



INDIAN INSTITUTE
OF TECHNOLOGY
PALAKKAD

Indian Institute of Technology Palakkad

भारतीयप्रौद्योगिकीसंस्थानपालक्काड

STORES & PURCHASE SECTION

Email: purchase@iitpkd.ac.in

Telephone: +91-491 209 2062/63

GSTIN: 32AAAAI9910J1ZR

Tender No. TENDER/2025-26/456

Date of Publication: 23-01-2026

Date/Time of Closing: 06-02-2026, 15:00 hours

Indian Institute of Technology Palakkad Invites Tender under Two-bid system for the:

**SUPPLY, INSTALLATION, TESTING, AND COMMISSIONING OF
4-TON MULTI-AXIS ELECTRODYNAMIC SHAKER**

Conforming to the specifications as in BoQ Technical.

Tender Documents may be downloaded from the e-Wizard Portal <https://mhrd.ewizard.in/>. Aspiring Bidders who have not enrolled / registered in e-Wizard should enroll / register before participating through the website <https://mhrd.ewizard.in/>. Bidders are advised to go through instructions provided at “**Procedure for Submission of E-tender**”. [Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this e-Wizard Portal”].

Bidders can access tender documents on the website. For searching in the site, kindly go to Live Tenders option, Click “Advance Search” and select Department as ‘IIT Palakkad’. Thereafter, Click on “Search” button to view all IIT Palakkad tenders. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://mhrd.ewizard.in/> as per the timeline below.

No manual bids will be accepted. All tender documents including Techno-Commercial, Technical and Financial bids should be submitted in the e-Wizard portal.

S. No.	Events	Date and Time
1.	Publication of the Tender Document	23-01-2026
2.	Date of Pre-Bid Meeting	29-01-2026, 11:30 hours
3.	Last Date/Time for submission of ONLINE Bids	06-02-2026, 15:00 hours
4.	Opening of Technical Bids	06-02-2026, 15:15 hours

Note:

1. The bidder should be a Class-I / Class-II Local Supplier meeting the requirement as per the Order No. P-45021/2/2017-PP (BE-II) issued by the Public Procurement Section, DPIIT, Ministry of Commerce and Industry, GOI dated 16-09-2020.

2. Bidders other than Class-I / Class-II Local Suppliers, who may participate in this tender, may be doing so at their own risk. Such bids would not be considered and rejected outright

Pre-Bid Meeting:

- The Pre-Bid Meeting will be held in online mode. The link for the meeting will be communicated through a separate notification to bidders who confirm their participation.
- Bidders who are unable to attend the Pre-Bid Meeting may send their queries by 14:00 hours on 28-01-2026 to purchase@iitpkd.ac.in.
- Bidders wishing to participate in the Pre-Bid Meeting are requested to provide their official email address, name of the authorised representative, and mobile number to purchase@iitpkd.ac.in by 14:00 hours on 28-01-2026.
- Queries received after the Pre-Bid Meeting will not be considered. Any addendum, corrigendum, or clarifications issued in response to the queries will be uploaded on the online portal and shall form part of the tender document.

TERMS AND CONDITIONS

1	GENERAL	<ul style="list-style-type: none"> (a) The responsibility of submission of the bids on or before the last date shall rest with the tenderer. The institute will hold no responsibility for the non-receipt of the bids or the bids received after the date/time specified. Any bid received by IITPKD after the bid submission deadline prescribed by IITPKD, shall be rejected and returned unopened to the Bidder. (b) Canvassing or offer of an advantage or any other inducement by any person with a view to influencing acceptance of a bid is an offence under the Laws of India. Such action will result in the rejection of bid, in addition to other punitive measures. (c) Each bidder shall submit only one bid, either by himself or as a partner in a joint venture or as a member of the consortium. If a bidder or if any of the partners in a joint venture or any one of the members of the consortium participate in more than one bid, the bids (of both the individual and the partnership/consortium/joint venture) are liable to be rejected. (d) The bidder shall bear all costs associated with the preparation and submission of his bid and IITPKD shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tender process. (e) IITPKD will respond to any request for clarification or modification of the Tender Document that are received up to TWO DAYS prior to the deadline for submission of bids prescribed by IITPKD. For this purpose, the prospective bidder(s) requiring clarification in the Tender Document shall notify IITPKD through the ONLINE Portal ONLY. Any such clarification, together with all the details on which the clarification had been sought, will be published in the ONLINE Portal ONLY. Deviations, if any, observed by the Institute in the submitted bids, from the Terms and Conditions of the Tender Document will not be accepted by the Institute. (f) Except for any such clarification by the Institute, which is expressly stated to be an addendum to the tender document issued by the Registrar, IIT Palakkad, no written or oral communication, presentation or explanation by any other employee of any of the Sections/Departments of the Institute, shall be taken to bind or fetter the Institute. (g) The bidder is expected to examine all instructions, forms, terms and conditions in the Tender Document. In the event of discovery of any missing pages, the bidder shall inform the same to the Section/Department concerned. Failure to furnish the information required by the Tender Document or submission of a tender not substantially responsive to the Tender Document in every respect will be at the bidder's risk and may result in rejection of the bid. (h) The bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the Tender Document. (i) The Supplier shall not, without the prior written consent of the IITPKD, assign to any third party, the Contract or any part thereof.
2	COMPOSITION OF THE TENDER DOCUMENT	<ul style="list-style-type: none"> (a) The Tender Document comprises of: <ul style="list-style-type: none"> Instruction to the bidders including terms and conditions 1. Technical Specifications (Annexure-I) 2. Undertaking by the Bidder (Annexure-II) 3. Fall Clause Notice Certificate (Annexure-III) 4. Annexure regarding Blacklisting/Debarment (Annexure-IV) 5. Self Declaration – MII Order (Annexure-V)

