



## **COEP Technological University, Pune**

DATE: 06/10/2025

### **MAHA E – TENDER FILE**

**Title:** Impedance Tube Test Set Up For Vibration And Acoustics laboratory

**MAHA E TENDER ID:**

**Reference No:** COEPTECH/MECH/2025/1434

**Tender Fee:** Rs 5700/- (Rs Five Thousand Seven Hundred Only)

**EMD:** Rs 95000/- (Rs Ninety Five Thousand Only)

**Department of Mechanical Engineering**

**COEP Technological University, Pune**

**Tel: +91-20-25507902 / 25507900**

**Website:** [www.coeptech.ac.in](http://www.coeptech.ac.in)

## INVITATION TO BID

On behalf of the Registrar, COEP Technological University, Pune-411005, digitally sealed quotations are invited from reputed Firms/Organizations for e-Tender for supply, installation, and commissioning of **“Impedance Tube Test Set up for Vibration and Acoustics Laboratory as mentioned in Annexure I ”**, at department of Mechanical Engineering COEP Technological University, Pune through e-Procurement system of Government of Maharashtra (<https://mahatenders.gov.in/>) as per the Annexure –‘I’ and Annexure –‘II’ in the prescribed Bid forms. Digitally sealed bids are invited for supply, installation, and commissioning of “Impedance Tube Test Set up for Vibration and Acoustics Laboratory as mentioned in Annexure I “at Department of Mechanical Engineering COEP Technological University, Pune from reputed and experienced firms / agencies / organizations / companies as mentioned in **Part 1: Technical Bid**

The tender Document can be downloaded from the website <https://mahatenders.gov.in/>

Sr. No.	Tender No & Date	No. COEPTECH/MECH/2025/ 1434 Date: - 06/10/2025
1.	Issue of online Tender Forms	Tender is uploaded on eProcurement system of Government of Maharashtra ( <a href="https://mahatenders.gov.in/">https://mahatenders.gov.in/</a> ) from 06/10/2025 to 31/10/2025
2.	Last Date of online submission of Tenders	31/10/2025 before 15:00 Hours
3.	Pre-bid Meeting	10/10/2025 at 11.00 am at Conference Room, Mechanical Engg Department, COEP Technological University Pune
4.	Online Opening of Tenders	06/11/2025 at 16:00 Hours
5.	Tender Fees	Rs. 5700/- (Five Thousand Seven Hundred only (Non-Refundable). The tender fees and (Earnest Money Deposit) EMD of Rs. 95,000/- (Ninety Five Thousand only) shall be paid by SBI Internet banking or other Bank Internet banking in State Bank MOPS.
6.	Correspondence Address	Registrar, COEP Technological University, Pune, Shivajinagar, Pune 411005

### 1. Eligibility Criteria:

- 1.1. The bidder/parent company must have a minimum three years of experience in the relevant field/equivalent field (documentary proof in the form of purchase orders / work orders, completion certificate should be attached). The proof must clearly state the details of supply.
- 1.2. The bidder's annual turnover for the last three years (3 years) must be minimum Rs. 30 lakhs for each year (Proof of the same in the form of audited Balance Sheets/ Income Tax Returns of the Company for the last 3 years must be attached).
- 1.3. The bidder should be an authorized service provider / partner of the Original Equipment Manufacturer (OEM). Proof of the same must be attached.
- 1.4. The bidder should be registered under the establishment act or company act.

1.5. The bidder should be registered <sup>under</sup> GST Registration.

1.6. The Bidder should have a valid Permanent Account Number (PAN) allotted to firm/company/proprietor/agency.

1.7. The Bid / Tender document will be in two-cover system - Technical Bid (Part 1) and Commercial Bid (Part 2). The commercial bid will be opened only when vendor qualifies technical Bid.

