

Sidho-Kanho-Birsha University

Ranchi Road, P.O.- Sainik School District - Purulia, PIN – 723104, W.B. Phone : 03252- 202419 *Website-www.skbu.ac.in*

Ref No: FO/ 210 /SKBU/18

Date: 07/03/2018

E- Tender Notice

1. SIDHO-KANHO-BIRSHA University, Purulia intends to procure **Lab equipments** for Geography Dept at Purulia. The tentative quantity of the required items along with technical configuration of each items are mentioned at Annexures separately. SKB University is looking for interested bidders who have experience in supplying of above type of instruments.

2. Bidders are advised to study all **technical and financial** aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender Document or submission of a bid not substantially responsive to the Tender document in every respect will be at the Bidder's risk and may result in the rejection of the bid.

3. Intending bidder may download the tender documents from the website https://wbtenders.gov.in OR www.skbu.ac.in. Only Online Submission of Tender will be accepted. Last date of submission: 19/03/2018 up to 12:00 hrs. Opening Date 21/03/2018, 1 PM.

4. The categories of items and quantity indicated in the Tender Document are tentative. SKB University (SKBU), however, reserves the right to increase or decrease the quantity or delete some or all of the items depending on the needs of the SKBU and availability of funds without assigning any reasons.

5. The bidder should indicate specifically the **Basic Price, Taxes, GST, Entry tax, other duties (if any)**, and levies chargeable quantitatively against each item. **University will assist to have way bill (if necessary) but the pay will be borne by the bidder**. University having valid Central excise duty exemption certificate issued by DSIR, New Delhi. No additional information will be entertained after due date. SKBU may reject bids if they do not carry such information separately and specifically quantitatively.

6. The tender should be submitted in two cover system (electronically) as defined in E-Tender participation system: (a) Technical Bid (b) Financial Bid.

7. The bidder must submit Authorization Certificate of Manufacturer to sale the **Product.**

8. The bidder should clearly indicate the availability of service and maintenance facilities at Purulia for the items quoted.

9. The bidders are required to quote for each item separately in terms of basic price and all other charges. Prices can be quoted in Indian Currency only (\mathbf{R}) .

10. The bidder (Technical Bid) must be submitted along with the copies of OEM license or authority from the manufacturer.

11. SKB University reserves the right to reject any or all tenders without assigning any reason whatsoever.

12. No advance payment or payment against Performa invoice will be made. Payment will be made after receipt, inspection, and installation/testing.

13. All damaged or unapproved goods shall be returned at the bidder's risk and cost and the incidental expenditure thereupon shall be recovered from the concerned party. 14. On acceptance of tender, the date of delivery should be strictly adhered to otherwise, the SKB University reserves the right not to accept the delivery in full or in part. In case the order is not executed within the stipulated period, the SKB University will be at liberty to make purchases through other sources.

15. Payment of bill will be made through by crossed account payee Cheque or electronic payment (NEFT) only after delivery and successful installation of each of the items.

16. Delivery Schedule: The Company shall be able to deliver the required items within15 days of the receipt of order. Delivery/Installation is to be done at Purulia, WestBengal.

17. The products asked for should be of very high standard and of mentioned brand.

18. The company should ensure quick back up response in case of equipment failure which should be replaced if needed within 48 hours of the distress call.

19. Payment: There is no provision for making advance payment to the Company. However, the running bills for the jobs completed can be submitted by the company and will be cleared for payment within reasonable period.

20. Purchase Order: The purchase order for the entire quantity can be placed either in one lump sum or as per the requirement through repeat order subject to availability of fund of the required items. The quantity shown is tentative and may increase or decrease.

