

INVITATION FOR QUOTATION

TEQIP-II/2016/CH1G02/Shopping/138

14-Apr-2016

To,

Sub: Invitation for Quotations for supply of Goods

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

| Sr. No | Brief Description | Quantity | Delivery Period(In days) | Place of Delivery | Installation Requirement (if any) |
|--------|---|----------|--------------------------|---|-----------------------------------|
| 1 | Interacting and Non Interacting Tank System | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |
| 2 | Control Valve Characteristics | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |
| 3 | Characteristics of PID Controller | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |
| 4 | Calibration of Thermocouple | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |

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|---|-------------------------------|---|----|---|--------------------------|
| 5 | Time constant of Thermocouple | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |
| 6 | Temperature Control Trainer | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |
| 7 | Flow Control Trainer | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |
| 8 | Level Control Trainer | 1 | 40 | Dr SS Bhatnagar University Institute of Chemical Engg and Tech, Panjab University, Chandigarh | Will be done at the site |

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase II** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
 - 3.1 The contract shall be for the full quantity as described above.
 - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
 - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
 - 3.4 Applicable taxes shall be quoted separately for all items.
 - 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - 3.6 The Prices should be quoted in Indian Rupees only in the prescribed format enclosed at Annexure II.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **55** days after the last date of quotation submission.

6. Evaluation of Quotations,

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

6.1 are properly signed ; and

6.2 confirm to the terms and conditions, and specifications.

7. The Quotations would be evaluated for all items together.

8. 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.

8.1 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.

8.2 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.

9. Payment shall be made in Indian Rupees as follows:

Delivery and Installation - 90% of total cost

Satisfactory Acceptance - 10% of total cost

10. All supplied items are under warranty of **24** months from the date of successful acceptance of items.

11. You are requested to provide your offer latest by **14:30** hours on **29-Apr-2016**.

12. Detailed specifications of the items are at Annexure I.

13. Training Clause (if any): The company should provide training of the specified equipment at the time of installation without any additional cost. Also training of concerned person/technician on site.

14. Testing/Installation Clause (if any): Vendor has to install the equipment in the lab space provided at his own cost and test the equipment.

15. Information brochures/ Product catalogue is mandatory and accompanied with the quotation clearly indicating the model quoted for.

16. The vendor has to provide the detailed list of institutions/companies (in India) where he has supplied the items along with the list, year of installation and contact person details.

17. Each bidder will submit bid under two bid system as follow:-

(a) First Envelop will contain:

- i. Technical bid confirming specification, as per Annexure-I
- ii. Information Brochure's/ Product catalogue clearly indicating the model quoted for
- iii. Detailed list of institutions/companies (in India) where you have supplied these items along with the list and year of installation and contract person in details

(b) Second Envelop will Contain:

Financial bid indicating items wise price for items mentioned in the technical bid on the format at Annexure-II.

The Vendor will submit the quotation in above envelopes duly sealed. On first Envelop the vendor will mention Technical bid and on second envelop the vendor will mention price bid. Both these sealed envelope will be put in one closed envelope super scribing clearly the reference of NIQ and the date of opening of bid. The first envelope will be opened first After Evaluation of Technical bid, the second Envelop i.e. price bid will be opened only of those vendors who are meeting the technical specification.

18. Sealed quotation to be submitted/ delivered at the address mentioned below,

**The Chairperson,
TEQIP-II,
Dr. S.S. Bhatnagar University Institute of Chemical Engineering and Technology,
Panjab University,
Chandigarh – 160 014**

19. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

Annexure I

| Sr. No | Item Name | Specifications |
|--------|---|--|
| 1 | Interacting and Non Interacting Tank System | <p>Technical Specifications:</p> <p>Process Tank :Material Stainless Steel (SS-304), Circular with graduated level scale (3 Nos.), Capacity 3.5 litres each (approx.) Supply Tank : Material Stainless steel (SS-304), Capacity 20 litres. Overhead tank : Material Stainless steel (SS-304), Capacity 5 litres. Water circulation : FHP Pump, Champion/Standard make. Piping : SS & PVC, size 1/4ö Flow Measurement : By Rotameter</p> <p>An English instruction manual consisting of experimental procedures, block diagram etc. should be provided along with the Apparatus. The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.</p> |
| 2 | Control Valve Characteristics | <p>Technical Specifications:</p> <p>Control Valve : 3 Nos. Characteristics : Linear, Equal (%) & Quick opening Type : Pneumatic Size : 1/2ö. Actuator : 15 sq. inch. Stroke : 14 mm. Input : 3-15 psig. Water Tank : Material Stainless Steel (SS-304), capacity 25 litres Water Circulation : FHP Pump Champion/Standard make. Overhead Tank: Material Stainless Steel (SS-304), Capacity 10 Ltrs. Flow Measurement : Rotameter. Pressure Head measurement: By single column manometer. Pressure Regulator : 0-2 kg_f/cm² Pressure Gauge : Bourdon type, 0-2 kg_f/cm² Piping : Size 1/2ö Air Compressor: 1hp, 4cfm with automatic low noise and oil free</p> <p>An English instruction manual consisting of experimental procedures, block diagram etc. should be provided along with the Apparatus. The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.</p> |

