GOVERNMENT COLLEGE OF ENGINEERING, KEONJHAR

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Letter No: GCEK/TEQIP-III/2019/421

Date: 15.11.2019

GOVERNMENT COLLEGE OF ENGINEERING, KEONJHAR

(A constituent college of BPUT, Rourkela) At: Jamunalia, Post: Old Town, Dist: Keonjhar, 758002, Odisha Website: www.gcekjr.ac.in, E-mail: principal@gcekjr.ac.in, Phone: 06766-213180

CORRIGENDUM

NATIONAL COMPETITIVE BIDDING FOR PROCUREMENT OF SEM (SCANNING ELECTRON MICROSCOPE)

Date: 15.11.2019

IFB No. GCE/TEQIP-III/2019/421

This is in reference to Tender Notice No GCEK/TEQIP-III/2019/364 Dated 25.09.2019 published on 26.09.2019 for procurement of equipment Scanning Electron Microscope (SEM). The Pre-Bid Meeting was held on 15.10.2019. As decided by the Expert Committee after the Pre-Bid Meeting suggestions from various firms, some changes have been made in the specification of SEM of the Tender Document.

For revised specification, Please visit the website link http://www.gcekjr.ac.in/tenders/. The Last Date for the submission has also been extended upto 05.12.2019 till 10.00 AM and Tender Opening time will be at 12.00 Noon on the same day. Tender opening meeting will be organized in the Office of HOD, Mechanical Engineering, Government College of Engineering, Keonjhar at 12.00 Noon on 05.12.2019.

PRINCIPAL

Principal Government College of Engineering Keonjhar

Revised Technical Specification of Scanning Electron Microscope with EDS

5/14	reclinical Parameters	reclinical specifications
Lates	t state-of-the art design,	fully automated Scanning Electron Microscope (SEM) wit
neces	ssary accessories for ima	ging & chemical analysis of all kinds of samples includin
mate	rial, geological, mineralogi	cal, polymer, biological etc.
1	Resolution:	• 3 nm or better at 30 kV (SE) in high vacuum mode wit
		Tungsten (W) Filament
		• 4 nm or better at 30 kV (BSE) in variable pressure mod
		with Tungsten (W) Filament.
		 15nm or better at 1 kV
		• 2.5 nm or better with IaB6 FILAMENT at 30 kV (Price
		should be guoted separately)
2	Operational Modes:	High Vacuum mode
		• VP/Low Vacuum mode (400 Pa or more)
3	Accelerating Voltage:	Lower Limit: 0.3 kV Higher Limit: 30 kV
4	Probe Current:	1 pA to 1µA or better
5	Magnification:	Optical magnification- unto 3.00.000y
		Digital Magnification- unto 8 00 000x
6	Electron Source:	Tungsten (W) filament
		(LaB6 should be quoted separately)
7	Vacuum System:	Should give ultra clean high vacuum Botany & Turk
	vacuum system.	molecular nump
		Should be able to operate under variable prossure. Variable
		pressure range in the chamber must be at least 400 Be
8	Stage Specification:	5-axis Motorized Stage with movement facility for
U	Stage Specification.	$\sim X = 100$ mm or higher
		\sim X = 100 mm or higher
		$\sim 7 = 50$ mm or higher
		$= -10^{\circ} \text{ to } 10^{\circ} \text{ hottor}$
		$ = \frac{10}{10} \frac$
		• Facility to accommodate multiple specimens
9	Detectors:	1 Secondary Electron Detector for use in high warmen
9	Detectors.	mode
		2 Back Scattored Electron Detector in all modes for an i
		2. Back Scattered Electron Detector in all modes for use in
		2 CL Detector should be gueted concretely
10	Computer systems:	High and Computer system with high associate load it
10	computer systems.	(1TR or more) and CD/DVD uniter drive 24" TET C
		(118 of more) and CD/DVD writer drive, 24 TFT Color
		The PC should be equipped with latest lineared in the state
		operating system. Any up gradation of activers should be
		supplied free of each up to fine upon
11	Softwara	Supplied free of cost up to five years.
11	Soltware.	deta accessories for the SEIVI and related accessories for
		uata acquisition, analysis and interpretation should be
12	Control Danaly	Control paged for contiguration.
12	control Panel:	Control panel for control and adjustment of frequently used
	*	SEIVI parameters like contrast, brightness, magnifications
	to be a start of the start of t	etc.

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- 13	Date of manufacture Of Model	Latest model with year of manufacturing should be mentioned. Model should be globally acceptable.
14	Image Frame store Resolution:	Highest frame store resolution among the competitor may be preferred.
15	Automated Control:	Automatic control of functions including: Automatic Low Magnification, Auto Filament Saturation, Auto Brightness, Auto Contrast, Auto Stigmator, Auto Focus, Auto Beam Alignment, Auto Beam Blanking etc.
16	Accessories for SEM:	 i. 5 rolls of carbon tape. ii. Extra Tungsten Filaments: 100 nos. iii. Extra LaB6 Filament: 1 no. optional with laB6 Quotation iv. Aperture set: 5 nos. v. O-ring: 1 set vi. SEM & EDS maintenances kit vii. Consumables for five years.
17	Energy Dispersive Spectroscopy (EDS) Detector:	Energy resolution should be 129 eV or better. EDS with liquid N2 free detector.
18	Sputter Coating Unit:	Suitable compact table top gold sputter coating unit. This must include compatible vacuum pump. Additional Gold (Au) target - 1 no. (It should be quoted separately.)
19	Warranty:	The entire system should have 2-years warranty after installation, commissioning and handover of the system. All the spare parts should be available up to 10 years after the warranty will be over. Three years non comprehensive AMC should be quoted separately.
20	Installation, Commissioning and Training:	The system should be installed & commissioned by the supplier by their trained & certified engineer at the installation site and after successful completion of installation, the required operational training will be provided to the deputed personnel on the complete system
21	Operator	Suitable skilled operator must be provided by the supplier for one year. The quoted price must include the expenditure for the same. (It should be quoted separately.)
22	Sample Dimension	Diameter-150 mm or more Height-80 mm or more
23	Camera	CCD/IR Camera or any other suitable technique is to be provided and it should be operated through graphic user interface through same structure. (It should be quoted separately.)

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