Registrar

Annexure 1

Proforma For Techncial Bid

SL	Particulars	Information
1	Name of the Firm & Owner :	
	(with Telephone/Mobile Numbers, email)	
2	Type of Organisation	
	(Proprietorship/Partnership/Pvt.	
	Ltd./Limited Company)	
	Month/Year of Establishment	
3	Website of Bidder, if any	
4	Month/Year of Establishment	
5	PAN/Sales Tax/ GST Regd. Nos.	
6	Annual Turnover	
	2016-17	
7	Whether product(s) offered by the bidders are	
	exactly as per the configuration of SKB University. If	
	not, indicate the changes in each product	
8	Clientele (submit copies)	
9	Validity of Tender	
10	Whether Terms & Conditions issued by SKB	
	University are acceptable to the Firm	
11	Whether Warranty as per the	
	desired specification	

Date

Name:

Signature of Owner/Authorized Representative

Designation:

<u>Annexure</u>

SI.	ltem		Quantity				
1	Flow Meter	Wading set, co Control Display cable, 3*0.5 m with base plate software for da operational man	1				
2	Current Meter	Sensor Current Direction Pressure Temperature Conductivity Turbidity Sensors: Data Acquisitio Continuous: Reg sampling patter sleeps for a defi Burst: Data is ou usually Pressure Delay: Instrume Electrical: Internal: 8 x D oc External: 9 - 300 Power: 1.7W (si Battery Life: >11 (lithium) Connector: Subo Memory: Supported by m Continuous: >52 Point: >360,000 Communication The instrument extraction perfor after deploymer communication standard and se for rapid upload Software:	1				
		Supply of Windo extraction and o	ows based P(display and a	C software, fo nalysis of dat	or instrument se ta.	etup, data	

3	Wave & Tide	Sensor:					
	Recorder	Sensor	Туре	Range	Accuracy	Resolution	
		Pressure	Resonant	65psi	±0.01%	0.001%	
		(High	Quartz	(35m			
		accuracy)		water)			
		Pressure	Strain	Up to	±0.1%	0.001%	
		(standard)	Gauge	50dBar			
				(40m			
				water)			
		Temperature	PRT	-5 to	±0.01°C	0.005°C	
				+35°C			
		Conductivity	Inductive	0 -	±0.01mS/cm	0.004mS/cm	
		(optional)	Coils	80mS/cm			
		Turbidity	Seapoint	0 - 2000	±2%	0.005%	
		(optional)	SIM	FIU		Scale	
		Data Acquisitio	n:				
		Sample rate: 1,	2, 4 Or 8HZ.	120 4000		hattan data)	
		No. of Samples:	POWERS OF 2	, 128 - 4096 ima is naara	(more samples :	= better data)	
		ofter processing	imum cycle t	lime is neare:	st whole numbe	er of minutes	
		Delay start: last	nas inisneo	l. ho programn	and to havin car	moling at a	
		specific time		be programm	neu to begin sai	nping at a	
		Flectrical					
		Internal: 32 x D	cells 1 5v al	kaline or 3 6v	vlithium		1
		External: 9 - 30	/DC		v nemani		
		Power: 0.7W (sa	ampling). <1	mW (sleeping	z)		
		Battery Life: >2	months ope	ration (alkali	ne) and >5 mon	ths operation	
		(lithium)	•			·	
		Connector: Sub					
		Communication					
		The instrument					
		extraction perfo	ormed by dire	ect communi	cations with PC	before and	
		after deployme	nt. It also ope	erates in real	time, with a ch	oice of	
		communication	protocols fo	r a variety of	cable lengths, a	all fitted as	
		standard and se	lected by pir	n choice on tl	ne output conne	ector: USB port	
		for rapid upload	and up to 1	500m cable.			
		Memory:					
		Supported by m					
		Raw sensor data	a from each l	ourst Summa	ry statistics of v	vave burst Tide	
		& additional ser	isor data Spe	ectral analysis	s of wave burst.	IT all data is	
		saved, memory	will typically	months data		is. Sampling	
		Software:	IIIS IS OVEL 5	months uata			
		Supply of Winde	ws hased PC	software fo	or instrument se	tun data	
		extraction and o	lisplay and a	nalysis of dat	a		
			lispidy and a				
4	Binocular	Magnification-1	.6x. Effectiv	ve diameter	of objective	lens- 50mm.	
	2	Waterproof (up	to 1 meter f	or 5 minutes) and fog-free w	ith nitrogen gas	
		filling, High-eye	e point desig	gn provides	a clear field of	view even for	
		eyeglass wear	ers Turn-an	d-slide rubb	per eyecups v	vith multi-click	2
		facilitate, easy	positioning c	of eyes at the	e correct eye po	oint, Multilayer-	3
		coated lenses a	and large ob	jective diam	eter for optima	l image clarity,	
		Rubber armour	ing for shock	resistance a	nd a firm, comfo	ortable grip Eco-	
		glass optics are	free of lead	and arsenic.			
5	Walkie-Talkie	Range- At least	3 km, MDC12	200 Signallin	g, Maximum of	128 channels to	
		organise work	groups with	ease and	efficiency, 14-C	haracter Alpha	3
		Numeric Dot-M	atrix Display	, To commu	nicate frequentl	y with multiple	5
		work groups, A	rugged radio	to perform u	under harsh out	door condition,	

