

**INVITATION FOR QUOTATIONS FOR SUPPLY OF  
GOODS UNDER NATIONAL SHOPPING PROCEDURES**

To

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Dear Sirs,

Sub: INVITATION FOR QUOTATIONS FOR SUPPLY OF “**DATA  
ACQUISITION SYSTEM**”

1. You are invited to submit your most competitive quotation for the following goods:-

Brief Description of the Goods	Specifications*	Quantity	Delivery Period	Place of Delivery	Installation Requirement if any
<b>DATA ACQUISITION SYSTEM</b>	<b>Analog Channels:</b> 16 analog input channels (expandable to 320) each channel is independent and supports: one isolated 3-wire or 4-wire input, or two isolated 2-wire inputs, or three common referenced 2-wire inputs. The following maximums apply. <ul style="list-style-type: none"><li>• 2-wire with common reference terminal: 48 (expandable to 960)</li><li>• 2-wire isolated: 32 (expandable to 640)</li><li>• 3- and 4-wire isolated: 16 (expandable to 320)</li></ul> <b>1. Fundamental Input Ranges:</b> The fundamental inputs that can measure are voltage, current, resistance and frequency. All other measurements are derived from these. <b>2. Sampling:</b> Integrates over 50/60Hz line period for accuracy and noise rejection Maximum sample speed: 40Hz Effective resolution: 18 bits Linearity: 0.01% Common mode rejection: >90dB Line series mode rejection: >35dB <b>3. Inputs:</b> Inter-Channel Isolation: 100V (relay switching) Analog Section Isolation: 100V (opto-isolated) Input impedance:	1	15/03/2019	CAET, JAU, JUNAGADH	Installation and training shall be done by vendor

