Office of the Principal
Government Engineering College
Bartonhill,Thiruvananthapuram.

P2/7730/21/GECBH 03/01/2022

Notice Inviting E-Tender

E-Tender Reference No	: 03/2021-22/P2/7730/21/GECBH/SN		
E-Tender ID	: 2021_DTE_459539_1		
Superscription	: Purchase of One Potentiostat/Galvanostat and Standard cell Kit for the nanoelectronics research lab in the ECE department in Government Engineering College, Bartonhill		
Last Date & Time of Receipt of E- Tenders (online – www.etenders.kerala.gov.in)	: 18-Jan-2022 06:55 PM		
Date & Time of opening of E-Tender	: 20-Jan-2022 09:00 AM		
Date up to which the rates are to be firm	180 Days from the date of opening tender.		
Cost of E-Tender	Rs.2596/(Tender fee Rs.2200+Rs.396/- GST @18%(Online remittance). (Rs 2200 should be paid on E-Tender Website and Rs 396 ie should be paid on reverse charge basis while filing his returns		
EMD Required	Rs.10974/- (Online remittance).		
Address of the Officer to whom communications are to be sent	THE PRINCIPAL GOVT.ENGINEERING COLLEGE, BARTON HILL ,THIRUVANANTHAPURAM KERALA Mob-9400006408.(Principal) Mob-9496762406(Accounts Officer) Mob-9846714764(Purchase Superintendent) Mob-9895339777(Purchase Section Clerk) Ph-04712300484, 2300485		
	Email- purchase.gecbh@gmail.com		
	Detailed specification enclosed below for One quantity or visit		
List of Items to be Supplied	www.etenders.kerala.gov.in		
	http://www.gecbh.ac.in		
	http://www.dtekerala.gov.in		

General Terms and Conditions

Note: The dates furnished above are subject to revision. All rules and regulations will be subject to Store Purchase Manual of Kerala Government Only. Bidders are requested to bid and act as per the instructions of Store Purchase Manual only.

- Any defects in specification/tender called for should be notified by Bidder to Tender Inviting authority when NIT is called for. Complaints if any given by Bidders regarding specification after Technical Evaluation is completed and published is not entertained.
- ii. This tender document is not transferable. Tender Documents shall be available only on E-Tender Website and will not be available for sales elsewhere.
- iii. GECBH reserves the right to amend or cancel the tender in part or in full without prior notice at any point of time.
- iii. If GECBH deems it appropriate to revise any part of this NIT or to issue additional data to clarify an interpretation of provisions of this NIT, it may issue supplements to this NIT. Any such supplement shall be deemed to be incorporated by this reference to this NIT.
- iv. GECBH reserves the right to reject the bid of parties who have failed to provide adequate after sales support for the products supplied against various orders to other Government institutions, and for irregular or non standard equipment supplied earlier, such suppliers will not be considered for the subsequent tenders
- v. Bidder/Supplier shall upload original specification compliant product brochure details, OEM certificate, OEM distributor/supplier certificate are to be uploaded in the E-Tender website as per the order/bid offered. Sampling of products would be called for as per requirement given from department concerned during technical evaluation. The bidder has to compulsorily give brand name, model name, and customer list, complete Catalogue/brochure of the offered item and material of construction, experiments' details (if applicable).
- vi. LD will be charged for delayed supply. Furthermore, if the delay exceeds 4 weeks after the scheduled date of supply, such suppliers will not be considered for the subsequent tenders. If the supplier is unable to supply due to various reasons after receipt of supply order, it may be urgently intimated to Purchase section via concerned department for which supply was issued so as to enable the purchase section to give supply order to the next eligible firm.
- vii. The Special Instructions to the Contractors/Bidders for the e-submission of the bids are given under "Help to Contractors" in website http://etenders.kerala.gov.in/nicgep/app.
- viii. e-Tender tax rate is 18%. The firm bidding for E Tender must pay the GST on reverse charge basis while filing his returns. The supplier of services may claim the input tax credit on the amount of tax paid under reverse charge mechanism subject to the provisions of Input Tax Credit Rules. Source-http://keralataxes.gov.in/2017/08/21/faq-for-government-departmentslocal-authorities-and-other-line-departments/
- ix. The "Seller(s)"/ Bidders on eProcurement System will be the OEMs (Original Equipment Manufacturers) and/or their authorized channel partner(s)/ resellers (having any general authorization / dealership of the OEM to sell their product in open market)

Specific Terms & conditions for E-Tender.