		To communicate in a high-noise environment, To coordinate law	
		enforcement and emergency, Constant up-to-the-minute information.	
6	Mini Tide	Sensor:	
		The Mini Tide is fitted with a novel temperature compensated piezo-resistive	
		pressure transducer that offers levels of performance previously only	
		available from costly resonant quartz transducers.	
		Range: 10 30 100 300 or 600 Bar	
		Resolution: 0.001% range	
		Accuracy: ±0.01% range	
		Data Acquisition:	
		The Minitide features a selection of pre-programmed sampling patterns,	
		allowing the device to monitor (and average) pressure readings for a number	
		of seconds at regular time intervals, e.g. 40 seconds sampling every 10	
		minutes. Alternatively, the instrument may be set to output data at a fixed	
		sample rate of 1 or 2 Hz, for continuous monitoring applications.	
		Communications:	
		performed by direct communications with PC before and after deployment. It also	1
		operates in real time, with a choice of communication protocols fitted as standard	
		and selected by pin choice on the output connector. Up to 1000 meter cable.	
		Electrical:	
		Internal: 1 x C cell, 1.5v alkaline or 3.6v lithium	
		External: 9 - 28vDC	
		Power: 200mW	
		Battery Life: 30 days (alkaline) @ 40 secs / 10 mins, 80 days (lithium) @ 40	
		secs / 10 mins	
		Connector: Subconn	
		Memory: The Minitide is fitted with a calidetate non-valatile Flack memory, canable of	
		storing over 30 million lines of data.	
		Software:	
		Supply of Windows based PC software, for instrument setup, data	
		extraction and display and analysis of data.	
7	Acoustic	Water Profiling Range & Depth:	
	Doppler	Frequency- 1000kHz, Max. Range- ≤40m, Max. Cell Size- ≤2m,	
	Current Profiler	Standard Depth - 800m At least.	
	(ADCP) [for	Velocity:	
	River Work	Accuracy- 0.25% ±2.5mm/s, Cell Size- 0.25-2m, Max Water Velocity-	
	RIVEL WORKJ	≥20 knots.	
		Power:	
		Max. Transmit- 50 watts, Low Power Transmit- 15 Watts, Receiver	
		Mode- 0.8 Watt, Sleep Mode- 7mwatts.	
		Software:	
		Windows based software for real time current monitoring and off-line	
		data analysis and display.	
		Sensors:	
		Compass- Accuracy- ± 2 degree, Tilt (Pitch and Roll) - ± 0.5 degree up to	1
		±15 degree, Temperature- Accuracy- ±0.1 degree C.	Ţ
		Bottom Tracking Option:	
		Max. Altitude- At least 60m, Min. Altitude- 0.35m, Accuracy-	
		1%±1mm/s	
		Pressure Sensor:	
		Accuracy- 0.25% of full scale of the pressure rating, Pressure Rating-	
		2000 PSI, Depth Rating - 1350m.	
		Software:	
		Windows based software for data download, display and analysis.	
		Wave Spectrum Measurement Specification:	
		Max. Range- ≤40m, Wave Height Resolution- 1cm, Wave Height	
		Accuracy- ≤2.5cm, Wave Direction Resolution- 0.1 Degree, Wave	
		Direction Accuracy- 2 degree, Number of Samples Per Burst- 204.	
		Software:	