1.8. Name of contact person, address details along with telephone and mobile nos. must be provided by bidder.

**1.9. Pre-Qualification / Eligibility Criteria details:**

Sr. No.	Pre-Qualification Criteria	Supporting Documents to be enclosed with the Bid	Compliance (Yes/No)
1	The Bidder should be a registered and established firm in India in similar business for at least last 5 years or more. Copy of Registration Certificate shall be submitted.	<ul style="list-style-type: none"><li>➤ GST Certificates</li><li>➤ Certificate of Incorporation</li><li>➤ PAN card</li></ul>	
2	Bidder must have experience in supply, installation, and operation for at least 03 years in the relevant field/equivalent field	<ul style="list-style-type: none"><li>➤ Copies of relevant work-order(s)Purchase order for the past three years/work completion certificates.</li><li>➤ Copies of Manufacturer's / Dealers authorization complying tender technical Specifications</li><li>➤ Relevant documents as applicable.</li></ul>	
3	The prime bidder including the consortium members shall not be under a declaration of ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government Agencies	<ul style="list-style-type: none"><li>➤ Self-Certification</li><li>➤ Undertaking to be submitted by the bidder on letterhead signed by concerned authority.</li></ul>	
4	The bidder should be authorized distributor Partner/Dealer of providing impedance tube test set up along with subscription of the software modules	<ul style="list-style-type: none"><li>➤ A copy of a valid Authorization letter from the concerned reputed manufacturers is required</li></ul>	
5	The bidder should have duly filed Income Tax returns and other applicable Govt/ Statutory Body Taxes for the last three years (2021-22,2022-23,2023-24) The bidder's annual turnover for the last three years (3 years) must be minimum Rs. 50 lakhs for each year .	<ul style="list-style-type: none"><li>➤ Proof of the same in the form of CA Certificate OR Audited balance sheets and Profit and loss statements certified by Chartered Accountant (CA) of the bidder's organization. For last three years .</li><li>➤ Along with Income Tax Returns of the Company for the last 3 years.</li></ul>	

6	One Year warranty undertaking document.	One year warranty undertaking must be provided from OEM and bidder letterhead signed by concerned authority.	
7	Bidder must submit 100 % technical compliance.	➤ Technical compliance certificate must be an OEM letterhead signed by concerned authority.	

The bidding firm should submit supporting documents online (<https://mahatenders.gov.in/>)  
The bids of the firms/agencies/organizations/companies with inadequate/irrelevant details as required above are liable for rejection.

Seal and signature of Manager /  
Representative of the firm on behalf of the firm  
submitting tender  
Telephone:

.....

Mobile:

.....

E-mail:

.....

Contact Person Name:

.....

Contact Person Designation:

.....

## 2. Online Bidding Process through eProcurement system of Government of Maharashtra (<https://mahatenders.gov.in/>):

The Bid / Tender document will be in two-cover system - Technical Bid (Part 1) and Commercial Bid (Part 2).

**Part 1: Technical Bid** - Detailed profile of the agency/organization/firm/company, eligibility for selection, tender terms & conditions, etc. - to be submitted online. This should include documents in support of turnover, experience, list of similar work carried out, client list, Pre-Qualification / Eligibility Criteria, Appendix-A etc. (Annexure –'I')

**Part 2: Commercial Bid** - As per the tender, commercial bid should be indicated in Indian rupees in figures as well as words. The final offer given by the bidder shall be as Bill of Quantity (BOQ).

**Submission of Tender Documents online through eProcurement system of Government of Maharashtra (<https://mahatenders.gov.in/>)**

### 2.1 Format & signing of Bid Document:

- The Bid / Tender document will be submitted in the prescribed format only

- Bids must be accompanied with all the necessary documents.
- The guidelines to download the tender document, online submission of bids and procedure of tender opening can be downloaded from website <https://mahatenders.gov.in/>.
- The date & time of online submission shall strictly apply in all cases. The bidders should ensure that their tender is prepared and submitted online before the expiry of the scheduled date & time. Offers not submitted online within time will not be entertained.
- In case for any reason, interested bidders fail to complete any of online stages during the complete tender cycle, university shall not be responsible and any grievance regarding that shall not be entertained.

**Instruction for submitting bids online through eProcurement system of Government of Maharashtra (<https://mahatenders.gov.in/>) are given below:**

**2.1.1 Part 1: Technical Bid** – in prescribed format and duly signed

**Part1:** shall contain the following:

1. A covering letter in the format enclosed and participation cost of the bid document of Rs. 5700 /- (Rs. Five Thousand Seven Hundred Only) (Receipt of RTGS be attached)
2. EMD of Rs. 95,000/- (Ninety Five Thousand only) to be submitted online through eProcurement system of Government of Maharashtra.
3. Details of bidder's experience and capabilities, Balance sheets / audited accounts for the past three years.

**2.1.2 Part 2: Commercial Bid** - in prescribed format sealed and duly signed (Annexure II)

Bidder shall submit their online commercial offer only in the eProcurement system of Government of Maharashtra in prescribed format. Price quoted elsewhere shall be liable to rejection.