The tenderer should compulsorily superscribe the name and number of tender as well as their own name, on the E-Tender Bid documents uploaded/ envelopes containing the physical tenders for information. Hard copies if any of the tender documents shall be submitted before the date of opening of tenders.. Bidders are requested to quote E-Tender Reference No, Subject compulsorily in all soft copy/physical hard Copy forwarded and all correspondences through email/physical mail/phone.

The price quoted should be inclusive of all taxes, freight charges, transportation, loading, unloading charges, installation etc. The rates are to be firm for Days specified in the E-Tender called for from the date of opening E- tender.

5% Security Deposit by Bank Guarantee/ Bank FD/ Kerala Government Treasury Savings Bank (Fixed Deposit preferred)along with Two Hundred and twenty Rupees Kerala Stamp Paper agreement should be furnished within a month/fortnight from the date of receipt of supply order. It should also be noted that 25% of the Security Deposit requested ie 25% of the 5% should be compulsorily in the form of Kerala Government Treasury Deposit as per mandated in G.O(P)No.104/2014/Fin Dated - 14/03/2014.You are requested to contact Purchase Section, Administrative Office for further information. Hence you are instructed to open a Kerala Government Treasury Account if you are chosen as a Supplier for the above E-Tender.

Delivery @ Concerned Department at Government Engineering College, Bartonhill,
Thiruvananthapuram with prior intimation of delivery to Department Head/Purchase Section. The
maximum time limit that can be availed by the supplier is 60 days with prior communication of the same
Purchase section through your letter/email via Concerned Department which requires the equipment.
Late delivery will be charged for delivery of the items after the said time limit of 60 days. Department
Head have been instructed to communicate to Purchase Section if delivery of the product is not done
within the specified date / intimate to Purchase Section the request for extension of Supply Order date, if
any is received from firm. if request for extension is not received/recommended through concerned
Department, the supplier is liable to pay LD charge as per the revised Store Purchase Manual.

Payment – Only after the satisfactory supply and installation/commissioning. Invoice(3 numbers) for Supply Order generated should contain E-Tender reference number & GST registration Number of College- 32TVDG02719D1DX.

Government Engineering College ,Barton Hill is not making any taxable supply of goods and/or services, it is required to register only as a **deductor of tax at source** on the basis of TAN/PAN.

The transactions liable for TDS?

All transactions where the total value of a taxable supply received under a contract exceeds Two lakh and Fifty thousand rupees (excluding GST). For the purpose of deciding TDS liability, the whole contract amount is to be reckoned, irrespective of individual periodic payments and TDS is to be deducted for such individual periodic payments.

Preliminary Agreement is no longer required to be prepared in Kerala Stamp Paper worth ₹220/- and uploaded/ produced along with E-Tender documents as it has been made non-mandatory as per Letter No.56423/Ind&PW.B2/15/Fin, Dated 10/08/2015 from Additional Chief Secretary Finance to The Director ,Kerala State IT Mission. Kerala Stamp Paper worth ₹220 Agreement is mandatory for firms who have been given Supply Order only.

- 7 | All amount payable is through Online remittance only.
- Date of Opening- If the opening date is declared as a holiday the tenders will be opened on the next working day.
- Tender documents are to be up loaded through E- tendering system. Tender Form cost ,GST @18 %, EMD should be remitted through net banking(Electronics Transfer only)

Warranty - Minimum One year from the date of installation or above with all inclusive warranty for all equipment supplied with further coverage with AMC if requested.

All preferred names given for company are benchmark for minimum quality, components supplied should be of same quality or higher quality.