	<p>160K<math>\Omega</math>, &gt;100M<math>\Omega</math> Common mode range: <math>\pm 3.5\text{V}</math> or <math>\pm 55\text{V}</math> (attenuator on/off)</p> <p><b>4. Sensor Excitation (Supply)</b> Analog channels:</p> <ul style="list-style-type: none"> <li>• selectable 2<math>\mu\text{A}</math>, 213<math>\mu\text{A}</math> or 2.5mA precision current source</li> <li>• 4.5V voltage source</li> <li>• switched external supply</li> </ul> <p>General Purpose: Switchable 12V/5V regulated supply for powering sensors &amp; accessories (max 300mA).</p> <p><b>5. Analog Output:</b> Isolated programmable 16-bit DAC: voltage 0-10V or current 0-24mA</p> <p><b><u>Analog Sensors:</u></b> Should Support a wide range of sensors including, but not limited to, those listed below. A wide range of sensor scaling and linearising facilities including polynomials, expressions and functions.</p> <ol style="list-style-type: none"> <li><b>1. Thermocouples:</b> Types: B, C, D, E, G, J, K, N, R, S, T Calibration standard: ITS-90</li> <li><b>2. RTDs:</b> Materials supported: Pt, Ni, Cu, Resistance range: 10<math>\Omega</math> to 1M<math>\Omega</math></li> <li><b>3. Thermistors</b> Types: YSI 400xx Series, other types, Resistance range: up to 1M<math>\Omega</math></li> <li><b>4. Monolithic Temperature Sensors:</b> Types supported: LM34 - 60, AD590, 592, TMPxx, LM135, 235, 335</li> <li><b>5. Strain Gauge and Bridge Sensors:</b> Configurations: <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, &amp; full bridge Excitation: voltage or current 4-20mA Current Loop Internal 100<math>\Omega</math> shunt or external shunt resistor</li> </ol> <p><b><u>Digital Channels</u></b></p> <ol style="list-style-type: none"> <li><b>1. Digital Input/Outputs:</b> 8 bi-directional channels Input Type: 8 logic level (max 20/30V) Output Type: 4 with open drain FET(max: 30V, 100mA) 4 with logic output</li> </ol>				
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	<p><b>2. Relay Output:</b> 1 latching relay, contacts (max: 30Vdc, 1A)</p> <p><b><u>Counter Channels:</u></b></p> <ol style="list-style-type: none"> <li><b>1. Low Speed Counters:</b> 8 counters shared with digital inputs. Low speed counters do not function in sleep mode. Size: 32 bit Max Count rate: 10 Hz</li> <li><b>2. Dedicated Counter Inputs:</b> 7 high speed or 3 phase encoder (quadrature) inputs Size: 32 bit Max Count rate: 100 kHz Input type: <ul style="list-style-type: none"> <li>• 5 logic level inputs (max <math>\pm 30V</math>),</li> <li>• 2 sensitive inputs (100mV) for magnetic pickups (max <math>\pm 10V</math>)</li> </ul> </li> <li><b>3. Serial Channels:</b> SDI-12 4 SDI-12 inputs, shared with digital channels. Each input can support multiple SDI-12 sensors.</li> </ol> <p><b><u>Calculated Channels:</u></b> Combine values from analog, digital and serial sensors using expressions involving variables and functions. Functions: An extensive range of Arithmetic, Trigonometric, Relational, Logical and Statistical functions are available.</p> <p><b><u>Alarms:</u></b> Condition: high, low, within range and outside range Delay: optional time period for alarm response Actions: set digital outputs, transmit message, execute any data taker command.</p> <p><b><u>Scheduling of Data</u></b> Acquisition Number of schedules: 11, Schedule rates: 10ms to days</p> <p><b><u>Data Storage:</u></b> <b>Internal Store:</b> Capacity: 128MB (approx 10,000,000 data points) Removable USB store device (optional accessory) Types: compatible with USB 1.1 or USB</p>				
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	<p>2.0 drives, e.g. Flash drive. Capacity: approx. 90,000 data points per megabyte.</p> <p><b><u>Communication Interfaces</u></b></p> <ol style="list-style-type: none"> <li>1. <b>Ethernet Port:</b> Interface: 10BaseT (10Mbps) Protocol: TCP/IP, Modbus (Master &amp; Slave)</li> <li>2. <b>USB Port Interface:</b> USB 1.1 (virtual COM port) Protocol: ASCII command</li> <li>3. <b>Serial Sensor Port</b> <ul style="list-style-type: none"> <li>• Interface: RS232, RS422, RS485</li> <li>• Speed: 300 to 57,600 baud</li> <li>• Flow Control: Hardware (RTS/CTS), Software (XON/XOFF), None</li> <li>• Protocols: Modbus (Master &amp; Slave),</li> </ul> </li> </ol> <p><b><u>Serial Sensor Network (TCP/IP) Services</u></b></p> <p>Uses Ethernet and/or integrated modem</p> <ol style="list-style-type: none"> <li>1. <b>Command Interface:</b> Access the ASCII command interface of the DT85M via TCP/IP</li> <li>2. <b>Web Server:</b> Access current data and status from any web browser. Custom pages can be defined. Download data in CSV format. Command interface window. Define mimic displays.</li> <li>3. <b>Modbus Server (slave):</b> Access current data and status from any Modbus client (e.g. SCADA system)</li> <li>4. <b>Modbus Client (master):</b> Read/write data from modbus sensors and devices including PLC's, dataTaker loggers, modbus displays etc.</li> <li>5. <b>FTP Server:</b> Access logged data from any FTP client or web browser</li> <li>6. <b>FTP Client:</b> Automatically upload logged data direct to an FTP server</li> </ol>				
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	<p><b><u>System</u></b></p> <ol style="list-style-type: none"> <li><b>1. Display and Keypad Type:</b> LCD, 2 line by 16 characters, backlight. Display Functions: channel data, alarms, system status. Keypad: 6 keys for scrolling and function execution. Status LEDs: 4 for sample, disk, attention and power.</li> <li><b>2. Firmware Upgrade Via:</b> RS232, Ethernet, USB or USB disk.</li> <li><b>3. Real Time Clock:</b> Normal resolution: 200 <math>\mu</math>s Accuracy: <math>\pm 1</math> min/year (0°C to 40°C), <math>\pm 4</math> min/year (-40°C to 70°C)</li> <li><b>4. Power Supply</b> External voltage range: 10 to 30Vdc Peak Power: 12W (12Vdc 1A)</li> </ol> <p><b><u>Integrated Cellular Modem:</u></b></p> <ol style="list-style-type: none"> <li><b>1. Features:</b> Alarms: Send email or SMS messages Data: Send data to an email address or FTP server Remote access: Connect to dEX or Command interface SIM interface: SIM Socket (1.8V/3V)</li> <li><b>2. Networks and Frequencies :</b> Interfaces: EDGE, GPRS, GSM, WCDMA, HSUPA, HSDPA EDGE/GPRS/GSM Freq: 850/900/1800/1900 MHz WCDMA/HSUPA/HSDPA Freq: 850/1900/2100 MHz</li> </ol> <p><b><u>Physical and Environment:</u></b></p> <p><b>Construction:</b> Non corrosion</p> <ul style="list-style-type: none"> <li>• Temperature range: -10°C to 70°C</li> <li>• Humidity: 80-95% RH,</li> <li>• non-condensing</li> </ul> <p><b><u>Accessories:</u></b></p> <ol style="list-style-type: none"> <li>1) should include resource CD: includes software, video training and user manual. Comms cable: USB cable Line</li> </ol>				
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	adaptor: 110/240Vac to 15Vdc, 800mA 2) Laptop : Processor : Intel i5 (3.1 Ghz, 3 MB Cache, 2 Cores) or higher, Memory : 8 GB DDR4 RAM, Hard Disk Drive Capacity : 1000 GB SATA or higher OS : Windows 10 Professional, Display size : Non touch 15.6" (1920x1080), Ports : 2 USB 3.0, VGA, HDMI Ethernet gigabit 10/100/1000 and 802.11 a/b/g/n wi-fi connectivity, Li-ion/Li-polymer removable battery				
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*\* Where ISI certification marked goods are available in market, procurement should generally be limited to goods with those or equivalent marking only.*

