

**CORRIGENDUM-1**

Last date of submission of E-Tender	17.04.2019 (Wednesday) before 3pm
Opening of Techno-Commercial Bid	17.04.2019 (Wednesday) at 4pm

**Revised Technical Specifications of AFM for Tender No. RGIPT/JAIS/E-OPN/LAB/2018-19/01**

- Sample Size: Diameter: 15 mm and above, height: 3-7 mm or better
- All scanner modules should include independent XYZ actuation along with a motorized cantilever engage stage and XY motorized stage.
- Closed Loop Scanner - 30 um x 30 um x 3 um or better with best possible Noise Floor (Resolution) and Low Drift Capability for high resolution imaging.
- Noise floor Resolution of <40pm (or 15~40pm) and the system drift should be <200pm/min or <20nm/°C under lab conditions.
- Fully motorized laser & detector alignment by only one click
- Automatic setting of optimal parameters – amplitude, set point, gain and scan rate
- Facility to image liquids samples
- Reaching atomic resolution & defects routinely with vibration isolation & acoustic hood.
- Fast Scan Rate: The offered Instrument should have faster closed scanner for fast scanning scan rate of 100 ~ 125 Hz and faster Z response (12 mm/sec) in Tapping / AC Mode.
- The offered instrument should have optical head with capability to change the laser spot size to accommodate different cantilever sizes for high speed and routine imaging
- The system must be capable of achieving high resolution imaging in air and liquid either by tuning with the cantilever resonance frequency by photo thermal (not by piezo) or by Imaging at off-resonance frequency by driving the z scanner sinusoidally without the need to tune the cantilever.
- Multiple Scanning Mode facility
  - Contact (lateral force, topography, deflection, feedback error, one auxiliary)
  - Dynamic (topography, amplitude, phase, frequency shift, one auxiliary)
  - Force vs. displacement (deflection, lateral, two auxiliary)
  - Electric Force Microscopy (EFM)
  - Magnetic Force Microscopy (MFM)
  - Surface Potential/Kelvin Probe (KPFM)
  - Nanolithography and Nanomanipulation
  - Piezoresponse Force Microscopy (PFM)
  - Conductive AFM
  - The Instrument should be able to demonstrate Quantitative Nanomechanics in closed loop Z.
- Quantitative Nano Scale Maps - System configuration must include an imaging mode that is capable of generating quantitative nano-scale maps of young's modulus and etc., at high pixel resolution. Data capture must occur during normal AC mode imaging of topography at normal scan rates (<20 minutes per scan). Wide range to be covered from 50 kPa to 100 GPa for modulus to characterize a large variety of sample types.
- Consumables, AFM Tips, Calibration standards, Substrates and accessories, Computers, printers UPS etc
- Three years of comprehensive warranty. Additional quote for yearly CMC for next two years.

The other terms & conditions remain unchanged.

This issues with the approval of Competent Authority.

Sd/-  
Indenter

Sd/-  
AR (A/cs)