Sl.	Description
No. 1.	WaveDriver 100 EIS Potentiostat/Galvanostat Part No.: [WD100-BASIC]
	 WaveDriver 100 Basic Bundle includes the items listed below: WaveDriver 100 Potentiostat/Galvanostat with EIS (It includes power adapter and USB cable, power cord soldseparately) Part No.:AFP5 Software: AfterMath data organization software WaveDriver 100 Cell Cable Kit (5-lead, includes alligatorclips) Part No.:ACP5E01
	Specifications for WaveDriver 100 EIS Potentiostat /Galvanostat Measured Current • Measured Current Ranges: ±1 A, ±100mA, ±10 mA, ±1 mA, ±100 μA, ±10 μA, ±1 μA, ±100nA • Resolution (at each range): 31.3 μA, 3.13 μA, 313nA,31.3nA,3.13nA,313pA,31.3pA, 3.13 pA • Autoranging:Yes • Practical Current Range: ±5 pA to ±1.0A • Measured DC Accuracy: ±0.2% ofsetting; ±0.05% of range
	 DC Leakage Current: <10 pA at25°C AC Accuracy: Frequency- and range-dependent to 1 MHz AC Leakage Current: Frequency- andrange-dependent to 1 MHz ADC Input: 16bits Filters(forDCExperiments):10Hz,30Hz, 100 Hz, 1 kHz, 10 kHz (2-pole, low pass Bessel filters)
	Applied Current (Galvanostatic Mode) • Applied Current Ranges: ±1A,±100mA, ±10mA, ±10mA, ±100μA, ±10μA, ±1μA, ±100nA • Resolution(ateachrange):31.3μA,3.13μA, 313 nA, 31.3 nA, 3.13 nA, 313 pA, 31.3 pA, 3.13 pA • Applied DC Accuracy: ±0.2% ofsetting; ±0.05% of range • DAC Output: 16bits Power Amplifier (Counter Electrode Amplifier)

- Output Current: ±1.0 A(maximum)
 - ShortCircuitCurrentLimit:1A,100mA ranges: <1.3A, 10mA-100nA ranges: < 200

mA

- Compliance Voltage: >±17V
 - Bandwidth: >2.5 MHz (on fastestspeed setting)
- Noise and Ripple: <10mVRMS
 - Slew Rate/Rise Time: 10 V/µs (onfastest speed setting)

Electrometer (Reference Electrode Amplifier)

- Input Impedance: $>10^{12} \Omega$ in parallel with <10 pF
 - Input Current: <10 pA leakage/bias currentat 25°C
- Electrometer Bandwidth: >15 MHz (3dB)

Measured Potential

• Measured Potential Ranges: ±15.0 V, ±10.0 V,

±2.5 V

- Resolution (at each range): 469 μV, 313 μV, 78 μV per DAC bit
- DC Accuracy: $\pm 0.2\%$ of setting, $\pm 0.05\%$ of range
- ADC Output: 16 bits
- Filters (for DC Experiments): 10 Hz, 30 Hz,

100 Hz, 1 kHz, 10 kHz (2-pole, low pass Bessel filters)

Applied Potential (Potentiostatic Mode)

• Applied Potential Ranges: $\pm 15.0 \text{ V}, \pm 10.0 \text{ V},$

±2.5 V

- Resolution (at each range): 469 μV, 313 μV, 78 μV per DAC bit
- DC Accuracy: $\pm 0.2\%$ of setting, $\pm 0.05\%$ of range
- DAC Output: 16 bits
- CV Sweep Rate (min): 10 μV/s (469 μV per 46.9s, 313μV step per 31.3s or 78μV per 7.8 s)
- CV Sweep Rate (max): 75 V/s

Data Acquisition (For DC Experiments)

- Clock Resolution: 10 ns (minimum time base)
- Point Interval: 80 μs (minimum)
- Synchronization: Simultaneous sampling of all analog input signals
- Raw Point Total: <10 million per experiment

IMPEDANCE (EIS)

- EIS Capable: Yes
- EIS Frequency Range: 10 μHz 1 MHz
- EIS Frequency Resolution:
- <1 ppm 1MHz 100 mHz

<8 ppm 100 mHz **–** 10 mHz

<90 ppm 10 mHz – 1 mHz

<700 ppm 1mHz – 10 μHz

- EIS Frequency Stability: ±10 ppm
- Modes: Potentiostatic/Galvanostatic
- Voltage Excitation Setpoint: 1 mV 200 mV peak, ±10% of setting
- Current Excitation Setpoint: 0.01% 100% of current range, $\pm 10\%$ of setting, 200 mA max
- Frequency Sweeping: Linear/Logarithmic/ Custom List General Specifications
 - Power Required: 24.0 VDC (±5%), 5.0 A (low voltage DC device)
 - Power Supply: Input Requirements: 100 to 240 VAC,
 1.4 to 0.7 A, 50 to 60 Hz Output Power: 24 V AC, 5.0
 A Power supply (included) has a C14 type input connector
 - LED Indicators: Power, USB, and status
 - Instrument Dimensions: $160 \times 324 \times 255$ mm
 - Instrument Weight: 4.6 kg (10.2 lb)
 - Temperature Range: 10 °C 40 °C
 - Humidity Range: 80% RH maximum, non- condensing

