RAJIV GANDHI INSTITUTE OF PETROLEUM TECHNOLOGY, JAIS, AMETHI
CORRIGENDUM-1

Date: 02-07-2026

Please refer to E-Tender RGIPT/JAIS/P-2410/2026-27/01 dated 17.06.2026 for the procurement of Optical Tensiometer for Liquid-Liquid Interface.

1. A minor revision has been done in the technical specifications for the procurement of Optical Tensiometer for Liquid-Liquid Interface. The revised technical specification is attached with this corrigendum.
2. The vendors can also submit EMD in form of Bank Guarantee having validity over 100 days, other options as mentioned in the tender remain valid.
3. Revision of important dates:

Name of Equipment	Optical Tensiometer for Liquid-Liquid Interface
Last date of submission of tender & time	04.07.2026 till 18:00 PM
Date & Time of Opening of Technical bid	06-07-2026 at 18:00 PM
Revised Submission Date	**13.07.2026 till 18:00 PM**
Revised Date & Time of Opening of Technical bid	**15-07-2026 at 18:00 PM**

The other terms & conditions remain unchanged.

Shweta
Assistant Professor
Chairperson Project
Department of Chemical and Biochemical Engineering
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TECHNICAL SPECIFICATIONS COMPLIANCE STATEMENT

Item - Online Tenders from reputed Original Equipment Manufacturers/ Authorized Dealers for procurement of "**Optical Tensiometer for liquid-liquid interface"** are invited by the Rajiv Gandhi Institute of Petroleum Technology, Amethi- 229304 in **Two-Part Bid System** as per specifications mentioned below:

Sr. No.	Description	Bidder's specification	Compliance/ Deviation
1	Goniometer based optical tensiometer system should measure the static & dynamic contact angle from 0° to 180° with an accuracy of ± 0.1°; using sessile drop, auto-DCA, captive bubble, meniscus and Tilted drop methods respectively.		
2	Using pendant drop & reverse pendant /rising drop method, the system should measure surface tension and interfacial tension ranging from 0.01- 2000 mN/m with an accuracy of ± 0.01 mN/m.		
3	The System should have methods to measure surface energy using single solvent as well as multiple solvent.		
4	The Recording system should use CMOS 1/2.3" USB 3.0 digital camera with resolution touching 1950 X 1900 pixels from 2.3 MP and an imaging speed of 2300 Frames/Sec ± 1%.		
5	Optics should be fitted with Zoom Lens to achieve magnification of 6.5 X manually to focus triple-phase contact point and drop shape.		
6	At mechanical Scale camera should have a view angle of -4.5....2.5. field of view ranging from 0.95...26 mm diagonally.		
7	System should use monochromatic LED based light source for homogenous background lightning.		
8	Semi-automatic sample stage with software-controlled movement in X-direction and manually in (Y and Z) direction with removable sample holder clips (2 pcs).		
9	Dispensing should have provision to work with software controlled automatic dispensers with disposable tips or syringes of volume 200 µl with dispensing resolution of 0.1 µl or better.		
10	Consumables including hooked needle 22 gauge (qty. 1), Manual precision Syringe 1 ml with needle 22 gauge (qty.1) and disposable tips /syringes (Qty. 1000) should be quoted.		
11	Temperature control measurement: **a.** Need to provide: The system should be capable of taking measurements at desired temperature ranging from -25°C to 100°C or better. **b.** High temperature and interfacial tension cuvettes should be quoted with the system. **c.** Upgradability for air-phase temperature-controlled substrate & drop ranging from ambient temperature to +250° C.		
12	Upgradable Options for future: **a.** electronic tilting base / tilting cradle unit for advancing and receding angles measurement.		

	b. Surface Roughness measurement and corrected contact angle. **c.** It should be related with interfacial rheology measurement accessories.		
13	A suitable controlling unit fitted with software should be quoted with the system to perform measurement and analysis and with printing report facility.		
14	Software should have feature to collect the data at the speed of 4 Gbit/sec; and fit these into the algorithms and methods for quick analysis. **a.** Contact angle by default young- Laplace method as well as circle and polynomial methods also wherever applicable. **b.** Surface/ interfacial tension by default young- Laplace method as well as Bashforth and Adam methods. **c.** Surface energy using equation of state, Zisman, Wu, Owens-Wendt-Rabel-Kaelble, Schultz-1, Schultz-2 extended Fowkes, Simple Fowkes, WU-acid-base theory models. **d.** Software should have all three baseline fittings options automatic, manual and circular with feature to select a region of interest for analysis. **e.** Software should calculate Wetting and Adhesion Analysis (WAA). **f.** Batch Contact angle mode with instant result grid, including multiple samples, measurement points and time points. **g.** Volume from the image functionality in the software with adjustable tolerance limit that controls the droplet volume. **h.** Automatic dynamic contact angle mode with the needle method, detecting the advancing, receding contact angle and contact angle hysteresis automatically. **i.** Possibility to feed surface roughness data manually in software to calculate automatically roughness-corrected contact angles. **j.** Software updates should be free of cost in future.		
15	For power back up and safety, 1 KVA ups should be quoted.		
16	Warranty Support: A comprehensive warranty shall be provided for a period of 3 years from the date of installation and commissioning.		

Installation and Training: Supplier will demonstrate the experiments under extreme conditions mentioned above in technical specification document and provide necessary training to concern manpower such as research scholars. Supplier has to perform any other relevant experiment suggested by PI or research group during on site demonstration.

Warranty: 3 years comprehensive warranty from the date of successful installation and demonstration.

Pre-Qualification Criteria:

- The bidder should meet below criteria for pre-qualification requirement:

- **Technical Qualification:** - Should have supplied at least three (3) instruments for similar application during last eight (8) years from Government organizations/CSIRs/IITs/PSU'/Private reputed R & D institutes in India.I installation certificate must be attached
- **Financial Qualification:** - Three (3) purchase orders of least two (2) instruments for similar application with value of minimum INR 20,00,000 from Government organizations/CSIRs/IITs/PSU's in India during last eight (8) years. Satisfactory installation certificate issued by purchaser must be attached

Please mention the brand and model no. & name of the equipment

Place:

Date: Signature and seal of the Manufacturer/ Bidder

Technical Specifications Compliance Statemen of "Procurement of **"Optical Tensiometer for liquid-liquid interface"** should be submitted as per format given in Annexure – I **(On the Company's Letter Head)**

Duly signed and stamped