**3.0 Acceptance of Tender conditions:**

- 3.1 The last date for online submission of tender document is 31/10/2025 before 15:00 hrs. Bids received online beyond the closing date / time will not be accepted and will be rejected, unopened. Part 1 (Technical Bid) will be opened on 06/11/2025 at 16.00 hrs. At the same venue in the presence of the bidders' representatives who wish to attend. In the event of any change in the date of opening, the same will be intimated to all.
- 3.2 Part 2 (Commercial Bid) will be opened only after the technical evaluation of tenders and only eligible and technically qualified bidders will be invited for commercial bid opening at the same venue in presence of the bidders' representatives who wish to attend. The date of opening of commercial bid will be intimated to only eligible and

technically qualified bidders. In the event of any change in the date of opening, the same will be intimated to all.

**4.0 Delivery Period for Items:** The Items should be delivered within 10 weeks from the receipt of purchase order.

**5.0 Payment Terms & Conditions:**

**Payment:** 100 % payment shall be made on the delivery of items (Instruments / Equipment / System) in good condition in stores of Mechanical Engineering, COEP Technological University Pune and after successful demonstration / operations of Items (Instruments / equipment / systems)

**6.0 Performance Security Deposit / Bank Guarantee:** Performance Security Deposit / Bank Guarantee (Nationalized Bank only) for an amount @ 3% value of the contract (if order is placed) is to be submitted immediately after accepting the purchase order. The performance security must be valid during the warranty period i.e. for **One** year. The same will be returned after completion of the support period.

**7.0 Verification of Bank Guarantees:** Bank Guarantee submitted by the Bidder as EMD/ Performance Security is subject to verification from the issuing bank by purchaser before its acceptance.

**8.0 Execution Period for Supplied Item:** The entire project is to be executed/ commissioned within 10 weeks from the release of purchase order.

**9.0 Delivery period is within 10 weeks (Max) only,** from date of issue of this PO/WO. No extension shall be given for supply/work/service. In such case penalty for delay in proportion to the cost of equipment/work/service.

a) at the rate of 0.5 % per week; maximum limit of 10% shall be charged in case of PO value is less than 2 Lakh.

OR

b) at the rate of 0.5 per week; maximum limit of 5% shall be charged in case of PO value is 2 Lakh and above.

**10.0 Supply and Installation:**

Bidder shall be responsible for successful Installation, Commissioning and testing of "Vibration and Acoustic Lab Impedance Tube Test Set up as mentioned in Annexure I " at COEP Technological University Pune. Any defective component/device will be replaced by bidder at his cost.

**11.0 Service Support:** Onsite comprehensive Support (parts, labor) has to be provided for a minimum period of 1 year by the bidder from the date of installation and commissioning of

systems.

- 12.0 **Hands on Training:** Three days hand on training should be provided by the supplier after the successful installation of the test set up.
- 13.0 **One year Comprehensive Warranty** for Supplied item from OEM with hardware replacement. The Supplier shall be fully responsible for the Manufacturer's warranty for all equipment, accessories, spare parts etc. against any defects arising from design, material, manufacturing, workmanship, or any act or omission of the manufacturer / Bidder or any defect that may develop under normal use of supplied equipment during the warranty period. In case the Bidder is unable to fulfill his obligations during the warranty period, the warranty obligations will fully and automatically devolve upon the Manufacturer of the goods. The Bidder shall be fully responsible for getting the product replaced from the principal company or coordinating the same with the principal company during the warranty period.
- 14.0 The vendors shall have to quote for all the items of the tender. Part tenders/incomplete tenders shall be summarily rejected.
- 15.0 The Bidder shall be required to deposit a non-refundable tender fee for an amount of Rs. 5700 /- (Rs. Five Thousand seven Hundred Only) through on-line mode only.
- 16.0 Offers in bid should be written in English and price should be written in both figures and words.
- 17.0 **The EMD shall be forfeited in the following cases**
- a. If a bidder withdraws its bid during the period of Bid Validity specified.
  - b. In case of a successful bidder, if the bidder fails to sign the contract or is unable to furnish Performance Bank Guarantee within a specified time limit.
  - c. If a successful bidder is unable to deliver items listed in Scope of Work.
- 18.0 The relevant supporting document(s) should be enclosed along with the offer.
- 19.0 Bid(s) received beyond last date of bid submission will be rejected.
- 20.0 No tender will be entertained by E-mail. .
- 21.0 The University has final rights to cancel the tender without any reason.
- 22.0 The University reserves the right to cancel purchase order, before or after the delivery of material before making payments, without giving any reasons thereof.
- 23.0 The tenders should be signed and submitted in the following format as per the Annexure –I` and Annexure –II`.

