

 IIT PALAKKAD	भारतीयप्रौद्योगिकीसंस्थानपालक्काड <b>Indian Institute of Technology Palakkad</b> अहलिआ एकीकृत कैम्पस, कोज़िहपारा Ahalia Integrated Campus, Kozhipara पालक्काड- 678557 Palakkad – 678 557	दूरभाषसंख्या/ Phone no: 04923 – 226 586/561 ईमेल/ Email : purchase@iitpkd.ac.in
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### **Tender for Inviting Quotations**

**Ref No: IITPKD/CIE/BR/023/2018**

**Date: 04.07.2018**

**Due date for the tender: 19.07.2018 at 3.00 PM**

Dear Sirs,

On Behalf of Indian Institute of Technology Palakkad quotations are invited for supply of **“Pavement Laboratory Equipment”** confirming to the specification in the Annexure.

- 1. Preparation of Bids:** - The tenders should be submitted **under two-bid system** (i.e.) Technical bid and Financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. No prices should be included in technical bid. Financial Bid should indicate item – wise prices for the items mentioned in the technical bid. The technical bid and the Financial should be put in separate cover and sealed. Both sealed covers should be put into a bigger cover. If it is single bid cover, the quotation will be rejected automatically.
- 2. Opening of the Bids:** The offer/ Bids will be opened by the committee duly constituted for this purpose. The Technical bids will be opened and will be examined by the Technical Committee, Which will decide the suitability of the bid as per the specification and requirements. The financial offers/ bids will be opened only for the bidders **who meet all the Technical requirements.**
- 3. The Quotations** duly sealed and superscribed on the envelope **with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above. Fax and Email quotation are not acceptable.**
- 4. The price** should be quoted per unit inclusive of and packing and delivery charges should be indicated. The offer/bids should be exclusive of Taxes However the percentage of taxes as on date should be clearly indicated.
- 5. The Quotations** should be valid for **Sixty days** from the due date and the period of delivery required should also be clearly indicated.
- 6. Goods** shall not be supplied without an official supply order.

7. **Custom Duty:** Custom Duty which will be paid at a concessional rate against duty exemption certificate.
8. Quotations should be for **F.O.R. at IIT Palakkad, Transit Campus, West Pudussery, Kanjikode, Palakkad, Kerala**
9. **Concessional GST: Concessional GST@ 5% will be paid extra against GOI Notification 47/2017, Dated 14.11.2017.**
10. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later. No advance payment will be made. The Tenderer have to furnish the bank details along with tender such as Account No, Account Name, IFSC Code etc.,
11. **Submission of Bids:** Quotation should be sent to the following address “**The Registrar, Indian Institute of Technology Palakkad, Ahalia Integrated Campus, Kozhipara, Palakkad -678 557, Kerala**”, Phone No: **04923 226 586/561** , Email : **[purchase@iitpkd.ac.in](mailto:purchase@iitpkd.ac.in)**
12. **Delivery Period:** The quotation should indicate clearly when delivery and installation will be made.
13. **Delay in Supply or Liquidate damages:** If the supplier fails to deliver the stores within the time specified in the purchase order, the purchaser will recover from the supplier as liquidated damages a sum of one- half of one percent (0.5%) of the P.o value of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed five percent (5%) of the P.o price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.
14. **Late offer:** The quotation received after due date will not be considered. Please ensure that your offer is sent well in advance to reach the Institute by the due date.
15. **Warranty:** The bidder shall specify the warranty period clearly for more information please see the technical bid.
16. **Acceptance and Rejection:** IIT Palakkad has the right to accept the whole or any parts of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

Yours faithfully

Registrar, IIT Palakkad

**TECHNICAL SPECIFICATIONS AND COMPLIANCE SHEET FOR  
PAVEMENT LABORATORY EQUIPMENT (PHASE 1)**

The supplier should fill the last two columns of this document, sign and submit along with the technical bid.

† In this column the supplier should provide confirmation whether they will be able to supply the respective items by stating ‘YES’ or ‘NO’.

‡ In this column the supplier should provide the page number and serial number from their catalogue which show the specifications of the item. These details may not be mandatory for few items which are marked by ‘Not Applicable’ (N.A.). Incomplete forms may be rejected.

NAME OF THE EXPERIMENT	EQUIPMENT	QUANTITY	SPECIFICATION /REQUIREMENTS	CONFIRMATION BY SUPPLIER (YES/NO) †	PAGE NO. / SL. NO.‡
<b>Aggregate: Flakiness and Elongation index test</b>	45 cm diameter sieves with cover and receiver, all in G.I./brass frame. Sieve sizes: 63mm, 50mm, 40mm, 31.5mm, 25mm, 20mm, 16mm, 12.5mm, 10mm, 6.3mm	3 sets	Conforming to IS:460 (Part 2)-1985		...../.....
	Metal thickness gauge	3	Confirming to IS:2386 (Part 1)		...../.....
	Standard length gauge	3	Confirming to IS:2386 (Part 1)		...../.....
	20 cm diameter brass sieves with cover and receiver, all in G.I frame. Sieve sizes 2.36mm, 1.7mm, 1.18mm,	2 sets	Conforming to IS:460 (Part 2)-1985		

	300 micron, 90 micron				
<b>Bitumen: Penetration test</b>	Standard penetration apparatus	2	Conforming to IS:1203-1978  Equipped with timer to automatically stop penetration		...../.....
	Metal/glass cylindrical flat bottomed containers- 55mm dia and 70mm dia.	3 sets	35mm internal depth for 55mm dia., and 45mm internal depth for 70mm dia.		...../.....
	Needle	2	Straight, highly polished, cylindrical stainless steel rod  Confirming to IS: 1203-1978		...../.....
	Transfer dish or tray	2	Should provide support to the container and prevent rocking. Should have such capacity as to completely immerse the container during test		N.A.
	IS sieve 30	2	Conforming to IS:460-1985		
<b>Bitumen: Ductility test</b>	Ductility testing machine	1	Conforming to IS:1208-1978		...../.....
	Brass Briquette mould	3			

