECT,  
Dept. of Electronics and  
Communication Engineering,  
Vels Institute of Science, Technology  
and Advanced Studies (VISTAS),  
Pallavaram, Chennai - 600117  
Tamilnadu, India

#### NOTE:

(1) PLEASE SEE THE ANNEXURES I, ANNEXURE II, ANNEXURE III and ANNEXURE IV ATTACHED BELOW

(2) ALL THE DOCUMENTS RELATED TO THE TENDER CAN BE DOWNLOADED FROM THE INSTITUTION WEBSITE -[www.vistas.ac.in](http://www.vistas.ac.in), in the section "Quotation/Tender"

## ANNEXURE I

### General Terms and Conditions

1. The main envelop should be super scribed: "Tender for procurement of equipment under MOES-DOM Project ---- VISTAS"
2. Tenders must accompany a copy of the "General Terms and Conditions, Annexure I and Annexure II and III" section of this document, signed and stamped on each page indicating that they agree to these.
3. Last date of submission of tender along with all documents is 17.02.2025. at 3pm.
4. All other charges including VAT/CST, Excise Duty and other levies payable by C.I.P should be clearly indicated otherwise it will be presumed that the rates quoted are inclusive of all these charges and will not be paid at later date
5. The Excise Duty component (with percentage) should be indicated, as the Institution is exempted from the payment of Custom/Excise Duty. Exemption will be availed by providing Custom/Excise Duty Exemption Certificate with order.
6. The Delivery Schedule, Payment Terms & Warranty/Guarantee etc must be clearly indicated in the technical bid. The charges for extended warranty and/or Annual Maintenance Contract after the expiry of offered warranty period should also be specified in the financial bid.
7. The manufacturers printed literature/catalogue/drawing/user's list in respect of range of product being quoted should also be submitted with the offer.
8. VISTAS is registered with the Department of Scientific & Industrial Research (DSIR), so Excise duty exemption will be provided.
9. Delivery at VISTAS, Pallavaram
10. All other requirements for satisfactory supply and installation of equipment.
11. It will be the responsibility of the supplier to deliver and install the ordered machineries at their own cost at the project location as indicated.
12. All required materials and accessories for satisfactory installation are to be provided by the supplier at their own cost.
13. The supplier should indicate the warranty periods and post warranty AMC etc. Clearly
14. The decision of the VISTAS authorities in finalization and purchase of the machineries is final.

**ANNEXURE II**

**TENDER FORM PART-I (TECHNICAL BID)**

Last date for receipt:

Due date for opening Part -I (TECHNICAL BID):

Tenderer's Offer No:

Date:

From

M/s. ....

.....

To

Purchase Committee,  
MOES DOM Project,  
Department of Electronics and Communication Engineering,  
Vels Institute of Science, Technology and Advanced Studies (VISTAS),  
Pallavaram, Chennai – 600117, Tamilnadu, India

Dear Sir,

I/We have gone through the tendering conditions pertaining to the Tender and General Terms and Conditions of Contract and other requirement for delivery and complete Installation cum demo and Special Conditions of Contract contained herein with this tender document. I/we hereby agree to supply the stores conforming to the tender specifications incorporated in ANNEXURE I of the tender document and also agree to abide by your General Conditions of all Contracts and Special Conditions of Contract contained in the ANNEXURE I of the Tender document.

I/We hereby agree to keep the price valid for your acceptance for a period of 90 days from the date of opening of Part-II (Financial bid) of the tender

I/We are also enclosing herewith all the leaflets catalogue etc. pertaining to the stores offered.

Yours faithfully

Stamp and Signature of the Tenderer

**ANNEXURE III**

**TENDER FORM PART-II (FINANCIAL BID)**

Last date for receipt:

Due date for opening Part -II (FINANCIAL BID):

Tenderer's Offer No:

Date:

From

M/s. ....  
.....  
.....

To

Purchase Committee,  
MOES DOM Project,  
Department of Electronics and Communication Engineering,  
Vels Institute of Science, Technology and Advanced Studies (VISTAS),  
Pallavaram, Chennai – 600117, Tamilnadu, India

Dear Sir,

In response to your invitation and as per your tendering and contracting conditions, the prices applicable for the scope of supply contained in ANNEXURE-I (TECHNICAL BID) of our tender are indicated in the format at annexure "A" to this tender.

We hereby agree to keep the price valid for your acceptance for a period of 90 days from the date of actual opening of Part-II (FINANCIAL BID) of the tender.

Yours faithfully,

Stamp and Signature of the Tenderer

**ANNEXURE IV**  
**Detailed Specifications**  
**MOES DOM Project**

**Titled: “Wavelet Based SNR Improvement for Underwater Acoustic Communication using De-Noising Algorithms’.**

**F. No. MoES/PAMC/DOM/165/2023 (E-14641)**

1. This system should be portable and potential hardware architecture for real time denoising acoustic signals.
2. To interface with underwater acoustic instruments and to accommodate the denoising algorithm developed.
3. System Architecture should comprises the following key modules:
  - Pre-processing Unit for amplification/Attenuation/ Filtering and Windowing.
  - Wavelet Transform Module comprising of Filter Bank, Multiplier-Accumulator (MAC) Units and Memory
  - Optimized filter design for efficient hardware implementation, parallel processing for faster computation.
  - Noise Estimation Module to perform Statistical Analysis of the wavelet coefficients in noise-dominated regions and Adaptive Algorithms to track the changing noise characteristics with optimum Thresholding level.
  - Real-time Performance: The hardware should be capable of processing the acoustic signal in real-time to avoid delays.
  - Power Consumption: Low power consumption is crucial for portable and battery-powered applications.
  - Cost: The hardware should be cost-effective for the target application.
  - Scalability: The architecture should be scalable to accommodate different signal bandwidths and processing requirements.
4. Should have different display modes such as simple chart view, scope view, XY view, zoom view, FFT, spectrum & averaging view.
5. Should have various calculations including Arithmetic, Integral, Derivation, Cyclic Measurements for Rate, period, frequency, count, mean, median, minimum, maximum, height, integral, variance & derivatives with waveform detection presets and custom calculations.
6. Company should have local offices in India for on time support and service.