3	DOCUMENTS COMPRISING THE BID	<p>(a) The Technical, Techno-commercial (Cover One), and Commercial Bid (Cover Two) shall be submitted ONLINE through the e-Wizard Portal.</p> <p>(b) Bids submitted in any mode other than ONLINE will be rejected outright.</p> <p>(c) Documents establishing the conformity of the terms and conditions of the Tender Document shall be provided along with the bid. The offer/bids should be sent only for a system or that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.</p> <p>(d) Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid. No prices should ever be included in the Technical bid.</p> <p>(e) Compliance or Confirmation report with reference to the specifications and other terms and conditions should also be obtained from the principal.</p> <p>(f) Information related to the agency/bidder such as photocopies of the Registration/PAN/GST/TIN shall be furnished.</p> <p>(g) The technical bid should consist of all technical details along with commercial terms and conditions. No prices should be included in the technical bid. Mentioning of Prices in the Technical Bid shall lead to <u>DISQUALIFICATION</u>.</p> <p>(h) Bidders who are bidding for this tender,</p> <ol style="list-style-type: none"> 1) Should have implemented at least THREE ORDERS for 4-Ton Multi -Axis Electrodynamic Shaker during previous three financial years (2022-23, 2023-24, and 2024-25) from Centrally Funded Technical Institutes (IITs, NITs, IISc, IISER), DRDO, ISRO, CSIR labs or Government Firms in India. Copies of the most recent purchase orders and user certificates of successful implementation must be included. Copies of financial statements or evidence of turnover must be furnished. 2) Should have an Average Annual Turnover of Rs.2,20,00,000/- (RUPEES TWO CRORE TWENTY LAKH ONLY) during the last THREE financial years (2022-23, 2023-24, 2024-25). The bidder shall enclose the audited statements of the indicated financial years, which should have been certified by a Chartered Accountant or a Competent Authority. 3) Should submit Digitally signed Tender Document in Cover One.
4	EARNEST MONEY DEPOSIT (EMD)	<p>(a) The bidder shall furnish EMD of Rs.2,20,000/- (Rupees Two Lakh Twenty Thousand Only) through online payment gateway in the E-Wizard.</p> <p>(b) Bids not accompanied by EMD shall be DISQUALIFIED.</p> <p>(c) The firms who are registered with National Small Industries Corporation (NSIC) / or Small Scale Industrial (SSI)/ Micro & Small Enterprises (MSEs) are exempted from submitting the EMD. NSIC / MSE registered bidders must submit a copy of a valid NSIC / MSE Registration Certificate for exemption of EMD. It will be applicable for those bidders who shall produce their own goods or provide their own services, and not applicable for trading purposes.</p>

