भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान तिरुपति
INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH TIRUPATI
Srinivasapuram, Venkatagiri Road, Jangalapalli Village, Panguru (G.P), Yerpedu Mandal,
Tirupati District, Andhra Pradesh India – 517619.

CLARIFICATION ON TENDER NUMBER: IISERT-PUR-0122-24

ITEM DESCRIPTION PRE-BID CONFERENCE FOR THE PROCUREMENT OF X-RAY PHOTOELECTRON SPECTROMETER (XPS)

Refer our Tender No: **IISERT-PUR-0122-24** dated **16th-July-2024** for the procurement of X-ray photoelectron spectrometer (XPS).

The pre-Bid meeting was held on **July 24th, 2024** at 15:30 Via Google Meet and the minutes of the meeting are as under.

At the outset, the Deputy Registrar (A&P) welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter briefed the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in **Annexure-I**

The representatives present were satisfied with the replies given and it was informed that the corrections/additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Tirupati and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website http://www.iisertirupati.ac.in/ will remain unchanged. No more correspondence in this regard will be entertained

The meeting ended with a vote of thanks

Sd/-
08/10/2024 **Deputy Registrar (A&P)**

Annexure - I

PRE-BID CONFERENCE FOR - FOR THE PROCUREMENT OF X-RAY PHOTOELECTRON SPECTROMETER (XPS)

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISERT/PUR/0240/22 **DATE: 24/07/2024**

Sr. No	Query/Clarification Sought	Clarification / Amendment
1.	X-ray source: *Please confirm whether this a dual anode to be quoted or and additional Al Kα source to be quoted separately as a spare/consumable*	It may be noted this does not refers to dual anode. The specification is modified as follows; *"Essential spares and consumables for the trouble-free operation of the equipment for a minimum of five years be provided"*
2.	Depth profiling Analysis: *Request to change to: A software controlled, variable, fine focused inert gas (Ar) ion source must be provided for surface cleaning and high-speed depth profiling.*	The requested changes are made and the revised specification will read as *"A software controlled, variable, fine focused inert gas (Ar) ion source must be provided for surface cleaning and high-speed depth profiling."*
3.	Depth Profiling Analysis: *Clarification on whether heating, cooling and electro chemical in operando holders are also to be quoted.*	Holders for heating, cooling and electrochemical studies are to be quoted. The revised specification will read as *"Dedicated sample holders for powder, fibres and angle dependent studies should be provided. Holders for heating, cooling and electrochemical studies are to be quoted."*
4.	Optional Items Request to change to: *Option for upgrading Reflection Electron Energy Loss Spectroscopy (REELS) or equivalent technique and ion scattering spectroscopy (ISS) or equivalent should be possible.*	The specification is revised as per the request and the new specification will read as *"Option for upgrading Reflection Electron Energy Loss Spectroscopy (REELS) or equivalent technique and ion scattering spectroscopy (ISS) or equivalent should be possible."*

5.	Optional Items: Option of upgrading to Integrated Raman system *Request to remove this completely*	The request is considered. *"Option of upgrading to Integrated Raman system" is deleted from the optional items.*
6.	Optional Items: *Request to add other upgrades such as Scanning Auger Spectroscopy and HAXPES*	No change. *No additional upgrades added to the optional items.*
7.	The system should provide complete XPS experiment including mapping survey spectra, narrow region spectra from elements of interest and sputter depth profiling (argon ion and cluster) as well as angle dependent XPS analysis, background subtraction and curve fitting analysis. The system should be able to perform the UPS analysis. *We request you to remove the word " and cluster"*	The request is considered and the specification is modified as follows. *"The system should provide complete XPS experiment including mapping survey spectra, narrow region spectra from elements of interest and sputter depth profiling (argon ion/cluster) as well as angle dependent XPS analysis, background subtraction and curve fitting analysis. The system should be able to perform the UPS analysis."*
8.	System must have an additional Al Kα as an alternate source that can be installed on site when required. *We request you to remove this line "System must have an additional Al Kα as an alternate source that can be installed on site when required"*	The request is considered, and the specification is modified as follows *"Essential spares and consumables for the trouble-free operation of the equipment for a minimum of five years be provided"*
9.	The instrument must provide error-free positioning of the X-ray spot size that is tunable and allows analysis from <10μm to large area XPS analysis. *We request you to change "<10μm to large area" to "10 μm to 400 μm"*	The following changes are made to the specifications *"The instrument must provide error-free positioning of the X-ray spot size that is tunable and allows analysis from <10μm to large area XPS to "10 μm to 300 μm" or better.*
10.	The ultimate XPS energy resolution from conducting as well as non-conducting sample must be at <0.50 eV (FWHM) measured on Ag 3d5/2 and < 0.85 eV for OC-O component on PET sample. *We request you to correct O-C-O to O-C=O*	The request is considered and the following changes are made to the specifications *"The ultimate XPS energy resolution from conducting as well as non-conducting sample must be at <0.50 eV*

