

Corrigendum/Addendum – 01

NIT no: IISERBpr/S&P/2024-25/34 Dt. August 01, 2024

1. This is to inform all concerned that based on the pre-bid meeting held on August 08, 2024 and as per the Institute requirement, the technical specification, technical compliance sheet have been revised and re-uploaded in the www.gerpegov.com/IISERBP portal
2. The above changes will be part of the tender documents.
3. This is for information of all concerned.

S. No.	Section	Item	For	Read as
1	Section-IV	Section-IV Point No -1	Rugged microscope stand for transmitted & reflected light polarization facility, 5x Pol, HD encoded system- with transmitted - light illumination with white LED 10W & should have option for 100W halogen lamp illumination.	Rugged microscope stand for transmitted & reflected light polarization facility, 5x Pol. encoded system synchronized with Field and Aperture diaphragm control for automatic reproduction of illumination condition for both transmitted as well as reflected -light illumination with white LED 10W or more OR should have option for 100W halogen lamp illumination.
2	Section-IV	Section-IV Point No -2	Must have 6-position filter wheel for transmitted light filters & 2-position filter slider as contrast enhancement.	Must have 2-position filter slots for transmitted light & 2-position filter slots for reflected light including appropriate Neutral density filters as applicable to obtain constant color temperature during change in light intensity.
3	Section-IV	Section-IV Point No -3	Should have illumination facility for ECO mode and light management control.	Should have illumination facility with continuous light intensity control
4	Section - IV	Section-IV Point No -4	Must support direct image capture from microscope stand on its camera.	Must support direct image capture from microscope stand or through the mouse button.
5	Section - IV	Section-IV Point No -5	Should have Reflected light illuminator LED 10W white with adjustable diaphragm	Should have Reflected light illuminator LED 10W or more, white light with motorized adjustable diaphragms for Aperture as well as Field.
6	Section-IV	Section-IV Point No -6	6-position nosepiece with built-in centerable feature for each and every objective position with brightfield / darkfield Pol and brightfield/darkfield DIC	6 -position nosepiece with built-in centerable feature for each and every objective position with brightfield / Pol and brightfield/ DIC / Oblique
7	Section-IV	Section-IV Point No -7	Should have encoded changeable 4-position reflector turrets and built in luminous-field diaphragm slider	Should have encoded and motorized 4-position reflector turrets and built in luminous-field diaphragm slider
8	Section-IV	Section-IV Point No -8	Complete with Mechanical motorized stage 75x50 for Microscope - with hard coat anodized surface - stepper motor drive with integrated controller - connection interface - stage plate 292 x 187 x 18 mm - travel range minimum 75 mm x 50 mm - max	Complete with Mechanical motorized stage 75x50 for Microscope - with hard coat anodized surface - stepper motor drive with integrated controller - connection interface - travel range minimum 75 mm x 50 mm - max speed 100 mm/s - resolution: 0.5 μ m - reproducibility: +/- 5 μ m -