5	PERFORMANCE SECURITY	<p>(a) The performance security shall be submitted within FIFTEEN DAYS of receipt of the material by the IITPKD. The successful bidder shall furnish the Performance Security equal to 5% of the order / contract value (excluding the value of annual maintenance charges). The Performance Security shall be valid all along the warranty period and shall extend up to SIXTY DAYS after the date of completion of warranty period. It shall be ensured by the successful bidder that the validity of the Performance Security submitted is extended depending on the date of commencement of the Warranty.</p> <p>(b) The performance security shall be a bank guarantee/E-Bank Guarantee (in the format as provided) issued by the Indian Scheduled bank acceptable to the IITPKD or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD payable at PALAKKAD.</p> <p>(c) The performance security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The performance security shall be returned to the Supplier not later than fifteen (15) days after its expiration.</p> <p>(d) Failure of the successful Bidder to comply with the requirements shall constitute enough grounds for the annulment of the award and forfeiture of the EMD, in which event the IITPKD may make the award to the next lowest evaluated bid submitted by a qualified Bidder or call for new bids.</p>
6	BID PRICES AND CURRENCY	<p>(a) Prices must be quoted separately for each equipment/item identified.</p> <p>(b) Price quoted for equipment/items shall include all the costs associated with packing, local transportation from the point of clearance to IITPKD, insurance, loading, unloading and associated delivery charges. The delivery shall be on DOOR DELIVERY basis to the institute including its installation, commissioning, integration and validation. It is the sole responsibility of the supplier to ensure that the equipment is delivered on DDP mode to IIT Palakkad. An undertaking to this effect as in Annexure-II.</p> <p>(c) Prices quoted by the bidder shall be fixed during the validity of the bid.</p> <p>(d) Prices of the equipment/items shall be quoted in Indian Rupees (INR) / Foreign Currency.</p>
7	LETTER OF CREDIT	<p>(a) Upon the successful Bidder's furnishing of the copy of the Purchase Order duly signed on each page and the Performance Security, for the equipment ordered in foreign currency, IITPKD will open a letter of credit (LC) in a convenient Nationalized Bank in India. For opening of LC necessary information shall be provided by the supplier or its authorized agents.</p> <p>(b) In case the successful bidder is a foreign company and wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor shall submit a Bank Guarantee from a Nationalized Bank of India. The following documents shall be submitted in case of an Indian agent submitting the Performance Security on behalf of his principal:</p> <ul style="list-style-type: none"> • Foreign principal's proforma invoice indicating the commission payable to the Indian agent and nature of after-sales service to be rendered by the Indian agent. • Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business. <p>(c) For imported equipment, a Letter of Credit (LC) shall be opened for</p>

		<p>100% CIP price on receipt of the acknowledgment of the purchase order. However, 80% of the LC amount only shall be released on proof of the shipment of the consignment with necessary documents to be provided in detail at the time of placing of the purchase order. Balance 20% of the LC amount shall be released upon the receipt of a performance security of 5% of the total value of the purchase order and installation, commissioning, integration, validation and installation report/certification jointly given by the end user and the supplier.</p> <p>Any costs associated with the amendments made in the LC as per the request made by the Supplier s should be borne by the supplier.</p> <p>Any fluctuation in rates / rate conversions arising due to the amendment requests made by the supplier shall be on the supplier and not on the institute.</p>
8	PERIOD OF VALIDITY OF BIDS	<p>(d) Bids shall remain valid for a period of 180 DAYS after the date of the deadline for submission of bids prescribed by IITPKD.</p> <p>(e) If the deadline is extended due to unforeseen circumstances, the bid validity shall be deemed to have extended accordingly.</p>
9	TIME FOR SUPPLY, INSTALLATION, COMMISSIONING AND VALIDATION OF THE EQUIPMENTS/ITEMS	<p>(a) The Supplier shall supply the equipment/items within the period specified in the tender document i.e. within 10 - 12 WEEKS of signing the purchase order or within the period mutually agreed between IITPKD and supplier. All the equipment and accessories should be delivered at IIT Palakkad, Applied Mechanics Laboratory, Sahyadri Campus, Kanjikode West, Palakkad - 678623, Kerala.</p> <p>(b) The Supplier shall thereafter proceed with the installation, commissioning, integration and validation and demonstrate operational acceptance of the equipment/items within the period specified. The equipment/items shall be installed and commissioned by the successful bidder within 20 to 25 days from the date of its receipt.</p> <p>(c) The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.</p> <p>(d) In the event of failure of supply of the item/equipment/items within the stipulated delivery schedule, IITPKD has all the right to purchase the item/equipment/items from other sources on the total risk of the Supplier under the risk purchase clause.</p>
10	PRODUCT UPGRADES	The Supplier shall continue to support and maintain the version/model of the Equipment supplied by upgrading the software and the hardware as and when amendments are carried out in the existing version or the product is upgraded. Whereas upgrades to the software shall be supplied free of cost, the Supplier may charge for upgrade in hardware provided it is of major nature. An upgraded higher version of the instrument and software related with the instrument shall be supplied.
11	PENALTIES	If the Supplier fails to complete any of the activities in accordance with the time specified for it, or any extension of time granted by IITPKD, Liquidated Damages Clause shall be invoked.
12	UP-TIME GUARANTEE/ DOWNTIME PENALTY CLAUSE	<p>(a) The Supplier should provide up-time guarantee of 95% [24 (hours) X 7 (days) X 365 (days)] basis during the warranty period.</p> <p>(b) The Supplier should provide up-time guarantee of 95% (24 hours/day basis) both during warranty. If downtime exceeds the 5% limit, extension of the warranty period will be twice the excess down time period.</p>
13	LIQUIDATED DAMAGES	If a firm accepts an order and fails to execute the order, in full or part, as per the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute alternatively, to arrange procurement of the required stores from any source, at the risk and