2. Government of India has received a financing from the International Bank for Reconstruction and Development (IBRD) in various currencies towards the cost of the National Agricultural Higher Education Project (NAHEP) and intends to apply part of the proceeds of this Loan to eligible payments under the contract for which this invitation for quotations is issued.

3. **Bid Price**

- a) The contract shall be for the full quantity as described above. Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
- b) All duties, taxes and other levies payable on the raw materials and components shall be included in the total price.
- c) Sales tax in connection with the sale shall be shown separately.
- d) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- e) The Prices shall be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.

5. **Validity of Quotation**

Quotation shall remain valid for a period not less than 30 days after the deadline date specified for submission.

6. **Evaluation of Quotations**

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

- (a) are properly signed ; and
- (b) conform to the terms and conditions, and specifications.

The Quotations would be evaluated separately for each item.

Sales tax in connection with sale of goods shall not be taken into account in evaluation.

7. **Award of contract**  
The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
- 7.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- 7.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
8. Payment shall be made immediately after delivery of the goods.
9. Normal commercial warranty/ guarantee shall be applicable to the supplied goods.
10. You are requested to provide your offer latest by 18:00 hours on 29/01/2019.
11. General Terms and Conditions listed in Annexure – I must be followed by the bidder.
12. We look forward to receiving your quotations and thank you for your interest in this project.

Quotation must be delivered to the address below latest by 17.00 hours on January 29, 2019, along with a cover-letter and supporting documents in an envelope indicating **“IDP - Quotation for Data Acquisition system”**.

Procurement Officer (IDP) & Director (IT)  
Information Technology Cell,  
Junagadh Agricultural University  
Junagadh – 362001,  
Gujarat, India.  
Tel: +91-285-2672080-90(Ext.487)

Address: Procurement Officer (IDP) &  
Director (IT)  
Information Technology Cell,  
Junagadh Agricultural University,  
Junagadh - 362001  
Tel. No.: 0285-2672080-90 (Ext.487)

## FORMAT OF QUOTATION

Sl. No.	Description Goods	Specifications	Qty.	Unit	Quoted Unit Rate in Rs.	Total Amount	
						In Figures	In Words
	<b>Total</b>						
	<b>Sales Tax</b>						

**Gross Total Cost: Rs.....**

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. .... (amount in figures ) (Rs. .... amount in words) within the period specified in the Invitation for Quotations.

We also confirm that the normal commercial warrantee/guarantee of ..... months shall apply to the offered goods.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier



## **Annexure I**

### **General Terms and Conditions**

01. Junagadh Agricultural University (hereinafter referred to as “JAU”), for its various Departments (hereinafter referred to as “the purchaser”) for their requirement of intend to invite for supply and installation of Scientific Instruments/ machineries at JAU, Junagadh.
02. Government of India has received a financing from the International Bank for Reconstruction and Development (IBRD) in various currencies towards the cost of the National Agricultural Higher Education Project (NAHEP) and intends to apply part of the proceeds of this Loan to eligible payments under the contract for which this invitation for quotations is issued.
03. Each bidder shall submit only one quotation.
04. The items subjected to requirements and the same may be purchased or may not be purchased without assigning any reason.
05. The purchase orders placed on any date during the validity of the RFQ at the rate, terms and conditions of the RFQ.
06. At the time of order, If in any case the quoted item is not available in the market, the successful bidder will have to supply higher version/specification of that item in the quoted cost in the same time duration with prior approval of Purchaser.
07. Purchase committee reserves the right to get clarification from the bidder.
08. Successful bidder failing to provide after sales services would be permanently blacklisted.
09. The bidders are encouraged to visit at ordering site before quoting for the assessment of feasibility of the quoted item. However, no any excuses will be acceptable regarding the performance to fulfil the objective of the quoted items.
10. There should be no discrepancy in price quoted under similar period and similar supplies under the territorial jurisdiction of Gujarat state.
11. The World Bank has right to inspect accounts and records of the bidders, suppliers and contractors.
12. In case of dispute, the base of arbitration must be the guideline of procurement recommended by the ICAR-NAHEP will be the final.
13. **Bid Price :**
  - a) The contract shall be for the full quantity as described. Corrections, if any, shall be made by crossing out, initiating, dating and rewriting.
  - b) All duties, taxes, all freight, packaging and forwarding, transit insurance, installation charges, applicable taxes and other levies payable on the raw materials and components shall be included in the total price.
  - c) GST in connection with the sale/service shall be shown separately.
  - d) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
  - e) The Prices shall be quoted in Indian Rupees only.
14. **Validity of Bid :** Bid shall remain valid for a period not less than 30 days after the deadline date specified for submission.
15. **Documents to be submitted for eligibility :** Your quotations will be considered upon the provision of the following documents duly signed by the authorized representative, failure in providing the requested documents may constitute grounds