			speed 100 mm/s - resolution: 0.5 μm - reproducibility: +/- 5 μm - absolute accuracy: +/- 30 μm - max sample weight: 1 kg - incl. CAN cable	absolute accuracy: +/- 30 μm - max sample weight: 1 kg - incl. suitable cable and connectors.
9	Section-IV	Section-IV Point No -9	Aberration free focusable 10x paired eyepiece lenses having field of view higher than 23mm (higher preferable)	Aberration free focusable 10x paired eyepiece lenses having field of view 25 mm (higher preferable)
10	Section-IV	Section-IV Point No -10	Binocular phototube Pol 20°/23 (100:0/0:100), upright image with sliding prism and upright reticle, upright and unreversed image, camera port with interface	Binocular phototube Pol 20°/30° (100:0/0:100/simultaneous mode), upright image with sliding prism and upright reticle, upright and unreversed image, camera port with interface
11	Section-IV	Section-IV Point No -11	Microscope stand should have provision to accommodate 6-position filters for transmitted light filters for contrast enhancement	Microscope stand should have provision to accommodate 2-filters for transmitted light for color balancing to obtain constant color temperature during change in brightness.
12	Section-IV	Section-IV Point No -12	6/7-revoloving encoded revolving nosepieces with provision for DIC facility	6-revoloving revolving nosepieces with provision for DIC / Oblique facility
13	Section-IV	Section-IV Point No -14	Condenser, achromatic-aplanatic 0.9 H Pol with front lens which can be switched on the right and left. For objectives 1.0x-100x, (2.5x-100x at use of the polarizer slider for LED illuminator), WD=1.0mm, complete with Polarizer & Intermediate plate for analyzer slider	Condenser, achromatic-aplanatic 0.9 H Pol with front lens which can be switched on the right and left. For objectives 1.0x-100x, (2.5x-100x at use of the polarizer slider for LED illuminator), complete with Polarizer & Intermediate plate for analyzer slider
14	Section-IV	Photography system Point No -15	Digital Microscopy color camera with cooling incl. Driver software 64bit, USB 3.0 PCIe x1 interface and IR barrier Number of Pixels: 2464 (H) x 2056 (V) = 5.07 Mega pixel color Sensor type: Global Shutter CMOS Pixel size: 3.45 μm x 3.45 μm Chip size: 8.5 mm x 7.1 mm, equivalent to 2/3", Integration Time: 0.1 ms to 4s.	Digital Microscopy color camera with cooling incl. Driver software 64bit, USB 3.0 PCIe x1 interface and IR barrier Number of Pixels: 2464 (H) x 2056 (V) = 5.07 Mega pixel or greater, color Sensor type: Global Shutter CMOS Pixel size: 2.4 μm x 2.4 μm , Integration Time: 1 ms to 1s.
15	Section-IV	Photography system Point No -16	Windows 64-bit supported Imaging Software suite for microscope image acquisition, processing, analysis, and data connectivity. - Configurable graphical user interface including workbench concept for customized routine jobs and workflows with full integration of the microscopes	Windows 64-bit supported Imaging Software suite for microscope image acquisition, processing, analysis, and data connectivity. - Configurable graphical user interface including concept for customized routine jobs and workflows with full integration of the microscopes
16	Section-IV	Photography system Point No -18	Image acquisition with b/w, RGB, high-resolution and high-sensitivity cameras (HDR, Panorama, and manual Extended Depth of Focus (EDF) acquisitions)	Image acquisition with b/w, RGB, high-resolution and high-sensitivity cameras (HDR, Automatic stitching of images by software controlled XY stage movement, once region of interest is defined on software without any further operator intervention, and manual Extended Depth of Focus (EDF) acquisitions.
17	Section-IV	Photography system Point No -19	Standard operations for image optimization (contrast, brightness, gamma, colors, smoothing, sharpening, geometric corrections etc.)	Standard operations for image optimization (contrast, brightness, gamma, colors, smoothing / blur, sharpening, etc.)
18	Section-IV	Photography system	User Management for multi-user environment incl. full integration into	User Management for multi-user environment incl. full integration into the

		Point No -21	the Windows multi-user functionality. Connectivity to Data Storage image database - Contains Connect basic functionality, 2D CAD overlay, topography viewer for 2.5D visualization of EDF Images incl. profile line measurement, QUAL Data Export. Connection to cloud-based platform for troubleshooting solutions	Windows multi-user functionality. Connectivity to Data Storage image database.
19	Section-IV	Photography system Point No -22	Suitable latest Desktop with Intel core i5 processor, 16 GB DDR4 RAM, 1TB SSD, 27-inch FHD monitor and UPS	Suitable latest Desktop system with Intel core i7 processor, 32 GB DDR4 RAM, Graphics card with 4-6 GB VRAM, 2TB SSD, 27-inch FHD monitor, Keyboard, Mouse and UPS
20	Section-IV	Photography system Point No -25	Spare Bulbs and accessories	Spare Bulbs for minimum 10 years of use.
21	Section-I & IV	Warranty, CMC and AMC; Point No -26	1-year comprehensive warranty from the date of supply/installation from the manufacturer with at least 2 Preventive Maintenance visits per year and break down maintenance visit as and when required.	3-year comprehensive warranty from the date of installation from the manufacturer with at least 2 Preventive Maintenance visits per year and breakdown maintenance visits as and when required.
22	Section- I & IV	Warranty, CMC and AMC; Point No -27	Comprehensive Maintenance Contract (CMC) of 2 Years (To be quoted year wise will be paid yearly as per actual after warranty period is over). CMC shall have to cover all the components of the total Microscope. During warranty and CMC all spare parts and complete support are to be provided to IISER BERHAMPUR site on DDP basis.	Comprehensive Maintenance Contract (CMC) of 3 Years (To be quoted year wise will be paid yearly as per actual after warranty period is over). CMC shall have to cover all the components of the total Microscope. During warranty and CMC all spare parts and complete support are to be provided to IISER BERHAMPUR site on DDP basis.
23	Section- I & IV	Warranty, CMC and AMC; Point No -28	AMC cost after warranty & CMC is to be quoted year wise for next 5-years will be paid year wise as per actual after completion of the warranty period	AMC cost after warranty & CMC is to be quoted year wise for next 2-years will be paid year wise as per actual after completion of the warranty and CMC period
24	Section- I & IV	Warranty, CMC and AMC; Point No -29	The cost of CMC and AMC shall be included for price comparison among the eligible bidders for determination of L1 bidder	The cost of CMC and AMC shall be included for price comparison among the eligible bidders for determination of L1 bidder