		Windows based so Discharge Measu Water Profiling A Max. Range- At L (Velocity Tracking Measurement), Co Discharge Measu Based) & (Model of Software: Windows based so Facility Required: Transponder.						
8	Suspended	Sensor:						
	Solid Monitor	Туре	Ins	sertion Probe	Submersible Probe			
		Size	Pi	oes greater	Open channel/tanks			
		5120	th	an 2 inches	open enamely tanks			
		Wetted Parts	31 gla	.6 Stainless, ass	316 Stainless, glass			
		Process Temp.	-10	0 °C to 110 °C	-10 °C to 60 °C			
		Pressure	0 t	to 150 psig	0 to 50 psig (110 feet of water)			
		Mounting	1"	NPT male	Cable or rigid mount			
		Transmitter:					1	
		Display		3.5 Digit LCD II	ndicator			
		Range		0-2000 ppm to	0-20% Full Scale			
		Output		4-20 mA into 6	500 ohms max. isolated, other			
		Output		outputs availa	ble			
		Resolution		0.05% of Scale	·			
		Repeatability	Repeatability					
		Ambient	Tomporaturo					
		Alarms		Ontional Dual	Alarms			
		Power			/60 Hz 5 Watts 24 VDC			
9	Silver Schmidt	Specification:						
5	Hammer	Impact energy Type: 2.207 Nm						
		Concrete compressive strength range Types N/L: 10 - 100 MPa						
		Max. impacts per series: 99						
		Memory capacity	(PC	version only): ca	a. 400 series of 10 impacts, ca.			
		200 series of 20 ir	npac	ts				
		Useful memory ca	apac	ity ST version: L	ast 20 series may be reviewed in			
		the data list	ival	graphic			1	
		Battery life: >500	n im	graphic nacts between c	harges			
		Charger connection	on: l	JSB type B (5V, 1	00 mA)			
		Operating Tempe	ratu	re: 0 to 50°C				
		Storage Tempera	ture	: -10 to 70°C				
		Software:						
		Windows based so with all other requ	oftw uired	are to download <u>I acces</u> sories.	data, display and analysis and			
10	Digital	Insertion-type ser	nsor	and electronic s	signal converter in dust tight an	d		
	Turbidity	watertight, 220 V	AC,	4-20mA output,	25 feet of interconnecting cabl	le	1	
	Meter	and safety chain, 0-1000 NTU, Digit	Porta al di	able power trans splay	smitter (12V), Dual alarms, Range	e-	-	
11	Sound Level	Measuring range	22	. 136 db(A)				
	Meter	Accuracy	Clas	s 1			2	
		Frequency range						