		expense of the firm, accepted and failed to execute the order according to stipulations agreed upon. This will also entail the removal of the defaulters' name from the approved/registered list of Suppliers.
14	EFFECT OF FORCE MAJEURE	<p>(a) If the Supplier is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the IITPKD in writing of the occurrence of such event and the circumstances of the event of Force Majeure within FIFTEEN DAYS after the occurrence of such event.</p> <p>(b) The Supplier, when affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its performance of the Contract and to fulfill its obligations under the Contract, but without prejudice to IITPKD's right to terminate the Contract.</p> <p>(c) No delay or non-performance by the Supplier caused by the occurrence of any event of Force Majeure shall:</p> <ol style="list-style-type: none"> Constitute a default or breach of the Contract; Give rise to any claim for damages or additional cost or expense occasioned by the delay or non-performance. <p>(d) If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than THIRTY DAYS or an aggregate period of more than SIXTY DAYS on account of one or more events of Force Majeure, the IITPKD shall have the right to terminate the Contract by giving a notice to the Supplier.</p>
15	EXTENSION OF TIME LIMITS FOR SUPPLY AND MAKING OPERATIONAL, THE EQUIPMENT	<p>(a) The time limit for supply, installation & commissioning, integration & validation shall be extended if the supply is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:</p> <ol style="list-style-type: none"> Any occurrence of Force Majeure; Any other matter specifically mentioned in the Contract; <p>(b) By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.</p>
16	GOVERNING LAW AND SETTLEMENT OF DISPUTES IEMs DETAILS:	<p>(a) The Contract shall be governed by and interpreted in accordance with the laws of India.</p> <p>(b) Any complaints related to this tender should be reported to the Independent External Monitors (IEMs) through email. Details of the IEMs are as follows:</p> <ol style="list-style-type: none"> Shri. Ashok Kumar Poddar Noida-201301(U.P), Email:- ashokpoddar62@gmail.com Shri G Venugopal Reddy Hyderabad-500084, Email:venu1960@gmail.com <p>(c) the Integrity Pact is deemed as part of the contract in order to ensure that the parties are bound by the recommendation of the IEMs, in case any complaint relating to the contract, is found substantiated.</p> <p>(d) Any dispute or claim arising out of/relating to this Contract of the breach, termination or the invalidity thereof, shall be settled by IEMs/ the Hon'ble Courts of Justice at Palakkad.</p> <p>(e) The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the declaration for the same shall be submitted by the bidder as in Annexure-II.</p> <p>(f) IITPKD reserves the right to accept or reject any or all the tenders in part or whole or may cancel the tender at its sole discretion without assigning any reason whatsoever. No further correspondence in this regard will be entertained.</p>

AWARD OF CONTRACT

1	AWARD CRITERIA	<ol style="list-style-type: none"> 1. IITPKD will award the Contract to the Bidder whose bid has been determined to be substantially responsive and as per the Order No. P-45021/2/2017-PP(BE-II) dated 16-09-2020 from Department for Promotion of Industry and Internal Trade (Public Procurement Section), Ministry of Commerce and Industry, Govt. of India. 2. The bidder should be a Class-I / Class-II Local Supplier meeting the requirement of minimum 20% Local Content in line with the Public Procurement (Preference to Make in India) Order 2017 No. P-45021/2/2017-PP(BE-II) dated 16-09-2020. 3. The Institute reserves the right to buy different items/quantities from different bidders considering price of individual/group of equipment/items or any other factors as decided by the Committee.
2	AWARD OF PURCHASE ORDER	<ol style="list-style-type: none"> 1. Prior to the expiration of the period of bid validity, IITPKD will issue the Letter of Intent / Purchase Order to the successful Bidder in writing. 2. Any amendment(s) in the Purchase Order will be permitted within SEVEN DAYS of its issuance. No amendments will be permitted beyond this period. 3. The Purchase Order will constitute the foundation of the Contract.
3	CONTRACT AGREEMENT	<ol style="list-style-type: none"> 1. Within SEVEN DAYS of receipt of the Purchase Order, the successful Bidder shall sign and date its copy on each page and return it to the Purchaser. 2. Copy of Purchase Order duly signed and dated by the successful Bidder on each page shall constitute the Contract Agreement.
4	CONTRACT DOCUMENTS / AMENDMENT TO CONTRACT	<ol style="list-style-type: none"> 1. All documents forming part of the Contract (and all parts of these documents) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole. 2. The order of precedence of the Contract documents shall be as follows: <ol style="list-style-type: none"> (i) Contract Agreement/Purchase Order (ii) All Forms/Annexures (iii) equipment/items and their requirement (iv) Supplier's Bid (v) Tender Document 3. No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract and is signed by a duly authorized representative of each party to the Contract.