Stores & Purchase Officer

ION-IV**Advanced Research Upright Polarizing Microscope with imaging system**

1. Rugged microscope stand for transmitted & reflected light polarization facility, 5x Pol. encoded system synchronized with Field and Aperture diaphragm control for automatic reproduction of illumination condition for both transmitted as well as reflected -light illumination with white LED 10W or more OR should have option for 100W halogen lamp illumination.
2. Must have 2-position filter slots for transmitted light & 2-position filter slots for reflected light including appropriate Neutral density filters as applicable to obtain constant color temperature during change in light intensity.
3. Should have illumination facility with continuous light intensity control.
4. Must support direct image capture from microscope stand or through the mouse button.
5. Should have Reflected light illuminator LED 10W or more, white light with motorized adjustable diaphragms for Aperture as well as Field.
6. 6 -position nosepiece with built-in centerable feature for each and every objective position with brightfield / Pol and brightfield/ DIC / Oblique
7. Should have encoded and motorized 4-position reflector turrets and built in luminous-field diaphragm slider
8. Complete with Mechanical motorized stage 75x50 for Microscope - with hard coat anodized surface - stepper motor drive with integrated controller - connection interface - travel range minimum 75 mm x 50 mm - max speed 100 mm/s - resolution: 0.5 μm - reproducibility: +/- 5 μm - absolute accuracy: +/- 30 μm - max sample weight: 1 kg - incl. suitable cable and connectors.
9. Aberration free focusable 10x paired eyepiece lenses having field of view 25 mm (higher preferable)
10. Binocular phototube Pol 20°/30° (100:0/0:100/simultaneous mode), upright image with sliding prism and upright reticle, upright and unreversed image, camera port with interface
11. Microscope stand should have provision to accommodate 2-filters for transmitted light for color balancing to obtain constant color temperature during change in brightness.
12. 6-revolving revolving nosepieces with provision for DIC / Oblique facility
13. High quality Infinity color contrast corrected optical system-based objectives: 2.5x, 5x Pol, 10x Pol, 20x Pol, 40x Pol.
14. Condenser, achromatic-aplanatic 0.9 H Pol with front lens which can be switched on the right and left. For objectives 1.0x-100x, (2.5x-100x at use of the polarizer slider for LED illuminator), complete with Polarizer & Intermediate plate for analyzer slider

Photography system

15. Digital Microscopy color camera with cooling incl. Driver software 64bit, USB 3.0 PCIe x1 interface and IR barrier Number of Pixels: 2464 (H) x 2056 (V) = 5.07 Mega pixel or greater, color Sensor (V) type: Global Shutter CMOS Pixel size: 2.4 μm x 2.4 μm , Integration Time: 1 ms to 1s.
16. Windows 64-bit supported Imaging Software suite for microscope image acquisition, processing, analysis, and data connectivity. - Configurable graphical user interface including concept for customized routine jobs and workflows with full integration of the microscopes.
17. Interactive and automatic control of the individual motorized microscope components and transfer of information from encoded components into the software
18. Image acquisition with b/w, RGB, high-resolution and high-sensitivity cameras (HDR, Automatic stitching of images by software controlled XY stage movement, once region of interest is defined on software without any further operator intervention, and manual Extended Depth of Focus (EDF) acquisitions.
19. Standard operations for image optimization (contrast, brightness, gamma, colors, smoothing / blur, sharpening, etc.)
20. Interactive measurements, including online measurements on the live image. Input Form Designer with automated customer data import. Report creation and modification of Microsoft Word report templates using word add-in. Data Archive for managing and maintaining documents

Management for multi-user environment incl. full integration into the Windows multi-user functionality.
Connectivity to Data Storage image database.