for disqualification of quotations;

- a) Quotation letter duly signed by the authorized representative -(Mandatory)
- b) Bidder's details with contact no, email, address etc. (Mandatory)
- c) Copy of company registration certificate. (Mandatory)
- d) Copy of PAN card. (Mandatory)
- e) Copy of GST Certificate (Mandatory)
- f) Detailed information on the implementation plan (Mandatory)
- g) Copies of Income Tax Returns for the last Financial Years having an average annual turnover equivalent to three times of quoted price or more. (Mandatory)
- h) Annexure – I (Mandatory)

**16. Evaluation of Bids :**

- a) The Purchaser will evaluate and compare the bids determined to be substantially responsive i.e. which are properly signed and conform to the terms and conditions, and specifications.
- b) The Quotations would be evaluated separately for each item.
- c) GST in connection with sale of goods/services shall not be taken into account in evaluation.

**17. Award of contract**

- a) The lowest price is not the criteria and emphasis would be placed on quality and specifications of the material. The Purchaser will award the contract to the bidder whose bid has been determined to be substantially responsive and who has offered the lowest evaluated bid price.
- b) Notwithstanding the above, the JAU reserves the right to accept or reject any bids and to cancel the quoting process and reject all bids at any time prior to the award of contract.
- c) The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the bid validity period. The terms of the accepted offer shall be incorporated in the purchase order.

**18. Security Deposit:** Successful bidder has to submit 5% of purchase order value as a Security Deposit in the form of a demand draft/ bank guarantee from a Nationalized bank within 10 days preferably having a branch at the Junagadh, which should be valid for a period of 1 year. Bank guarantee in favour of "Junagadh Agricultural University Fund Account", payable at Junagadh from any Nationalized bank and will be informed by purchase office at the time of giving purchase order and provide performance security form.

**19. Refund of Security Deposit:** The amount of security deposit will be refunded after completion of standard warranty period (or warranty period specified in item specification) starting from successful installation of item, after writing a letter to the Office where in instruments/machinery installed.

**20. Forfeiture of Security Deposit:** The security deposit will be forfeited if, successful bidder fails to supply the items within the delivery period and/or supplier fails to comply specifications of instruments and/or supplier fails in successful installation/demonstration of the instruments/ machinery and/or supplier fails to provide satisfactory post sale services and support or fail to replace the defective piece/ service the instruments/ machinery before warranty period.

**21. Warranty:**

- a) Normal commercial warranty/ guarantee shall be applicable from the date of commissioning/installation for respective item.
- b) Further, any complaint shall be attended within a response time of 48 hours on 24X7 basis during warranty period.

22. **Payment:** The payment of item/items will be made after successful supply, commissioning/installation and satisfactory performance of the quoted items as per the requirement of the ordering party. However, any request regarding the advance or partial payment will not be entertained in any circumstances.
23. **Delivery/Installation:**
- a) Free delivery to the consignee.
  - b) Maximum delivery/installation period of specified item is within 15 days from the date of purchase order.
  - c) The application for extension of delivery period shall be sent to concern ordering office of Junagadh Agricultural University at least 5 days prior to the expiry of delivery period of each item. The officer in charge, who is placing the order reserve the right to extend period or reject the deal and their decision in the matter, shall be final and binding to all.
24. **Training and Demonstration:** Supplier has to perform on-site live demonstration/ training.
25. **Dispute:** In case of any dispute, final decision of The Procurement Unit, Junagadh Agricultural University, Junagadh – 362 001 will be binding upon all. In case of any dispute arises in respect of this RFQ, a suit in that behalf shall be subject to Junagadh Jurisdiction.
26. **All rights are reserved with the University Authority to accept or reject any or all the tenders received without assigning any reasons thereof.**