		(FWHM) measured on Ag 3d5/2 and < 0.85 eV for O-C=O component on PET sample."
11.	A software controlled, variable, fine focused inert gas (Ar, He, Ne, Xe) ion source must be provided for surface cleaning and high-speed depth profiling. *We request you to remove "He,Ne, Xe"*	The request is considered and the revised specification will read as, *"A software controlled, variable, fine focused inert gas (Ar) ion source must be provided for surface cleaning and high-speed depth profiling."*
12.	• System should be capable of integrating high-performance ion gun, utilizing Argon gas, which is capable of operating in both cluster and ion mode for depth profiling and surface cleaning of both soft and hard materials. • The outcome energy from Ar+ cluster mode should be variable from 1eV to 80 eV or greater per atom. Clear evidence must be provided if such a claim is being made. *We request to remove both points as they belong to cluster ion source.*	Following changes are made to the first point *"System should be capable of integrating high-performance ion gun, utilizing Argon gas, which is capable of operating in ion/cluster mode for depth profiling and surface cleaning of both soft and hard materials."* *"The second point pertaining specifically to the cluster is removed."*
13.	Sensitivity: Should mention their achievable sensitivity with ≤ 100 W power. Preference would be given to system which has higher sensitivity using lower X- ray power. We request to change 100 W to 130W We request to add "The system must support Grazing Angle XPS (GAXPS) on flat samples (for example Ag on SiO2). The guaranteed intensity at an energy resolution of 1.0 eV (FWHM) of the silver 3d5/2 peak should be ≥ 10 Mcps at 400 µm.	The request is considered and the revised specification will read as *"Should mention their achievable sensitivity with any value ≤ 130 W power. Preference would be given to system which has higher sensitivity using lower X- ray power."* *The following point is added to the specification* *"The system should be capable of performing angle resolved XPS wherein data can be collected at varying angles."*

FINANCIAL QUERIES AND CLARIFICATION

Sr. No	Query/Clarification Sought	Clarification / Amendment
1.	Warranty: Instrument should have 5-year comprehensive warranty on all parts. X-ray sources, tip-seals, etc. should necessarily be covered under this comprehensive warranty. Consumables, spare parts for 5 years of operation should be quoted in the main system. *We request to change the 5-year warranty to a 3-year comprehensive warranty.* *Please remove "X_-ray sources, tip-seals, etc. should necessarily be covered under this comprehensive warranty"* *Please change it to consumables, spares parts for total 3 years of operation should be quoted in the main system."*	No changes to the tender specifications.
2.	Additional 2 years of warranty after completion of 5-year warranty should be quoted separately. Annual Maintenance Contract may be quoted as optional. *We request you to please change 5 years to 3 years.* *"Additional warranty of 2 years after the completion of 3 year warranty should be quoted separately."*	No changes to the tender specifications.
3.	Provision of the optional items to be quoted in the BoQ of the e-procurement portal as well as uploading for pdf file.	Please upload the Optional items in the PDF file under the financial cover.
4.	Financial comparisons will be done on FCA/FOB or on CIP/CIF incoterms.	Based on the quotation submitted by the vendor. Normally the quotation has to be up to Chennai with CIP incoterms.
5.	*Whether optional items will be considered during the final technical and financial evaluations to declare the successful bidder.*	Compliance of optional items will be considered when considering the technical qualification of the bid. Optional items will not be part of commercial bid for qualifying L1

6.	*Delivery period of the system should be changed to 10-12 months from date of the order as these systems need elaborate testing due to ultra-high vacuum requirements.*	The requested is considered and the change is made as follows: *"The deliveries & installation must be completed within 8-10 months after placement of purchase order."*
7.	**7. INSTALLATION(Page 24)** Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site, unless otherwise instructed by the Institute, failing which a penalty of INR 500 per day from the day of actual installation requested by the Institute till the date of installation done by the bidder shall be levied. *Please change it to 6-8 weeks*	The request is considered and the following change is made. *"Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 6-8 weeks of the arrival of the equipment at site, unless otherwise instructed by the Institute, failing which a penalty of INR 500 per day from the day of actual installation requested by the Institute till the date of installation done by the bidder shall be levied."*
8.	**INSPECTION (Page 24)** FOR or CIF basis to the institute till satisfactory installation of the system, with in the stipulated time as decided by the Institute failing which penalty 1% of the total order value per week will be levied**.** *We request to allow us to quote our standard term in this regard.*	The tender terms and conditions remain unchanged.
9.	WARRANTY / SUPPORT: a) The items covered by the schedule of requirement shall carry minimum of Five years of comprehensive warranty from the date of acceptance of the equipment by IISER Tirupati. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty includes onsite warranty with parts. *The service response time in 48 hours*	The request is considered and the following change is made. *"Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 48 hours. The comprehensive warranty includes onsite warranty with parts."*

10.	The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours, failing which penalty INR 5000 per day would be levied and same shall be deducted from Performance Bank Guarantee. The same has to be accepted by the bidder and acceptance for the same has to be mentioned on the letter head in the technical bid. *This clause is not acceptable*	The following changes are made to the tender specifications. *“The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 48 hours, failing which penalty INR 5000 per day would be levied and same shall be deducted from Performance Bank Guarantee. The same has to be accepted by the bidder and acceptance for the same has to be mentioned on the letter head in the technical bid.*
11.	b) The turnaround time for resolving of any issue in case of indigenous bidders is 15 days and in case of import is 30 days from the date of intimation by the institute. Any delay in resolving the issue beyond the stipulated period mentioned above shall lead to an extension of warranty period and forfeiture of the PBG. *Warranty cannot be extended beyond 3 months*	The tender terms and conditions remain unchanged.
12.	f) The equipment must be supported by a Service Centre in India manned by the technical support engineers. Also, it should be possible to contact the Principal’s vendor support centre on a toll free number/web/mail. The support through this Centre must be available. The support through this Centre must be available 24 hours in a day, seven days a week and 365 days a year. *Standard terms – _Response time is 48 hours. Monday to Friday office hours*	The following changes are made to the tender specifications. *“The equipment must be supported by a Service Centre in India manned by the technical support engineers. Also, it should be possible to contact the Principal’s vendor support centre on a toll free number/web/mail. The support through this Centre must be available. The support through this Centre must be available 48 hours in a day, seven days a week and 365 days a year.”*
13.	The IISER Tirupati will forfeit the 03% security deposit if vendor fails to execute the order as per the Purchase Order.	The IISER Tirupati will forfeit the 05% security deposit if vendor fails to execute the order as per the Purchase Order.

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