22. Suitable latest Desktop system with Intel core i7 processor, 32 GB DDR4 RAM, Graphics card with 4-6 GB VRAM, 2TB SSD, 27-inch FHD monitor, Keyboard, Mouse and UPS
23. Power cord for India and Dust cover
24. All technical details/parameters should be available in the manufacturer's websites
25. Spare Bulbs for minimum 10 years of use.

Warranty, CMC and AMC:

26. 3-year comprehensive warranty from the date of installation from the manufacturer with at least 2 Preventive Maintenance visits per year and breakdown maintenance visits as and when required.
27. Comprehensive Maintenance Contract (CMC) of 3 Years (To be quoted year wise will be paid yearly as per actual after warranty period is over). CMC shall have to cover all the components of the total Microscope. During warranty and CMC all spare parts and complete support are to be provided to IISER BERHAMPUR site on DDP basis.
28. AMC cost after warranty & CMC is to be quoted year wise for next 2-years will be paid year wise as per actual after completion of the warranty and CMC period.
29. The cost of CMC and AMC shall be included for price comparison among the eligible bidders for determination of L1 bidder

Installation, Commissioning & Training:

30. The system will be installed and commissioned at specified site of IISER BERHAMPUR within 30 days from the date of receipt of equipment

Mandatory Requirements:

31. The supplier has to quote the latest model as per the desired specification along with a compliance statement in tabular form with supporting documents like catalogue/data sheet etc. of the OEM.
32. Supplier has to submit the list of the user list equipment in India.
33. Commitment to provide service and spare parts support at least for next 10 years from the date of installation of the offered model.
34. Supplier should provide service and user manuals printed in English along with the delivery / installation of the equipment.
35. Vendor must provide the satisfactory functioning report from the institute, where the same equipment was installed in recent.

Eligibility Criteria:

36. Bidder should be a manufacturer or its authorized representative having experience in serving similar application. A performance Certificate from any reputed government customer should be submitted along with the bid.



- should be able to demonstrate all the quoted items as per above specification if the competent authority willing to see the machine performance before placement of order.
38. Bidder should have factory certified service engineer to carrying installation and servicing of all quoted items. A copy of the certified must be submitted along with the Bid.
 39. Brochures of all offered machines must be available for download from manufacturers/bidders website for verification
 40. Bidder must have experience in supplying petrological microscope applicable. PO and Installation/performance certificate from at least 5 Govt. of India organization should be enclosed.

TECHNICAL COMPLIANCE SHEET

Equipment/ Item: **Advanced Research Upright Polarizing Microscope with imaging system**

S. No.	Specification of Equipment	Compliance please write Yes/No	Make/Brand & Model No. of the Quoted Item	Remarks
	<u>Advanced Research Upright Polarizing Microscope with imaging system</u>			
1	Rugged microscope stand for transmitted & reflected light polarization facility, 5x Pol. encoded system synchronized with Field and Aperture diaphragm control for automatic reproduction of illumination condition for both transmitted as well as reflected -light illumination with white LED 10W or more OR should have option for 100W halogen lamp illumination.			
2	Must have 2-position filter slots for transmitted light & 2-position filter slots for reflected light including appropriate Neutral density filters as applicable to obtain constant color temperature during change in light intensity.			
3	Should have illumination facility with continuous light intensity control			
4	Must support direct image capture from microscope stand or through the mouse button.			
5	Should have Reflected light illuminator LED 10W or more, white light with motorized adjustable diaphragms for Aperture as well as Field.			
6	6 -position nosepiece with built-in centerable feature for each and every objective position with brightfield / Pol and brightfield/ DIC / Oblique			
7	Should have encoded and motorized 4-position reflector turrets and built in luminous-field diaphragm slider			
8	Complete with Mechanical motorized stage 75x50 for Microscope - with hard coat anodized surface - stepper motor drive with integrated controller - connection interface - travel range minimum 75 mm x 50 mm - max speed 100 mm/s - resolution: 0.5 μ m - reproducibility: +/- 5 μ m - absolute accuracy: +/- 30 μ m - max sample weight: 1 kg - incl. suitable cable and connectors.			
9	Aberration free focusable 10x paired			