REGISTRAR

Name of the Item :	4- Ton Multi -Axis Electrodynamic Shaker
Quantity:	01
Warranty Period:	For all manufacturing defects for a period of 24 months from the date of Installation and Commissioning for the Vibration machine. 12 months for the controller.

TECHNICAL SPECIFICATIONS

Technical Specifications : 4- Ton Multi -Axis Electrodynamic Shaker		
Sl.No .	Brief Item Description	Qty
1.a.	Electrodynamic Shaker 4000Kgf	01 No
•	4000Kgf Peak Sine & RMS Random, 8000Kgf Shock	
•	80g Acceleration (Bare Table Sine), 2.0m/s Velocity, 75mm (pk-pk) Displacement	
•	5-2000Hz Frequency, >2000Hz Armature Resonance	
•	440mm Armature Diameter, 600 Kgs Payload Capacity	
•	Inductive Sensing Based Armature Centering System (DC Bias)	
•	Degauss Coil with Power Supply	
1.b.	Cooling System of Shaker	01 No
•	Centrifugal type air blower with 5-meter Flexible Hose	
•	Horizontal discharge direction	
2	Head Expander (Z-axis)	01 No
•	1000x1000mm Magnesium Alloy Light Weight platform	
•	M10 SS Inserts with 100x100mm matrix pattern	
3	Combo Base Horizontal Slip Table (X,Y-Axis Testing)	01 No
•	1000x1000 mm Magnesium Alloy Light Weight platform	
•	M10 SS Inserts with 100x100mm matrix pattern	
•	Bull nose type Drive Bar Coupling	
•	High Pressure Hydrostatic Bearings	
•	Display of Shaker Orientation	
4	Digital Power Amplifier	01 No
•	32-Bit ST-Microcontroller with 7" Touch Screen based Digital Amplifier Controller	
•	Solid -state Class-D type Power Amplifier	
•	Auto Resume Feature	
•	Preventive Maintenance System Diagnostics	
•	Remote Operation Feature via LAN connectivity	
•	User Configurable NO/NC protection	
5	Controller	01 No

•	Two output channels	
•	Eight input channels support Voltage, ICP, TEDS	
•	Software with all testing features	
5.a	Interconnection Hardware and cables	01 Set
•	5 meter and as suitable based on installation site	
6	Standard Toolkit & Spares	01 Set
•	Armature suspension flexures, Fuses, Relays	
7	Documentation	
•	Technical, Operation & Maintenance Manuals (Hard & Soft copy)	01 Set
8.a.	Installation, Commissioning at Installation Site	Yes
8.b.	Operation & Maintenance Training to User2	Yes

Detailed Specification of each component is given as follows:

1. Shaker		
1a.	SPECIFICATIONS:	Requirements
1a.1	Nominal Force: Sine Random Shock	4000Kgf 4000Kgf 8000 Kgf
1a.2	Frequency Range of Operation	5 – 2000 Hz
1a.3	Shaker Cooling System	Air cooled
1a.4	Armature resonance of Bare Table	>2000 Hz
1a.5	Armature weight	45 Kgs approx
1a.6	Maximum Velocity	>2.0 m/s (Sine)
1a.7	Max. Displacement	>75mm Peak to Peak (Operational)
1a.8	Maximum Acceleration	≥80 g Peak (Bare Table) Sine
1a.9	Stray Magnetic Field @ 15 cm from top of table	≤ 1.5mT
1a.10	Cross Axis response	< 10 % in the range 5 to 500 Hz
1a.11	Static Loading Capacity	600 Kgs on bare table (without external load support platform)
1a.12	Armature Diameter (Top)	Armature table of size 440 mm
1a.13	Shaker Cooling System	Air Cooled
1a.14	Armature Suspension	Rolling strut Assembly design
	Eccentric Loading	35 kgm
Additional requirements		
a	Automation Load Compensation System / Auto Centering System for Armature.	
b	Air Isolation trunnion	
c	Completed technical literature in English of the vibrator, power amplifier, controller, head expander and load support platform shall be provided.	
1.b	Cooling System of Shaker	
1b.1	Type of Cooling	Forced Air Cooling using a Centrifugal Blower system