		Standards	GB/T 3 60651 S1.4-1	3785.1-2010, GB/T 3785.2-2010, IEC :1979, IEC 60804:2000, IEC 61672-1:2013, AN 983, ANSI S1.43-1997	ISI	
		Frequency analysis	1/1 Oc 1/3 Oc	tave band filter: 8 Hz 16 kHz tave band filter: 6.3 Hz 20 kHz		
		Microphone	1/2" Microp Freque Power	ohone Class: 1, Sensitivity: 40 mV/PA, ency range: 3 Hz 20 kHz, Connection: TNC, supply: ICCP Standard		
		Data-logging interval	1 s 2	24 h (adjustable)		
		Measuring functions	LXY (SI LXPeal	PL), LXeq, LXYSD, LXSEL, LXE, LXYmax, LXYmin k, LXN	,	
			X = Fre Y = Tin N = Sta	equency weighting: A, B, C, Z ne weighting: F, S, I atistics in %: 1 99 %		
	Frequency A, B, C, Z weightings					
		Time weightings	Fast (F) 125ms, Slow (S) 1 sec, Impulse (I) 35 ms		
	Inherent noise Microphone: 19 db(A), 25 db(C), 31 db(Z) Electronics: 13 db(A), 17 db(C), 24 db(Z)					
		AD converter	24 Bit			
		Sample rate	Standa	ard: 48 kHz, LN Mode: 20 ms		
		Measuring display	Nume	rical, Bar graph, Graphical		
		Display	160 x 1	160 pixel LCD with backlight		
		Memory	4 GB N	Aicro SD card		
		Interface	USB (N mass s	Nemory readable via software or directly as torage)		
		Voltage output	AC 5V	RMS, DC 10 mV/db		
		Alarm	Adjust	able		
		GPS	Yes, G	PS receiver for location determination		
		Power supply	4 x 1.5 A USB	V AA Batteries, 12 V / 1 A Power plug, 5 V / 1	L	
		Battery life	Min. 1	0 h continuous use		
12	Digital	Software for data	display	y and calculation, ISO calibration certificate.		
12	Conductivity	Range		0 to 1000m mbo in 6 ranges		
	wieter	Range selection		automatic 6 ranges 0 to 1000ms/cm		
		Resolution		0. 1ms/cm		1
		Cell constant		adjustable		
		Temperature co-	eff	adjustable between 0 to 4%		

		Temp compensat	tion	automatic fo	or entire range		
	Accuracy		± 0. 5% of range + 1digit				
	TDS						
		Range			0 to 1000ppt in 6 ranges		
		Range selection		automatic			
		Resolution		0. 1ppm			
		TDS factor		0. 5 and adju	ustable manually		
		Salinity					
		Range		0 to 50ppt			
		Resolution		0. 1ppt			
		Accuracy		± 0. 5% of ra	nge ± 1digit		
		Temp compensat	tion	Automatic			
		Salinity factor		. 75 and adii	istable manually		
		Temperature		. , o ana aaja			
		Range	-20 0) to +200°c			
		Resolution	-20.0	0 t0 +200 t			
		Accuracy	+0.20	D 20/			
			τ0. 2.	00			
		Calibratian	pt 10				
			manu				
		Display	16 CN	aracter 2 lines	s alphanumeric Icd		
		Display format	temp salini ⁻	& conductivit ty simultaneo	ty or temp & TDS temp & usly		
		Setting	by so	ft touch keys			
		Storage	1000	samples with	date & time		
		Real time display	24 ho	our mode with	date		
		Error indication	t-erro	or, cal error			
		Print format	a) All	All data b) data wise			
		Accessories	1) Co Cover	nd Cell, 2) Sta	nd, 3) Temp Probe, 4) Dust		
12	GPS		5) Ins	truction Man	uai		
13	GPS Map/Navigator	Display			Bright, sunlight readable]	
		Display size			WVGA display 5.0" (127.0 mm) diagonal		
		Display Resol	ution		800 x 480 pixels	1	2
		Water rating Battery type			IPX7 rechargeable lithium-ion or 3 AA batteries; NiMH or		
					Lithium recommended		

		Battery life Memory/history High-sensitivity receiver Basemap Ability to add maps Accepts data cards Custom POIs (ability to add additional points of interest) Waypoints/favorites/locations Routes Track log Barometric altimeter Compass Automatic routing (turn by turn routing on roads) Custom maps compatible Hunt/fish calendar Sun and moon information	up to 16 hours (lithium- ion); up to 8 hours (AA batteries) 8 GB Yes Yes Yes Yes MicroSD™ card Yes 10,000 250 20,000 points, 250 saved tracks Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	
		Additional	Wi-Fi ANT, Bluetooth, Anti Glare Screen Protector	
14	RockWorks Software	Version: 17 Advanced, preferably mandatory demonstration at least f available with the software (price r software) and 2 years AMC.	facility of Hard Key, for three days covering all tools must be included within the	2
15	Hydro GeoAnalyst Software	Version: Latest, preferably facility demonstration at least for three day with the software (price must be in and 2 years AMC.	2	

Sd/-Dr. Nachiketa Bandopadhyay Registrar