(To be filled up by the Tenderer / bidder)

**Following details required for bidder**

Sr. No.	Name & Full Address of the firm:	
1	Registered office with address (Copy of registration certificate of firm may be enclosed)	
2	Income Tax PAN no.	
3	Purchase Orders received during past three years	
4	Sales tax Clearance Certificate of last financial year.	
5	Whether limited company or Pvt. Ltd. Or Partnership If Private limited or public company, then name & Address of Directors.	
6	Name & Addresses of the persons who will represent the firm while dealing with the COEP Technological University.	
7	Turnover for the last three years. 2022-23 2023-24 2024-25	
8	Do you have experience for at least 3 years in the Relevant field/ Equivalent field of supply?	
9	Do you have an office in Maharashtra / India?	
10	Have you duly filed Income Tax Returns, Service Tax and other applicable taxes for the past three years	
11	Have you been blacklisted by any government authority in India? If so he will not be eligible.	

Seal and signature of Manager / Representative  
of the firm on behalf of the firm submitting Tender  
Telephone:

.....

Mobile:

.....

E-Mail:

.....

Contact Person Name:

.....

Contact Person Designation:



## Part 1 TECHNICAL BID:

### FORMAT & REQUIREMENTS

1. Tender Name: Impedance Tube Test Set Up for Vibration and Acoustics Laboratory at  
Mechanical Engineering Department, COEP Technological University, Pune
2. Tender Ref. No: COEPTech/MECH/2025/ 1434                      Date: - 06/10/2025
3. Name of Tenderer: .....
4. Complete office address of Tenderer.....
5. Contact details of authorized person of Tenderer who have signed the Tender.
  - a. Name.....
  - b. Designation.....
  - c. Phone (Office).....
  - d. Phone (Mobile).....
  - e. E mail.....
6. Due date & Time of submission of bid: .....
7. Tender fee (UTR number & bank details)
8. Submission of technical confirmation to the requirement.
9. Mandatory Documents :
  - a. Duly signed & stamped Tender documents (All pages) as a mark of your acceptance.
  - b. Manufacturer's / Dealers authorization complying tender technical Specifications.
  - c. Bidder shall upload technical datasheet /catalogue conforming Compliance.
  - d. Copies of ,GST certificate, PAN /TAN Certificate duly signed and stamped .Copy of relevant registration documents certifying their entity as a proprietorship/ partnership/company.
  - e. Turnover Certificate from Chartered accountant.
  - f. Details of the latest three clients to whom similar kinds of services are provided should be submitted in the following format:

Sr. No	Name of the client along with contact details
1	
2	
3	

- g. Audited balance sheets for last three years.
- h. Supporting information with respect to the technical data , booklets of product . Any product manual brief , test certificates available may be enclosed.
- i. Details of the items: as per Impedance Tube Test Set up for Vibration and Acoustics Laboratory as mentioned in Annexure I.
- j. Make sure you are submitting all the documents specified in **Pre-Qualification / Eligibility Criteria.**

Signature of the Tenderer With stamp

**Note:** For any technical clarification please contact on email ID: [bhattujay.mech@coeptech.ac.in](mailto:bhattujay.mech@coeptech.ac.in) within 5 days from date of publishing of tender.

## **Annexure I**

### **"Impedance tube Apparatus for Sound Absorption and Sound Transmission Loss measurement" at COEP Technological University Pune.**

#### **Introduction:**

Impedance tubes are essential tools in acoustics and materials science for measuring accurately sound absorption coefficients, impedance (confirming ISO 10534-2, ASTM E 1050 standards), and sound transmission loss measurements (confirming ASTM E2611 standard). Impedance tubes are useful for performing following :

1. **Measurement of Sound Absorption:** Impedance tubes are used to determine the sound absorption coefficients of materials, which is crucial for designing spaces with optimal acoustics, such as concert halls and recording studios.
2. **Characterization of Materials:** They help characterize how different materials interact with sound waves, providing data on properties like density and porosity.
3. **Standardization:** Impedance tubes provide a standardized method for testing, allowing for consistent comparisons across different materials and studies.
4. **Research and Development:** In industries like construction and automotive, impedance tubes assist in developing soundproofing materials and noise reduction technologies.