1b.2	Mechanism	Suction type
1b.3	Air delivery	Horizontal direction
1b.4	Safety interlock	Propeller direction
2. Head Expander		
Head Expanders with special tool kit with bolts and necessary accessories.		
1	Material: Magnesium Alloy 1000x1000mm	
2	Stainless steel thread inserts shall be provided at 100x100mm matrix	
3. Slip Table: Combo Based Slip Table with Drive Bar type coupling		
COMBO BASE HORIZONTAL SLIP TABLE		
Combo Base Horizontal Slip Table with Drive Bar type		
1	Type: Combo shaker and Slip Table, mounted on a standalone single structure, providing permanent alignment of shaker with slip table with air isolation. Minimum 4 hydrostatic bearings.	
2	Slip Table dimensions 1000 X1000 mm with provision to attach to the armature with S S threaded inserts of M10tapped holes.	
3	Slip table pattern: Magnesium slip table with M10 SS inserts with 100 X 100 mm matrix pattern and self contained hydraulic power supply with hoses	
4	Max stroke: >75 mm	
5	Drive Bar: Drive bar type	
6	Cross Axis Sensitivity: < 10% in 5 Hz-500 Hz	
SALIENT FEATURES		
•	Built-in high pressure oil supply modular chamber	
•	Suitable for critical aerospace, nuclear test specimens also	
•	Oil level, oil pressure regulators & indicators with associated interlock.	
•	High/ low pressure hydraulic/hydrostatic bearings	
•	Combo base configuration for fixed & automatic alignment with shaker on air bellows to prevent transmission of vibrations to ground and with built in granite stone	
•	Anti corrosive and most suitable for hostile indian tropical environmental conditions	
4. Power Amplifier		
1	Type	Class 'D' or better switching amplifier
2	Full power bandwidth	DC – 3000 Hz
3	Harmonic distortion	≤ 1% when measured in resistive load over DC – 2000Hz
4	Signal to noise ratio	>70 db
5	Input sensitivity	1 Vrms input for 100 Vrms output. Shall be compatible with all standard controllers.
6	Amplifier efficiency	>90%
7	Cooling	Air cooled
8	Length of the cable between power amplifier and shaker	≥ 5 meter with necessary power compensation
9	Power Loss Protection	The Amplifier shall have synchronized power loss protection facility to have a smooth shut down in the event of power failure.
10	Power Amplifier shall have a local oscillator for its diagnostics and vibrator health monitoring in open	

	loop	
	Interlocks: The following interlocks shall be provided for safety of the vibrator system and the indicators shall be provided on the power amplifier.	
	Protection: Amplifier shall have all standard safety interlocks and monitoring	
A	Interlocks	
1	Amplifier Cooling	
2	Vibrator Cooling	
3	Vibrator over travel	
4	Field Failure	
5	Module Over Current	
6	Cabinet Door Open	
7	Single Phase Protection Interlocks	
8	Hydraulic Power Supply ON for Slip Table Mode	
B	Indication System Level With appropriate color light indicators	
2	Output Over Voltage	
1	Output Over Current	
3	Output Short Circuit	
4	Output DC Fault	
5	Amplifier Over Temperature	
6	Vibrator Cooling	
7	Vibrator Over Travel	
8	Vibrator Over Temperature	
9	Field Failure	
10	Supply Low or High Voltage	
11	Emergency Stop	
12	To include a diagnostic panel with fault indicator	
13	Phase Failure	
11	Electrical Wiring and Main Power	415 V AC \pm 10%, 50 Hz, 3 Phase, Neutral, Earth
SALIENT FEATURES		
•	Touchscreen based control	
•	Microcontroller based Amplifier Controller	
•	Efficiency is greater than 92%	
•	Integrated field power supply	
•	Error indication and system parameters	
•	Remote control available	
•	Paralleled modules for power augmentation	
•	The amplifier is equipped with self-diagnostic and protection features such as cooling check, current supply check, field supply checks etc. to avoid damage to Power Amplifier, Exciter and testing object due to malfunctioning or mis-operation.	
5. Data Acquisition & Controller Specifications		
1	Required Controller Capabilities:	
•	Sine control	
•	Random Control	