	eyepiece lenses having field of view 25 mm (higher preferable)			
10	Binocular phototube Pol 20°/30° (100:0/0:100/simultaneous mode), upright image with sliding prism and upright reticle, upright and unreversed image, camera port with interface			
11	Microscope stand should have provision to accommodate 2-filters for transmitted light for color balancing to obtain constant color temperature during change in brightness.			
12	6-revoloving revolving nosepieces with provision for DIC / Oblique facility			
13	High quality Infinity color contrast corrected optical system-based objectives: 2.5x, 5x Pol, 10x Pol, 20x Pol, 40x Pol.			
14	Condenser, achromatic-aplanatic 0.9 H Pol with front lens which can be switched on the right and left. For objectives 1.0x-100x, (2.5x-100x at use of the polarizer slider for LED illuminator), complete with Polarizer & Intermediate plate for analyzer slider			
	Photography system			
15	Digital Microscopy color camera with cooling incl. Driver software 64bit, USB 3.0 PCIe x1 interface and IR barrier Number of Pixels: 2464 (H) x 2056 (V) = 5.07 Mega pixel or greater, color Sensor type: Global Shutter CMOS Pixel size: 2.4 μm x 2.4 μm, Integration Time: 1 ms to 1s.			
	Image Analysis Software			
16	Windows 64-bit supported Imaging Software suite for microscope image acquisition, processing, analysis, and data connectivity. - Configurable graphical user interface including concept for customized routine jobs and workflows with full integration of the microscopes.			
17	Interactive and automatic control of the individual motorized microscope components and transfer of information from encoded components into the software			
18	Image acquisition with b/w, RGB, high-resolution and high-sensitivity cameras (HDR, Automatic stitching of images by software controlled XY stage movement, once region of interest is defined on software without any further operator intervention, and manual Extended Depth of Focus (EDF) acquisitions.			

19	Standard operations for image optimization (contrast, brightness, gamma, colors, smoothing / blur, sharpening, etc.)			
20	Interactive measurements, including online measurements on the live image. Input Form Designer with automated customer data import. Report creation and modification of Microsoft Word report templates using word add-in. Data Archive for managing and maintaining documents			
21	User Management for multi-user environment incl. full integration into the Windows multi-user functionality. Connectivity to Data Storage image database.			
22	Suitable latest Desktop system with Intel core i7 processor, 32 GB DDR4 RAM, Graphics card with 4-6 GB VRAM, 2TB SSD, 27-inch FHD monitor, Keyboard, Mouse and UPS			
23	Power cord for India and Dust cover			
24	All technical details/parameters should be available in the manufacturer's websites			
25	Spare Bulbs for minimum 10 years of use.			
	<u>Warranty, CMC and AMC:</u>			
26	3-year comprehensive warranty from the date of installation from the manufacturer with at least 2 Preventive Maintenance visits per year and breakdown maintenance visits as and when required.			
27	Comprehensive Maintenance Contract (CMC) of 3 Years (To be quoted year wise will be paid yearly as per actual after warranty period is over). CMC shall have to cover all the components of the total Microscope. During warranty and CMC all spare parts and complete support are to be provided to IISER BERHAMPUR site on DDP basis.			
28	AMC cost after warranty & CMC is to be quoted year wise for next 2-years will be paid year wise as per actual after completion of the warranty and CMC period			
29	The cost of CMC and AMC shall be included for price comparison among the eligible bidders for determination of L1 bidder			
	<u>Installation, Commissioning & Training:</u>			
30	The system will be installed and commissioned at specified site of IISER BERHAMPUR within 30 days from the date of receipt of equipment			
	<u>Mandatory Requirements:</u>			
31	The supplier has to quote the latest model as			

	per the desired specification along with a compliance statement in tabular form with supporting documents like catalogue/data sheet etc. of the OEM.			
32	Supplier has to submit the list of the user list equipment in India.			
33	Commitment to provide service and spare parts support at least for next 10 years from the date of installation of the offered model.			
34	Supplier should provide service and user manuals printed in English along with the delivery / installation of the equipment.			
35	Vendor must provide the satisfactory functioning report from the institute, where the same equipment was installed in recent.			
	Eligibility Criteria:			
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37	Bidder should be able to demonstrate all the quoted items as per above specification if the competent authority willing to see the machine performance before placement of order.			
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39	Brochures of all offered machines must be available for download from manufacturers/bidders website for verification			
40	Bidder must have experience in supplying petrological microscope applicable. PO and Installation/performance certificate from at least 5 Govt. of India organization should be enclosed.			