Accessories

- Dummy Cell: External dummy cell (included)
- Cell Cable: Combination D-SUB connector to multiple banana plugs via shielded coaxial cables (included)

Electrochemical Techniques:

- Open Circuit Potential (OCP)
- Constant Potential Electrolysis (BE)
- Constant Current Electrolysis (BE)
- Zero Resistance Ammeter (ZRA)
- Cyclic Voltammetry (CV)
- Linear Sweep Voltammetry (LSV)
- Staircase Voltammetry (SCV)
- Chronoamperometry (CA)
- Normal Pulse Voltammetry (NPV)
- Cyclic Step Chronoamperometry (CSCA)
- Differential Pulse Voltammetry (DPV)
- Square-Wave Voltammetry (SWV)
- Double Potential Step Chronoamperometry (DPSCA)
- Chronopotentiometry (CP)
- Ramp Chronopotentiometry (RCP)
- Staircase Potentiometry (SCP)
- Cyclic Step Chronopotentiometry (CSCP)
- Anodic & Cathodic Stripping Voltammetry (ASV)
- Differential Pulse Stripping Voltammetry (DPSV)
- Square-Wave Stripping Voltammetry (SWSV)
- Spectroscopy (SPEC)
- Spectroelectrochemistry (SPECE)

- Rotating Disk Electrode (RDE)
- Koutecky-Levich Series (KL-RDE)
- Rotating Disk Electrolysis (BE-RDE)
- Rotating Disk Chronopotentiometry (CP-RDE)
- Rotating Disk Ramp Chronopotentiometry (RCP-RDE)
- Linear Polarization Resistance (LPR)
- Rotating Cylinder Voltammetry (RCE)
- Rotating Cylinder Electrolysis (BE-RCE)
- Rotating Cylinder Eisenberg Study (EZB- RCE)
- Rotating Cylinder Polarization Resistance (LPR-RCE)
- Rotating Cylinder Open Circuit Potential (OCP-RCE)
- Rotating Cylinder Chronopotentiometry (CP- RCE)
- Rotating Cylinder Ramp Chronopotentiometry (RCP-RCE)
- Current Interrupt (CI-RU)
- Positive Feedback (PF-RU)
- Impedance RU (EIS-RU)
- Potentiostatic Electrochemical Impedance Spectroscopy (EIS-POT)
- Galvanostatic Electrochemical Impedance Spectroscopy (EIS-GAL)
- Rotating Disk Electrochemical Impedance Spectroscopy (EIS-RDE)
- Mott-Schottky (EIS-MOTT)

Standard Cell Kit with Glassy Carbon Working Electrode Part No.: [WEB92-GC]

Standard Cell Kit includes following items:

• Glassy Carbon Electrode (3.0 mm disk OD, 7.0 mm OD PCTFE shroud)

Part No.: AFE1XFP030GCR

• Standard Platinum Counter Electrode Kit (includes isolation tube and adapter to fit 14/20 port, 6.9 mm OD epoxy tube shroud, 150 mm long)

Part No.: AFCTR5

• Single Junction Silver Chloride (Ag/AgCl) Reference Electrode

Part No.: RREF0021

• Standard Voltammetry Cell (100 mL with PTFE stoppers and sparging/purging accessories)

Part No.: AKCELL1

• Polishing Solutions and Materials Kit (Kit includes three packs of polishing disks (rayon, nylon, and 600 grit sandpaper) and three bottles of polishing solutions (5.0 μm, 0.3 μm, and 0.05 μm))

Part No.: AKPOLISH

• PTFE Mount with 1/4" ID red cap (slides onto electrode, fits into a 14/20 port)

Part No.: RRPG036K3

Power Cord for WaveDriver 100 Potentiostat



eTendering System Government of Kerala

Tender Details

Date: 03-Jan-2022 12:17 PM



Basic Details							
Organisation Chain	Directorate of Technical Education	on Govt Engineering College Bart	on Hill				
Tender Reference Number	3/2021-22/P2/7730/21/GECBH/S	3/2021-22/P2/7730/21/GECBH/SN					
Tender ID	2021_DTE_459539_1						
Tender Type	Open Tender	Form of contract	Supply and Service				
Tender Category	Goods	No. of Covers	2				
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No				
Payment Mode	Online	Is Multi Currency Allowed For BOQ					
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No				

<u>Paymen</u>	Payment Instruments				
Online	S.No	Bank Name			
Bankers	1	SBI MOPS			