	<ul style="list-style-type: none"> • Tracked sine dwell • Online& offline sine reduction • Online random and acoustic reduction • Test sequencing • Shock control • Shock response spectrum • Random response limiting • Sine notching • Sine on Random • Random on Random • MIMO shock control • Shock response synthesis • Mission synthesis • Notch and limit prediction • Acoustic control • Kurtosis control • MIMO Random Control Work Book • Time waveform replication • Single axis waveform replication
2	Data Acquisition Hardware Software Capabilities
	Hardware:
	<ul style="list-style-type: none"> • 8 input channels via BNC connectors • Smart sensor support • Analog anti-alias filter • Analog and digital overload detection • with LED indication on front-panel • 24-bit analog to digital conversion with • 92kHz bandwidth • Sampling rate of 204 kHz • 150dB dynamic range • Built-in calibration for improved specifications over a longer period • Real time 1/1 and 1/3rd octave analysis • Time domain A-weighting filter • Additional support of digital audio formats for all standard audio sample rates
	Software:
1	Vibration & Structural Dynamics
	<ul style="list-style-type: none"> • Time and frequency domain vibration analysis (e.g., FFT, spectra) • Modal analysis (natural frequencies, mode shapes, damping) • Rotordynamic analysis (unbalance, bearing vibration, rotor response) • Operational deflection shapes and structural response visualization
2	Noise & Acoustic Analysis
	<ul style="list-style-type: none"> • Acoustic level analysis (sound pressure, intensity) • Noise, Vibration & Harshness (NVH) testing workflows

•	Sound quality evaluation (interactive filtering, subjective listening)
3	Transfer Path & System NVH Prediction
•	Transfer Path Analysis (TPA) to quantify vibration/noise paths
•	System NVH performance prediction and virtual prototype assembly
•	Blocked forces and component characterization (ISO 20270 compliant)
4	Durability & Mission Synthesis
•	Durability test planning and mission synthesis (to mimic real-world loads)
•	Virtual durability simulations with time-domain load data
5	Data Acquisition & Processing
•	High-speed multichannel time data acquisition
•	Order tracking and harmonic analysis for rotating machinery
•	Tacho synchronization, video integration, and automated sensor checks
•	Time-domain loads acquisition and processing
6	Test Planning, Management & Automation
•	Test planning and task/resource scheduling
•	Workflow automation (data capture, processing, validation)
•	Centralized data management and analytics repository
8	Reporting & Visualization
•	Interactive visualization (plots, waterfalls, color maps)
•	Customized reporting & batch report generation

Other Mandatory Requirements:

1. Minimum 3 installation should be in India at premier research institutes such as IIT, NIT, DRDO or CSIR laboratories. User list along with username must be provided. The buyer may contact them to review.
2. Accessories must be provided along with the product for safe transport of system within and outside of lab environment.
3. Laboratory site requirements (if any) to install the product(s) must be provided.
4. Warranty: at least 2 years on-site
5. Product support at least 15 years from the date of installation
6. Calibration of the Vibration Test Machine traceable to National / International standards shall be provided.

ANNEXURE-II

UNDERTAKING BY THE BIDDER **(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

We here by accept all the Terms and Conditions of the Tender Document and strictly adhere to the same in the event of getting Purchase order. We also declare that the Technical and Financial Bids submitted by us has NO DEIVATION from the Tender Terms and Conditions.

We hereby accept that the PRICES OF THE EQUIPMENTS/ITEMS QUOTED ARE AS PER THE INCOTERMS 2022 - DDP MODE, IIT PALAKKAD AND CLAUSE NO.6 OF THE TENDER DOCUMENT.

We hereby undertake that there are _____ pages, serially numbered, in the submitted tender including the supporting documents. (Please serially number all the pages including blank page, if any).

We have submitted our principal's exclusive authorization letter which is specific for this tender No._____ dated _____.

Note: This letter should be on the letterhead of the quoting firm and should be signed by a Competent Authority.

ANNEXURE-III

FALL CLAUSE NOTICE CERTIFICATE **(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

This is to certify that we have offered the maximum possible discount to you in our Quotation No. _____ dated _____ **(Please do not reveal the prices here, which will lead to outright rejection of your bid).**

The prices charged for the Stores supplied under tender should under no event be higher than the lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU's/Central Govt., /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the "FALL CLAUSE" will be applicable. The institute will look into a reasonable past period to ensure this.

In case, if the price charged by our firm is found to be more, **IIT Palakkad** will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.

Note: This letter of authority should be on the letterhead of the quoting firm and should be signed by a Competent Authority and having the power of attorney.

ANNEXURE-IV

UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT

Tender No. _____

To,
M/s. Indian Institute of Technology Palakkad
Kanjikode, Palakkad, Kerala 678623.

We hereby confirm and declare that we, M/s _____ are not blacklisted/ De-registered / debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services.

For
Company Name and Seal
Authorised Signatory

Note:This letter should be on the letterhead of the quoting firm and should be signed by a Competent Authority.