#### **Objectives/ scope:**

**Supply, installation, commissioning, training and 1-year comprehensive warranty of a dual-diameter Impedance Tube System capable of measuring,**

1. sound absorption coefficient and impedance for the given material sample as per **ISO 10534-2 / ASTM E1050** .
2. To measure the sound transmission loss coefficient for the given acoustic material sample as per **per ASTM E2611**.
3. To plot the graph of sound absorption coefficient/ acoustic impedance Vs frequency for the given acoustic material sample.
4. To plot the graph of sound transmission loss Vs frequency for the given acoustic material sample.

**Technical Specifications for the Impedance tube test set up for measurement of sound absorption coefficient and sound transmission loss of acoustic materials set up as per ISO 10534-2, ASTM E1050 and ASTM E 2611**

Sr No	Name of the Item			Quantity	Specifications of items quoted by Bidder	Deviation from the tender specifications if any	Compliance Y/N
1	<b>Specifications for Large Diameter Impedance Tube and Accessories</b>						
	1.1	Large Dia. Impedance Tube with leg support Should have following specifications	Material	Aluminium	1		
			Should cover Frequency Range	100 Hz to 1600Hz			
			Inner diameter for large impedance tube	100 ±1mm			
	1.2	Sample cutter (for large diameter impedance tube)		Diameter 100*mm	1		
	1.3	Sample Holder for large diameter impedance tube for holding test samples (It should have provision to maintain air gap behind the samples )		Minimum Length 150 mm	1		
	1.4	Sample Holder (for large diameter impedance tube) for calibration sample The same will be used for obtaining anechoic termination during sound transmission loss Measurement .		Minimum Length. 150 mm	1		
	1.5	Sample Holder (for large diameter impedance tube) for obtaining open termination during sound transmission Loss measurement		Minimum Length. 200 mm	1		
	1.6	Reference Acoustic Samples (for large impedance tube) which will be used for calibration purposes		Outer Diameter 100* mm	2		

		along with the calibration report. Sample Material: Melamine Foam					
	1.7	Demo Acoustic Samples of (for large diameter impedance tube) Polyurethane foam ,PET Felt, Solimide foam, Granular Rubber for Sound Absorption coefficient and Sound Transmission Loss Measurement.(one of each type)	Outer Diameter 100* mm	4			
	1.8	Acoustic Coupler Sound Leakage rings made of plastic material for large diameter tube.	Outer Diameter 100* mm	2			

Note: \*Diameter of the sample cutter, Material samples, Leakage Rings may change depending upon the tolerance of the inner diameter of the impedance tube.

2	Specifications for Small Diameter Impedance Tube and Accessories							
	2.1	Small Dia. Impedance Tube with leg support Should have following specifications	Material	Aluminium	1			
			Frequency Range	900 Hz to 6200 Hz				
			Inner diameter for small impedance tube	29 ±1 mm				
2.2	Sample cutter (for small diameter impedance tube)		29** mm	1				
	2.3	Sample Holder (for small diameter impedance tube) for test- sample (It should have provision to maintain air gap behind the samples )		Minimum length 150 mm	1			
	2.4	Sample Holder (for small diameter impedance tube) for calibration sample  The same will be used for obtaining anechoic termination during sound transmission Loss measurement		Minimum length 150 mm	1			
	2.5	Sample Holder for small diameter tube for obtaining open termination during sound		Minimum length 200 mm	1			

		transmission Loss measurement					
	2.6	Reference Acoustic Samples which will be used for calibration purposes along with the calibration report. Sample Material: Melamine Foam	Outer Diameter 29** mm	2			
	2.7	Demo Acoustic Samples of (for small diameter impedance tube) Polyurethane foam ,PET Felt, Solimide foam, Granular Rubber for Sound Absorption coefficient and Sound Transmission Loss Measurement.(one of each type)	Outer Diameter 29* mm	4			
	2.8	Acoustic Coupler Sound Leakage rings made of plastic material.	Outer Diameter 29**mm	2			

Note:\*\* Diameter of the sample cutter, Material samples, Leakage Rings may change depending upon the tolerance of inner diameter of the impedance tube.