	Cove	ver Details, No. Of Covers - 2			
	Cover No	Cover	Document Type	Description	
J	1	Fee/PreQual/Technical	.pdf	Technical bid, item detailed specification brochure and OEM Certificate , Supplier certificate.	
	2	Finance	.xls	price bid to be quoted in finance bid.Those who show Price detail in Technical will be disqualified	

Other Important Documents					
S.No	Category	Sub Category	Sub Category Description	Format/File	
1	Certificate Details	Bidders Address Format	Bidders Address Format		
2	Financial Details	Bankers Details	Bankers Details		
3	Miscellaneous	Miscellaneous Docs	Miscellaneous Docs		
4	Miscellaneous	Company profile	Company profile		
5	Miscellaneous	Tender documents	Tender documents		

Tender Fee Details, [Total Fee in ₹ * - 2,200]				
Tender Fee in ₹	2,200			
Fee Payable To	Nil	Fee Payable At	Nil	
Tender Fee Exemption Allowed	Yes			

1	EMD Fee Details				
]	EMD Amount in ₹	10,974	EMD through BG/ST or EMD Exemption Allowed	Yes	
	EMD Fee Type	fixed	EMD Percentage	NA	
	EMD Payable To	Nil	EMD Payable At	Nil	

Click to view modification history

Work /Item(s)	
Title	Potentiostat/Galvanostat and Standard cell Kit
Work Description	Potentiostat/Galvanostat and Standard cell Kit
Pre Qualification Details	Please refer Tender documents.
	NA

Independent External Monitor/Remarks					
Show Tender Value in Public Domain	Yes				
Tender Value in ₹	10,97,400	Product Category	Equipments	Sub category	Equipments for ECE Departments
Contract Type	Tender	Bid Validity(Days)	150	Period Of Work (Days)	30
Location	Administrative Block GECBH	Pincode	695035	Pre Bid Meeting Place	NA
Pre Bid Meeting Address	NA	Pre Bid Meeting Date	NA	Bid Opening Place	Administrative Block GECBH
Should Allow NDA Tender	No	Allow Preferential Bidder	No		

<u>Critical Dates</u>			
Publish Date	03-Jan-2022 12:20 PM	Bid Opening Date	20-Jan-2022 09:00 AM
Document Download / Sale Start Date	03-Jan-2022 12:20 PM	Document Download / Sale End Date	18-Jan-2022 06:55 PM
Clarification Start Date	NA	Clarification End Date	NA
Bid Submission Start Date	03-Jan-2022 04:00 PM	Bid Submission End Date	18-Jan-2022 06:55 PM

Tender Do	ocume	<u>ents</u>			
NIT Document	S.No	Document Name	Description		Document Size (in KB)
	1 TenderFormGECBH2019.pdf		odf E-Tender Form as p	er Store Purchase Rules.	871.09
	2	eprocurementgecbh.pdf	For General informa downloading ,attesti	tion only. No requirement for ng and certification.	627.77
	3	physical.pdf	adhere to the purch submission of hard o bid opening shall no	Kind Attention- Bidders are requested to strictly adhere to the purchase rules and ensure that submission of hard copies of bid document before bid opening shall not be given under any circumstance. The MoM mandating the same is attached herewith.	
	4	tsbdeposit.pdf	Mandatory TSB depo	osit reg	526.20
	5	storepurchaserules.pdf	Store Purchase Rule	s Revised Edition 2013	1469.71
Work Item Documents S.No Document Type Docum		Document Name	Description	Document Size (in KB)	
	1	Tender Documents	NIT.pdf	Notice Inviting Tender	886.71
1	2	BOQ	BOQ 658598.xls	Financial Bid for Bidders	244.00

Bid Openers List					
S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name		
1.	jijibshaji@gmail.com	Gijimole M	Gijimole M		
2.	raichelr3@gmail.com	Raichel R	Raichel R		
3.	rspraveen2014@gmail.com	Praveen Kumar RS	Praveenkumar R S		

Tender Properties				
Auto Tendering Process allowed	No	Show Technical bid status	Yes	
Show Finance bid status	Yes	Show Bids Details	Yes	
BoQ Comparative Chart model	Normal	BoQ Compartive chart decimal places	2	
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No	

Accounts Officer

13-Dec-2021 12:02 PM

Designation

Created Date

Tender Inviting Authority				
Name	Principal			
Address The Principal Government Engineering College Barton Hill Pin 695035				
T1 C1				
Tender Creator Details				
Created By	Raichel R			