FORMAT FOR SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA
(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

Format for Affidavit of Self-Certification regarding Minimum Local Content in line with “Make in India” Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

Date: _____

I/We _____ S/o, D/o, W/o, _____

Resident of _____

Hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Order, 2017 (hereinafter PPP-MII order) of Government of India issued vide Notification No:P-45021/2/2017-BE-II dated 15/06/2017, its revision dated 28/05/2018 and any subsequent modifications/Amendments, if any and

That the local content for all inputs which constitute the said goods/services/works has been verified by me and I am responsible for the correctness of the claims made therein.

Tick (✓) and Fill the Appropriate Category	
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is equal to or more than 50% and come under “ Class-I Local Supplier ” category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under “ Class-II Local Supplier ” category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is less than or equal to 20% come under “ Non-Local Supplier ” category.

For and on behalf of..... (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)
 <Insert Name, Designation and Contact No.>

[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate from 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.]

ANNEXURE VI

INTEGRITY PACT

(to be submitted by the bidder on Rs. 100/- non-judicial paper)

This INTEGRITY PACT is made and executed at _____ on this day of

202_____

BY AND BETWEEN

Indian Institute of Technology Palakkad (IIT Palakkad), an autonomous organization under Ministry of Education, Govt of India and incorporated under the Indian Institute of Technology Act 1961 having its campus at Nila Campus, Kanjikode West, Palakkad – 678623, Kerala (hereinafter referred to as “The Principal” which term or expression shall, unless excluded by or repugnant to the subject or context, mean and include its successor-in-office, administrators or permitted assignees) of the First Part;

AND

PREAMBLE

The Principal intends to award, under laid down organizational procedures, contract/s for _____ . The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of and of fairness/transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal.

1. The principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -
 - a) No employee of the principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the personal is not legally entitled.
 - b) The principal will during the tender process treat all Bidder(s) with equity and reason. The principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.
 - c) The principal will exclude from the process all known prejudiced persons.
2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/Contractor(s)

1. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - a. The Bidder(s)/contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage or during the execution of the contract.
 - b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractors will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or documents provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the bidder(s)/contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. All the payments made to the India agent/representative have to be in Indian Rupees only.
- e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- f. The Bidder(s)/Contractor (s) who have signed the Integrity Pact shall not approach the courts while representing the matter to IEMs and shall wait for their decision on the matter.

2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3: Disqualification from tender process and exclusion from future contract

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or to terminate the contract, if already signed, for such reasons.

Section 4 : Compensation for Damages

1. If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
2. If the Principal has terminated the contract according to Section3, or if the Principal is entitled to terminate the contract according to Section3, The Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 : Previous Transgression

1. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the TII's anti-corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.
2. If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process and appropriate action can be taken including termination of the contract, if already awarded, for such reason.

Section 6: Equal treatment of all Bidders / Contractors / Subcontractors.

1. In case of sub –contracting, the Principal Contractor shall take the responsibility of adoption of Integrity Pact by the Sub – Contractor.
2. The Principal will enter into agreements with the identical conditions as this one with all bidders and Contractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7: Criminal charges against violation Bidder(s) / Contractor(s) / Sub-contractors(s).

If the Principal obtains knowledge of conduct of a Bidder(s)/ Contractor(s) which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 : Independent External Monitor/Monitors

1. The Principal appoints competent and credible Independent External Monitor for this Pact after approval of Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. The Monitor will have access to all contract documents, whenever required. It will be obligatory for him to treat the information and documents of bidders /contractors as confidential. He reports to the Director, IIT Palakkad.
3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors.
4. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality. The Monitor has also signed declarations on “Non – Disclosure of Confidential Information” and of “Absence of Conflict of Interest” In case of any conflict of interest arising at a later date, the IEM shall inform the Director, IIT Palakkad.
5. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the

contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

6. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
7. The Monitor will submit a written report to the Director, IIT Palakkad within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
8. If the Monitor has reported to the Director, IIT Palakkad, a substantiated suspicion of an offence under relevant IPC/PC Act, and the Director, IIT Palakkad has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
9. The word “Monitor” word include both singular and plural.

Section 9 : Pact Duration

This pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidder 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by the Director, IIT Palakkad.

Section 10 : Other Provisions

- This agreement is subject to Indian Law. Place of performance and jurisdiction is the registered office of the Principal i.e. Palakkad, Kerala.
- Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- If the contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

- Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- Issues like Warranty/Guarantee etc. shall be outside the purview of the IEMs.
- In the event of any contradiction between the Integrity Pact and its Annexure, the clause in the Integrity Pact will prevail.

(For & on behalf of the Principal)

(For & on behalf of Bidder/Contractor)

(Office Seal)

(Office Seal)

Place : _____

Date : _____

Witness 1 (Name & Address):

Witness 1 (Name & Address):

Witness 2 (Name & Address):

Witness 2 (Name & Address):