3	<b>Power Amplifier</b>					
	3.1	Power Amplifier of 50W/75W along with the accessories for the connections. Frequency response of 20 Hz to 20000 Hz.		1		
4	<b>Data Acquisition System</b>					
	4.1	Data Acquisition System (DAQ) consisting of signal analyzer with 4 input channels and 2 signal output channels along with the accessories for connection. Cables of sufficient length (minimum 3 m length) for the connection from the microphones to signal analyzer, from signal analyzer to computer system, from power amplifier to loudspeaker or any other connection as per the requirement of set up. Signal Generator capable of generating stationery signal with flat spectral density. DAQ should be able to export direct data from the set up to excel sheet and print report in pdf file.		1		
	4.2	Laptop for data acquisition system 14 th Generation I9, 16 GB RAM, 4 GB graphics card, 1 TB SSD. USB 3.0, Lanport 1G		1		

5	<b>1/4" Pressure Field microphone</b>					
	5.1	1/4" Pressure Field microphone (Preferably M/s GRAS/B& K),with BNC 3 m cable should be provided. Frequency range: 5 Hz to 70 kHz Dynamic range: 44 dB(A) to 166 dB Sensitivity: 1.45 mV/Pa	4			
6	<b>Loudspeaker</b>					
	6.1	Loudspeaker: 4-inch, 6 ohm,15W, 100 mm with proper care to avoid resonances due to the air column near the loudspeaker.	1			
7	<b>Software for Sound absorption Coefficient and Sound Transmission Loss Measurement</b>					
	7.1	<p>Software should be able to measure</p> <ul style="list-style-type: none"> <li>➤ Sound Absorption Coefficient and Acoustic Impedance</li> <li>➤ Sound Transmission Loss</li> </ul> <p>It should have the ability to</p> <ul style="list-style-type: none"> <li>➤ To plot the graph of sound absorption coefficient / Acoustic Impedance Vs frequency for the given acoustic material sample.</li> <li>➤ To plot the graph of sound transmission loss Vs frequency for the given acoustic material sample.</li> <li>➤ To plot the graph of acoustic impedance Vs frequency for the given acoustic material sample</li> </ul> <p>Software can be installed on separate computers (Annual software maintenance and support through your representatives in India should be included in the supply) Excel and PDF export for ready reporting for analysis</p>	1			
8	<b>Sound level meter (with low frequency sound measurement function)</b>					

	8.1	<ul style="list-style-type: none"> <li>➤ Measure Sound pressure level (SPL) for frequency 1Hz to 20KHz</li> <li>➤ Should display Time-weighted SPL, and have calculated max and Min SPL, Peak sound level Lpeak.</li> <li>➤ Ease of data transfer via USB and LAN communication</li> <li>➤ Calibration using reference signal</li> <li>➤ Store data for further analysis via auto store function, data recall features</li> <li>➤ FFT analysis for each frequency</li> <li>➤ Can calculate Weighting A, C, G, Z</li> </ul>	1			
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Signature of the Tenderer With stamp



## Annexure – II

### Part 2: COMMERCIAL BID

#### FORMAT & REQUIREMENTS

1. Tender Name: Impedance Tube Test Set Up for Vibration and Acoustics Laboratory at Mechanical Engineering Department, COEP Technological University, Pune
2. Tender Ref. No.: COEPTECH/MECH/2025/ 1434 Date: - 06/10/2025
3. Name of the Tenderer: .....
4. The offer with rates for the schedule of requirements of items, as elaborated under, to be submitted. Adhering to the format given below is a Pre-requisite for considering your quotations:

**Appendix – B Please submit it online in BoQ format only:**

Sr No	Name of the Item	Quantity	Total Amount exclusive of GST in Rs.	GST in Rs.	Total Amount inclusive of GST in Rs.
1	Large Diameter Impedance Tube with leg support having inner diameter 100 $\pm$ 1mm , Frequency range 100 Hz to 1600Hz, Material - Aluminium	1			
2	Sample cutter (for large diameter impedance tube) Diameter 100mm	1			
3	Sample Holder for large diameter impedance tube for holding test samples Minimum Length 150 mm	1			
4	Sample Holder (for large diameter impedance tube) for calibration sample .The same will be used for obtaining anechoic termination during sound transmission loss Measurement . Minimum Length. 150 mm.	1			
5	Sample Holder (for large diameter impedance tube) for obtaining open termination during sound transmission Loss measurement Minimum length 200 mm	1			
6	Reference Acoustic Samples (for large diameter impedance tube) which will be used for calibration purpose along with	2			