<b>Bitumen: Softening point test</b>	Standard ring and ball apparatus with all accessories (Including Steel ball- 2 Nos., 9.5mm dia.; Brass ring 2 Nos., Ball guides to guide the movement of steel balls centrally, Stirrer, Heat resistant glass container of 85mm diameter and 120mm depth, Controlled heating unit to raise the temperature of water at uniform rate of 5°C per minute etc.)	2 sets	All relevant parts conforming to IS:1205-1978		...../.....
	Water bath -Heat resistant glass beaker	3	Not less than 85mm diameter and 120mm deep		...../.....
<b>Bitumen: Specific gravity test</b>	Specific gravity bottle-50mL	6	Wide mouthed capillary type- 25mm dia neck conforming to IS:1202-1978		...../.....
<b>Bitumen: Viscosity test</b>	Tar viscometer apparatus	1	All parts conforming to IS:1206-1978: 10-mm cup, valve, water bath, sleeve, stirrer, curved shield, receiver.		...../.....
	150 micron wire strainer	2	To strain the sample before pouring into oil tube		

<b>General Lab Equipment</b>					
<b>EQUIPMENT / APPARATUS</b>	<b>DETAILS</b>	<b>QUANTITY</b>	<b>SPECIFICATIONS/ REQUIREMENTS</b>	<b>CONFIRMATION BY SUPPLIER (YES/NO) †</b>	<b>PAGE NO. / SL. NO.‡</b>
<b>Oven</b>	Hot Air Oven	1	Heavily insulated 18×18×18 inches size oven with digital thermostat		...../.....
<b>Hot plate</b>	Digital hot plate	2	2000W, Ambient to 350°C with stability of ±5°C, 300×400mm heating area, 220V 50Hz AC, weigh up to 15-18 kg		...../.....
<b>Water Bath</b>	1. Water bath -10L	1	Thermostatically controlled and maintained within the temperature of 25±0.1°C		...../.....
	2. Water bath - 10L	1	Thermostatically controlled and maintained within the temperature of 27±0.1°C		
<b>Thermometer</b>	1. Thermometer capable of reading 0-350°C range, 0.1°C accuracy	5			...../.....

	2. Thermometer capable of reading temperature in range of 0-50°C, with 0.02°C accuracy	3			...../.....
	3. Thermometer capable of reading 0-200°C with sensitivity of 2.5°C	3			...../.....
	4. IP 8C	3			
<b>Refrigerator</b>	Direct cool Single door refrigerator	1	Capacity: Minimum 100 L No of Shelves: Minimum 2 Nos Compatible to 220V 50Hz single phase AC		
<b>Work tools</b>	Stainless steel scoops: 2 kg capacity and 5 kg capacity	2 each			N.A.
	Aggregate Scoop with two handles	2			N.A.
	Flat blade shovel (~250-275mm × 300-325mm)	2			N.A.
	Heat resistant gloves	10			N.A.
	Digital stop watch with least count of 0.1 seconds	4			N.A.
	Stainless steel ruler 600mm with least count of 1 mm	5			N.A.
	Durable metal brush with wooden handle	3			N.A.



	Spatula – 100 mm blade with wooden handle	5			N.A.
	Spatula – 150 mm blade with wooden handle	5			N.A.
	Specific gravity bottle/Glassware cleaning brush	5			NA
	High quality combination screwdriver set with extension rod	1			N.A
	Metal beaker-100 ml	3	Small metal beaker with handle and pour out lip to pour molten bitumen to various moulds		N.A
	Knife for leveling/cutting	3			N.A.
	Cotton waste clothes	3 kg			N.A.
<b>Lubrication</b>	Benzene	2.5 L			N.A.
	Light mineral oil	2.5 L			N.A.
	Glycerin	2.5 L			N.A.
	Brush for oiling	5			N.A.
<b>Trays</b>	Steel mixing tray, 500×400×120mm	5			N.A.
	Aluminium pan 37×270×65mm	5			N.A.

**Technical Compliance:**

1. All major testing equipment should confirm to relevant IS specifications.
2. The supplier should submit the catalogue showing the technical specifications of the equipment along with the technical bid, and will be used for verification of the technical bid.
3. The supplier should have supplied similar laboratory equipment to IITs, NITs, DRDO, or ISRO in the past two years, with a net value on a single purchase order exceeding 4 lakhs (proof to be enclosed). The supplier should provide the details of such customers along with the technical bid. IIT Palakkad may get a feedback about the performance and after sales service of equipment before shortlisting the technical bid. If required, the supplier should arrange for performance test of the installed equipment.
4. The supplier should have a service centre at Palakkad or nearby cities. The details of the service provider should be provided along with the technical bid. In case of breakdown of the equipment, the supplier/authorized service provider of the supplier should have the capability to arrange for the required service within 24 hours.
5. The equipment should be supplied by the manufacturer/proprietorship. In case of proprietorship, a valid authorization letter/document from the manufacturer should be submitted along with the technical bid.
6. The bid should include a declaration for one year warranty, followed by the terms of extended warranty for another two years.  
The cost of extended warranty should be quoted separately in the financial bid.
7. The vendor is responsible for all cost related to insurance, freight and transport of the equipment to IIT Palakkad's facility.