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| 3 | Characteristics of PID Controller | <p>Technical Specifications:</p> <p>Stirred Tank: Material Stainless Steel (SS-304), Capacity 2 Ltrs (approx) Stirrer: Stainless Steel Impeller and shaft coupled with FHP Motor. Flow Measurement: By Rotameter Heater: Nichrome wire heater. Control Panel comprises of PID controller: 0-199.9°C Temperature Sensor: RTD PT-100 type With standard make On/off switch, Mains Indicator. Data acquisition system : i-5 processor, Original Windows 7/8 with MS Office pre-loaded, 4 GB RAM, 500GB hard disc, One USB communication port free for interfacing unit. An Interfacing unit with software should be provided to Log Data for the process by which all the data can be transferred in Excel files and all the graphs can be drawn.</p> <p>An English instruction manual consisting of experimental procedures, block diagram etc. should be provided along with the Apparatus. The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.</p> |
| 4 | Calibration of Thermocouple | <p>Technical Specifications:</p> <p>Heat Source: Provide with ceramic insulation. Temp. Controller: Digital Temperature Controller, 0-199.9°C Thermocouple: Standard 3 types of thermocouple a). Fe-Constantan (J-Type) b). Cr / Al (K-Type) c). Cu-Constantan (T-Type)</p> <p>An English instruction manual consisting of experimental procedures, block diagram etc. should be provided along with the Apparatus. The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.</p> |
| 5 | Time constant of Thermocouple | <p>Technical Specifications:</p> <p>Heat Source : Provided with Ceramic insulation. Heater : Nichrome Wire Heater. Temp. Controller: Digital Temperature controller, 0-199.9°C ICE Pot : Compatible capacity. Thermocouple : Fe-Constantan type (J-type)</p> <p>An English instruction manual consisting of experimental procedures, block diagram etc. should be provided along with the Apparatus. The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.</p> |

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| 6 | Temperature Control Trainer | <p>Technical Specifications:</p> <p>Temperature Transmitter: Input RTD PT-100 (Range 0-100°C), Output 4-20 mA.</p> <p>Process tank: Material Stainless Steel (SS-304), Capacity 0.5 lit (approx.)</p> <p>Heater : Nichrome Wire Heater, Capacity 1 kW</p> <p>Thyristor Controller: Input 4-20mA for heater.</p> <p>Flow Measurement: By Rotameter.</p> <p>Piping : Size 1/4ö</p> <p>Interfacing unit: For input-output communication with auto/manual facility</p> <p>Micro-processor Controller: PID Setting, auto tuning, fully programmable with serial communication</p> <p>Software: For experimentation, PID control, Data logging, trend plot, offline analysis and printing.</p> <p>Data acquisition system: i-5 processor, Original Windows 7/8 with MS Office pre-loaded, 4 GB RAM, 500GB hard disc, One USB communication port free for interfacing unit.</p> <p>An English instruction manual consisting of experimental procedures, block diagram etc. should be provided along with the Apparatus. The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.</p> |
| 7 | Flow Control Trainer | <p>Technical Specifications:</p> <p>Differential Pressure: Output 4-20 mA. Transmitter</p> <p>Orificemeter: Material Stainless Steel (SS-304).</p> <p>Water Circulation: FHP Pump Champion/Standard make.</p> <p>Water Tank: Material Stainless Steel (SS-304), Capacity 10 Ltrs.</p> <p>Flow Measurement: By Rotameter.</p> <p>Control Valve : Compatible capacity with Pneumatic Actuator.</p> <p>I/P converter: Input 4-20mA, Output 3-15 psig</p> <p>Pressure Regulator: 0-2 kg_f/cm².</p> <p>Pressure Gauge: Bourdon type, 0-2 kg_f/cm²</p> <p>Piping : Size 1/4ö</p> <p>Interfacing unit: For input-output communication with auto/manual facility</p> <p>Micro-processor Controller: PID Setting, auto tuning, fully programmable with serial Communication</p> <p>Software: For experimentation, PID control, Data logging, trend plot, offline analysis and printing.</p> <p>Data acquisition system: i-5 processor, Original Windows 7/8 with MS Office pre-loaded, 4 GB RAM, 500GB hard disc, One USB communication port free for interfacing unit.</p> <p>Air Compressor: 1hp, 4cfm with automatic low noise and oil free</p> <p>An English instruction manual consisting of experimental procedures, block diagram etc. should be provided along with the Apparatus. The whole set-up should be well designed and arranged on a rigid structure painted with industrial PU Paint.</p> |
| 8 | Level Control Trainer | <p>Technical Specifications:</p> <p>Level Transmitter: Range 0-300 mm, Capacitance Type, Output 4-20 mA</p> <p>Process tank: Material SS-304 with Scale, Capacity 2 Ltrs approx.</p> <p>Water Tank: Material Stainless Steel (SS-304), Capacity 10 Ltrs.</p> |

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| | <p>Water Circulation: FHP Pump. Champion/Standard make Flow Measurement: By Rotameter. Control valve: Compatible capacity with pneumatic actuator. I/P converter: Input 4-20mA, Output 3-15 psig Pressure Regulator: 0-2 kg_f/cm² Pressure Gauge: Bourdon type, 0-2 kg_f/cm² Piping: Size 1/4"ø Interfacing unit: For input-output communication with auto/manual facility Micro-processor Controller: PID Setting, auto tuning, fully programmable with serial Communication Software: For experimentation, PID control, Data logging, trend plot, offline analysis and printing. Data acquisition system : i-5 processor, Original Windows 7/8 with MS Office pre-loaded, 4 GB RAM, 500GB hard disc, One USB communication port free for interfacing unit. Air Compressor: 1hp, 4cfm with automatic low noise and oil free</p> |
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Annexure-II

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To:

| Sl. No. | Description of goods (with full Specifications) | Qty. | Unit | Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments) | Total Price (A) | | Sales tax and other taxes payable | |
|-------------------|---|------|------|--|-----------------|----------|-----------------------------------|----------------|
| | | | | | In figures | In words | In % | In figures (B) |
| | | | | | | | | |
| Total Cost | | | | | | | | |

Gross Total Cost (A+B): Rs. _____

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

We confirm that the normal commercial warranty/ guarantee of _____ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

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

Name: _____

Address: _____

Contact No: _____