	the calibration report. Outer Diameter 100 mm. Sample Material: Melamine Foam.				
7	Demo Acoustic Samples of (for large diameter impedance tube) Polyurethane foam ,PET Felt, Solimide foam, Granular Rubber for Sound Absorption coefficient and Sound Transmission Loss Measurement.(one of each type. Outer Diameter 100 mm	4			
8	Acoustic Coupler Sound Leakage rings made of plastic material for large diameter tube. Outer Diameter 100 mm	2			
9	Small Diameter Impedance Tube with leg support , Inner diameter $29 \pm 1$ mm, Frequency Range 900 Hz to 6200 Hz, Material - Aluminium.	1			
10	Sample cutter (for small diameter impedance tube) $29 \pm 1$ mm mm.	1			
11	Sample Holder for small diameter impedance tube for holding test samples Minimum length 150 mm.	1			
12	Sample Holder (for Small diameter impedance tube) for calibration sample The same will be used for obtaining anechoic termination during sound transmission loss Measurement . Minimum length 150 mm	1			
13	Sample Holder (for small diameter impedance tube) for obtaining open termination during sound transmission Loss measurement Minimum length 200 mm	1			
14	Reference Acoustic Samples (for small diameter impedance tube) which will be used for calibration purposes along with the calibration report. Outer Diameter $29 \pm 1$ mm Sample Material: Melamine Foam .	2			
15	Demo Acoustic Samples of (for small diameter impedance tube) Polyurethane foam ,PET Felt, Solimide foam, Granular Rubber for Sound Absorption coefficient and Sound Transmission Loss Measurement.(one	4			

	of each type. Outer Diameter 29±1 mm				
16	Acoustic Coupler Sound Leakage rings made of plastic material for small diameter tube. Outer Diameter 29±1 mm	2			
17	Power Amplifier of 50W/75W along with the accessories for the connections. Frequency response of 20 Hz to 20000 Hz.	1			
18	Data Acquisition System (DAQ) Signal Generator capable of generating stationery signal with flat spectral density for the given frequency range.	1			
19	Laptop for data acquisition system 14th Generation I9, 16 GB RAM, 4 GB graphics card, 1 TB SSD	1			
20	1/4" Pressure Field microphone preferably GRAS/B &K	4			
21	Loudspeaker: 4-inch, 6 ohm, 15W, 100 mm	1			
22	Software for Sound absorption Coefficient, Sound Transmission Loss Measurement, Acoustic Impedance Measurement.	1			
23	Sound level meter (with low frequency sound measurement function)	1			

**Grand Total**

The rate quoted shall be in as per quantity mentioned and should be inclusive of the basic price & all other costs including all taxes & duties (as applicable). The price competitiveness shall be given due consideration while analyzing the commercial bid. It is hereby confirmed that we shall abide by all the terms & conditions as specified in the tender and further agreed for the penalty to be imposed, in case of delayed supplies from our end as specified in "Terms & Conditions" of this tender.

Signature of the Tenderer  
With stamp

[Covering letter to be submitted by the bidder]

To,  
The Registrar  
COEP Technological University, Pune  
Shivajinagar, Pune -411005,

Sub: Tender for supply , installation and commissioning of Impedance Tube Test Set Up for Vibration and Acoustics Laboratory at Mechanical Engineering Department, COEP Technological University, Pune

Sir,

I / We have carefully gone through the tender document regarding the prequalification of bidders / agencies / vendors for supply of Impedance Tube Test Set Up for Vibration and Acoustics Laboratory at Mechanical Engineering Department, COEP Technological University, Pune. We shall be bidding in this tender.

I / We hereby declare that

1. All the information related to our company, manpower, customer base, projects, financial details, data sheet of the products offered etc., provided in our offer is true and without any alteration /modification.
2. All the provisions of these tender documents are acceptable to my company. No violation of the terms and conditions mentioned in the tender document has been made.
3. I/We declare that my company or any member of company has not been debarred / blacklisted by any Government / Semi –Government organizations in India.
4. I/WE certify that the period of validity of the bid is 90 (Ninety) days from the last date of submission of the proposal. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the bidder)  
Seal and signature of Manager /  
Representative of the firm On behalf of the  
Firm submitting tender  
Telephone: .....  
Mobile: .....  
E-mail: .....  
Contact Person Name: .....  
Contact Person Designation: .....

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List of Documents attached by the Bidder